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Mineral Certification Schemes in the African Great Lakes Region

A Comparative Analysis

Executive Secretariat of the International Conference on the Great Lakes Region,

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Disclaimer: Opinions and assessments expressed in this study are those of the author and do not necessarily reflect the opinion of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, the Executive Secretariat of the International Conference on the Great Lakes Region, or the governments of its member states.

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List of Abbreviations

ASM	Artisanal and Small-scale Mining
BGR	*Bundesanstalt für Geowissenschaften und Rohstoffe* (German Federal Institute for Geosciences and Natural Resources)
CoC	Chain-of-custody
CTC	Certified Trading Chains
DFID	Department for International Development
DRC	Democratic Republic of Congo
EICC	Electronic Industry Citizenship Coalition
EUSR	European Union Special Representative
EUTF	European Union Task Force
GeSI	Global e-Sustainability Initiative
GTZ	*Deutsche Gesellschaft für Technische Zusammenarbeit* (German Technical Cooperation)
ICGLR	International Conference on the Great Lakes Region
IMCA	Independent Mineral Chain Auditor
ITF	International Task Force (previously EUTF)
ITRI	ITRI Ltd. (formerly the International Tin Research Institute)
iTSCi	ITRI Tin Chain Supply Initiative
MDM	*Ministère des Mines* (Ministry of Mines of DRC)
MONUC	*Mission de l'Organisation de Nations Unies en République Démocratique du Congo (*UN Mission in DR Congo)
MONUSCO	United Nations Organization Stabilization Mission in the Democratic Republic of the Congo
OECD	Organisation for Economic Co-operation and Development
NCU	National Certification Unit
PAC	Partnership Africa Canada
PROMINES	World Bank Technical Assistance to the Government of DRC, co-funded by DFID.
RBS	Rwanda Bureau of Statistics
RCM	Regional Certification Mechanism
RINR	Regional Initiative against the Illegal Exploitation of Natural Resources
STAREC	Programme de Stabilisation et Reconstruction des Zones Sortant des Conflits Armés (Stabilization and Reconstruction Plan for War-Affected Areas)
UN	United Nations

EXECUTIVE SUMMARY

Since the 1990s, the association of minerals with conflict in the Democratic Republic of Congo (DRC) has brought a lot of attention from the UN and civil society and consequently industry and other governments to the extraction and trade of minerals from the Great Lakes Region. The UNSC's Panel of Experts reports have detailed the militarisation of trading chains from the region since 2003.[1] In their latest report, the Experts assert that traceability measures are not enough to limit conflict financing and illegal taxation, and call for third party audits and comprehensive due diligence measures by downstream users and financial institutions (UN 2010; paras 67 to 96). On July 21st 2010, President Obama signed the *Dodd-Frank Wall Street Reform and Consumer Protection Act* ("Dodd-Frank Act"), requiring companies importing goods containing tin, tantalum, tungsten or gold from the DRC or neighbouring countries to declare their minerals as conflict-free and report on how they have ensured that their metal purchases have not contributed funds to armed groups. Final regulations setting out disclosure requirements will be published by 17 April 2011(USG 2010).

The anticipation of this bill, as well as exposés by journalists, advocacy groups, and the UN of companies sourcing allegedly 'conflict minerals' from DRC, has compelled industry to coordinate a response. Instead of a potentially damaging embargo, industry has been persuaded to seek ways to source responsibly from the region.[2] Industry will not take this risk, however, unless sources are credibly and verifiably conflict-free.[3] Otherwise, an embargo is unavoidable. A usable and credible assurance system is therefore urgent.

Purpose of the Report

The report provides a comparative analysis of three efforts to improve chain of custody assurance in the African Great Lakes Region against the proposed Regional Certification Mechanism (RCM) for the RINR, proposed by Partnership Africa Canada, commissioned by the Swiss Federal Department of Foreign Affairs (see Blore and Smillie 2010, and Smillie and Blore 2010). The study's goal is to provide the ICGLR with an analysis of existing chain-of-custody (CoC) certification initiatives in the region to inform their drafting of the final version of the RCM's normative document before its formal adoption, envisaged for December 2010.

Research involved documentary analysis and in-person, telephone or email interviews with key informants and managers of each of the existing or proposed initiatives. An analytical framework was developed and used to assess and compare the initiatives' approaches and technical arrangements, relate them to the four key elements of the RINR, and consider (in)compatibilities and the opportunities for harmonisation.

Sustainability, Credibility, Effectiveness

The fact is that certification cannot give a 100% guarantee, but it can give a credible guarantee that they system delivers as close to 100% certainty as possible. Thus the credibility of a certification system is paramount. The report provides guidance on what determines an initiative's sustainability, credibility and effectiveness, and what principles should be applied to ensure it achieves its goals.

The CoC Initiatives

The study considers and compares the following CoC initiatives and relates them to the scheme proposed RCM (Blore and Smillie 2010):

- BGR's Certified Trading Chains (CTC) Programme, including its Rwandan and Congolese (Kinshasa) variants
- ITRI's Certification, Traceability System DR Congo (iTSCi)

[1] See http://www.securitycouncilreport.org/site/c.glKWLeMTIsG/b.2885701/ for a library of reports.
[2] DFID TfP reports; other citations
[3] Mike Loch, GeSI, Interview with author, 3rd August, 2010.

- OECD's Due Diligence Guidance for Responsible Supply Chain Management of Minerals from Conflict-Affected and High-Risk Areas (OECD)

It presents each CoC initiative based on an analysis conducted using a specially designed analytical framework. This framework reviewed the concept and development of the initiative, its technical arrangements, and its existing efforts and potential for harmonisation and collaboration with the other initiatives, including the four elements of the RCM. Each initiative was given the opportunity to respond to the analysis to rectify mistakes and provide clarifications. The following summaries present how each initiative works.

The RCM for the ICGLR RINR

Element	Main Event	Assurance outcome	Line of Defence	Level of Assurance	Timing of Assurance
1) Chain of custody tracking from mine site to export	Operators' documents checked	Minerals certified	First	1st party	Immediate (export depends on it)
2) Regional tracking of mineral flows via the ICGLR database	Document data entered and analysed	Anomalies flagged	Second	2nd party	3-6 months after certificate is issued (timing depends on how quickly data can be retrieved)
3) Regular independent third-party audits	Database checked Operators' activities and documentation checked	Operators and trading chains certified or de-certified.	Third	3rd party	Every 3 months
4) Independent mineral chain auditor.	CoC investigated; operators investigated.	De-certification is possible.	Fourth	3rd party	Whenever necessary

CTC

Element	Main Event	Assurance outcome	Line of Defence	Level of Assurance	Timing of Assurance
1) Development of policies at the company or mine site level	Operators develop policies based on the national-level standards	Company-based management and reporting systems for internal monitoring of conformity	First	1st party	Unclear
2) Regular independent third-party audits	Operators' activities and documentation checked	Operators and trading chains certified or de-certified.	Second	3rd party	Every two years
3) Optional analytical fingerprinting.	Minerals' origin verified based on the mineralogical and geochemical characteristics of the sample vs. that of the mine site.	Operators and trading chains certified or de-certified	Third	3rd party	As necessary

iTSCi

Element	Main Event	Assurance outcome	Line of Defence	Level of Assurance	Timing of Assurance
Phase 1					
1) Harmonised document requirements for export shipments	Comptoirs present documentation to assure their licence, legitimacy, authorisation to export, and the minerals' origin.	Smelter verifies consistency of documentation.	First	1st and 2nd party	Immediate
2) Third party audit of document-based system.	Independent auditor verifies comptoirs' compliance with phase 1 requirements.	Auditor verifies documentation.	Second	3rd party	Unclear.
Phase 2					
3) Restricted issuing of tags by iTSCi only to eligible mines and traders.	iTSCi issues tags to mines and traders not considered to be contributing to conflict financing and human rights abuses.	iTSCi decides which mines to issue tags to, and how many tags to issue.	First	n/r	n/r
4) Mineral is tagged and tracked from	Buyers purchase only tagged bags.	Buyers self-monitor purchases to tagged bags only.	Second	2nd party	Immediate

mine site to comptoir.	Government agents weigh and tag bags of minerals, entering data in the relevant logbook. Documents issued in triplicate to operator, iTSCi and government.	Government agents verify consignment's characteristics against the information on the operator's document, and issues new documentation.	Third		
5) Centralised database storing all data from along all supply chains.	Data is input by iTSCi, who verifies consistency with documentation provided.	iTSCi monitors data for anomalies. Observers (UN, ITRI, government) monitor data for anomalies.	Fourth	Monitoring	a few days to a few weeks after elements 3 and 4.
6) Third party monitoring of iTSCi system	Auditors check iTSCi monitoring system and identify key risks.	Risks and violations identified and highlighted to downstream users.	Fifth	Monitoring	Monthly
7) Third party audit of CoC system.	Auditors verify operators' declarations and documentation against information in database and based on field visits.	Traders and trading chains certified or de-certified. Audit findings published.	Sixth Seventh	3rd party	Every 6-12 months.
8) Third party audit of all upstream data.	GeSI/EICC smelter verification scheme audits smelters' upstream data	Smelters' systems audited	Eighth	3rd party	Unclear
Phase 3					
9) Social / environmental performance standards for the mine site level.	Standards and system remain to be developed, but may be based on CTC system.	n/r	First	n/r	Undecided
10) Third party audit of S&E performance standards	Audit system remains to be developed.	Mine sites certified or de-certified	Second	3rd party	Undecided

OECD

Element	Main Event	Assurance outcome	Line of Defence	Level of Assurance	Timing of Assurance
1) Strengthen company management systems	Policies are set; management systems are strengthened.	As main event.	First	n.r.	Immediate
2) Identify and assess risks in the supply chain	Risks are identified by Joint Assessment Team and assessed by company.	Risks are identified and assessed.	Second	2nd party.	Ongoing.
3) Design and implement a strategy to respond to identified risks	Risk management systems are designed and implemented.	Risk management systems are designed and implemented.	Third	n.r.	Following reporting from JAT.
4) Ensure independent 3rd party audit of smelter's due diligence practices	Due diligence practices and operators' compliance with OECD guidance is verified.	Operators are certified or de-certified.	Fourth	3rd party	Unknown.
5) Publish an annual report on supply chain due diligence.	Risk assessment, systems, and audit results are reported.	Transparency.	Fifth	Monitoring.	Annual.

The study also considers the International Task Force's (ITF)[4] suggestions for harmonising efforts to combat the illegal exploitation of natural resources in the Great Lakes Region; and the Congolese government's *Programme de Stabilisation et Reconstruction des Zones Sortant des Conflits Armés* (STAREC), which aims to restore public order and security and the authority of the state through a series of measures, including upgrading infrastructure in the mining sector by improving access to mining areas and establishing trading centres, or *centres de négoce*.

[4] Previously called the European Union Task Force (EUTF).

Comparative Analysis of the Key Elements of the Chain of Custody Initiatives

KEY ELEMENTS	RINR	CTC		iTSCi	OECD
		DRC	RWANDA		
Mission & Objectives	Stop conflict finance Stop illegal exploitation Increase tax revenues Improve collaboration between states	Stop conflict finance Stop illegal exploitation Increase transparency & traceability in, and ethical performance & development potential of mineral sector Improve governance Increase tax revenues		Stop conflict finance Enable responsible mining and responsible sourcing from GLR Increase traceability. Increase legal tax revenues. Introduce risk management.	Stop conflict finance Improve risk management in industry Enable responsible mining and responsible sourcing from GLR
Focus • Subject of Assurance	Origin CoC S&E (eventually)	Origin CoC S&E (eventually)		Origin CoC S&E (eventually)	Origin CoC Social only (eventually)
• Object for Assurance (product vs. organisation)	Organisations Product (mineral consignments)	Organisations Trading Chain (but not product itself)		Organisations Product (mineral consignments)	Organisations Trading Chain (but not product itself)
• Geography	GLR	Rwanda, DRC initially		DRC initially	GLR
• Applies to:	ASM, SSM & LSM mineral producers, traders, exporters	ASM mine sites, producers and traders		ASM producers and traders International traders, processors, smelters	International traders, processors, smelters in OECD countries ASM mine sites, producers and traders
• Minerals	Ta, Sn, W, Au	Ta, Sn, W, Au	Ta, Sn, W	Sn, Ta, (W)	Ta, Sn, W, Au
Voluntary or Mandatory	Mandatory	Mandatory, ultimately	Voluntary	Voluntary	Voluntary
Particular or Universal	Universal	Universal	Particular	Universal (in effect)	Universal (in effect)
Integration INTO national law	Yes	Yes – 2012	No	Possibly	No
Time frame for full operationality	End 2011	End 2011	End 2010	End 2010	End 2011
CoC methodology	Document-based	Document-based Mineral tagging		Document-based Mineral-tagging	Document-based.
	Track (documents) Trace (database)	Track (documents, tags) Trace (documents)		Track (documents, tags) Trace (database)	Trace (documents)
Normative document	Not developed	In development	Developed	In development	In development
Certification?	Consignment certified (2nd party assurance)	Mine site is certified Transport is verified Organisation is certified Mineral Export is certified		Consignment is certified Organisation is certified	No certification, just assurance of risk management systems.
Levels of Assurance	1st, 2nd, 3rd	Unclear-1°, 3°	1st, 3rd	1st, 2nd, 3rd	1st, 2nd, 3rd
The Compliance Assessment • Monitor	ICGLR Civil society Industry	Government agencies (SAESSCAM, *Administration des mines*) Civil society	Operator Government agencies (OGMR)	Buyers Joint Team United Nations Government	Buyers monitor suppliers JAT Community monitoring teams
• Verifier (auditor)	Independent 3rd party auditor Independent Mineral Chain Auditor	BGR & government initially Independent 3rd party auditor (mines site certification) eventually	Independent 3rd party auditor	Independent 3rd party auditor (SGS for phase 1; phase 2 TBD)	Independent 3rd party auditor

KEY ELEMENTS	RINR	CTC		iTSCi	OECD
		DRC	RWANDA		
• Certifier	National governments (regional certificate)	National governments		No certificate granted. Non-compliance decided by ITRI.	No certificate granted. Non-compliance decided by smelter.
• Accreditation agency	Independent Audit Committee	National governments		Undecided	Mineral Supply Chain Audit Institution
• Audit Cycle	Ongoing monitoring. Full audits every 3-6 months.	Unclear ongoing government monitoring Full audits probably every 2 years	Ongoing government monitoring. Full audits every 2 years.	Monthly field information checks Full audits every 6-12 months.	Ongoing field information checks. Full audit cycle unclear.
• Audit Process					Audit of due diligence systems.
Funding – development	Donor governments (Germany, Switzerland, Canada)	Donor government (Germany)		ITRI members (phase 1)	OECD
Funding – implementation	ICGLR member states	Donor government (Germany)		ITRI members & iTSCi participants through levy (phase 2), as well as TIC and end-users	Unclear
Funding – audit	Industry via tri-partite Audit Committee	Unclear	Companies being audited, via government agency	National industry via iTSCi.	Industry
Governance					
• Owners	Government (ICGLR)	Government		ITRI and eventually Government of DRC	OECD investment committee
• Designers	Government, with consultants	Government working group. Approval by industry.		Industry working group. Approval by government.	OECD-hosted multistakeholder working group
• Managers	Government	Government		Industry	OECD staff.
• Guardians	Government Civil Society (limited)	Donor government Civil society	Donor government	Local communities	Working group (development phase), otherwise unclear.
• Beneficiaries	Industry (regional, international) Governments Nations	Miners, companies, traders, exporters Smelters Government Nations	Mining companies, traders, exporters Smelters Government Nations	Mining companies, traders, exporters Smelters & end-users Consumers Government Nations	Supply chain operators. Nations.
• Operators (who is it targeted at?)	Illegal and informal supply chain operators, through comptoirs	Informal miners, mining companies, traders, and exporters	Formal mining companies, traders and exporters	Illegal and informal supply chain operators	Supply chain operators (smelters and their suppliers).
• Participants	Unclear	Multiple stakeholders consulted. Governments as decision-makers.		Multiple stakeholders consulted. Industry as decision-makers.	Multiple stakeholders as decision-makers.
Information Management					
• Ownership	National governments ICGLR	Undecided	Undecided	ITRI National Governments	Companies
• Collection	Industry (reports) National governments (gather)	Auditor (audit) Government	Auditor (audit) Government (monitoring)	Industry (all operators) Government iTSCi	JAT All companies

KEY ELEMENTS	RINR	CTC		iTSCi	OECD
		DRC	RWANDA		
• Inputting	National governments ICGLR (supervises)	Database not planned	Database not planned	iTSCi	JAT Companies
• Storage site	Centralised (ICGLR)	Decentralised	Decentralised	Centralised (iTSCi)	Decentralised (smelters & downstream companies)
• Public disclosure	Full	Partial: "to parties with a justified interest"; all reports to be published for civil society review.		Partial (government control of data means some data could be made publicly accessible, but some data points will be confidential)	Partial (in annual reports only)

Comparative Analysis

The study details the following analyses:

- Comparative Table of the four initiatives (see below)
- Existing and planned links between the CoC initiatives (excluding the RCM)
- Possible links between the four elements of the RCM and the CoC initiatives
- Key Issues with the other initiatives vis-à-vis harmonisation, and possible solutions
- Key issues with the proposed RCM and possible solutions

Conclusion and Recommendations

Overall, the analysis shows that no part of the PAC proposal seems to be unnecessary and that it forms an excellent basis for developing a credible, effective, and sustainable RCM. Many details still remain to be considered, however, as the sections on existing and possible links and key issues demonstrate. The final section of the report presents recommended actions for harmonising the RCM with the other CoC initiatives and ensuring it is credible, effective, and sustainable. These follow, summarised:

Chain of custody tracking from mine site to export

1. Regional Certificate:
    a. Harmonise information on Regional Certificate with that required under step 1 of the OECD and phase 1 of the iTSCi.
    b. Analyse which information points should be shown on the certificate through consultation with industry, civil society (as monitors) and the various initiatives.
    c. Incorporate capacity-building and audits of issuing agencies into the RCM.
2. Consider building document-based tracking system from either CTC or iTSCi phase 1 systems
3. Investigate how to mitigate industry concerns of inadequate credibility related to potential for fraud and breach of confidentiality posed by reliance on a document-based system

Regional Tracking of Mineral Flows via ICGLR Database

4. CTC should develop a vision for information management in line with ICGLR information needs.
5. Assess an appropriate data management system (cf. WBMS, iTSCi system)
6. Conduct an information assessment of all initiatives to:
    a. Consider the optimal arrangements for data ownership, collection, inputting, storage and disclosure
    b. Identify the information points from each initiative that can feed into the RCM database
    c. Identify which of these should be fully publicly available with the aim of maximum transparency, and which are justifiably sensitive enough to be treated confidentially or with conditional disclosure terms
    d. Consider how data can be collected, input and reported in ways that are useful for the ICGLR information management system
    e. Consider what obligations the ICGLR should have for reporting and feeding data back to the other initiatives and participants.
7. The database should be as comprehensive as possible to allow for detailed analysis by investigators, auditors, and monitors. Additional useful data may include:
    - typical transit time between sites of transformation / trade
    - typical grade of ore from specific sites
    - eligibility of mine sites for certification (based on mapping of conflict-associated sites)

Regular Independent third-party audits

8. Consider **harmonising the assessment systems** across all initiatives. These systems include fact checking, monitoring systems, and the independent third party audits. This requires conducting a SWOT and cost-benefit analysis of the different institutional frameworks and processes for setting the audit procedures, on the basis of credibility, affordability, efficiency, effectiveness, independence, etc.
9. Elaborate the composition, activities, and costs of tripartite audit committee to allow for an assessment of its financial feasibility in the short- to long-term.

10. Do a proper costing of the proposed structure for financing audits in close consultation with industry, bearing in mind lessons from iTSCi and that each mineral may require a different pricing mechanism, and planning for managing excess funds should this situation arise.
11. Clearly set **the criteria for certification and de-certification** to ensure consistency and prevent political or institutional interests influencing the certification decision.
    a. The certification decision should not be automatic, but should be made by the Audit Committee based on the certification criteria and the auditor's recommendation.
    b. The criteria should be developed in consultation with end-users, smelters, and national industry members, as well as other key stakeholder groups (ICGLR member states, donors, international and local civil society).
    c. Report suggests possible criteria for inclusion
    d. Decide exactly which institution will set the criteria for (de-)certification and how frequently these will be reviewed.
12. The Audit Committee members must represent not just their organisation or interest group actively consult with and seek to represent the interests of all interests within that sphere, and especially those not directly represented. Terms for membership in the Audit Committee need to be established.
13. To prevent audit fatigue, various options are given in the report
14. Consult ISEAL (2007c) guide on Verification for advice on how to establish credible and effective verification systems.

Independent Mineral Chain Auditor

15. Consider the exact roles and responsibilities of the IMCA, with a view to deciding who is best placed to perform this role. Justify if the IMCA should be a panel or an individual. Justify how total independence and credibiltiy can be ensured.
16. Consider expanding the role of the IMCA beyond surveying the data streaming into the IGLR and intiating further investigations. For example, the IMCA could be responsible for monitoring and evaluating how the system is designed and implemented generally.
17. Include the CTC's AFP technology, iTSCi database, and OECD's JAT and community monitoring team in the catalogue of tools and resources at the IMCA's disposal.

Other

18. Add a Fifth Element: Instigate a monitoring and evaluation mechanism for the system itself to monitor its credibility, implementation and effectiveness. This monitoring and evaluation should be done by the right institutions at appropriate intervals of the system's development and use. This should be built into the design of the RINR.
19. Various recommendations for the development of Social and Environmental Standards
20. Capacity Building: Once the governance frameworks are more developed, do a capacity building needs assessment of all actors.
21. **Engage Industry:** Negotiate with industry and the US Government as to how the US legislation is likely to be applied in cases where a company believed a consignment of mineral or operator to be compliant, and which is later discovered to be non-compliant. Consult with end-users, smelters, traders and miners to fully understand their needs from the RCM. Then consider and present to them how the ICGLR's RCM will satisfy these needs. A case has to be made.

1. Introduction

The RINR

The International Conference for the Great Lakes Region (ICGLR) comprises eleven member states, namely Angola, Burundi, Central African Republic, Democratic Republic of Congo, Kenya, Republic of Congo, Rwanda, Sudan, Tanzania, Uganda and Zambia. It is an inter-governmental process aimed at re-establishing peace in the African Great Lakes Region. On 15th December 2006 in Nairobi, eleven heads of state signed the *Pact on Security, Stability and Development in the Great Lakes Region* ("the Pact"). The Pact provides "a legal framework governing relations between the Member States [in order to] create the conditions for security, stability and sustainable development".(ICGLR 2010) As part of the Pact, the *Protocol on the Fight against the Illegal Exploitation of Natural Resources* ('the Protocol') came into force in June 2008. This Protocol outlines the actions the Member States have agreed to take and has the *Regional Initiative against the Illegal Exploitation of Natural Resources* (RINR) as its central tool. The main aim of the RINR is "breaking the link between mineral revenues and rebel financing." (GTZ 2010)

The RINR operates six instruments to realise its objectives. These are:

- Establishment of a certification mechanism for selected minerals (gold, coltan, cassiterite, wolframite)
- Development of a database on mining statistics of all Member States
- Harmonisation of applicable laws and regulations in all Member States
- Establishment of a regional whistle-blowing mechanism
- Formalisation of artisanal mining
- Establishment of a platform for exchange with the EITI

The certification mechanism is the core instrument. The ICGLR's Conference Secretariat is in charge of developing this mechanism as well as the other five support tools.

Through GTZ, the German government provides support to the ICLGR. Since the second phase, the support components are: (1) strengthening the Conference Secretariat and the National Coordination Mechanisms, (2) supporting the establishment of a regional certification mechanism for natural resources and (3) promoting transborder development cooperation in the Great Lakes Region.

Purpose of the Report

The report provides a comparative analysis of five efforts to improve chain of custody assurance in the African Great Lakes Region against the proposed Regional Certification Mechanism (RCM) for the RINR, proposed by Partnership Africa Canada, commissioned by the Swiss Federal Department of Foreign Affairs (See Blore and Smillie 2010, and Smillie and Blore 2010). The study's goal is to provide the ICGLR with an analysis of existing chain-of-custody (CoC) certification initiatives in the region to inform their drafting of the final version of the RCM's normative document before its formal adoption, which is envisaged for December 2010.

The study considers and compares the following existing or proposed CoC initiatives and relates them to the scheme proposed by Blore and Smillie (2010):

- BGR's Certified Trading Chains (CTC) Programme, including its Rwandan and Congolese (Kinshasa) variants[5];
- ITRI's Certification, Traceability System DR Congo (iTSCi);
- OECD's Due Diligence Guidance for Responsible Supply Chain Management of Minerals from Conflict-Affected and High-Risk Areas (OECD).

[5] The Government of DRC has developed a national-level system for supply chain traceability, which is now incorporated into the CTC for DRC. BGR, email to GTZ, 19th August 2010.

It also considers the International Task Force's (ITF)[6] suggestions for harmonising efforts to combat the illegal exploitation of natural resources in the Great Lakes Region; and the Congolese government's *Programme de Stabilisation et Reconstruction des Zones Sortant des Conflits Armés* (STAREC), which aims to restore public order and security and the authority of the state through a series of measures, including upgrading infrastructure in the mining sector by improving access to mining areas and establishing trading centres, or *centres de négoce*.

Research Approach

Research for this report involved documentary analysis and in-person, telephone or email interviews with the following key informants and managers of each of the existing or proposed initiatives:

- Dirk Küster, BGR
- Philip Schütte, BGR
- Kay Nimmo, ITRI
- Mike Loch, EICC/GeSI
- Shawn Blore, PAC
- Tyler Gillard, OECD
- Veronique Aulignon, ITF

An analytical framework was developed and used to assess and compare the initiatives' approaches and technical arrangements, relate them to the four key elements of the RINR, and consider (in)compatibilities and the opportunities for harmonisation. The framework is presented in chapter 4.

[6] Previously called the European Union Task Force (EUTF) as its secretariat is housed in the Office of the E.U. Special Representative.

2. Background

Motivation

The association of minerals with conflict in DRC since the 1990s has brought a lot of attention from the UN and civil society and consequently industry and foreign governments to the extraction and trade of minerals from the Great Lakes Region.

The UN Security Council's Panel of Experts reports have detailed the nature of the militarisation of trading chains from the region since 2003.[7] The latest report (UN 2010) maintains that certain traders continue to source minerals from sites controlled by armed groups and that "State agencies and both State and non-State agents and armed groups" continue to levy illegal taxes "at various stages of the mineral supply chain" in DRC (paras. 75 and 78). assert that traceability measures are not enough, that third party audits are essential, and that downstream users and financial institutions should conduct or commission research to know "what illegal taxes are being paid and to which groups" as part of a comprehensive set of due diligence measures (paras 67 to 96).

The US Government passed the *Dodd-Frank Wall Street Reform and Consumer Protection Act* ("Dodd-Frank Act") in June 2010, and on July 21st it was signed by President Obama. The Act requires companies importing goods containing tin, tantalum, tungsten or gold from the DRC or neighbouring countries to declare their minerals as conflict-free and report on what they have done to ensure that the metal sales have not contributed funds to armed groups in the DRC (USG 2010).[8]

The anticipation of this bill and exposés by journalists, advocacy groups, and the UN of companies sourcing allegedly 'conflict minerals' from DRC have created a fever in industry, especially the electronics sector, to coordinate a response. Whilst the obvious reaction would be to avoid sourcing from the region altogether, cognisance of the potentially devastating effects such an embargo would have on the fragile economy and nascent peace in the region has persuaded industry to seek ways of sourcing responsibly from E.DRC and its neighbouring countries instead of disengaging altogether. Nonetheless, with the Dodd-Frank Act now passed and final regulations setting out disclosure requirements due to be published 17 April 2011, industry will not take the risk of sourcing from the DRC or its neighbours unless sources are credibly and verifiably conflict-free.[9] There is an urgency to get a usable system in place as soon as possible.

Chain of Custody Systems

To that end a number of initiatives have emerged, which seek to provide industry, and in particular metals smelters, with tin, tantalum, tungsten and gold from E.DRC whose provenance is known and which can be certified as conflict-free. Table One summarises who has led the design of these initiatives, and by whom they are intended to be used and implemented.

Table One: The Design and Implementation of the Initiatives

	Designed and led by:		
Managed and Implemented by:	**Industry**	**Government**	**Industry, Government, Civil Society**
Industry			OECD
Government		CTC RCM (ICGLR)	
Industry and government	iTSCi		

There are four models of chain of custody systems. Fiona Solomon, Director of Standard Development for the Responsible Jewellery Council, explains them in the following box.

[7] See http://www.securitycouncilreport.org/site/c.glKWLeMTIsG/b.2885701/ for a library of reports.
[8] See http://www.lexology.com/library/detail.aspx?g=086eb6e7-3f86-4ce8-83ff-87c76fc430e1 for an analysis.
[9] Mike Loch, GeSI, Interview with author, 3rd August, 2010.

Chain of custody systems – the four models (extract from RJC 2010)

There is a wide range of chain-of-custody systems in operation across various industries and product types. These systems can be categorised into four main models: track-and-trace, bulk-commodity, mass-balance, and book-and-claim.

- **Track-and-trace**: traces product from source (producer, region or country), physically segregating and tracking it through supply chains. Example: Marine Stewardship Council (MSC) fish.
- **Bulk-commodity**: physically segregates certified from non-certified product to prevent mixing, but does not trace back to product origin. Example: GMO and non-GMO soybean.
- **Mass-balance**: each company keeps track of the amount of certified product it buys and sells. So while there is no physical segregation, there is administrative segregation. Example: Forest Stewardship Council (FSC) credit system for mixed sources of paper.
- **Book-and-claim**: The trade in physical products is completely decoupled from the trade in certificates. Usually a central 'Issuing Body' is responsible for issuing and redeeming traded certificates. Example: renewable electricity.

[Summarised from: Sustainable Biomass Scheme]

All four are designed to drive improved production practices, though each model has different management approaches, impacts on markets and supply chain relationships, and (consequently) levels of stakeholder credibility. Key issues include transparency and clarity in the different product certification claims to avoid confusion or deception.

The purpose of the chain-of-custody systems being developed by initiatives in the Great Lakes Region is to absolutely guarantee the origin of the mineral, as this is paramount to proving that it comes from a conflict-free mine and has passed through a chain that is essentially untouched by people and organisations tied to conflict actors. In all of the initiatives, the emphasis is on track-and-trace up to the point of the smelter, or where it leaves the region, with the option of the downstream chain following either the track-and-trace, bulk-commodity (i.e. certified 'conflict-free'), or mass-balance systems.[10]

The primary issue here is that the highest level of CoC – track-and-trace – is required, but this is also the most expensive and bureaucratic CoC system. A key challenge for all the initiatives is thus achieving an affordable yet efficacious system in a region of the world known for weak state capacity and significant governance issues in many cases.

[10] This decision will rest with the end-users, in negotiation with components manufacturers and smelters, and depend on whether there is commercial or brand management value in identifying conflict-free products in the market-place or not.

3. What makes for a credible, effective and sustainable certification system?

To determine the relative utility of the various initiatives, end-users are judging their respective credibility, likely effectiveness and sustainability.[11] The sustainability of the initiative rests on it being credible and effective; credibility rests on effectiveness, amongst other things; and effectiveness rests on whether the system is appropriately designed to achieve its goals. This section considers what determines an initiative's sustainability, credibility and effectiveness, and what principles should be applied to ensure it achieves these.

Sustainability is primarily determined by the system's:

- **Credibility and effectiveness** in achieving its objectives, as judged by its funders, observers, and beneficiaries
- Costliness and thus **affordability**, including
    - The willingness of donors, industry, and the member states to bear these costs
    - The distribution of these costs and judgement by those paying them that the costs are fairly allocated across the beneficiaries (principally government, industry - being national mineral sectors, smelters, and end-users – and perhaps also consumers (should the 'conflict-free' label have additional value for specific products and/or in specific markets)
- **Continued necessity** for achieving the formalisation of exploitation of natural resources in the Great Lakes Region and for reducing the incentives for and feasibility of conflict, therefore. (It may be that alternative responses are deemed preferable in the future, for example.)

The fact is that certification cannot give a 100% guarantee, but it can give a credible guarantee that they system delivers as close to 100% certainty as possible. Thus the credibility of the RCM is paramount and rests primarily on the following (ISEAL 2007a to h):

- Its **effectiveness** in achieving its mission and goals.
- The **process by which it has been developed**, and how this is perceived by stakeholders, including:
    - Who has led its design and development and the balance of interests therein. (decision-makers)
    - Who has been involved in its design and development and the balance of interest therein. (participants)
    - Who has funded its design and development, and with what motives.
- The **consultation process** for its development and use, how this is publicised, and whether participants have the capacity to meaningfully engage.
- The **assurance process** that is used, how this is funded, how compliance is assessed and by whom, how the decision on certification is made and by whom, and whether the verification and certification system is consistent and reliable.
- How the system's development, implementation, and use will be **financed**, and by whom.
- What provisions are in place to ensure that those who are supposed to implement the system and be judged against it have the **capacity** to fulfill their responsibilities.
- What disciplinary procedures are in place for **non-compliance**.
- What **safeguards** are in place to prevent corruption, bias or conflicts of interest in its development and use.
- What **grievance mechanisms** are in place for participants to report abuse or mis-use of the system, and have these reports responded to.
- What **improvement process** is in place to update the system and with what regularity.

The effectiveness of a system is determined by its **mission and objectives**, and whether or not stakeholders judge that its focus, content, design and use do, or are likely to, achieve these, or not.

[11] Mike Loch, Interview with author, 2nd August 2010.

This includes consideration of whether the standards and requirements are robust, clear, easy to understand, well targeted, and open to interpretation or not.

Key principles for guiding the development, design, and implementation of the RINR such that it is effective, credible, and ultimately sustainable are therefore as follows:[12]

- Avoid **conflicts of interest** in the system's governance and implementation
- Design the system and operate under the **principles** of consistency, interoperability[13], independence, transparency, information exchange, democratic governance, multi-stakeholder participation and consultation, anti-discrimination and inclusivity, and accountability.
- Instigate a monitoring and evaluation mechanism for the system itself. There are 3 levels at which the system itself should be monitored and evaluated[14]:
    - Monitoring the system's **credibility** (do all relevant stakeholders deem it to be legitimate and credible)
    - Monitoring the system's **implementation** (is it being used properly by government and industry?)
    - Monitoring and evaluating the system's **effectiveness** (does it achieve what it sets out to do?)

  This monitoring and evaluation should be done by appropriate institutions at appropriate intervals of the system's development and use. This should be built into the design of the RINR. It may make sense, for example, for PAC to monitor the system's further development, implementation and use given its role in designing it.

In designing the RCM, Smillie and Blore (2010) assessed a variety of certification mechanisms (both mandatory and voluntary) with a view to considering how a system's purpose, administration, and operation can influence its success (see chapter 5). This led to the formulation of five principles to guide the design of the RCM to ensure its effectiveness. These are as follows:[15]

1. **Transparency.** Transparency is essential for the system to have legitimacy with member governments, civil society, industry end users, consumers and the public.
2. **Burden of proof falls primarily on exporters, and only secondly on governments.** In the ICGLR system, primary responsibility for assuring a verifiable chain of documents fro dig site to export point will fall on industry. Penalties for non-compliance will also fall primarily on industry.
3. **Mandatory third-party audits.** Trust but check: quarterly third-party audits should be mandatory for all participants in the mineral chain. Passing these audits should be obligatory for an entity to achieve and maintain certified status.
4. **Adapt current systems as much as possible.** Business as usual, but with checks: where possible, adapt the current systems in order to increase compliance and reduce costs.
5. **Design for adaptability.** The system should be able to develop and incorporate new standards into the existing tracking and certifying framework.

They also developed a set of operational principles upon which the credibility and effectiveness of the system also rest. These are:[16]

- Producing areas must be free of military activity (including prolonged presence of government forces)
- Laundering of non-certified minerals must be prevented through the database
- The quality of controls and data gathering in primary producing areas is paramount.
- Equitable, system-wide effectiveness and credibility rests on independent, 3rd party monitoring (of operators and the supply chain), including rigorous follow-up.
- Non-compliance must be dealt with seriously, including de-certification, otherwise there is little incentive to follow the rules.

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[12] Based on ISEAL (2007a to h), WTO and ISO/IEC codes.
[13] i.e. ability of different certification bodies to recognise each others' certificates (ISEAL 2007)
[14] In this case the system itself is being monitored / evaluated. This is in contrast to the 2 levels of monitoring required by the system of what is being assured, namely monitoring operators' compliance and monitoring mineral chains' compliance.
[15] Cited directly from Smillie and Blore, 2010, chapter 6
[16] See Blore and Smillie 2010.

4. Summary of the Initiatives

This section presents each CoC initiative, as well as possible supporting initiatives which will aid the development, implementation and harmonisation of the CoC systems (STAREC, ITF). Each initiative is presented based on the analysis conducted using the following analytical framework. Each initiative was given the opportunity to respond to the analysis to rectify mistakes and provide clarifications.

Analytical Framework Used to Assess and Compare the Certification Initiatives

FUNDAMENTAL	QUESTIONS
CONCEPT AND DEVELOPMENT	
Mission	What is the initiative trying to achieve?
Added Value	How will this assurance add value to the product?
Time-frame	By when should the initiative be functional?
Focus • The Product	What is being assured? Is it the producer organisation or the product? Or both? Is the product traceable?
• Scope	Where, when and by whom can it be used? (Geography, context, users)
• Minerals	Which minerals?
Outlook	What is the vision for developing / expanding the scope of the initiative?
System Development	How has the initiative been developed?
TECHNICAL ARRANGEMENTS	
The Normative Document	What does the normative document comprise? What are its key principles and requirements?
The Consultation Process (for initiative development)	What is the purpose of consultation and how should it work? Through what fora / communication means does consultation take place? Is consultation planned and structured or ad hoc?
The Assurance Process	How is this assurance to be done?
Level of Assurance	1st, 2nd, 3rd party?
The Compliance Assessment • Monitoring	Who will monitor?
• Verification (auditing)	Who will verify (audit)?
• Certification	Who will certify / decide on compliance / non-compliance?
• Accreditation	Who accredits the verifier (auditor)?
• The Assessment Cycle	What should the assessment cycle be? Why?
• Compliance • Non-compliance	What does compliance mean? What will happen to actors who do not comply?
Financial Structure	How will the following be financed? • Development phase: (Standard development, Producer support (capacity-building), Standard implementation) • Active phase: Verification, Certification, Labelling
Governance framework • Designers	What does this look like? Identify roles, responsibilities, institutions, relations, procedures, policies. • Who develops the system? How does this happen?
• Owners	• Who owns the system? How does this work?
• Managers	• Who manages the system's use and development?
• Guardians	• Who oversees the system and protects it from corruption or bias? How will this work?
• Beneficiaries	• Who is the system supposed to benefit?
• Operators	• Whose behaviour is the system trying to change?
• Participants	• Who is consulted on design and development of the Standard?
Capacity-building	Who will need capacity-building? What kind?

FUNDAMENTAL	QUESTIONS
	Who will do capacity-building?
Traceability & supply chain integrity	How will tracking / traceability work?
Information Management	• Ownership • Gathering • Inputting • Storage • Disclosure • Key information points
HARMONISATION	
Key challenges / threats	What are the key challenges to the credibility and sustainability of the system? What level of commitment is there to achieving the following norms for good practice in developing assurance systems? • Transparency • Information exchange • Democratic governance • Multi-stakeholder consultation vs. participation • Anti-discrimination / inclusivity • Accountability, etc.
Opportunities for harmonisation with the ICGLR's 4 agreed elements	1. Chain of Custody Tracking from Mine Site to Export 2. Regular tracking of mineral flows via ICGLR database 3. Regular independent 3rd party audits 4. Independent Mineral Chain Auditor
Opportunities for harmonisation with the other initiatives	

The Chain-of-Custody Initiatives

The RCM for the ICGLR RINR

Mission
The mission of a Regional Certification Mechanism (RCM) is to:

- Limit the ability and incentives for armed groups to source financing from the production and trade of minerals from the Great Lakes Region,
- Generate increased tax revenues by formalising mineral trading chains and improving collaboration between states, and
- Improve the social and environmental conditions in which minerals are produced.

The certificate functions in dis-incentivising illegal mineral production and trade by essentially de-valuing shipments which do not have the certificate, as in theory the market for uncertified shipments will be far smaller[17] (indeed, practically non-existent) than that for those with certificates because smelters and end-users will generally seek to have all mineral purchases certified in order to fulfil their responsibilities, and indeed obligations, under national and international Law.[18]

Focus
The RCM is a mandatory, *universal* system. It will apply to all producers, traders and exporters dealing in tin, tantalum, tungsten or gold from artisanal and small-scale production sites in DRC, Rwanda, Burundi, and Uganda. For the system to be fully functional, however, it should be applied to all scales

[17] There is an effective embargo on tin and tantalum purchases by smelters who are members of the ITRI and TIC, due to concerns relating to conflict minerals. Interview with Kay Nimmo, 19th July 2010.
[18] The requirement for all imports and exports to have the necessary ICGLR certificate will become part of national law in the Member States. Companies based in OECD member countries which have signed up to the Declaration on Foreign Investment will also be required to have the necessary documentation, under the new OECD Due Diligence Guidance, which is to be finalised at the end of 2010. Companies importing products containing metals into the US will have to declare their metals to be conflict-free in compliance with the newly passed Dodd-Frank Act and with serious penalties should these declarations be found to be false.

of mining in the region, i.e. including industrial-scale mines, to allow for accurate accounting of mineral flows into and out of the region through the database.[19]

Outlook
The ICGLR intends for the RCM to be functional by end 2011.

How the System Works
The RCM has four main system elements, which effectively provide four mine lines of defence and levels of assurance:

Element	Main Event	Assurance outcome	Line of Defence	Level of Assurance	Timing of Assurance
5) Chain of custody tracking from mine site to export	Operators' documents checked	Minerals certified	First	1st party	Immediate (export depends on it)
6) Regional tracking of mineral flows via the ICGLR database	Document data entered and analysed	Anomalies flagged	Second	2nd party	3-6 months after certificate is issued (timing depends on how quickly data can be retrieved)
7) Regular independent third-party audits	Database checked Operators' activities and documentation checked	Operators and trading chains certified or de-certified.	Third	3rd party	Every 3 months
8) Independent mineral chain auditor.	CoC investigated; operators investigated.	De-certification is possible.	Fourth	3rd party	Whenever necessary

The standardised Regional Certificate will be issued for each mineral export consignment by a national certification agency upon proof by the exporter that all necessary documentation and licensing are in place and are accurate. The certificate will assure that a particular shipment of minerals has been mined and traded legally by operators who are certified as compliant with the RCM. This will provide a guarantee to smelters that the minerals originate from certified mine sites, will enable governments to tax all minerals on export, and will inform transit and re-export countries of the legality of a mineral shipment.

A database, housed at the ICGLR, will enable analysis and tallying of mineral flows across borders both within and out of the region to allow for anomalies or inconsistencies to be flagged. In keeping with the transparency principle, the database will be publicly accessible to allow for civil society and other observers to act as watch-dogs and back up the ICGLR in its responsibility to monitor the data for any issues.

The proper use and implementation of the system will be verified through regular, independent 3rd party audits of supply chain operators and the mineral trading chains through analysis of the database and field visits.

An independent mineral chain auditor will be able to launch investigations when anomalies occur or stakeholders raise the alarm that a violation may be occurring.

The Normative Document
It is envisaged that the system will begin with standards to assure CoC only, but within a 2-5 year time frame should incorporate environmental and social requirements too given the significant attention civil society and industry are paying to these issues.

[19] Interview with Shawn Blore, 4th August 2010.

The CoC requirements will be universal to the region. These will be developed by the ICGLR Regional Secretariat.

The social and environmental standards will be developed for the region, but will have to be adapted to the particularities of member states' legal frameworks before they are incorporated into national law.

Monitoring and Assessing Compliance

Monitor:
- ICGLR (through regular, mandatory database analysis)
- Civil society (through voluntary database analysis and whistle-blowing mechanism)
- Industry (through whistle-blowing mechanism)

Verifier: (auditor)
- Independent 3rd party auditor
- Independent Mineral Chain Auditor (IMCA) (through investigation teams)

Certifier:
- National governments decide which mine sites are eligible (conflict-free) or not.
- National certification authority grants the Regional Certificate for a particular shipment.
- Auditor can recommend on compliance or non-compliance of a mine site, a supply chain operator, and a mineral chain.
- IMCA can recommend on compliance or non-compliance of an operator; and on what sanctions to impose.
- ICGLR (Audit Committee or Secretariat) will decide whether or not a mineral trading chain based or supply chain operator is to be de-certified.[20]
- The Audit Committee should implement the compliance decision.

Accreditation agency: The Audit Committee

Assessment Cycle: Quarterly (every 3 months) is proposed; twice a year may be optimal.[21]

Compliance: Operators must be certified themselves through the regular audit procedure, and the mineral shipment must be certified in order to be compliant.

Non-compliance: Non-compliance by an operator will probably mean de-certification and market penalties consequently. The designers recommend a yellow-card, red-card system: "the first time an industry player fails an audit, it is given a warning and declared yellow carded." It will be red-carded if it fails the subsequent audit or any further audits within a 12-month period. (Blore and Smillie, 2010, p. 10).

The Audit Committee will decide on rules which outline the procedures to be followed should potential non-compliance be flagged, and the penalties which will be exacted should non-compliance be confirmed. The Committee should also be responsible for imposing the penalties.[22]

[20] The Blore and Smillie documentation to not specify how the certification decision will be made. In a telephone interview with Shawn Blore (4th August, 2010), Mr. Blore suggested that the compliance decision should be bureaucratic (automatic) rather than political (negotiable), such that whatever the independent auditor or IMCA recommend with regards to compliance is automatically put into effect.
[21] Based on interview with Shawn Blore, 4th August 2010.
[22] Based on interview with Shawn Blore, 4th August 2010.

Information Management
The *timely, accurate* collection and inputting of *standardised* data is absolutely essential to the proper use of the RCM, as the data is crucial for the audits and for triggering alerts of potential non-compliance.

Ownership	The data will be owned by national governments and by the ICGLR
Collection	The data will be reported by industry and gathered by national governments at various levels.
Inputting	National government agencies will do data inputting (e.g. at the mine and trading sites), but ultimate responsibility sits with the ICGLR, which will need to do training, outreach and ongoing quality control to ensure that the right data of the right quality is collected.
Storage	The database will be housed at the ICGLR secretariat in Bujumbura.
Disclosure	The database will be publicly accessible. Sensitive information points could be left as confidential, but this is to be decided.
Key information points	• Regional certificate • Documents and data supplied by supply chain operators and government officials (including customs forms) • Audit reports • Investigation reports • List of certified and non-certified operators (suggest this includes reason for non-certification and decision on how certification can be re-obtained)

Key Actors and Institutional Arrangements
National governments will establish mineral tracking and certification systems within national borders, establish standards for artisanal and formal mineral production, transmit data from national tracking systems to the ICGLR, and give full cooperation to auditors and investigators commissioned by the ICGLR.

The ICGLR will administer and manage the project, establish the standard for the regional CoC system, act as a clearing house for information, track and balance the mineral flows data, declare operators' and mineral chains' compliance, serve as the agency through which the third-party audits are commissioned and published, set regional standards, and initiate investigations (through mineral chain auditor). The exact institutional arrangements are not yet decided

Industry will adequately document the mineral chain of custody, transmit data to the ICGLR, cooperate in managing the system through participation in the Audit and Standards committees, cooperate with audits and investigations, fund the audits, self-police (whistle-blowing).

National and International civil society will cooperate in managing the system through participation in the audit and standards committees, targeting non-compliant actors to create market pressure, and continuing their watchdog role

International community and donors will support the development of the scheme technically and financially, support national governments in developing their tracking systems, maintain engagement with regional governments and mineral trading industry to sustain momentum for the tracking systems, provide recognition of and political support for the ICGLR RCM, require ICGLR certification in their home markets.

Owners	ICGLR
Designers	• ICGLR, with guidance from GTZ and commissioned consultants. • National governments (ASM standards) • ICGLR standards development committee (CoC standards)
Managers	• The ICGLR Regional Secretariat, with initial guidance from GTZ, will manage the overall system. • The ICGLR will manage the database. • The Audit Committee will set the terms, scope, and criteria of audits, accredit and commission auditors, and set the rules for compliance / non-compliance. • Independent auditors will conduct regular assessments of all operators. • The IMCA will analyse the data, conduct investigations into non-compliance,

	issue reports and set sanctions and solutions. • National governments will manage the use of the system in their own country.
Guardians	There are safeguards for preventing corruption and bias in how the system is implemented, but not over how it is developed and managed. General role stated for civil society watchdogs.
Beneficiaries	• The people of the region through upping the stakes in peace and improving stability. • The governments of the region by increasing revenues and state capacity • The region's mineral industry by assuring buyers that they can source with confidence from the region, so maintaining demand.
Operators	Illegal supply chain operators; primary burden rests with comptoirs.
Participants	It is unclear who will be consulted in the development of the standard.

Capacity-building
Government agencies will need training on data collection and management, and be provided with resources for fulfilling their roles. ICGLR staff will need training on database development and use, and on training government agencies. Further capacity-building needs are yet to be fully determined.

Consultation processes
A consultation process has not yet been designed. To ensure full credibility of the system, relevant stakeholders should be consulted on the design and development of the RCM.

Financing
The development phase is funded by donor governments, principally through GTZ and SDC.[23]

It is planned that the auditing system of the active phase will be funded entirely by industry, from a levy to be exacted at the smelter tier. Blore and Smillie (2010) put this levy at around $30 per tonne for tin, based on the probable cost of a complicated, field-based audit by a Kinshasa-based auditor and the amount of audits that are likely to be necessary. The remaining costs of the active phase are likely to have to be met by the ICGLR Member States. [24]

CTC

Mission
The CTC is a regional mechanism for monitoring and certifying the origin and social and environmental performance of the exploitation and trade of natural resources within the Great Lakes Region.

Its aim is to combat the illegal exploitation of minerals by increasing transparency, traceability, and the ethical performance and development potential of mineral production and trade, and by improving capacity of institutions responsible for minerals governance, and thereby the regulation of the artisanal sector as well as increasing state revenues in developing nations. At the other end of the chain, "it aspires to improve supply security for the processing industry, and fosters responsibility in industrialized economies." (BGR 2010a).

The CTC will achieve this by creating "islands of good governance, where mineral substances are produced and traded legally, transparently, and in ways which protect workers, communities, and the environment. Certification will also progressively transform and formalize informal mining" (BGR 2010a). It will also provide 3rd party assurance to international mineral buyers (e.g. smelters) of the origin of their minerals and that these have been mined and traded in line with the principles of transparency, responsibility, equity, and respect for the environment and human settlements. This will enable buyers to continue to source from the region even in the face of the Dodd-Frank Act.

The CTC will remain necessary so long as national institutions do not have the means to fully enforce conformity with national laws and companies do not have either the incentive or capacity to voluntarily adhere to international best practice. In other words, it will remain necessary for quite some time.

[23] Email communication with S. Blore, 4th August, 2010.
[24] Email communication with S. Blore, 4th August, 2010.

In both Rwanda and DRC, it is a voluntary and thus particular scheme. However, based on a request by the Congolese Government, the CTC is envisaged to become part of the national mining legislation through a decree or directive by the Minister of Mines or the Prime Minister and the approval of the *Manuel de Certification des Minerais en RD Congo: Principes, Lignes directrice et Standards* (BGR and MDM 2010b), as a route to formalising DRC's artisanal and small-scale mining sector. It will thus become mandatory and universal in DRC and though operators will be able to be penalised under law, independent audits will remain necessary.[25]

Ultimately, BGR envisages that the CTC could act as a model for regional certification in the ICGLR region, in which case it would become universal across the region.

Focus

It is certifying the origin of the minerals, as well as the social and environmental performance of the mine site (in DRC) and mining organisation (in Rwanda). The trading chain (origin) is assured in the first instance (Standard 1 is a minimal requirement), and the social and environmental performance is assured later as Principles 2 to 5 are gradual improvement requirements. BGR has also developed an Analytical Fingerprinting (AFP) technology, which can be used to verify the origin of cassiterite and soon coltan and wolframite from across the region[26] but this will be upon request, not as a matter of course given the costs involved.

The CTC is intended to be used by small-scale companies using artisanal mining methods in Rwanda and by cooperatives and micro mining companies[27] at artisanal mining sites in DRC, which have been classed by the government as Artisanal Mining Zones, and for trading sites at the anticipated STAREC *centres de négoce* and comptoir offices. BGR states[28] that the CTC is intended to be applicable to industrial-scale operations, but the Manuel de Certification (BGR and MdM 2010b) states otherwise.[29]

Mineral buyers and exporters also have obligations under the first standard of the first principle relating to declarations on origin and production volumes, and procedures to be followed for sealing the packed mineral product. Guidelines for mineral buyers will need to be developed.

The CTC is potentially applicable to all cassiterite, tantalite, and wolframite production and trade in Rwanda and all of these as well as gold in DRC. It could also also be modified to incorporate other commodities such as diamond, gemstones, uranium, etc.[30]

Pilots

In Rwanda, the scheme is being piloted at six mining sites (Rutsiro, Gifurwe, Rutongo, Nyakabingo, Nemba, and Gatumba) by four mining companies (NRD, WMP, ETI and GMC), who elected to participate voluntarily. These pilot companies benefit by being the first in Rwanda eligible for CTC certification and by receiving capacity building paid for by BGR under this scheme.

In DRC, the scheme is being piloted in South Kivu at Kalimbi/Nyabibwe and Lulingu (tin), and Misisi and Mukungwe (gold). The Kalimbi/Nyabibwe site is also participating in the iTSCi scheme, where ITRI began piloting its tracking system in June. CTC will pilot its own tracking system in September

[25] Email from Philip Schütte, 5th August 2010.
[26] A complete sampling has not yet been achieved, and is a work in progress. There are provisions for the collection of samples within the CTC standard. Further, the analytical protocol is completely established for tantalum, but still in development for tin (advanced stage) and tungsten (initial stage), which is more complicated given that there are two principal ores – wolframite and scheelite. Email from Philip Schütte, 5th August 2010.
[27] The distinction between micro- and small-scale mining rests on the differences in capitalisation, professionalism, formality, and motivation (subsistence vs. profit) that these two categories imply. Micro mining is more artisanal in terms of organisation, capital, and motivation (subsistence); small-scale mining is more industrial in terms of organisation (a professional, corporate structure), capital, and motivation (profit). Micro-mining also implies a more sophisticated level of organisation than artisanal mining (e.g. cooperative, association vs. small gangs or family groups), mechanisation, and professionalism (cf. Levin et al. 2008).
[28] BGR, Email to Markus Wagner, 19th August 2010.
[29] According to BGR, "in DRC artisanal small scale mining includes all mining activities using artisanal mining methods and monitored by the national Agency SAESSCAM. Industrial scale operation means companies using industrial or semi-industrial methods and technology, and which participate in the EITI. Industrial mining projects and industries in DRC have to comply with international standards for industrial mining projects (e.g. OECD Guidelines, IFC standards…, etc)" (abridged from BGR email to Markus Wagner, 19th August 2010.)
[30] BGR, email to Markus Wagner, 19th August 2010.

2010.[31] In time, *all* artisanal mining sites will have to comply with the CTC scheme, once it is integrated into national legislation.

Outlook
There is the potential for the CTC system to be expanded to other countries (starting with Burundi and Uganda) and other minerals in the existing countries (e.g. cobalt, tourmaline). Ultimately it could be scaled up and adapted for application across the ICGLR region.

How the System Works
There are 2 main components to the CTC system:

1.) Pilot project certification of mine sites, mining organisations, and the trading chains through the development of voluntary standards at the national level and of policies at the company or mine site level, and regular, followed by independent third-party assurance of the companies or mine site against these national standards.
2.) Optional analytical fingerprinting (AFP) of the mineralogical and geochemical characteristics of coltan, tungsten, and tin ore concentrates from specific production sites as an additional checking instrument.

Element	Main Event	Assurance outcome	Line of Defence	Level of Assurance	Timing of Assurance
4) Development of policies at the company or mine site level	Operators develop policies based on the national-level standards	Company-based management and reporting systems for internal monitoring of conformity	First	1st party	Immediate for pilot sites and 3-6 months after baseline audits for the other mining sites
5) Regular independent third-party audits	Operators' activities and documentation checked	Operators and trading chains certified or de-certified.	Second	3rd party	Every two years
6) Optional analytical fingerprinting.	Minerals' origin verified based on the mineralogical and geochemical characteristics of the sample vs. that of the mine site.	Operators and trading chains certified or de-certified	Third	3rd party	As necessary

The Tracking / Tracing Mechanism
The product is tracked from mine site to smelter using a paper trail and tagging / coupon system slightly different to that in the iTSCi.[32] The product is made traceable back to the source by using the analytical fingerprinting (AFP) technology. This will not be done as standard, but as a checking instrument. Thus, the mineral is traceable and trackable. BGR also intends to introduce a code of conduct for all Government officials involved in the chain to prevent malpractice.

In all cases, the mineral will be tracked through the use of documentation produced by the mine, trader, exporter on the origin, amount, type and quality of the traded commodity. This is being piloted in Rwanda. This documentation will accompany the mineral consignment along the supply chain. At each site of transformation (e.g. mine, plant, central warehouse, buyer/trader, exit port, entry port and end user) the facts of the accompanying documentation will be verified (weight, volume, quality), the mineral will be processed and/or re-packaged, and sealed, and a new document will be issued that aggregates the information from the previous steps. Other documentation, such as receipts and customs documents, will also be used. An online tracking system, currently under development, is also being considered. Additionally, audits will be done to critically evaluate the mineral production.[33]

In cases where the origin is unclear or seen to be controversial, the fingerprint instrument will be used to validate origin; it is "an optional verification method at the request of the end buyer" (BGR 2010b).

[31] BGR, Email to Markus Wagner, 19th August 2010.
[32] Uwe Näher, Email to Markus Wagner, 19th August 2010.
[33] This system is presently being refined. Philip Schütte, email to author, 5th August 2010.

Participating mining companies or mine sites are obliged to provide a sample of ore concentrate for each production site, which will be forensically assessed and its geochemical and mineralogical 'fingerprint' will be stored in a database at BGR. Should an end user, government agency or other stakeholder request it, a consignment's 'fingerprint' can be assessed to verify that the traded mineral does indeed come from the site that it is claimed to come from.

The Normative Document

The normative document for both countries has 5 principles: Traceability & transparency; Labour & working conditions; Security; Community development; and Environment. The first principle is the basic requirement; the remaining principles are gradual improvement requirements.

The principles are universal, i.e. applicable in all countries; the general standards and verification system are particular to the country in which they are to be applied. The general standards are based on the OECD Guidelines for Multinational Enterprises (2000), the OECD Risk Awareness Tool for Multinational Enterprises in Weak Governance Zones (2006), some of the IFC's Performance Standards, the Voluntary Principles on Security and Human Rights. These general standards have been adapted to the Rwandan and DRC contexts, based on national legislation and the structure of their artisanal and small-scale mining sectors. Thus, 2 country-relevant normative documents exist (BGR 2010b).

In Rwanda there are 20 standards in the certification system (BGR 2010c):

1. **Traceability, transparency:** origin & volume; fiscal obligations; revenue transparency; oppose corruption
2. **Labour & working conditions**: salary; child labour; workers' organisation; protective & production means; health & safety; training
3. **Security**: capacity; risk assessment
4. **Community development:** structured dialogue; local business; integrated support; free, prior informed consent; gender
5. **Environment:** EIA; waste disposal; provision for rehabilitation

In DRC, the normative document is the *Manuel de Certification des Minerais en RD Congo: Principes, Lignes directrice et Standards*. The current manual is for stanniferous metals and remains provisional until it is finalised at the end of 2010.[34] A separate manual will be produced for gold. The *Manuel de Certification* presently has 22 standards. The DRC standards incorporate all those that Rwanda has – with some modified – as well as two further standards under Principle 1. These are 1) avoiding all dealings with commercial entities engaged in criminality, corruption or violent conflict; 2) refusing requests for contributions associated with political causes or campaigns.

Monitoring and Assessing Compliance

Monitors:	The mining company monitors its own performance. In Rwanda, OGMR will monitor changes in mine infrastructure and production figures. In DRC SAESSCAM and the *Administration des Mines* will monitor the performance of the companies and inspect and map the mine sites. It is also foreseen that civil society (e.g. OGP, BEST) with experience in artisanal mining will be involved in monitoring too.[35]
Verifier: (auditor)	An independent auditor, paid and commissioned by BGR, will audit in Rwanda in the short term. In the longer-term the audits will be paid for by the National Certification Unit (NCU), who will charge the companies to avoid a conflict of interest. In DRC, the first audit will be conducted by BGR with Dr. Barume (a consultant), and representatives of SAESSCAM, the *Administration des Mines de Sud Kivu,* and a representative of civil society as an observer of the process. In the longer term the audits will be done by accredited auditors.

[34] Philip Schütte, email to author, 5th August 2010
[35] BGR, Email to Markus Wagner, 19th August 2010.

Certifier:	The NCU, housed in the Bureau of Standards in Rwanda, in consultation with OGMR and any other relevant authorities. In DRC, a national CTC certificate (or its equivalent) will be issued by the CEEC in consultation with the relevant mining authorities.
Accreditation agency:	The NCU will accredit auditors in Rwanda. In DRC it is not yet decided who will accredit the auditors However auditors for national internal audits and inspections will be trained by BGR and accredited by the MdM . Independent auditors for third party certification audits will probably be accredited by ICGLR.[36]
The Assurance Process:	The mineral trading chain is certified through the production of documentation at each step of the trading chain which details the origin, amount, type and quality (grade) of the traded commodity in line with standard 1.1. This is verified through a third-party audit. In all cases, additional verification of origin is available using the AFP technology. In Rwanda, the assurance of operators involves: 1) The mine developing policies, procedures and management systems to ensure they are delivering on the standards' requirements (May – August 2010) 2) Independent audit of the mine's performance and the associated trading chain against the CTC standards (September – October 2010) 3) Issuance of CTC certificates for participating, compliant companies (February 2011) In DRC, the assurance of operators involves: 1) Participating mines and miners being registered. Mapping of artisanal mines in the DRC (joint activity MONUSCO/BGR/SAESSCAM/CAMI) With military, especially those controlled by armed forces 2) Independent baseline audits of the pilot mining sites and their associated trading chains against the CTC Standards 3) Technical support to the participating government agencies and the DRC ASM sector to improve the relevant policies, procedures and management systems necessary for achieving compliance; 4) Independent audit of mineral producers and trading chains against the CTC standards; 5) Issuance of CTC certificates for participating, compliant ASM sites and their associated trading chain
Assessment Cycle:	Audits will likely be done every 2 years[37]. In Rwanda monitoring by OGMR will be ongoing. In DRC monitoring by SAESSCAM and the *Administration des Mines* will be ongoing
Compliance:	The mineral trading chain is certified through the production of documentation at each step of the trading chain which details the origin, amount, type and quality (grade) of the traded commodity in line with standard 1.1. This is verified through a third-party audit. In all cases, additional verification of origin is available using the AFP technology. Compliance will mean achievement of a minimum total score based on assessment of compliance with a certain indicator on a standard-by-standard basis. Compliance will be judged based on a minimum 'score' in the final certification audit. Each standard has five levels of compliance, from 0 to 4, where 4 is full

[36] BGR, email to Markus Wagner, 19th August 2010.
[37] Pending discussions with the national working group (OGMR-RBS-BGR), Philip Schütte, email to author, 5th August 2010.

	compliance.[38] The auditor will use the set of preliminary indicators which has been developed for each standard. These indicators are based on the verification of documentary evidence from a variety of institutions through discussions with the company and key informants, as well as a mine site visit.[39] In DRC, compliance will also be judged based on a minimum 'score'. The Congolese *Manuel de Certification* states that the audit should involve assessment of the conformity of documents to the requirements, the procedures created and their implementation, as well as the actual production activities observed on the site (BGR and MdM 2010b). The audit can also take into account observations submitted by relevant national, regional and local parties.
Non-compliance:	Non-compliant companies will not be issued a certificate of compliance or, if they have one already, this will be revoked. Since some of the CTC standards are based on national legislation in both countries, some violations may be penalised by state authorities.

Information Management

Ownership	Ownership of the information generated has not yet been decided. In principle, Rwandan information could be owned by the NCU.[40] In DRC information will most probably be owned by SAESSCAM, CEEC and CAMI.
Collection	The auditor will gather information from relevant operators and authorities, for the purposes of the audit. The OGMR will presumably gather information during monitoring. In DRC SAESSCAM and the *Administration des Mines* will gather information during inspection and monitoring
Inputting	A database is not planned.
Storage	Undecided. See "ownership"
Disclosure	Operators are required to disclose all necessary information to the auditor. BGR states that, "to avoid the certification system from being corrupted, information should be made available to parties with a justified interest, and reports should be published for civil society review." In other words, the information will not be fully and freely public, and thus not fully transparent.
Key information points	Documentation produced by the: • Mine, trader, exporter on the origin, amount, type and quality of the traded commodity. • Mining company for compliance with each standard. • State authorities, e.g. customs, mining agencies. • Auditor.

Key Actors and Institutional Arrangements

The scheme is designed and driven by government, and so is more akin to the planned RCM of the ICGLR than the OECD or ITRI processes. It is a cooperation project between the government of Germany and the relevant mining agencies in the countries where it is being applied.

A national governance structure is to be developed for each country. BGR has a Memorandum of Understanding with the OGMR in Rwanda and the Ministère des Mines in DRC to form national working groups which will drive the CTC forward in each country and decide on how the governance structures will work.

[38] The compliance mechanism is currently under consideration and may involve a combination of several models proposed in Levin 2008. (Email correspondence, Philip Schütte, 5th August 2010.) Unresolved questions include, fore example, will companies be able to be certified if they exceed the minimum total, but score less than or equal to 1 or 2 in any of the standards? Will they know what the minimum score should be before the final audit takes place?

[39] For example, "With respect to mineral production and traceability, the auditor is also supposed to perform plausibility checks by evaluating the production capacity for a given concession area (e.g., number of ASM workers vs. salary records, available mine and transport equipment vs. use of gas vs. lists of expenses, use of explosives…) and relating it to production figures reported to OGMR." Philip Schütte, email to author, 5th August 2010.

[40] Philip Schütte, email to author, 5th August 2010.

Owners	BGR owns the system presently, with the Rwandan and Congolese governments, who will get full ownership in time.
Designers	BGR has developed the system in partnership with the relevant mining agencies in each country. In Rwanda this is the OGMR. In DRC it is the Ministère des Mines.
Managers	BGR has managed the system's use and development initially, but responsibility has now passed to the national working group (OGMR, RBS, BGR) with a view to the Rwandan NCU getting full management in time. No civil society is involved, except through the consultations. In DRC a joint task force (*Groupe de travail de certification*) runs the programme. This comprises the DRC Ministry of Mines and associated institutions (SAESSCAM, CEEC, CAMI) and BGR. No civil society or private sector is involved, except through the consultations and independent audits.
Guardians	There is no explicit mechanism in place to protect the system from corruption and bias, e.g. a structured consultation process or public mechanisms for feedback / input, save for solicited input. For example, civil society organisations have been consulted and invited to provide input, and could choose to publicly make statements on the system if they wish, but not all information is publicly available and so their role as guardian is constricted. BGR through its role as co-designer and co-manager with the government institutions. Responsibility for preventing corruption or bias will shift progressively to national institutions (e.g. the NCU in Rwanda). In Rwanda, through the publication of reports, civil society and other stakeholders will have a degree of oversight and will be able to voice concerns through the official grievance mechanism. In DRC, systems for preventing corruption or bias involve periodic consultations with all relevant stakeholders, the witnessing of trading activities in the *centres de négoce* by the civil society and representative of local communities (local team), and the introduction of a Code of conduct for all Government officials involved in the chain.
Beneficiaries	• Mining companies, their employees and affected communities in Rwanda. • Government from corporate actors meeting fiscal obligations; increased stability; professionalisation and formalisation of an unregulated sector; capacity building; and image improvement of the national mining sector so potentially attracting investment • The miners, traders and exporters in DRC and the people who depend on them for their livelihoods (through providing an ethical and certifiable source of non-conflict minerals in the face of the Frank-Dodd bill) • Smelters, who will be able to continue to source from the region in the face of the Frank-Dodd bill. • The people of DRC and Rwanda who will indirectly benefit.
Operators	Informal miners, traders, and exporters in DRC by making the informal sector less profitable and its minerals harder to market. Formal mining companies, traders and exporters in Rwanda.
Participants	A wide variety of stakeholders have been consulted on the design and development of the standard and how it can be applied, but only government agencies have been actively involved as decision-makers. Government is the key decision-maker.

Capacity-building
Miners in DRC will need capacity-building to be able to comply. This will begin in September and October 2010, starting with training of the local staff of SAESSCAM and the Administration des Mines And traders in South Kivu and an information campaign for ASM will be done by BGR and contracted consultants.

The participating companies in Rwanda have needed capacity-building to develop the appropriate policies, procedures and management systems to be able to comply. This has been done by BGR and contracted consultants. Future participants will be compelled to hire their own consultants for capacity building purposes.

The government agencies in both countries will need support from BGR. In Rwanda, OGMR is getting assistance to carry out mine inspections for monitoring purposes and AFP techniques. The NCU (RBS) will require capacity building for CTC management. In DRC SAESSCAM, the *Administration des Mines*, CEEC and CAMI are getting assistance to help implement the certification scheme

Consultation Processes
Consultation is planned and has been based on invitation only. Over 200 people from multiple stakeholder groups at the local, national and international levels have been consulted through stand-alone workshops in DRC and Rwanda, and through side events at larger conferences in Mozambique, Brazil, and Germany.

The CTC does not have a dedicated website for accessing documents and updates on the project, save through BGR's website where the documents are listed in German. Access to relevant documents for review and feedback by concerned stakeholders is therefore through BGR only.

Financing
BGR has funding from the German Government for the CTC scheme until December 2010 in Rwanda and in principle, until 2015 in DRC where the current phase will end in 2012. Using these funds, BGR has paid for the development phase of the scheme, namely standard development, producer support (capacity-building) and standard implementation.

In Rwanda, the companies will indirectly pay the costs of verification (auditing) and certification through the NCU.[41] In DRC it is foreseen that in the long run the traceability and certification schemes will be financed for by the government through increased revenues from proper taxation

In the longer term, participating large scale (industrial) mines will pay for the costs of audits and AFP of their sites, but there are many factors which remain under discussion (e.g., costs critically depend on the number of samples to be processed in an AFP lab).[42]

Timeline

	Rwanda 2006 – 2010
Nov 2006	ICGLR member states sign the Protocol, emphasizing the need for a regional certification mechanism in the Great Lakes region
Apr 2007	BGR project study on the CTC concept in preparation for G8 Summit in Heiligendamm, Germany
Jun 2007	At the G8 summit in Heiligendamm, the G8 endorse Germany's initiative to carry out a pilot project on mineral certification in Rwanda
Jan 2008	Development of a draft set of CTC standards Report presenting concept of CTC in Rwanda (Jim Freedman)
Jun 2008	Report to further refine the CTC concept, and set out technical assistance in Rwanda (Estelle Levin)
Sep 2008	Agreement between OGMR and BGR Official initiation of the CTC Report assessing the compatibility of the CTC and EITI systems (Nicholas Garrett)
Oct 2008	Consultation on the CTC standards at the 8th CASM conference in Brasilia, Brazil; standard consolidation into 5 principles
Nov 2008	Consulting of the CTC concept at the "Digging for Peace - Private Companies and Emerging

[41] To be discussed further with the CTC Rwanda working group. Email from Philip Schütte, 5th August 2010.
[42] Email from Philip Schütte, 5th August 2010.

	Economies in Zones of Conflict" conference, Bonn, Germany. Compilation of CTC standards in BGR Report "CTC in mineral production – principles and standards"	
Mar 2009	Kick-off and Planning workshop "Mineral certification in Rwanda" with national stakeholders in Kigali; CTC standards adapted to national context	
Apr 2009	Presentation of CTC concepts at the ICGLR conference, Bujumbura	
May 2009	Application deadline for mining companies in Rwanda to participate in the pilot project: three companies (NRD, ETI, GMC) apply.	
Aug -Sep 2009	Baseline audit reports of three pilot companies (NRD, ETI, GMC) in Rwanda by independent auditor to rate present CTC standard compliance Two further companies (WMP, Pyramides) apply for participation	
	Rwanda 2009 – 2010	**DRC 2009 – 2012**
Sep 2009	Consultation on the CTC concept at the 9th Annual CASM conference, Maputo, Mozambique	Partnership with DRC Ministry of Mines established.
Nov 2009		Joint task force (BGR, GoDRC) established to develop certification system Field trip to DRC to establish contact and consult with stakeholders (including private sector and civil society) Development and of a traceability system for relevant minerals
Feb 2010		Planning workshop in Kinshasa
Mar 2010	Baseline audit report of a fourth pilot company (WMP) in Rwanda by independent auditor to rate the present CTC standard compliance 2 OGMR specialists trained in AFP at BGR labs in Germany	Planning workshop in Bukavu Development of action plan and selection of pilot mine sites in EDRC
April 2010	Presentation of CTC concepts at the ICGLR conference, Bujumbura	Sample analysis for mineral fingerprinting (AFP)
May - Jun 2010	Consulting for pilot companies in Rwanda to improve gender, corruption, and occupational health and safety company policies	
June 2010		Selection of pilot mining companies Mapping pilot sites Implementation at pilot mine sites in South Kivu Bukavu office established BGR meets with ITRI, EICC, GeSI at Vancouver meeting hosted by ITRI
Jun - Aug 2010	Consulting for pilot companies in Rwanda to introduce CTC Management Systems EIA (environmental impact assessment) MOU signed: OGMR–RBS–BGR to establish working group to discuss future implementation of CTC at the national level and establish the National Certification Unit	
July 2010		Staff recruitment Capacity development of SAESSCAM and Mining Administration
3Q 2010		Implementation of pilot project Training and selection of accredited auditors
4Q 2010	Audit of all participating companies	GoDRC signs and publishes regulations Certification audit of mining companies and trading chains
Nov 2010	Capacity building of OGMR	
1Q 2011		Certification of pilot mines
Feb 2011	International workshop in Kigali, Rwanda	

	Issuance of CTC certificates to compliant companies.	
4Q 2011		Integration of scheme into ICGLR Final workshop and closing report
2010 – 2012		Ongoing negotiations with ICGLR, incorporation of mine sites / companies into CTC scheme, auditing of mine sites, training
2012		Integration of certification scheme into National Legislation

iTSCi

Mission
The iTSCi is a "phased and constructive approach towards improved due diligence, governance and tgraceability" (iTCSi 2010a). It comprises 3 phases. Phases 1 and 2 aims to assure the minerals' origin and help address the issue of conflict financing; phase 3 aims to improve the social and environmental performance of artisanal tin miners.

The iTSCi was produced primarily in response to the UN Panel of Experts report (UN 2009) which called for "consumers of Congolese mineral products … [to] conduct on their suppliers and not accept verbal assurances from buyers regarding the origin of their product", as well as in anticipation of the US Dodd-Frank Act, which has requirements of end-users beginning April 2011, and further to pressure from NGO advocacy groups.[43]

It works with the EICC/GeSI smelter verification programme, by covering the mine to smelter component of the supply chain and thereby will allow smelters to continue to source from the DRC in light of the US Dodd-Frank Act, as well as other legal challenges and negative advocacy.[44]

Focus
The iTSCi is a voluntary system targeted at artisanal mining, trading, and exporting organisations, as well as international traders, processors and smelters. It is not limited to ITRI members; any company sourcing from DRC and paying the smelter levy can use it. It is concerned with tin (phase 1), and tin and tantalum (phases 2 and 3). It is expected that it will be applied universally once producers realise that untagged consignments have less market value, though participation will be voluntary.

Pilots
The scheme is being piloted for tin and tantalum in 2010 at the Bisie mine in Walikale, North Kivu and Kalimbi/Nyabibwe in Kalehe, South Kivu.

Outlook
The ambition would be to extend the programme to mine sites elsewhere in North and South Kivu, and Maniema and Katanga after the pilot phase in late 2010. iTSCi is also envisaged to be expanded to other tin producers in the region, e.g. Rwanda, should these countries request it.

Initially voluntary, it is suggested that membership and compliance with iTSCi should eventually become a pre-condition for the legal export of any tin being made from DRC, i.e. that the system would become universal. This is because ITRI's vision is that the iTSCi scheme could eventually managed under the ICGLR umbrella, either by "a more general industry body covering all minerals / resources etc. set up specifically to run the scheme across the ICGLR region" or by the ICGLR itself "if it is able to run it reliably at the same cost or less." It could, however, remain a private industry scheme should the ICGLR process not move in a direction that suits industry's imperatives.[45]

If the pilot scheme and other activities seeking to break the conflict and minerals link prove to be a success, such as mapping and defining the conflict mineral sources, improving working conditions,

[43] USG 2010. Kay Nimmo, interview with author, 19th July 2010. See also ITRI 2009b.
[44] Kay Nimmo, email correspondence to author, 6th August 2010.
[45] Kay Nimmo, email correspondence to author, 6th August 2010.

and so on, Thaisarco and MSC will either re-engage or engage more fully respectively, and buy once more from DRC.[46]

The entire scheme is a test of a comprehensive due diligence system for artisanally-mined tin and may be adapted to other major artisanal tin production areas in the future where the big issue is not conflict but, say, environment, e.g. Indonesia. It is also a way to gather information about and engage with artisanal tin supply chains generally.

The system may be more widely applied to other minerals such as coltan, wolframite and gold, if they are produced in the relevant geographies, if additional funds are available, and if any necessary adaptations prove practical. Relevant parties, like the T.I.C. for tantalum, which is helping fund the present pilot, would need to drive these forward.

How the System Works

The iTSCi assures the origin the mineral and the social and environmental performance of a mine site and is being designed and implementing over three phases: aiding smelters to do due diligence of their supply chains; developing a traceability / tracking system for minerals; and assuring the social and environmental performance of mine sites. Before the final phase is operational, the system depends upon there existing a list of mine sites from which smelters cannot source, based on their being implicated in conflict financing.

Phase 1 is "establishing harmonised document requirements for export shipments including written declarations confirming the lack of involvement of armed groups in the upstream supply chain" (iTSCi 2010 a). This is an effort to aid smelters sourcing from Congolese comptoirs or regional traders to due diligence of their supply chains by introducing document-based systems to check that exports are legally done. In this phase the comptoir's licence, legitimacy and authorisation to export, and the provenance of the comptoir's minerals to the smelter are all assured.

Phase 2 is developing and implementing a system to physically track tin (and tantalum)[47] ores from the mine site in DRC to the exporter and develop chain of custody data to assure the minerals' origin. It depends on the participation of select government agencies. is See *the tracking / traceability mechanism* below.

Phase 3 involves "implementing basic performance standard measurement of social and environmental factors at the mine sites and to consider incentives and methods for improvements" (iTSCi 2010a). As a step towards compliance with the OECD Due Diligence Guidance, ITRI members already sign up to an ASM policy and declaration on sourcing from DRC and surrounding countries, but their compliance is not yet verified (ITRI 2010b). The social and environmental impacts of process and production methods at the mine will be assured. The intention is to co-develop the standard for these with the CTC, provided it is in line with the OECD Due Diligence Guidance and is practicable.[48] The addition of this 'business ethics' component to the traceability system developed in phases 1 and 2, to create a comprehensive due diligence system.

Element	Main Event	Assurance outcome	Line of Defence	Level of Assurance	Timing of Assurance
Phase 1					
11) Harmonised document requirements for export shipments	Comptoirs present documentation to assure their licence, legitimacy, authorisation to export, and the minerals' origin.	Smelter verifies consistency of documentation.	First	1st and 2nd party	Immediate
12) Third party audit of document-	Independent auditor verifies comptoirs' compliance with phase 1	Auditor verifies documentation.	Second	3rd party	Unclear.

[46] Kay Nimmo, email correspondence to author, 6th August 2010; interview, 19th July 2010.
[47] Phase 2 could be adapted for use with tungsten, but no companies have been interested in supporting this to date. Kay Nimmo, email correspondence to author, 6th August 2010.
[48] Kay Nimmo, email correspondence to author, 6th August 2010.

based system.	requirements.				
Phase 2					
13) Restricted issuing of tags by iTSCi only to eligible mines and traders.	iTSCi issues tags to mines and traders not considered to be contributing to conflict financing and human rights abuses.	iTSCi decides which mines to issue tags to, and how many tags to issue.	First	n/r	n/r
14) Mineral is tagged and tracked from mine site to comptoir.	Buyers purchase only tagged bags. Government agents weigh and tag bags of minerals, entering data in the relevant logbook. Documents issued in triplicate to operator, iTSCi and government.	Buyers self-monitor purchases to tagged bags only. Government agents verify consignment's characteristics against the information on the operator's document, and issues new documentation.	Second Third	2nd party	Immediate
15) Centralised database storing all data from along all supply chains.	Data is input by iTSCi, who verifies consistency with documentation provided.	iTSCi monitors data for anomalies. Observers (UN, ITRI, government) monitor data for anomalies.	Fourth	Monitoring	a few days to a few weeks after elements 3 and 4.
16) Third party monitoring of iTSCi system	Auditors check iTSCi monitoring system and identify key risks.	Risks and violations identified and highlighted to downstream users.	Fifth	Monitoring	Monthly
17) Third party audit of CoC system.	Auditors verify operators' declarations and documentation against information in database and based on field visits.	Traders and trading chains certified or de-certified. Audit findings published.	Sixth Seventh	3rd party	Every 6-12 months.
18) Third party audit of all upstream data.	GeSI/EICC smelter verification scheme audits smelters' upstream data	Smelters' systems audited	Eighth	3rd party	Unclear
Phase 3					
19) Social / environmental performance standards for the mine site level.	Standards and system remain to be developed, but may be based on CTC system.	n/r	First	n/r	Undecided
20) Third party audit of S&E performance standards	Audit system remains to be developed.	Mine sites certified or de-certified	Second	3rd party	Undecided

The Tracking / Tracing Mechanism

The mineral itself is tracked from mine to comptoir using individually identifiable tags, site-based documents linked to the tags, and declarations at the comptoir tier. The bags of minerals are weighed and tagged in the presence of a government official, who records purchaser's name, price paid, the weight of each bag and the label's serial number in the mine/trading/consolidation site's logbook. The logbook will be kept by the Ministry of Mines and collected by the iTSCi office, which will enter the information into a central database. This information gathering may be done electronically at sites where production is significant and the introduction of IT systems proves to be cost effective. The

comptoir issues a certificate of origin under guidance from government agents who are ordinarily present at comptoir offices.[49]

The Normative Document

The phase 1 normative document is found in ITRI 2009a, with instructions for smelters (and thus comptoirs and traders) in the Annexes. These encompass instructions for ensuring the appropriate documents are provided to the buyer for the four key aspects for phase 1, namely that the comptoir is licensed, legitimate, has authorisation to export and confirmation of payment of taxes, and that the provenance is appropriately declared. The iTSCi is presently developing the phase 2 field guides and other documents for both industry and government agents, which will comprise the normative document. This will encompass instructions on how the mineral is to be labelled and information recorded and collected to allow for mineral tracking.

Monitoring and Assessing Compliance

Monitors:	Phase 1: There is no monitoring envisaged, save for buyers to be able to check the documentation provided by exporters and ensure that it is in order. Phase 2: The iTSCi office will: cross-check data recorded in log-books along the supply chain against the used tags which will be submitted to the scheme office at the point of export; report on anomalies detected by analysis of information in the database. Monthly spot checks on taxation payments and tagging procedures will be conducted by the auditor.
Verifier: (auditor)	External audit of data and the tagging procedure at appropriate intervals by an independent auditor, paid for by iTSCi.
Certifier:	'Positive' certification of compliance is not an aim. The aim is that the tags will be universally applied and that any mineral consignments that do not have the tags, or whose tag-based information does not conform with the paper-based information derived from the log-books, would not be bought by participating negociants, comptoirs or smelters and so would be devalued by the market.
Accreditation agency:	It is not yet defined how the auditor will be accredited, though ITRI is keen to use established and respected auditing companies.
The Assurance Process:	Phase 1 requires documentary evidence of a comptoir's legal status, legitimacy, export authority and declaration of origin to provide the assurance necessary for a smelter to satisfactorily purchase and import mineral from the comptoir. The declaration and documents are presently be audited by SGS (for the time being), who are being paid by the smelter. Verification of the certificate of origin is made possible by the mineral tracking to be done in phase 2. The audit criteria remain to be developed. Phase one assurance is thus document-based, 1st party assurance, with 3rd party verification. Phase 2 compliance requires a certificate of origin with an audited trail back to the mine site. This is 2nd party assurance (by government and buyers) with 3rd party verification of the chain of custody and transport route of the mineral. The product will be traceable from smelter back to mine of origin. Verification of phases 1 and 2 compliance will be done by an independent auditor, who will be paid via ITRI from the project levies.[50] Separate investigations will also be initiated where the data management system detects anomalies. The auditor will do on the ground data gathering and a risk assessment, which will be sent to smelters and suppliers on a regular basis, together with recommended actions for managing these risks. The auditor will produce summaries which ITRI will make public. They will also audit that the tagging data is reliable and report on that to

[49] Kay Nimmo, email to author, 18th August 2010.
[50] Unfortunately, ITRI is struggling to find a reputable auditor who is willing to do this assurance owing to the extreme sensitivity of the DRC conflict minerals issue. Kay Nimmo, interview with author, 19th July 2010.

	smelters. The exact audit process is being developed presently, and done in consultation with the OECD working group, to ensure the iTSCi has matching requirements. It is not decided whether this auditor or the auditor involved in the EICC smelter verification programme will audit whether or not smelters have followed the risk mitigation actions. As phase 3 is not yet under development, compliance models are not yet developed.
Assessment Cycle:	Monthly field information checks are planned plus full audits every 6-12 months, depending on how the audit plan develops.
Compliance:	Buyers will choose to purchase from suppliers who are deemed to be compliant with iTSCi based on the 3rd party audits of their activities and supply chains.
Non-compliance:	Detailed rules for non-compliance are to be developed after the pilot phase. Lack of participation, falsification or other negative acts could result in a series of financial or trade limiting penalties, and could result in an operator ultimately being expelled from the system. For example, should supply chain log-books not tally with information of the used mine tags submitted, the iTSCi office can refuse to issue new tags to certain supply chain sites or operators where numbers do not tally or where fraudulent, unacceptable or other activities are found to have taken place.

Information Management

Ownership	The information produced will be owned by ITRI. Since government handles the site logbooks, they can use the information for their own purposes too.[51]
Collection	The mine logbook is to be completed and kept by the Ministry of Mines and collected by the iTSCi scheme office. Each log-book will have triplicate forms – one for the industry miner, trader, or comptoir, one for the government, and one for iTSCi. The comptoirs will produce a certificate of provenance whose reference number will allow buyers to trace the mineral back to its origin (based on the mineral tag numbers). The CEEC and Division des Mines will oversee this step and complete and keep copies of the recorded information; the iTSCi scheme office will collect this.
Inputting	The iTSCi office will enter the information from the mine and trading site logbooks and comptoir's certificate of provenance into the database.
Storage	All information will be kept in a central database, owned by ITRI. This on-line database has been designed by IBM based on their Maximo Asset Management Solution. The system requires reliable internet access at an iTSCi office.
Disclosure	• Reporting of aggregated data through compliance reports and independent audits, as required. • ITRI will search for anomalies to begin with. In time, automatic reports will be used to detect anomalies. • Operators will have access to the information either directly or through project staff (undecided), e.g. comptoirs will be able to search the negociant's tag number to see where the tin has come from. • The UN experts and governments will have access to all of the information too. • It is not yet decided on what data should be publicly available, and what should be confidential (i.e. for auditing purposes only). The tantalum industry is more worried about price info than the tin industry. However: o In-country information will be more likely to be available than

[51] Kay Nimmo, email to author, 6th August 2010.

international trade information.
- Total volumes of production at a site or company level will probably be published.
- Data which would enable a supply chain perspective on trading volumes or relations between supply chain operators would not be available except to smelters down the chain. Upstream trading chain information would always be available to those downstream, but not vice versa.

Key information points	• The tags. • The site log-books (showing for each consignment: serial number of tag, mineral weight in and out (if changed), mining organisation / negociant / comptoir, price, destination, date, as appropriate.) • Comptoir's certificate of provenance • Necessary documents for compliance with phase 1 by comptoirs. • Monthly monitoring of indicators derived from field information on illegal activities. • The North Kivu Comptoir Association is obtaining and collating supply chain payment data for local implementation of the EITI. This data will be available to and verified by the auditor.

Key Actors and Institutional Arrangements

In view of preliminary lessons from the pilot project, the institutional arrangements are presently being revised.[52] The original concept was that iTSCi would be run by a project director (PD), who would be assisted by a study director and mining, institutional, legal and financial experts. The PD would liaise with the relevant government services whose cooperation and data collection activities are vital. He would represent the project at planning and reporting meetings. He would be responsible for the detailed implementation of the project, with support from the expert staff. In the pilot, the PD is from BEGEM Congo (Bukavu), a Congolese NGO that has been contracted to run the project. The main project office in Bukavu will have a satellite office in Goma. Each office is to have one field officer, supported by a local chauffeur, radio operator, secretary, and other support staff.

The GoDRC and Ministry of Mines are to ensure necessary representatives from SAESSCAM, the Division des Mines, CEEC and OFIDA are available at the relevant locations as required.

Management input and project guidance is being provided by PACT, who is also doing some capacity building of local partners.

A modified version of this governance framework is likely to continue into the implementation phase, with the addition that an independent organisation with detailed on-the-ground experience of DRC will provide oversight to monitor the activities of the local consultancy, BEGEM, who may take on responsibility in the longer term.

Owners	ITRI[53] owns the system for phases 1 and 2, but the intention is that the scheme will eventually be 'owned' by the Government of DRC or the ICGLR. Funders of the phase 2 pilot are also considered to be co-owners, i.e comptoirs, mineral traders, electronic and tinplate companies, and the TIC. The owners for phase 3 are undecided.
Designers	An ITRI working group, comprising ITRI, 2 tin smelters (MSC and Thaisarco) who have traditionally sourced from DRC, the comptoirs' association, and the negociants' association, initially designed phase 1. It was approved by the Ministry of Mines in Kinshasa and then by end-users. The ITRI WG designed the specifics of phase 2, and EICC/GeSI, TIC and Corus approved it.
Managers	• ITRI remains ultimately responsible for all costs and management. • BEGEM manages the system's use in DRC, with oversight / support from

[52] Kay Nimmo, email correspondence to author, 6th August 2010.
[53] ITRI suggests that "as a body representing the entire tin industry, all tin operators may be considered as co-owners." Kay Nimmo, email to author, 18th August 2010.

PACT.
- The ITRI WG manages its development.
- The vision is to eventually have it managed by an industry organisation perhaps within the ICGLR framework, or the ICGLR itself.
- A *Comité de Pilotage*, which includes army and government agents, directs the scheme in each area whre it is applied.[54]

Guardians It is not clear who gets oversight of the system and how it is developed and used, as not all information is publicly available. Civil society organisations have been consulted and invited to provide input, and could choose to publicly make statements on the system if they wish. They will also be able to feed information into the audit, though how this will happen has to be decided.[55]

There is no explicit mechanism in place to protect the system from corruption and bias (e.g. a structured consultation process or public mechanisms for feedback / input, save for solicited input). However, the system is such that ITRI believes that it is in the interests of all industry participants to make sure the system is not corrupted or biased.[56] This may be the case at the institutional level, but not necessarily at the level of individuals upon whose activities the system depends.It is expected, however, that consistent anomalies associated with certain individuals will eventually become clear as the data is analysed.[57]

Auditors will provide feedback on the system in practice.

Beneficiaries
- The people of DRC by reducing incentives for the illegal trade in tin and tantalum ores and the ability of these minerals to finance conflict.
- Industry by enabling Congolese supply chain operators to continue to export, and by enabling external buyers to responsibly source from the region. This will especially help Rwandese processors.
- Consumers by providing a guarantee that the products they buy have not contributed to conflict financing in DRC.
- DRC government by inducing formal trade and thereby increasing tax revenues.

Operators Illegal supply chain operators and in turn belligerents, who will be less able to benefit financially from the tin sector in DRC.

Participants Selected organisations and individuals are consulted. Industry is the key decision-maker, along with government at the operational level.

Capacity-building
The government agencies tasked with gathering, recording, and disclosing information to the iTSCi and with ensuring supply chain operators are licensed will need capacity-building (training and resourcing). The supply chain operators will need training in how to participate in the scheme. BEGEM may need capacity-building in how to manage / implement the scheme.

A capacity needs assessment is being done as part of the phase 2 pilot. Other donor and CoC initiatives (e.g. PROMINES, CTC, ICGLR) will hopefully support government agencies. BEGEM has done capacity-building through meetings at mine sites, with government and comptoirs to explain the system. PACT will support BEGEM.

Consultation processes
Closed consultation through email correspondence and meetings: presentation of iTSCi scheme at relevant events and invited review and comments from over 400 individuals[58] from a wide range of organisations, namely international advocacy NGOs; local civil society organisations; donor and

[54] Kay Nimmo, email to author, 18th August 2010.
[55] Kay Nimmo, email to author, 18th August 2010.
[56] Kay Nimmo, email correspondence to author, 6th August 2010.
[57] Kay Nimmo, email to author, 18th August 2010.
[58] Kay Nimmo, email to author, 18th August 2010.

participant governments; UN Security Council and Group of Experts; and all parts of the tin production, trading and use sectors including miners and comptoirs in DRC, regional African and international traders, smelters, and key users such as the electronics and tinplate industries (ITRI 2009c).

A structured consultation process has not been envisaged owing to extreme time constraints and the urgency to have a functional system before the Dodd-Frank Act's requirements on disclosure come into effect in April 2011.[59] Consultation has been ad hoc, therefore, and ITRI has come under criticism for this.[60] ITRI has made efforts to get feedback from other stakeholders, however, most relevant documents are available on the ITRI website, and ITRI claims to be open to unsolicited feedback.

Financing

Development of the initiative has been funded by ITRI with additional contributions from specific, affected members.

Phase 1 implementation is financed by ITRI members and participants in iTSCi.

Phase 2 pilot project is financed through a smelter and comptoir levy of $50 per tonne of tin (-in-concentrate), voluntary donations from downstream users in the electronics and tinplate industry, and a contribution from the tantalum sector. In the longer term, this income is not predictable and a general reduction in demand for DRC minerals in the recent past means the level of anticipated funding has significantly reduced. Other funds need to be identified for implementing the project beyond the pilot phase.[61]

The TIC has approved a $1 per pound levy on Tantalum Pentoxide (Ta_2O_5), but no buyers for the certified Tantalum have yet come forward.[62]

Timeline

	Activity
2007 - 2009	Various internal reports considering environmental certification options for the tin industry, the business case for sustainable supply chain management in the tin industry, analysis of various schemes for tracing and certifying minerals, and improved due diligence and steps towards voluntary industry declarations or audited certification.
January 2008	makeITfair meeting with multiple stakeholders
June 2008	Visit to BGR to cover AFP.
Oct 2008	ITRI and ITRI member ASM policy developed and signed
November 2008	EICC meeting at BSR conference
Jan 2009	Action plan, "Towards a responsible cassiterite supply chain" developed
April 2009	ITRI meeting to consider next steps for DRC project
	ITRI meeting with TIC committee
	ITRI meeting with Belgium Minerals Task Force
May 2009	Meeting with DFID
June 2009	Circulation of the discussion paper presenting ITRI's concept for 3 phases to achieve due diligence in the tin supply chain to multiple stakeholders (governments, cross-governmental bodies, UN and UN Group of Experts, iNGOs, local NGOs and civil society representatives, international and national industry actors).
	Meeting with Global Witness
1st July 2009	Phase 1 (establishing harmonised document requirements for export shipments) operational
July 2009	Meeting with EUTF, including Global Witness, IPIS, UN Group of Experts, MONUC, OECD and various governments.
August 2009	Consultation in Kigali and Goma with processors (Kigali), Goma comptoirs/comptoir association, Negociants association, (Acting) Minister of Mines NK plus official services like SAESSCAM, UN GoE co-ordinator, British Embassy, NGO's (including e.g. ENOUGH, ASSODIP, Pole Inst), also some comptoirs and NGO's from Bukavu who were invited to Goma
September 2009	Meeting with Global Witness

[59] Kay Nimmo, interview with author, 19th July 2010.
[60] If ITRI published its consultation process to date, this might defer some of this criticism.
[61] Kay Nimmo, interview with author, 19th July 2010.
[62] Richard Burt, TIC, email to Kay Nimmo 18th August 2010.

October 2009	Second version of June discussion paper distributed.
	Consultation in Kinshasa with Minister of Mines, Ministry of Mines expert group (e.g. CTCPM, CEEC, SAESCAM, Kimberley process), Emile Bongeli, Vice PM, MONUC (and OSRSG, National embassies (British, Belgium, US, German), FEC, EU Task Force, CREDDHO, World Bank, BGR, Abbe Malumalu (STAREC)
	Consultations in Washington and New York with State Dept, Senate, ENOUGH, World Bank, PACT.
	Meeting with Japanese tin-users.
November 2009	EICC-GeSI tantalum supply chain meeting
	Consultation with tinplate assoc APEAL
	Meeting for tin users in Paris
	Meeting with OECD Due Diligence Working Group, including NGOs such as IPIS and Global Witness
	Meeting with Friends of the Earth Netherlands, along with SOMO and Dutch government officials.
January 2010	Phase 2 project outline refined based on feedback; costed for project sponsors.
	Consultation in London with DRC Ministry of Mines representative
February 2010	Sufficient basic funding secured for phase 2 pilot.
March 2010	Phase 2 pilot project set up and gradual implementation begins
April 2010	Consultations in Kigali, Bujumbura and Bukvau with Minister of Mines and various services Processors Kigali, ICGLR meeting Bujumbura, iTSCi project staff Bukavu; including general meetings with comptoirs, and various relevant organisations e.g. Amani Leo, and local Ministry staff etc.
	Meeting with OECD DD Guidance Working Group
	EICC-GeSI meeting on supply chains; Side meeting with NGOs and the US state department.
May 2010	International Tin Conference with 3 side events: • EICC-GeSI board meeting to discuss smelter audits. • Session on ASM and DRC • Meeting with BGR regarding co-operation
March - June 2010	Protocole d'Accord was signed between ITRI and the Ministry of Mines
May – July 2010	Meeting / Discussion with US GAO.
June 2010	EICC-GeSI meeting
	Meeting with Christian Aid
30th June 2010	Phase 1 1st year of operation complete.
July 2010	Webinar for solder companies with IPC-SPVC
	Meeting with UK Parliamentary Group on the Great Lakes
	Meeting with ITRI tin-plate group
August 2010	Independent audit of phase 1 underway.
September 2010	Decision point on concluding or continuing phase 2 pilot project
October 2010	Full project begins, with likelihood of concluding after 3-5 years.

OECD[63]

Mission

The OECD Due Diligence Guidance for Responsible Sourcing ('DD guidance') is one of two pillars - responsible mining and responsible sourcing - for encouraging risk management in minerals production and trade.

The guidance provides a risk management system for companies sourcing from conflict-affected and high-risk environments. It aims to ensure these companies (smelters and their suppliers) detect and manage the risks that their operational and purchasing practices may be financing and fuelling the conditions for conflict, and upholding systems which promote corruption, financial crime, fraudulent misrepresentation of country of origin and chain of custody tax evasion and violations of human rights, labour rights and international humanitarian laws

[63] Note that the content of this section is based on an interview with the OECD and the latest *draft* of the OECD DD Guidance, whose extensive amendments and improvements have yet to be approved by the Working Group.

Companies which apply the guidance will have a CSR reporting advantage and will be able to continue to source from the Great Lakes region in the face of the Dodd-Frank Act (USG 2010).

Focus
The DD guidance assures the producer organisation and its suppliers, and by extension the supply chain of the product that they are buying and selling. The product itself is not intended to be *trackable,* however, downstream companies will be able to trace minerals back up their supply chain and know which companies have handled the mineral and its country of origin.

The guidance is for use by companies (typically smelters and their suppliers), based in OECD countries which have signed up to the Declaration on Foreign Investment, and which have identified the following 'red flags' in their supply chains (2.1.A):

- The minerals used by the smelter originate from or have been transported via a conflict-affected or high-risk area
- The minerals used by the smelter are claimed to originate from a country that has limited or non-existent reserves of the mineral in question;
- The companies or traders that supply the smelter might have interests or relationships with third parties operating in a conflict-affected or high-risk area.

The guidance has an initial focus on tin, tantalum and tungsten ores mined on a small-scale from DRC and the Great Lakes Region.

Pilots
The intention is for the scheme to be piloted in 2011 by a handful of companies, probably smelters of various minerals, in order to test the guidance. The aim of the pilot will be to monitor implementation, note challenges and opportunities, and also solicit public feedback through a public platform.

Outlook
The aim is to have the diligence being implemented by the end of 2010, with it fully functional by the end of 2011.

After testing, the aim is to expand the scope

- Out of Great Lakes Region;
- Into tin, tantalum and tungsten ores mined on an industrial scale;
- Into artisanal gold from high risk areas, e.g. through a supplement to the main Guidance Document, which is in the design stage; and
- To include a supplement on transparency requirements and indicators, also in the design stage.

How the System Works
The OECD DD System will not *certify* compliance, but simply assure that companies are properly using a risk management tool to inform how to most constructively engage or disengage from specific supply chains should they discover that their operational and purchasing practices may be contributing to the conditions for conflict, bad governance fraudulent practices, and/or tax evasion, and/or harbouring violations of human rights, labour rights and international humanitarian laws.

The system will therefore provide a guarantee to end-users and consumers that a smelter is taking appropriate risk management measures to avoid known sources of minerals implicated in conflict, illegal activities, and human rights violations. The system does not refer to environmental protection.

The system does involve the use of databases, but these are not centralised and are to be maintained by individual smelter companies comprising information gathered from ongoing on-the-ground monitoring, occasional spot checks, and timetabled audits. The ongoing fact checking and monitoring will be done by a Joint On-the-ground Assessment Team (JAT), comprising civil society and consulting with relevant local and national authorities. Through this information smelters can be made aware of risks as they emerge and take action in a timely manner.

The smelter's due diligence practices, and those of its suppliers, will be verified through regular, independent 3rd party audits through analysis of the smelters' databases and field and site visits.

Transparency – to a certain extent - is ensured through requirements on the smelter to annually publish a report on supply chain due diligence and on all supply chain operators to proactively communicate and engage with authorities on their risk management systems. According to ITRI, agreement has not been reached on this point.[64]

Element	Main Event	Assurance outcome	Line of Defence	Level of Assurance	Timing of Assurance
6) Strengthen company management systems	Policies are set; management systems are strengthened.	As main event.	First	n.r.	Immediate
7) Identify and assess risks in the supply chain	Risks are identified by Joint Assessment Team and assessed by company.	Risks are identified and assessed.	Second	2nd party.	Ongoing.
8) Design and implement a strategy to respond to identified risks	Risk management systems are designed and implemented.	Risk management systems are designed and implemented.	Third	n.r.	Following reporting from JAT.
9) Ensure independent 3rd party audit of smelter's due diligence practices	Due diligence practices and operators' compliance with OECD guidance is verified.	Operators are certified or de-certified.	Fourth	3rd party	Unknown.
10) Publish an annual report on supply chain due diligence.	Risk assessment, systems, and audit results are reported.	Transparency.	Fifth	Monitoring.	Annual.

The Normative Document

The normative document sets out five steps for achieving satisfactory due diligence and risk management:

1. SET POLICIES: Strengthen company management systems
2. KNOW RISK: Identify and assess risks in the supply chain
3. STRATEGISE SYSTEMS: Design and implement a strategy to respond to identified risks
4. CHECK: Ensure independent 3rd party audit of smelter's due diligence practices
5. REPORT: Publish an annual report on supply chain due diligence

The document has slightly different requirements for companies upstream and downstream from the smelter tier. For example, all upstream companies are to introduce a credible CoC and traceability system, based on the iTSCi system (1.C.4.1) and all downstream companies are to introduce a credible CoC and traceability system based on specified data (1.C.5.1).

Monitoring and Assessing Compliance

Monitors: 2nd party monitoring – buyers monitor their suppliers' compliance through the Joint On-the-ground Assessment Team (JAT), comprising civil society and local experts, in consultation with government. The JAT is supported by community monitoring networks.

All companies downstream of the smelter also have the right to conduct unannounced spot-checks on suppliers and to have access to their documentation (1.D.3).

Civil society monitors the company's performance through reviewing its published

[64] Kay Nimmo, email to author, 18th August 2010.

	reports.
Verifier: (auditor)	3rd party (independent) audit of suppliers' due diligence systems against the OECD guidance document. The scope and criteria will be set by industry.
Certifier:	No 'certificate' to be issued to a smelter, as such.
Accreditation agency:	The mineral supply chain audit institution will accredit the auditor, or check accreditation in line with Chapter 7 of ISO 19011.
Assessment Cycle:	Monitoring is ongoing. Fact and risk assessments are to be done after a risk mitigation strategy has been implemented and/or should there by any change of circumstances in the company supply chain. (3.D) The audit cycle has not been decided.
Compliance:	The Auditor will make recommendations on an operator's level of compliance with the standard; buyers and downstream companies will decide whether the risks associated with a supplier are mitigable or not and what the risk management response should be. Criteria for compliance have not yet been decided. Grievance procedures for appealing compliance decision have not been developed.
Non-compliance:	If operators in a smelter's supply chain are found to be non-compliant, the smelter will manage risk by (i) continuing trade through the course of measurable risk mitigation efforts; (ii) temporarily suspending trade while pursuing ongoing measurable risk mitigation; or (iii) disengaging with a supplier in cases where mitigation proves not feasible or unacceptable (3.B). If, however, the risks are judged to be non-mitigable, then the smelter is expected to disengage. Non-mitigable risks include: (i) direct or indirect support to any armed groups, (ii) any abuses of international human rights and humanitarian law made by public security; (iii) any forms of torture, cruel, inhuman or degrading treatment; (iv.) any forms of forced or compulsory labour … (v.) the worst forms of child labour; (vi.) any offering, promising or giving of any bribes to public officials, military, private actors or their intermediaries.(summarised from 3.B.1.a)

Information Management

Ownership	All information generated would be owned by the supply chain operators.[65]
Collection	• Downstream companies are to introduce a credible supply chain transparency system that generates documentation of data (1.C.5.1) • Upstream companies are to establish a Joint on-the-ground Assessment Team (JAT) to generate and maintain relevant information (2.1.B). This team should include local civil society organisations (presumably amongst other experts). • Upstream companies should establish community monitoring networks which will feed information into the JAT, which will then feed relevant information through the entire supply chain, preferably through a computerized database with web accessibility (2.1.B.1.d). • All upstream companies have obligations to allow access to information to the JAT and to Auditors.
Inputting	Undecided.

[65] It is not yet decided exactly how ownership will work, e.g. if all operators in a supply chain will own all information, or if ownership will be accorded to the level to which the information pertains, but accompanied with a right to use that information granted to all other supply chain operators.

Storage	Smelters to maintain information generated by the (upstream-facing) CoC and traceability system for at least 5 years, preferably on a computerised database (1.C.3.2) Downstream companies (post smelters) to maintain the information on a computerised database for 5 years (1.C.5.2)
Disclosure	• All operators have to disclose the CoC and traceability information to downstream purchasers. • All operators have to disclose all information to auditors. • Audit report may be publicly disclosed (not confirmed yet). In theory then, the RCM's IMCA could access audit evidence; database could access audit report. • Companies are required to proactively communicate their risk management plan to local and central government. • The computerised database will be accessible to downstream companies. • Horizontal disclosure to governments and civil society remains contentious and undecided. Have tried to build in a lot of requirements for reporting to government and affected stakeholders. Working on this with Revenue Watch. • All disaggregate information but supplier relationships could be disclosed to ICGLR database in theory. Supplier relationships could be disclosed to the ICGLR's IMCA. ICGLR should propose this at September meeting.
Key information points	• Chain of custody and other mineral information (see 2.1.B.2 and Annex II).; • Information generated by Joint Assessment Teams; • Smelter's risk assessment • Smelter's strategies for risk management • Downstream companies risk assessment • Information generated by joint spot checks conducted by downstream companies with smelters, • Audit reports (from auditors), • Grievances and responses to grievances (from Mineral Supply Chain Audit Mechanism). • Operators' Annual Reports, outlining company management systems, company fact and risk assessments, risk management strategies, audit results.

Key Actors and Institutional Arrangements

The system is not at all directed at governments, save through requiring companies to reach out to governments, and for auditors and assessment teams to consult with governments. Otherwise, the institutional arrangements of the scheme in the implementation phase have not been devised.

The OECD is considering institutionalising an international mechanism (the Mineral Supply Chain Audit Mechanism) to support supply chain DD, to accredit and oversee auditors, to receive grievances and potentially to assess compliance, to build the capability of suppliers to conduct DD, to receive grievances. The FLA is conducting this assessment, based on the model they use (4.B.2).

Owners	OECD Investment Committee, comprising 31 OECD countries and 11 further countries, approves the project and will sign off on the guidance document: Situated within same committee within the investment committee of OECD to further contextualise the guidelines and risk awareness tool for companies operating in areas of conflict or fragility. However, the WG (see Designers) is understood to be co-owner of the project.
Designers	An OECD-hosted multi-stakeholder working group drives the process and validates the guidance developed by OECD staff in the Directorate for Finance and Enterprise Affairs. Members include DRC and Rwandese governments, OECD member governments, international development organisations, local civil society, mining and mineral trading companies (including some alleged to have purchased

	from conflict sources, and end-users (electronics and tinplate)
Managers	The OECD staff develop drafts for review by the Working Group and incorporates all comments and directions so far as possible (i.e. not contradictory).
Guardians	WG in its initial development. Guardians during its management / application / use are undecided.
Beneficiaries	Operators by reducing their risk exposure People of affected mineral economies by effectively increasing the value of minerals produced and traded by operators who comply with the guidance and decreasing the value of those that aren't in compliance.
Operators	The purchasing decisions of supply chain operators in the first instance (as a tool) The social, commercial and environmental behaviour and thus performance of their suppliers in the second (as an end). The socially-damaging, violent and conflict-oriented behaviour of militant groups in the third (as an end, and the top priority)
Participants	No-one outside of the WG

Capacity-building
Capacity-building needs are as follows:

- Supply chain operators, so that they can comply.
- Artisanal miners, so that they can be aware of the guidance and its whistle-blowing mechanisms in particular.
- Operators will help build the capacity of suppliers to comply (1.D.4 and 5).
- The Mineral Supply Chain Audit Mechanism will develop and implement modules for building the capabilities of suppliers to conduct due diligence and mitigate risk.

It is not yet decided who will perform the capacity building.

Consultation processes
Consultation has been a closed process so far through a.) WG meetings where members review, discuss and approve framework components and b.) a web-hosted platform for Working Group members to submit comments on the drafts and the overall development process. The platform is not attracting as much input as originally hoped. Anyone who wishes to participate in the WG is allowed to but efforts to publicise this fact are not apparent. The consultation process and credibility of the scheme would be improved by doing this.

The first open consultation is planned for Nairobi in September 2010. Efforts to publicise this not apparent. Consultation will be open during the implementation phase in 2011.

Financing
The standard's development has been funded by OECD, which will also fund the implementation phase. Capacity building support will be funded by?. The accreditation of auditors to be financed by donor seed money for the first 5 years, and then by industry thereafter. The audits will be financed by smelters and downstream companies.

Timeline

Date	Activity
Nov 2009	Working group established
Dec 2009	1st meeting of working group in X to achieve Y. Decided on the 2 pillars (gap analysis of existing standards and tools for responsible (industrial-scale?) mining; development of draft DD guidance for responsible sourcing)
February 2010	Began project – attempt to understand actual supply chain from miner to smelter and principal risks; development of initial framework
April 2010	Closed consultation with WG in Paris to review draft framework
Summer 2010	Finalising guidance document, developing risk mitigation requirements and indicators for companies to use
September	Open consultation for approval of final draft of guidance by WG in Nairobi

2010	
October 2010	Approval by Investment Committee
Nov 2010 – October 2011	Implementation phase: handful of companies use guidance, independents monitor implementation, OECD notes challenges, opportunities, glitches, public feedback solicited (e.g. through public platform like what the IFC has used for feedback on its performance standards)

Supportive Initiatives

A number of other initiatives have been important in driving the process forward and increasing the viability of chain-of-custody systems in the region.

ITF

The International Task Force (the ITF) was established in February 2009 and is housed at the Office of the EU Special Representative (EUSR) in Brussels. It is an informal working group and is not a decision making body; its purpose is to coordinate and harmonise activities between international and national initiatives, which are tackling the issue of illegal exploitation and trade of natural resources in the Great Lakes Region. It does this by agreeing on joint action lines, identifying where there is an absence of cooperation or gaps, and following up on progress in addressing these. It liaises closely with the *Groupe Thématiques Mines*[66] in Kinshasa. It also seeks to discuss the issues presented by the UN Group of Experts and present recommendations to the UN Security Council.

The ITF has the following organisations as members:

- UN (MONUSCO, UN Group of Experts)
- OECD
- World Bank
- Executive Secretariat of the ICGLR
- EU institutions
- EU member states (Belgium, France, Germany, Netherlands, Spain, Sweden, UK)
- Norway
- US government
- Government of Canada

The ITF held its 5th meeting in Kinshasa on January 5th, 2010, and its 6th meeting in Brussels on 15th July. The 7th meeting will be in October before the special summit of the ICGLR. At its latest meeting, the Government of DRC, ICGLR and Governments of South Africa, Japan, Malaysia and Russia also attended; China, India, Thailand and UAE were invited. Though the ITF is concerned with the Great Lakes Region, it has only engaged directly with the Government of DRC so far (since January 2010), which is a priority for addressing the conflict issue. Its engagement with other states in the region is presently done through the ICGLR.

The ITF has nine agreed action lines:

1. **Reinforcing the dialogue** between the Government of DRC and international partners, mainly through the "groupe thématiques Mines" in Kinshasa
2. Charting, regular updating and publication of a **map of informal mining sites** located in the East of the DRC, including identifying those which are under the control of relevant State enforcement agencies and those which are under the control of armed groups or non authorized State agents
3. **Implementing and enhancing the existing Congolese legal framework** through the adoption of legislation in line with the model legislation developed by the ICGLR for all of its eleven member countries
4. **Increasing capacities** for the deployment of services, training, assistance with acquiring appropriate equipment, gathering statistics and establishing secure zones which are defined in advance
5. **Combating impunity**, in particular by putting an end to the involvement of military authorities in mining and trading operations

[66] The GTM is a working group which coordinates efforts amongst the Government of DRC and international partners which are attempting to address the illegal exploitation of and trade in natural resources in eastern DRC. It is co-chaired by the Government of DRC and the World Bank.

6. Developing, endorsing and ensuring **implementation by the private sector of due diligence** guidance
7. Implementing pilot **traceability and certification schemes** in the East of the DRC
8. Increase **regional cooperation**
9. **Implementation of EITI** mechanisms in the DRC

The ITF's utility primarily lies in its political influence, including its ability to mobilise and direct funds from donors, to influence and encourage states in the Great Lakes Regino, and to educate other governments (e.g. in the Middle East and Asia) on the activities of the Task Force, its member states, the ICGLR, and the various Chain-of-Custody initiatives in the Great Lakes Region[67]. The ITF representative interviewed suggested that the Task Force could lend this political support to ensure advancement of the RCM.

STAREC

The *Programme de Stabilisation et Reconstruction des Zones Sortant des Conflits Armés* was ordained by the President of DRC on June 29th, 2009 (GoDRC 2009). It is applicable in the provinces of the Kivus, Maniema, Orientale and Katanga. Its aim is to bring stability to the east of the country, by improving the security situation, restoring the authority of the state in zones otherwise controlled by armed groups, facilitating the resettlement of displaced peoples, and accelerating the revival of economic activities. It also has a component which seeks to combat sexual violence (STAREC 2010).

STAREC has institutionalised a Natural Resources Technical Committee (NRTC), which is charged with operationalising the STAREC activities concerned with the deployment and reinforcement of state authorities in charge of controlling natural resources. The NRTC is under the responsibility of the Ministry of Mines in collaboration with the Ministry for the Environment. This committee comprises relevant national authorities, technical partners and interested donors. The purpose of the committee is to ensure that activities proposed under STAREC are linked to national strategic options (GoDRC n.d.). It is not clear how / if this NRTC is engaging with the CoC intiatives.

Besides generally creating a more suitable environment for the legal exploitation and trade of natural resources, STAREC has specific actions designed to tackle the links between minerals and conflict. Specifically, under restoring the authority of the state, it has an action to aid the Tracking and Traceability of Natural Resources (STAREC 2010). This includes (STAREC 2010, ITF 2010):

- The construction of 5 trading centres (*centres de négoce*) in South Kivu (Baraka and Mugogo) and North Kivu (Mubi-Bisei, Rubaya and Itebero).
- The training and deployment of civil servants from the Ministry of Mines and mining police at the trading centres.
- The rehabilitation of access roads between the trading centres and the mine sites and of administrative buildings
- Ensuring the security of the trading centres and a 25km perimeter.

The construction of the *centres de négoce* is financed by the Peace Building Fund, the Governments of Canada and the UK, the EC's *Programme d'Appui à la Gouvernance* (PAG) and the International Organisation for Migration (OIM), and implemented by MONUSCO (ITF 2010). Logistical challenges and issues regarding the attribution of property titles are delaying the construction works (ITF 2010). Once the *centres de négoce* are functional, they will be used to aid the traceability systems being piloted by BGR's CTC and ITRI's iTSCi. STAREC's capacity building intentions should be reviewed to see if coordination is desirable with any of the CoC initiatives.

[67] The ITF meets with embassies in Brussels to this end.

Existing and Planned Links between the Systems (excluding the RINR's RCM)

	iTSCi	OECD	STAREC
CTC	Out of all the initiatives, the CTC system is the most similar to the ITSCi. Consequently, BGR is working with ITRI at its Kalimbi/Nyabibwe mine to investigate the feasibility of integrating the two initiatives to enable improved management of the chain of custody (through the iTSCi) and deliverance on transparency, traceability, social and environmental performance (through the CTC). The iTSCi intends to co-develop performance standards on business ethics for phase 3 in DRC with CTC, depending on it being in line with the OECD standards and that it is practicable. This will build on the experience of the pilot project in Kalehe in 2010 and on the standards CTC already applies in Rwanda but has adapted to DRC. However, this is proceeding very slowly such that the CTC is likely to take too long to come into effect, given the US-legislation's timeframe for disclosure by end-users that iTSCi must work to.	The OECD DD Guidance requires companies to refer to "a common set of standards on mineral extraction, trading and handling against which the company will assess itself and the activities and relationships of suppliers." A supply chain policy has been drafted by the OECD (see Annex 1). The OECD set of standards could draw on those developed by the CTC, supplement these with any others it may deem relevant or leave certain ones which are not in keeping with its objectives.	Once the *Centres de Négoce* planned for South Kivu are built, the CTC minerals will be traded through these, in theory.
ITSCi		OECD due diligence guidance is something which ITRI members will seek to aim for, the OECD guidance will not be ready in the timeframe that iTSCi is working to. ITRI is willing to do a 'practicality' check of the OECD DD guidance jointly. The OECD DD Guidance requires all upstream companies are to introduce a credible CoC and traceability system, based on the iTSCi system (1.C.4.1). In keeping with the OECD requirement for companies to have a common set of standards on mineral trading, ITRI members already sign up to an ASM policy and declaration on sourcing from DRC, but their compliance will not be verified until the EICC smelter audits occur.	The Centre de Negoce at Isanga is destined to be the trading site for the minerals coming from Bisie. However, the centre de negoce remains under construction and there are concerns that it is not in the right place.
OECD			No explicit cooperation is envisaged.

5. Harmonising and Integrating the RCM with the CoC Initiatives

Comparative Analysis of Mineral Certification Initiatives

KEY ELEMENTS	RINR	CTC		iTSCi	OECD
		DRC	RWANDA		
Mission & Objectives	Stop conflict finance Stop illegal exploitation Increase tax revenues Improve collaboration between states	Stop conflict finance Stop illegal exploitation Increase transparency & traceability in, and ethical performance & development potential of mineral sector Improve governance Increase tax revenues		Stop conflict finance Enable responsible mining and responsible sourcing from GLR Increase traceability. Increase legal tax revenues. Introduce risk management.	Stop conflict finance Improve risk management in industry Enable responsible mining and responsible sourcing from GLR
Focus • Subject of Assurance	Origin CoC S&E (eventually)	Origin CoC S&E (eventually)		Origin CoC S&E (eventually)	Origin CoC Social only (eventually)
• Object for Assurance (product vs. organisation)	Organisations Product (mineral consignments)	Organisations Trading Chain (but not product itself)		Organisations Product (mineral consignments)	Organisations Trading Chain (but not product itself)
• Geography	GLR	Rwanda, DRC initially		DRC initially	GLR
• Applies to:	ASM, SSM & LSM mineral producers, traders, exporters	ASM mine sites, producers and traders		ASM producers and traders International traders, processors, smelters	International traders, processors, smelters in OECD countries ASM mine sites, producers and traders
• Minerals	Ta, Sn, W, Au	Ta, Sn, W, Au	Ta, Sn, W	Sn, Ta, (W)	Ta, Sn, W, Au
Voluntary or Mandatory	Mandatory	Mandatory, ultimately	Voluntary	Voluntary	Voluntary
Particular or Universal	Universal	Universal	Particular	Universal (in effect)	Universal (in effect)
Integration INTO national law	Yes	Yes – 2012	No	Possibly	No
Time frame for full operationality	End 2011	End 2011	End 2010	End 2010	End 2011
CoC methodology	Document-based	Document-based Mineral tagging		Document-based Mineral-tagging	Document-based.
	Track (documents) Trace (database)	Track (documents, tags) Trace (documents)		Track (documents, tags) Trace (database)	Trace (documents)
Normative document	Not developed	In development	Developed	In development	In development
Certification?	Consignment certified (2nd party assurance)	Mine site is certified Transport is verified Organisation is certified Mineral Export is certified		Consignment is certified Organisation is certified	No certification, just assurance of risk management systems.
Levels of Assurance	1st, 2nd, 3rd	Unclear-1°, 3°	1st, 3rd	1st, 2nd, 3rd	1st, 2nd, 3rd
The Compliance Assessment • Monitor	ICGLR Civil society Industry	Government agencies (SAESSCAM, *Administration des mines*) Civil society	Operator Government agencies (OGMR)	Buyers Joint Team United Nations Government	Buyers monitor suppliers JAT Community monitoring teams
• Verifier (auditor)	Independent 3rd party auditor Independent Mineral Chain	BGR & government initially	Independent 3rd party auditor	Independent 3rd party auditor (SGS for phase 1; phase 2 TBD)	Independent 3rd party auditor

KEY ELEMENTS	RINR	CTC		iTSCi	OECD
		DRC	RWANDA		
	Auditor	Independent 3rd party auditor (mines site certification) eventually			
• Certifier	National governments (regional certificate)	National governments		No certificate granted. Non-compliance decided by ITRI.	No certificate granted. Non-compliance decided by smelter.
• Accreditation agency	Independent Audit Committee	National governments		Undecided	Mineral Supply Chain Audit Institution
• Audit Cycle	Ongoing monitoring. Full audits every 3-6 months.	Unclear ongoing government monitoring Full audits probably every 2 years	Ongoing government monitoring. Full audits every 2 years.	Monthly field information checks Full audits every 6-12 months.	Ongoing field information checks. Full audit cycle unclear.
• Audit Process					Audit of due diligence systems.
Funding – development	Donor governments (Germany, Switzerland, Canada)	Donor government (Germany)		ITRI members (phase 1)	OECD
Funding – implementation	ICGLR member states	Donor government (Germany)		ITRI members & iTSCi participants through levy (phase 2), as well as TIC and end-users	Unclear
Funding – audit	Industry via tri-partite Audit Committee	Unclear	Companies being audited, via government agency	National industry via iTSCi.	Industry
Governance					
• Owners	Government (ICGLR)	Government		ITRI and eventually Government of DRC	OECD investment committee
• Designers	Government, with consultants	Government working group. Approval by industry.		Industry working group. Approval by government.	OECD-hosted multistakeholder working group
• Managers	Government	Government		Industry	OECD staff.
• Guardians	Government Civil Society (limited)	Donor government Civil society	Donor government	Local communities	Working group (development phase), otherwise unclear.
• Beneficiaries	Industry (regional, international) Governments Nations	Miners, companies, traders, exporters Smelters Government Nations	Mining companies, traders, exporters Smelters Government Nations	Mining companies, traders, exporters Smelters & end-users Consumers Government Nations	Supply chain operators. Nations.
• Operators (who is it targeted at?)	Illegal and informal supply chain operators, through comptoirs	Informal miners, mining companies, traders, and exporters	Formal mining companies, traders and exporters	Illegal and informal supply chain operators	Supply chain operators (smelters and their suppliers).
• Participants	Unclear	Multiple stakeholders consulted. Governments as decision-makers.		Multiple stakeholders consulted. Industry as decision-makers.	Multiple stakeholders as decision-makers.
Information Management					
• Ownership	National governments ICGLR	Undecided	Undecided	ITRI National Governments	Companies
• Collection	Industry (reports) National governments	Auditor (audit) Government	Auditor (audit) Government (monitoring)	Industry (all operators) Government	JAT All companies

KEY ELEMENTS	RINR	CTC		iTSCi	OECD
		DRC	RWANDA		
	(gather)			iTSCi	
• Inputting	National governments ICGLR (supervises)	Database not planned	Database not planned	iTSCi	JAT Companies
• Storage site	Centralised (ICGLR)	Decentralised	Decentralised	Centralised (iTSCi)	Decentralised (smelters & downstream companies)
• Public disclosure	Full	Partial: "to parties with a justified interest"; all reports to be published for civil society review.		Partial (government control of data means some data could be made publicly accessible, but some data points will be confidential)	Partial (in annual reports only)

Possible links with the 4 Elements of the RCM

System Element	CTC	iTSCi	OECD
1. Chain of custody tracking from mine site to export	The CTC system provides a documentary chain of custody tracking system from site to export. The preliminary DRC *Manuel de Certification* developed by the Ministry of Mines and BGR states that once the ICGLR certificate comes into effect, the national-level CTC certificate will become redundant and those who hold the CTC certificate will have 12 months to conform with and be evaluated under the regional scheme.[68] The ICGLR CoC tracking principle could build directly from the system the CTC has developed for mineral tracking. However, industry has expressed concerns with a mechanism that relies on documentary proof.	The RCM is based on documents only. Harmonisation of their ICGLR export certificate with the phase 1 documentary requirements of the iTSCi is possible. A document-based system is not enough to satisfy smelters, according to ITRI, as systems that rely wholly on documents (and audits of these) pose concerns related to fraud and confidentiality that can undermine the credibility of the system as a whole. ITRI would like to see the ICGLR incorporate the phase 2 mineral traceability element to allow for a double check, e.g. through the physical labels *and* the documents or the regular on-the-ground fact checking that the OECD proposes.	ICGLR export certificate requires specific information. This information can be the same as that required under Step 1: "Establish a System of controls and transparency over the mineral supply chain", requirement 1 of C1, C2 and C3 on disclosure requirements.
2. Regional Tracking of Mineral Flows via ICGLR Database	The information points identified above could be fed into the ICGLR database. Assessment of these information points in terms of which should bet treated confidentially and which should be	Could the ITSCi database be integrated with the information management systems of the RCM, so long as confidentiality of certain types of information is respected?	Guidance includes requirements for disclosing some information to government and affected stakeholders.

[68] BGR and MDM (2010b), p. 7.

	publicly available would be necessary. The CTC data will not be centralised and its information management systems are unclear.	Could the RCM use the data management software and system that has been developed for ITRI? Could the data be housed at the World Bureau of Metal Statistics? ITRI suggests that ICGLR investigates having the WBMS assist them in figuring out an appropriate data management system. Will the iTSCi provide the right information points for mineral-flow tracking under the ICGLR document-based system?	In theory, all information save supplier relationships can be disclosed to ICGLR database. This could be done through a formal reporting mechanism, which would derive data from the key information points.
3. Regular Independent third-party audits	Audit of CTC mines and trading chains will be done by a government-accredited independent auditor. The scope and criteria for the audit will be established by the governments too. The CTC audits will be paid for by BGR in the short term, and industry in the long run (through the intermediary NCU). If the CTC scheme is to be incorporated into the ICGLR system, the audit procedure will need to be adjusted to fit in with the ICGLR system. The CTC has been developed and managed by government agencies, which will also issue the certificate of compliance. Involving other stakeholders in the development of the audit criteria and scope, and the compliance decision, would increase the credibility of the audit. The ICGLR system requires a tripartite audit committee to determine the criteria and scope of audits. This committee also selects the auditors. This model is preferable to that suggested by CTC from a credibility perspective, but may be more expensive. It is suggested that a SWOT and cost-benefit analysis of both systems be conducted.	If the ICGLR audit committee is to be paid for by industry, then the committee needs to be as small as possible to make it affordable and quick-moving. If the ICGLR can find other funding, can ensure that participants are there to achieve the aims of the committee and not push personal or political agendas, then a big committee is fine as ITRI recognises that this could be better from an integrity perspective. Could the ICGLR audit committee give independent judgement as to which are the good mines and which are the bad mines so that the ITRI scheme can be guided in from where its negociants and comptoirs can and cannot source? In theory, the ICGLR audit committee could take responsibility for initiating and directing the iTSCi audits but the issue of timing is crucial. By when will the audit committee be established? Harmonisation of efforts amongst ITRI, ICGLR and OECD on criteria for defining audit criteria and scope, for selecting auditors, for assessment cycle etc. is necessary.	Step 4 of guidance is entirely dedicated to ensuring "independent third-party audit of smelter's due diligence practices." The smelter's due diligence practices are to be audited. The smelter's suppliers (reprocessing units, exporters) will be sampled; a meeting with the JAT will be held. (In the ICGLR system, there are 3 types of audit: 1.) exporter, 2.) reprocessing centre audit, 3.) full chain smelter audit.) The OECD envisages an International Mechanism for 3rd party audits, based on the FLA model, which is to oversee the implementation of mineral supply chain audits by accrediting auditors, overseeing the execution of audits, sharing audit reports; and developing and implementing modules for building the capabilities of suppliers to conduct due diligence and mitigate risk; and receive and respond to grievances. In theory, this could be the same institution as the ICGLR's proposed Audit Committee.. The principles to ensure the audit's independence, credibility and effective could be applied to both types of audit. See 4.A.3.
4. Independent Mineral Chain Auditor	The AFP technology could be a handy tool for use by investigations instigated by the IMCA where doubts over origin of a consignment are	ITRI would not want one person acting as IMCA but a panel of experts, comprising the DRC government, 1 industry, 1 local NGO, 1 EU	Could seek agreement from OECD WG that *all* information can be disclosed to ICGLR IMCA, including audit evidence and supplier relationships,

	raised.	government (or the US government) and MONUC (ideally though they don't want an official auditing role). ITRI would like this body to set the criteria for compliance / non-compliance and advise on the "difficult socio-economy buy-don't buy decisions"[69].	which are NOT available to ICGLR database.

[69] Kay Nimmo, email correspondence, 6th August 2010.

Other Opportunities for Harmonisation

Social and Environmental Standards

It is envisaged that the RCM will begin with standards to assure chain-of-custody, but within a 2-5 year time frame should incorporate environmental and social requirements.

The ICGLR document could draw from the CTC and OECD standards and experience, and should be developed in consultation with institutions which have developed credible standards for responsible artisanal production (e.g. the ARM-FLO Fairtrade Standard, the Development Diamond Initiative) as well as institutions with experience developing such regulations for governments (e.g. UNECA, the World Bank's CASM Secretariat).

The development of such regulations should be tied in with national-level initiatives to improve legislation, where possible e.g. the PROMINES project in DRC.

Key Challenges to Harmonisation: Other Initiatives

This table sets out the main challenges to the credibility, sustainability and effectiveness of the initiatives, and modifications to address these.

Issue	Compatibility issue or Aspect affecting Credibility, Effectiveness, and/or Sustainability	Necessary Action or Modification to aid Harmonisation
CTC DRC		
Scope	The RCM should be applied to all scales of mining in the region, i.e. including industrial-scale mines, to allow for accurate accounting of mineral flows into and out of the region through the database. The *Manuel de Certification* of the CTC specifies that its contents do not apply to industrial mining (GoDRC and BGR, 2010; p. 10) but BGR states that this is no longer the case.	Clarify whether or not the Government of DRC intends for the the *Manuel de Certification* to be applicable to industrial-scale producers. If the Manual is to form the basis for developing DRC's national certification mechanism as part of the RCM, then either its scope will need to be expanded to include industrial mines for the purposes of full data collection or a provision to allow for feeding data of production and exports from industrial mines into the ICGLR database will be necessary. It seems that BGR has already thought this through, but confirmation of the Government's intentions is required.
Eligible mine sites	There are over 200 eligible mine sites in E. DRC that could become part of a CTC process.[70] Certifying these will be logistically difficult, expensive and time-consuming. The pilot sites can only happen in areas which are designated artisanal mining zones. In order for other sites to be eligible for CTC certification, the government will need to designate these sites as AMZ's. This process could be delayed owing to the existence of semi-formal artisanal mining activities (e.g. of gold in Ituri under OKIMO) in areas which have been allocated to industrial mines for exploration or mining. However, it is anticipated that PROMINES will address the issue of co-habitation between LSM and ASM on LSM concessions as a strategy for LSM to manage their social impacts and mitigate the negative impacts of economic resettlement (i.e. eviction of ASM from LSM exploration and mining concessions).	None suggested. Determine criteria and procedures for how mine sites will be judged as eligible for CTC certification, e.g. existence of overlap between ASM activities and a.) corporate concessions, b.) protected areas, c.) military interests. Publish these criteria.
Transport Routes	It is not clear how the CTC will assure that the transport of minerals from mine site to trader is safeguarded from illegal tax collection.[71]	Clarify with CTC how this will happen.
AFP system	The AFP system is costly and logistically challenging as the system can only be successfully done at present in Germany.[72] Standardized sampling is not	Investigate how the use of the AFP system as an optional checking instrument for the IMCA could be funded under the RCM.

[70] Dirk Kuster, Interview with author, 23rd July 2010.
[71] Kay Nimmo, Email to author, 18th August 2010.

	foreseen, but adequate funds will need to be found to allow for its use when spot-checks or extraordinary investigations are necessary. Further, industry has concerns that the technology remains to be proven.	Ascertain industry concerns and seek clarification from BGR on what exactly the technology can and cannot achieve in terms of geographical accuracy, for example.
ITSCi		
Competence of Government Agencies	iTSCi relies on the competence of government agencies to record and disclose information to iTSCi office accurately and in a timely fashion.	Adequate capacity building and oversight is necessary. The government agents' ability to fulfil their responsibilities under the system has to be monitored.
Capacity Building	Relies on other initiatives to build the capacity of these necessary government agencies to be able to fulfil their roles in the scheme.	Capacity building efforts of the various initiatives should be harmonised.
Costs and Funding	Logistics and travelling costs are an impediment, e.g. to capacity-building in certain places, to shipping goods to BEGEM. Funding is not secured for the implementation phase. Getting funding will prove difficult; end-users are of the opinion that Congolese industry and government should pay for the scheme. At the same time, if these costs are then passed down the supply chain such that the tin is not commercially competitive (i.e. there is no competitive advantage to using it) then buyers are unlikely to appear owing to the commercial risks that remain with sourcing from the region.	STAREC could prioritise improving road access to mines which are to participate in the iTSCi. The iTSCi implementation could be funded under the RCM if the ICGLR deems its traceability and information management systems suitable for integration under the RCM. Funding urgently needs to be fully costed and options investigated, including whether particular funding strategies will encourage or discourage engagement with the region's mineral sector by international buyers.
Potential for error	System of information gathering and transfer is initially paper-based, and the internet-based system relies on good access to the internet in Bukvau.	Include this issue in the information management harmonisation SWOT analysis.
Finding auditors	Difficulty in finding auditors willing to operate in DRC – see it as too much of a security and reputational risk.	Consider harmonising auditing activities of the iTSCi under the RCM to increase the credibility of the scheme. Help iTSCi find possible auditors. (Could this be a role for the ITF or other international donors?)
NGO buy-in	NGO buy-in has been difficult to achieve	It is inevitable that civil society will have concerns about an initiative that is industry-led, and where civil society is not actively involved in the management of the scheme, including decision-making as to how it should work. The Responsible Jewellery Council has faced the same criticism from civil society,

[72] In principal it could be done in properly equipped labs anywhere else, so long as lab staff had been trained and the lab had been accredited. Parts of the analytical work could be outsourced, e.g., the production of polished concentrate sections from raw concentrate samples, which are required for subsequent analysis, as this is not very cost-demanding and does not require sophisticated technology. Philip Schutte, email to author, 5th August 2010.

		for example (CAFOD 2009). To gain civil society support at the international level, iTSCi should publish its consultation process and make clear how it is prioritising international and global civil society and government *consultation* on its scheme, as well as publishing a statement on civil society's actual and envisaged *participation* in the decision-making, implementation, and oversight of iTSCi.
Timeliness	Getting things done in a timely manner is difficult as the scheme relies on government agencies, on the one hand, but is working to the calendar set by industry on the other. ITRI doesn't have the ability to influence or move this along more quickly. Sustainability of the scheme will be impacted if the pace slows down as this affects funding; momentum must be maintained.	ITRI would benefit from support from other initiatives in helping its government partners move more quickly to help the entire initiative advance at a faster rate, and ensure its momentum and ultimately efficacy.
Scaling up and industry interest outside tin	Getting buyers for the traceable tantalum is proving extremely difficult – a smelter and manufacturer are poised to use it, but no initial trader has yet been found.[73] There is not yet apparent support from the tungsten industry either. Getting buyers who will use enough volume of traceable tin is also proving difficult. This is because that it is not clear if end-users really do want to source from DRC given the commercial risks such sourcing poses not just to a brand's reputation, but in terms of personal liabilities for company executives under the Dodd-Frank legislation.	Civil society and donor governments could lobby tantalum, tin and tungsten smelters based in their own countries to participate in the scheme. This could be a role for the EUSR under the ITF's action lines to develop, endorse and ensurre implementation by the private sector of due diligence guidance; and implement pilot traceability and certification schemes in the East of the DRC.
OECD		
Managing audits	In the OECD system, the audit scope and criteria are to be set by industry in an MoU between industry organisations representing the entire mineral supply chain (4.A). This may not be practical given the current time-frame for getting a system up and running. Furhter, in the RCM, the audit scope and criteria will be set by a tripartite committee. Harmonising the process for setting audit scope and criteria would make sense, given the ICGLR's focus on auditing industry performance / practices.	SWOT analysis of different audit systems, including deciding if the determination of scope should be led by industry only (is that sufficient from a credibility perspective?) or multi-stakeholder.
Focus	RCM will certify mineral shipments (element 1) and all participants in the mineral chain through a separate process (element 3). The OECD is not certifying anything, but is oriented at assuring the compliance of companies with its DD guidance, not the product itself.	This difference is not a real impediment to harmonisation. The RCM would effectively officiate the document-based due diligence step of the OECD's guidance at the comptoir level, and simply aid in making this step more robust.
Applicability	The OECD DD Guidance is for use by mineral buyers in OECD countries which have signed up to the Declaration on Foreign Investment. However, most smelters are not in these countries.	Determine how / if the OECD DD Guidance could be used as a universal document amongst all relevant smelters to encourage appropriate DD of their supply chains.
Practicability	Industry has concerns as to the practicality of the guidance given the short time-frame in which to get supply chain assurance up and running.	No doubt these will be discussed at length at the next meeting of the WG.

[73] Richard Burt, Email to Kay Nimmo, 18th August 2010.

6. Key Issues with the Proposed RCM and possible solutions

This table sets out the main challenges to the credibility, sustainability and effectiveness of the RCM, based on the author's documentary analysis of the proposed system and other initiatives, and interviews with key informants.

Principle	Challenge / Gap	Recommendation
1. Transparency	Different stakeholder groups call for different levels of transparency.	Identify the information points from each of the initiatives that can feed into the RCM database and consult with stakeholders on which of these should be fully publicly available with the aim of maximum transparency, and which are justifiably sensitive enough to be treated either confidentially or with conditional disclosure based on specified criteria.
2. Burden of proof rests with industry first, and government second	Whereas the burden of proof falls on industry, the RCM's national CoC systems will be implemented by government agencies with industry being required to participate. There is dual responsibility here for ensuring success: industry must submit certain types of documentary proof to government, and government is required to check that these are consistent before issuing the regional export certificate. How will document fraud by producers up the supply chain be prevented? The system suggests mechanisms for holding industry to account, but nothing to hold government agencies to account should they not fulfil their responsibilities properly. This may affect industry and civil society's trust in the system. In order to ensure credibility, government agents and agencies must be able to be held accountable for fulfilling their responsibilities within the system.	Introduce system monitoring and evaluation as a fifth element, i.e. the ICGLR would commission an independent auditor to do 3rd party verification of the national government's fulfilment of its roles and responsibilities under the system. Issues to check: • Procedures are being followed properly • Accurate and appropriate issuance of regional certificates • Accurate and appropriate data inputting • etc. Where national agencies are not fulfilling responsibilities adequately, the auditor could produce a set of recommendations for capacity-building and/or remedying the issue in consultation with the principal national agency responsible for implementing the scheme. The regional certificate should contain information as to the certifying agency and official responsible (including proper name, corresponding numeric ID, and signature), to allow for personal accountability in fraudulent cases. Where fraud is discovered by the ICGLR audit, the national agency will be expected to validate the findings and discipline the agent responsible.
3. Mandatory third-party audits	See below.	See below.
4. Adapt current systems as much as possible	Building on current systems is entirely logical.	Current national CoC systems should be considered and compared with a view to judging differences and similarities in their objectives and technical arrangements, and assessing feasibility of the RCM building on and adapting

		these into one regionally-applicable system.
5. Design for adaptability	Designing for adaptability is entirely logical. The emphasis here is on the eventual need to develop regionally applicable social and environmental standards.	It is important that this consideration not distract from the development of a robust CoC system, whilst it should not be neglected altogether, especially as end-users are calling for attention to the ethical conditions of production. The ICGLR could establish a tripartite committee, comprising suitable expertise and stakeholder interests, to develop a guidance document on social and environmental standards for responsible and formal artisanal and small-scale mining in member states. Member states could adapt this guidance to the national context, to fit in with existing laws and regulations on relevant issues (e.g. worker's rights, environmental protection etc.). The social and environmental regulations should emphasise the possible, not the ideal, perhaps incorporating progress requirements to lock operators into a system of continual professionalisation, formalisation and improvement. In line with the fourth principle of the ICGLR RCM (Blore and Smillie 2010), they should be based upon and seek to improve the current systems operating *on the ground* (rather than imagined or promoted in existing legislation) as much as possible.
System Element	**Challenge / Gap**	**Recommendation**
1. Chain of Custody Tracking	Industry concern as to the credibility of a document-based system owing to risk of document fraud by industry participants OR indiscriminate issuance of certificates by government officials at export level (i.e. ignoring inconsistencies in data in prior documentation)	Use iTSCi system of standardised documents issued in triplicate at each point of trade or transformation to allow for documentary verification. 3rd party verification of the accurate and appropriate issuance of regional certificates by government is desirable. Consider using a tagging system to further allay industry fears.
	The first draft of the certificate may not contain all information that all stakeholders deem that it should.	Analysis as to which information points should be shown on the certificate is necessary, through consultation with industry and the various initiatives.
	If the minerals are exported with the ICGLR regional certificate only, then trust in the issuing agency's integrity and competence is paramount.	Capacity-building and audits of issuing agencies necessary. ICGLR regional certificate could be accompanied with photocopies of all supporting documents to allow for 2nd party verification by smelter and make the issuance of inaccurate or fraudulent certificates harder. The feasibility of this would have to be assessed.
	iTSCi tracking system is more rigorous, but issue with the cost and feasibility of having officials present at every tier of the supply chain to	Is it really necessary (and possible?) to have government officials present at each tier of the chain? Is it sufficient to issue standard documentation and have

	issue standard documentation and verify their proper use and completion on site.	its the responsibility of each buyer to ensure it's correctly filled in as, if not, the ICGLR will not issue the certificate? Or would this simply create an opportunity for extortion?
2. Database	Confidentiality wishes of industry on certain information	1) Negotiations with industry as to which information points should be treated confidentially. 2) For confidentiality to be ensured, the database cannot be housed at the national level, but must be managed either by a specialist ICGLR unit or by an independent organisation on behalf of the ICGLR.
	Industry concern as to the viability of a document-based system reliant upon government as implementer and overseer.	Support a third party to gather and input data into the ICGLR database, as per the iTSCi system.
	There may be a significant lag in time between when a mineral is traded and exported and when the data is entered in the database and able to be scrutinised.	The ICGLR should consider how this time lag can be minimised.
	Based on the PAC proposal, the key information points in the database will be predominantly related to accounting for the mineral trading flows (volume, weight, grade, date, name of seller, name of buyer, etc.)	The database should be as comprehensive as possible to allow for detailed analysis by investigators and auditors. Additional useful data may include: • typical transit time between sites of transformation / trade • typical grade of ore from specific sites • eligibility of mine sites for certification (based on mapping of conflict-associated sites)
3. Regular independent third party audits	Tripartite audit committee proposed by PAC is the most credible audit system proposed from amongst the initiatives. However, an audit committee comprising 9 institutions may be too costly for industry alone to support.	Composition, activities, and costs of tripartite audit committee should be elaborated to allow for an assessment of its financial feasibility in the short- to long-term. Potential solution 1: Since the German government has funds available to the CTC programme to do audits thereunder, could the CTC audit model be adapted to correspond with that required by the ICGLR system. However, CTC audits are to be conducted by government agencies, which is at odds with what the ICGLR will require. Suggest CTC and ICGLR discuss a resolution. Potential solution 2: To reduce costs, could the tripartite committee comprise 2 representatives of each stakeholder group (civil society, industry, government) with the IMCA acting as chair and having the casting vote?
	The suggestion is that industry will pay for the audit by paying into an escrow account, which the Audit Committee can then use to commission auditors. Industry has expressed a concern that the costs of the audits may be	Pricing this levy should be carefully done and in close consultation with the minerals industry. Lessons from the iTSCi experience will have to be carefully considered. Each mineral may require a different pricing mechanism. For example, it may be

	unsustainable if they are to be covered by industry alone (ITRI). Industry has also expressed a desire that the majority of the costs are covered by local industry rather than end-users, as it is primarily local industry that will benefit (GeSI). This is because in spite of the existence of the certification system, end-users do not strictly need to source from the region, and there remain liabilities for doing so under the Dodd-Frank Act, unless the region's assurance system is water tight. Thus, there must be a strong commercial incentive to do so. The proposed levy for supporting the audit is $30 per tonne for tin. This was based on tin and audit prices as of April 2010. The ITRI system current exacts a levy of $50 per tonne, but this is presently for financing the CoC system itself, not the audit..	better to use a proportional levy rather than an absolute one to protect industry should the mineral price fall. A floor could be set to ensure the price does not ever get so low that funds are inadequate. A plan should be put in place for how to use money should funds be excessive. Options include carrying remaining funds over to the next year and temporarily reducing the levy; or diverting the funds to resourcing and doing capacity-building for relevant institutions in the system (government participants, civil society watchdogs).
	The audit committee decides the rules for compliance, sets the scope of the audit, and makes the decisions on compliance (and thus whether or not an operator can be certified as compliant). The RCM system proposed by PAC would have the auditor's decision on compliance automatically translate into certification or de-certification.	ISO Guide 65 that a certification authority cannot delegate the certification decision and, secondly, that the decision on certification should not be taken by the person or persons who carried out the inspection. The purpose is to make "clear where responsibility for issuing the certificate lies" and to "protect the inspector in the field from undue pressure in relation to the certification decision" ((ISEAL 2007c; p. 30). On this basis, the certification decision should not be automatic, but should be made by the Audit Committee based on the auditor's recommendations. Criteria for this decision must be clearly set, however, to prevent political or institutional interests influencing the certification decision and allow for consistency.
	The audit committee may make decisions that undermine the system in the eyes of end-users or other stakeholders. For example, suggestion by Blore and Smillie that "in the initial phases of the system … the committee may want to develop a rule that a comptoir can have up to 10% of its material from untrackable sources." This may prove to be unviable given the Dodd-Frank Act's absolute position on (100% verifiably) conflict-free minerals.	On the general issue, the Audit Committee members must represent not just their interest group within that sphere (e.g. tin only, smelters only, exporters only) but be in consultation with and seek to consider the interests of all sectoral parties. On the specific example, this rule could be made with a time-frame that is compatible with that embodied in the Frank-Dodd bill on the implementation of the Law's requirements. Further, the ICGLR could advocate to the US government on the impracticality of expecting 100% verifiability.
	There is a risk of audit fatigue, particularly at the upper levels of the supply chain, owing to the frequency of audits (every 3 months) and the different types of audits.	A smelter audit should be conducted building from a comptoir audit and a reprocessing audit, and not repeating these elements except where deemed necessary. Audit rules should include the minimum and maximum interval permissible between audits of a site or operator. So an operator can be audited no more

		frequently than every 3 months, but must be audited at least once within a 9 month period, say. This means that the audit of a specific supply chain should be able to use the audit results for a particular operator where s/he has been audited as part of a separate audit within the 9 month period, unless as part of an extraordinary investigation initiated by the IMCA. Incorporating the OECD suggestion of a joint on-the-ground assessment team as monitors would reduce the need for audits more than once a year. This team / institution could be do fact checking and monitoring to raise the alarm if discrepancies or concerns. They could report to the IMCA.
4. IMCA	Constitution of the IMCA: Industry would like to see this be a committee, rather than an individual.	Once the exact roles and responsibilities fo the IMCA are established, consider the optimal constitution of the position.
	The role of the IMCA is limited to "analysing the data streaming into the ICGLR, and looking for anomalies and problems, and then initiating further investigation as required" (Smille and Blore, 2010, p. 52.)	The IMCA could hold greater responsibilities than those given under the PAC proposal, e.g. oversight of how the system is designed and implemented generally, as well as over specific trading chains and operators.
General	**Challenge / Gap**	**Recommendation**
Dual-key assurance	Comptoirs and exporters cannot export a consignment without proving CoC and being awarded the ICGLR Regional Certificate. But comptoirs will not find buyers if they are not a 'certified exporter'. This is a chicken and egg thing. Which should come first?	Consider whether or not a comptoir be certified before s/he has demonstrated his/her ability to fulfil the CoC requirements.
Rules for certification of an operator	As indicated by Blore and Smillie (2010), the Audit Committee will have to set rules on what is and is not permissible.	These rules could include: • the proportion of minerals a comptoir can have as untrackable in the short-term • the proportion of taxes an armed group can exact illegally on a given unit of mineral before a site or trading route is deemed un-certifiable • which mine sites are not permissible sources • how non-compliance should be penalised
Mine Site Eligibility	The ICGLR RCM system does not specify who will make decisions on which mine sites are not eligible for inclusion because they breach the condition that "Producing areas must be free of military activity (including prolonged presence of government forces)."	ICGLR should decide which institution (Secretariat? Audit Committee? IMCA?) will decide on mine site eligibility, based on what information source, and according to what cycle of review. The ITF may assist with this decision.
Compliance - timing	There will be a time lag between a mineral being traded up a supply chain to a smelter and the data being checked by the ICGLR and then reviewed through the audit. In cases where a chain or operator is deemed to be non-compliant, then that specific consignment would be non-compliant. For end-users in the USA, this is an issue as they could find that minerals they have	The ICGLR will have to negotiate with industry and the US Government as to how the US legislation is likely to be applied in cases where a company believed a consignment of mineral or operator to be compliant, and which is later discovered to be non-compliant. It could be agreed, for example, that a company is deemed not liable where it has adequately followed the OECD DD guidance, including checking for the appropriate documentation (including ICGLR certificate) when sourcing. The end-user could be deemed to be liable if, upon

	purchased, which was accompanied by an ICGLR certificate and on which basis they made a declaration of conflict-free to the US government, is later proven to be non-compliant, making them liable as having possibly imported conflict-minerals into the USA.	learning of the violation, they do not address it within a fixed period of time.
Monitoring	Monitoring will primarily be done by the ICGLR through database analysis. Further monitoring would be desirable.	If regional certificate is issued with back-up documentation copied, then buyers would also act as monitors as they would have the option of verifying that what is on the certificate matches the background documentation. Civil society could act as monitors, operating on the ground, but only if appropriate capacity-building and support were available. A civil society run institution could be formed to act as watchdog on the national level to monitor how the system is implemented by national government agencies and industry. They could feed this information back to the audit committee, who would publish it and/or make it available to the auditors.
Guardians	While the system incorporates safeguards for revealing inconsistencies and bias in how it is implemented, there are no such safeguards for ensuring that its development and management from corruption and bias. Industry is legitimately concerned about the capacity of government to implement the system. This function could be performed by civil society, but its capacity to do this is limited without proper support.	The IMCA could be ultimately responsible for monitoring how the system is implemented at the regional level. Building from the OECD's joint on-the-ground assessment team, the IMCA could utilise the services of a civil society run institution whose job it is to monitor how the ICGLR manages the system. The institution could be commissioned by the IMCA to conduct investigations, where appropriate. Investment in building their capacity to fact check on the ground and use the database would allow for deeper scrutiny.
Ownership and Decision-making	According to ITRI, the UN and OECD "do not allow industry to give [the] responsibility for making decisions on risks to anyone else – it has to be their decision. Therefore they [industry] want to make sure they base it [decisions] on their own data from a system they are happy with." [74]	Ensure the Audit Committee is tri-partite, with smelters and / or end-users represented and have the Audit Committee make the decisions on certification based on the information provided by the auditor and IMCA.
End-users	Industry has critiqued the ICGLR for not giving enough consideration to end users.[75]	End users should be more fully involved in developing the RCM.

[74] Kay Nimmo, email to author, 8th August 2010.
[75] Kay Nimmo, email to author, 8th August 2010.

7. Conclusion: an RCM, harmonised with the other Initiatives

This analysis has shown that no part of the PAC proposal seems to be unnecessary and that it forms an excellent basis for developing a credible, effective, and sustainable RCM. Many details need to be considered, as set out in the tables above. This final section presents recommended actions for harmonising the RCM with the other CoC initiatives reviewed herein and for ironing out potential creases identified by this analysis.

Recommended Actions for Harmonisation and Creating a Credible, Effective, and Sustainable RCM

Chain of custody tracking from mine site to export

1. Regional Certificate:
    a. Harmonise information on the ICGLR regional certificate with the information required under step 1 of the OECD guidelines and phase 1 of the iTSCi.
    b. Analyse which information points should be shown on the certificate, through consultation with industry and the various initiatives.
    c. Build the capacity-building and audits of issuing agencies into the RCM.
2. Consider building a document-based tracking system from either the CTC or iTSCi phase 1 document-based tracking system. For example, use the iTSCi system of standardised documents issued in triplicate at each point of trade or transformation to allow for documentary verification.
3. Investigate how to mitigate industry concerns relating to potential for fraud and breach of confidentiality posed by reliance on a document-based system, e.g.
    a. Consider accompanying the ICGLR regional certificate with photocopies of all supporting documents to allow for 2nd party verification by smelter and make the issuance of inaccurate or fraudulent certificates harder.
    b. Review the experience of the iTSCi pilots to assess whether the iTSCi tag-based tracking system could complement the document-based one as a form of verification or double-checking. Consider whether it is really necessary and cost-effective to have government officials present at each tier of the chain or if it is sufficient to issue standard documentation and have it the buyer's responsibility to ensure this is correctly filled in as, if not, the ICGLR will not issue the certificate? Or would this simply create an opportunity for extortion?
    c. Asess the OECD's fact-checking system based on community monitoring and a joint on-the-ground assessment team (or institution?)
    d. 3rd party verification of the accurate and appropriate issuance of regional certificates by government may be desirable.

Regional Tracking of Mineral Flows via ICGLR Database

4. CTC should develop a vision for information management to determine what information it will gather, how this will be managed, and how it could feed into the ICGLR database. This should include information from the AFP technology.
5. Assess an appropriate data management system, e.g.
    a. Enquire as to how the World Bureau of Metal Statistics could assist in developing this.
    b. Investigate whether the RCM could use the same data management software and system that has been developed for ITRI.
6. Conduct an information assessment of all the initiatives to:
    a. Consider the optimal arrangements for data ownership, collection, inputting, storage, and disclosure.
        i. e.g. for confidentiality to be ensured, the database cannot be housed at the national level, but must be managed either by a specialist ICGLR unit or by an independent organisation on behalf of the ICGLR.
        ii. Consider having a third party gather and input data into the ICGLR database, as per the iTSCi system.

iii. Consider how the time lag bewteen the issuance of the Regional Certificate and the inputting of the data pertaining to that certificate can be made as short as possible.

b. Identify the information ponits from each of the initiatives that can feed into the RCM database
c. Identify which of these should be fully publicly available with the aim of maximum transparency, and which are justifiably sensitive enough to be treated either confidentially or with conditional disclosure based on specified criteria.
d. Consider how data can be collected, input, and reported in ways that is useful for the ICGLR information management system, e.g. standardisation.
e. Consider what obligations the ICGLR should have for reporting and feeding data back to the other initiatives.

7. The database should be as comprehensive as possible to allow for detailed analysis by investigators and auditors. Additional useful data may include:
    - typical transit time between sites of transformation / trade
    - typical grade of ore from specific sites
    - eligibility of mine sites for certification (based on mapping of conflict-associated sites)

Regular Independent third-party audits

8. Consider harmonising the assessment systems across all initiatives. These systems include fact checking, monitoring systems, and the independent third party audits. This would require conducting a SWOT and cost-benefit analysis of the different institutional frameworks and processes for setting the audit procedures, on the basis of credibility, affordability, efficiency, effectiveness, independence, etc. Key considerations would include:
    a. Monitoring and fact-checking: who will do these and how? What is the most efficacious, developmental, and reliable system?
    b. How the audit criteria and scope will be determined and who by (e.g. OECD says industry only; RCM says tri-partite committee), how auditors will be selected, who accredits the auditor and on what criteria, how audits are paid for, audit methodology, what the monitoring and audit cycle should be, etc.
    c. The CTC audit procedure would need to be adjusted to fit in with the RCM, by involving other stakeholders besides government in the development of the audit criteria and scope and the compliance decision, in line with the tri-partite audit committee under the RINR system.
    d. Investigate the feasibility of the RCM tri-partite Audit Committee taking over the iTSCi auditing mechanism (i.e. taking responsibility for iTSCi audits) with particular consideration to timing.
    e. The OECD envisages an international mechanism for 3rd party audits, based on the FLA model. This model should be compared to that proposed under the RCM.
9. Composition, activities, and costs of tripartite audit committee should be elaborated to allow for an assessment of its financial feasibility in the short- to long-term.
    a. Potential solution 1: Since the German government has funds available to do audits under the CTC programme, could the CTC audit model be adapted to correspond with that required by the ICGLR system?
    b. Potential solution 2: To reduce costs, could the tripartite committee comprise 2 representatives of each stakeholder group (civil society, industry, government) with the IMCA acting as chair and having the casting vote?
10. Do a proper costing of the proposed structure for financing audits, i.e. a levy exacted on industry.
    a. Pricing the levy should be carefully done and in close consultation with the minerals industry. Lessons from the iTSCi experience will have to be carefully considered.
    b. Each mineral may require a different pricing mechanism. For example, it may be better to use a proportional levy rather than an absolute one to protect industry should the mineral price fall. A floor could be set to ensure the price does not ever get so low that funds are inadequate.
    c. A plan should be put in place for how to use money should funds be excessive. Options include carrying remaining funds over to the next year and temporarily reducing the levy; or diverting the funds to resourcing and doing capacity-building for relevant institutions in the system (government participants, civil society watchdogs).
11. The criteria for certification and de-certification:

a. Need to be clearly set to ensure consistency and prevent political or institutional interests influencing the certification decision. At the same time, the certification decision should not be automatic based on the auditor's recommendations only, but should be made by the Audit Committee based on the certification criteria.
b. Should be developed in consultation with end-users, smelters, and national industry members, as well as other key stakeholder groups (ICGLR member states, donors, international and local civil society).
c. Could include:
    - the proportion of minerals a comptoir can have as untrackable in the short-term
    - the proportion of taxes an armed group can exact illegally on a given unit of mineral before a site or trading route is deemed un-certifiable
    - mine site eligibility (which mine sites are not permissible sources)
    - how non-compliance should be penalized
    - etc.
d. The ICGLR needs to decide exactly which institution will set the criteria for certification and de-certification and how frequently these will be reviewed. For example:

12. The Audit Committee members must represent not just their organisation or interest group (e.g. in the industry portion tin only, smelters only, exporters only) but be in consultation with and seek to consider the interests of all interests within that sphere, and especially those not directly represented. Terms for membership in the Audit Committee need to be established.
13. To prevent audit fatigue:
    a. A smelter audit should be conducted building from a comptoir audit and a reprocessing audit, and not repeating these elements except where deemed necessary.
    b. Audit rules should include the minimum and maximum interval permissible between audits of a site or operator. So an operator can be audited no more frequently than every 3 months, but must be audited at least once within a 9 month period, say. This means that the audit of a specific supply chain should be able to use the audit results for a particular operator where s/he has been audited as part of a separate audit within the 9 month period, unless as part of an extraordinary investigation initiated by the IMCA.
    c. Incorporating the OECD suggestion of a joint on-the-ground assessment team as monitors would reduce the need for audits more than once a year. This team / institution could be do fact checking and monitoring to raise the alarm if discrepancies or concerns. They could report to the IMCA.
14. Consult ISEAL (2007c) guide on Verification for advice on how to establish credible and effective verification systems.

Independent Mineral Chain Auditor

15. Consider the exact roles and responsibilities of the IMCA, with a view to deciding who is best placed to perform this role. Justify if the IMCA should be a panel or an individual. Justify how total independence and credibiltiy can be ensured.
16. Consider expanding the role of the IMCA beyond surveying the data streaming into the IGLR and intiating further investigations. For example, the IMCA could be responsible for monitoring and evaluating how the system is designed and implemented generally.
17. Include the CTC's AFP technology, iTSCi database, and OECD's JAT and community monitoring team in the catalogue of tools and resources at the IMCA's disposal.

Other

18. Add a Fifth Element: Instigate a monitoring and evaluation mechanism for the system itself.
    a. There are 3 levels at which the system itself should be monitored and evaluated[76]:
        i. Monitoring the system's **credibility:** Do all relevant stakeholders deem it to be legitimate and credible?
        ii. Monitoring the system's **implementation:** Is it being used properly by government and industry?
        iii. Monitoring and evaluating the system's **effectiveness**: Does it achieve what it sets out to do?

[76] In this case the system itself is being monitored / evaluated. This is in contrast to the 2 levels of monitoring required by the system of what is being assured, namely monitoring operators' compliance and monitoring mineral chains' compliance.

b. This monitoring and evaluation should be done by the right institutions at appropriate intervals of the system's development and use. This should be built into the design of the RINR.
    i. It may make sense, for example, for PAC to monitor the system's further development, implementation and use given its role in designing it.
    ii. Alternatively, the IMCA could be ultimately responsible for monitoring how the system is implemented at the regional level.
    iii. Building from the OECD's suggested joint on-the-ground assessment team, a civil society run institution could be formed to monitor how the system is implemented by the ICGLR, national government agencies and industry. They could feed this information back to the audit committee (or IMCA), who would publish it and/or make it available to the auditors and IMCA (or audit committee). The institution could also be commissioned by the IMCA to conduct investigations, where appropriate. Investment in building their capacity to fact check on the ground and use the database would allow for deeper scrutiny.

19. Social and Environmental Standards:

a. Establish a tripartite committee, comprising suitable expertise and stakeholder interests, to develop a guidance document on social and environmental standards for responsible and formal ASM in member states. Member states could adapt this guidance to the national context, to fit in with existing laws and regulations on relevant issues (e.g. worker's rights, environmental protection etc.), as the CTC has done.
b. The Social and Environmental Standards should draw from the CTC and OECD standards and experience, and should be developed in consultation with other institutions which have developed credible standards for responsible artisanal production (e.g. the ARM-FLO Fairtrade Standard, the Development Diamond Initiative) as well as institutions with experience developing such regulations for governments (e.g. UNECA, the World Bank's CASM Secretariat).
c. The development of such regulations should be tied in with national-level initiatives to improve legislation, where possible e.g. the PROMINES project in DRC.

20. Capacity Building

a. Once the governance frameworks are more developed, do a capacity building needs assessment of all actors.

21. Engage Industry:

a. Negotiate with industry and the US Government as to how the US legislation is likely to be applied in cases where a company believed a consignment of mineral or operator to be compliant, and which is later discovered to be non-compliant. It could be agreed, for example, that a company is deemed not liable where it has adequately followed the OECD DD guidance, including checking for the appropriate documentation (including ICGLR certificate) when sourcing. The end-user could be deemed to be liable if, upon learning of the violation, they do not address it within a fixed period of time.
b. Consult with end-users, smelters, traders and miners to fully understand their needs from the RCM. Then consider and present to them how the ICGLR's RCM will satisfy these needs. A case has to be made.

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