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Flagged and tagged by ITSCI: the potential and risks of non-state supply chain regulation

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Highlights

- We study whether and under which conditions non-state actors can hold private actors along mineral supply chains to account in case they breach regulations;
- We provide detailed insight in the functioning of a due diligence programme on the ground;
- We research the ITSCI programme in Rwanda, based on 51 semi-structured interviews and observations in Rwanda;
- We found several challenges regarding monitoring, accessibility of information, and the risk of minerals from non-ITSCI sites entering the ITSCI system;
- We conclude non-state actors can hold private actors to account on four conditions.

Context & objectives

In response to growing international concerns over mineral extraction and trade contributing to human rights violations and conflict financing, recent US (Dodd-Frank) and EU legislations have focused on transparency and due diligence in mineral supply chains. Simply put, companies must provide information on their supply chains and demonstrate that they identify and act upon risks. As such, "companies are increasingly held morally, politically and legally accountable for their activities, or those of their suppliers, abroad" (see Partzsch and Vlaskamp, 2016, p.978). Our broader research project, of which this paper is part, focuses on accountability in non-state supply chain regulation, namely: how can private actors be held to account? This paper reports on a case study of the most widely used traceability and due diligence programme for 3T minerals (tin, tungsten and tantalum), the International Tin Supply Chain Initiative (ITSCI) Programme for Responsible Mineral Supply Chains. It studies the concrete implementation of the programme in Rwanda, and addresses the key question whether and how this non-state actor (in this case a non-profit organization implementing a due diligence programme) can hold private actors (in this case upstream supply chain actors that are members of the programme) to account.

Method

The primary data was collected during a three months-stay in Rwanda by the first author. This allowed her to study the implementation of the ITSCI programme on the ground. She purposively selected **75 informants, covering all relevant groups of stakeholders.** These include but are not limited to, upstream private actors such as miners, cooperatives, and exporters, (inter)national government representatives, (inter)national civil society representatives, international donor representatives, journalists, researchers and consultants. These informants participated in **51 semi-structured interviews, of which 37 were held in several locations in Rwanda** and 14 were done via Skype. The first author collaborated with local researchers for translation. Follow-up interviews were scheduled with several of the respondents. The interviews were supported by first-hand observations made during field visits. Data were fully transcribed (for those who consented to audio-recording) and coded using NVivo 12 software. Secondary data have been collected through an extensive document search, including online sources. Preliminary results were carefully triangulated using different data sources as well as different methods. Given the sensitivity of the topic at hand as well as some of the information collected the first author had to navigate quite a complex field, being reflexive on her own position as a researcher, while at the same time protecting the respondents.

Results

This paper argues that non-state actors do have significant potential to help reach the objectives of (public) regulations. In the concrete case under study, **the ITSCI programme is very effective in holding upstream stakeholders to account.** This is enabled by their **de facto monopoly on due**

diligence programmes in the Great Lakes Region. Our data also reveal a number of **challenges when it comes to implementing the ITSCI programme on the ground**. These challenges relate to 1) monitoring, 2) accessibility of information, and 3) the risk of minerals from non-ITSCI sites entering the ITSCI system.

Conclusion

We conclude that there are **four conditions that need to be met** for non-state actors to hold private supply chain actors to account: 1) the programme should provide clear and timely information to all stakeholders; 2) high-quality and frequent monitoring should be ensured; 3) there should be a possibility of imposing credible sanctions; and 4) the governance of the programme should act in the public interest. On the basis of our research it is reasonable to conclude that the ITSCI programme does meet the third condition on sanctions, but that it faces a number of challenges with respect to the first, second and fourth condition.

Recommendations

Following up on our conclusions we formulate a set of recommendations (see table 1 for an overview of all recommendations); some of which are specifically aimed at ITSCI, while others are more broadly applicable. First of all, with respect to **information**, we recommend that the ITSCI programme speeds up its efforts to innovate and digitise the paper-based system so as to improve the flow of and accessibility of information. Second, with respect to **monitoring**, there is scope to improve the human, technical and financial resources of the monitoring bodies on the ground (both state and non-state). Monitoring should go beyond what has been labelled 'cosmetic compliance' (Landau, 2019) and be focused on real and significant change on the ground. Local stakeholder committees could be re-established in Rwanda to help prevent and follow-up on incidents. Third, policy-makers should consider including a **sanctioning clause** in the existing due diligence regulations for mineral importing companies at the downstream end of the supply chains. An environment for mineral traceability and due diligence programme **competition** should be enabled to spur innovation and lower the cost of due diligence for upstream companies. Fourth, we recommend that the ITSCI programme improves its **governance structure,** which currently relies heavily on the industry associations ITA and T.I.C., which each have one representative in the Governance Committee. We recommend including international and local civil society as well as upstream stakeholders in the governance of the programme, and to relocate the secretariat to the Great Lakes Region**.** Finally**, more research needs to be done on the effect of due diligence (programmes) on human rights compliance** by upstream stakeholders and on the cost of due diligence .

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Content

Context: regulating mineral supply chains

Today's complex mineral supply chains are increasingly regulated via due diligence, defined by the OECD (2016, p. 13) as "an on-going, proactive and reactive process through which companies can ensure that they respect human rights and do not contribute to conflict". Mineral-buying companies higher up in the supply chain should continuously monitor their suppliers, and identify, assess and act upon risks[1] (Gereffi et al., 2005, p.84; Mayer et al., 2016, p.130; Locke et al., 2009, p.324). Companies at each level in the supply chain are responsible for carrying out their own due diligence. To do so, they can use the practical guidelines as set out in the widely used but voluntary OECD Due Diligence Guidance (2016).

In the case of mineral supply chains, mandatory due diligence requirements are included in US and EU legislation. The US 'Dodd-Frank Act' (Section 1502) was adopted in 2010. It requires SEC-registered companies[2] importing minerals from the African Great Lakes region to file an annual report. In this report, companies need to provide information on whether the trade in these minerals contributed to human rights violations or conflict financing in the Democratic Republic of Congo or adjoining countries such as Rwanda (SEC, 2012; Radley & Vogel, 2015, p.407). In 2017 the EU adopted a similar regulation, the Conflict Minerals Regulation (EC 2017/821), which will come into effect in 2021 (Partzsch, 2018; European Commission, 2017). Both US and EU conflict minerals regulations aim to break the link between minerals and conflict financing. As formulated in Dodd Frank (Section 1502) for instance, the regulation aims to "further the humanitarian goal of ending the extremely violent conflict in the DRC" (Security and Exchange Commission, 2012). The EU regulation aims to "stop conflict minerals from being exported to the EU" and "mine workers from being abused" (European Commission, 2019). Contrary to Dodd-Frank, which focuses on DRC and neighbouring countries, the EU regulation applies to all conflict-affected or high-risk areas (European Parliament and Council of the European Union, 2017).

Both the US and EU legislations emerged in response to grave international concerns about mineral extraction and trade fuelling conflict in the African Great Lakes Region (Bafilemba et al., 2014, p.1; Vogel & Raeymaekers, 2016, p.1103). In the short run, however, empirical evidence suggests that Dodd-Frank has not achieved its objective of reducing conflict and improving livelihoods in the Great Lakes Region (Parker and Vadheim, 2017; Stoop et al., 2018). Moreover, only 7% of the SEC-listed companies carried out 'strong due diligence' in compliance with all OECD Due Diligence guidelines (Sarfaty, 2015, p.423). Almost 80% of SEC-registered companies admitted that they were unable to determine the country of origin, and only one percent could certify themselves 'conflict-free' with certainty beyond reasonable doubt (in 2015) (Kim and Davis, 2016).

Theoretical framework: non-state supply chain regulation and accountability

Non-state regulation is understood as "non-state actors making, implementing and/or enforcing rules and standards" (Tusikov, 2017, p.339). In the case of mandatory due diligence, mineral buying companies have to monitor their suppliers. They must identify, assess and act upon risks (through mitigation and/or remedy) and report about actions taken. However, scholars have argued that by making supply chain actors monitor each other, "the government outsources [regulation] to regulated entities themselves, which further outsource to private parties (e.g., industry groups and consulting firms) as well as suppliers who are regulating the tiers below them" (Sarfaty, 2015, p.36). Sarfaty further argues that this regulatory outsourcing "raises accountability concerns when private actors are performing functions that are fundamentally public" (2015, p.3).

[1] See Annex 2 of the OECD Due Diligence Guidance (2016)

[2] The Securities and Exchange Commission (SEC) is an agency of the United States federal government. Companies need to register if traded at the nation's stock and options exchanges

The current research on transnational regulation of mineral supply chains is heavily biased towards transparency (see Swift et al., 2019; Gardner et al., 2018; Hofman et al., 2018; Haufler, 2012). As rightly argued by several scholars, transparency of information is important to help increase compliance with relevant regulations, but it is not sufficient to reach the regulations' objectives (see Sarfaty, 2015; Sovacool et al., 2016; Gardner et al., 2019; Harkonen, 2018). In particular, the Dodd-Frank and EU regulations require mineral importing companies to provide information on their supply chains, but do not mandatorily require mineral buying companies to stop or suspend sourcing from a mine where, for instance, human rights violations were detected (Partzsch and Vlaskamp, 2015; Partzsch, 2018).

The rationale behind transparency is that consumer pressure instigates compliance. However, this rationale does not necessarily play out in practice (Kim and Davis, 2016). Therefore, we explore the literature on accountability to investigate how private actors can be held accountable in case they violate human rights or contribute to conflict financing. We argue that transparency is merely a first step in ensuring accountability, and that sanctions are essential to reach the objectives of the relevant public regulations.

Accountability can be defined as "the relationship between an actor and a forum, in which the actor has an obligation to explain and justify his or her conduct, the forum can pose questions and pass judgment, and the actor may face consequences" (Bovens, 2007, p.452). In the absence of transnational jurisdiction we look into the potential of non-state regulation. For the context of the current study, accountability can be understood as a private actor (for instance a minerals exporter) *answering* on its actions to a non-state regulator (for instance a due diligence programme) and facing the potential *consequences of its actions* (sanctions by the non-state regulator).

Accountability thus consists of two main elements: *answerability* of the accountable subjects to the regulator, enabled by transparent and accessible information; and *enforcement*, which entails the capacity of the regulator to impose sanctions in case of non-compliance (Schedler, 1999, p.14; Fox, 2007, p.665). Following Bovens (2006, p.451) we argue that the possibility of sanctions (as a consequence of the private actor's actions) is what differentiates being answerable (*without* consequences) from being held to account (*with* consequences). The availability of adequate information (for instance regarding supply chain risks) does not automatically prompt stakeholders to change their actions (Haufler, 2012).

Sanctions are conceptualized as the punishments laid out in rules as a consequence for undesired behaviour, in this study punishments for private actors resulting from breaching transnational regulations (based on Panther, 2000, p.1000; Becker, 1968, p.43). Punishment (or reward) is assumed to create incentives for the accountable subject to improve or weaken its performance (Locke et al., 2009, p.325). Yet compliance also depends on the probability of being caught for non-compliance (Oded, 2010, p.2). This is why accurate, timely and clear information via monitoring is crucial (Schillemans et al., 2013). When private actors are qualitatively and frequently monitored (and hence need to regularly 'answer' on their operations) it is likely that they will be more compliant with the regulations. The higher quality and frequency of monitoring could in theory be facilitated by using technology, although this is not necessarily a silver bullet[3]. Moreover, the gains of compliance should logically be higher than the gains of non-compliance (Parker & Lehman Nielsen, 2011, p.382).

[3] This could be electronic tracking of bags, real time reporting of risks or real time reporting of production levels as well as variances in stock using electronic tools, or the use of 'geological fingerprinting'. See pilots done in Rwanda analyzed by Schutte et al. (2011) or the study by Somarin on the use of technology in the mining sector in the DRC (2019)

In this study, for instance, this would mean that adhering to the ITSCI programme provides the members with sufficient benefits, which they would seek to maintain (Braithwaite, 1982).

Case study: ITSCI in Rwanda

Certification programmes such as the Regional Certification Mechanism of the International Conference on the Great Lakes Region (ICGLR, 2016), the Chain-of-Custody Standard of the Responsible Jewellery Council (RJC, 2012) or the Responsible Minerals Assurance Process of the Responsible Minerals Initiative (RMI, 2012) can help certify that private actors comply with specific standards. Several of these programmes have been set up by non-state (private or non-profit) organizations. In addition, mineral traceability and due diligence programmes (such as the International Tin Supply Chain Initiative or Better Sourcing Program) emerged to help private companies comply with the due diligence regulations (ITSCI, 2020; RCS Global Group, 2020). They typically provide supply chain information, monitor standards and help private companies identify risks and act upon them.

Being the first and most widely used due diligence programme (other and older initiatives have been smaller or have been limited to pilots), the ITSCI programme has raised awareness both internationally and on the ground on the importance of respecting the conflict minerals regulations (ITSCI, 2020). An important merit of the programme has been that it has enabled upstream operators in the Great Lakes Region to (re)gain access to the international mineral market in a context where increasing public regulation threatened to impose a de facto embargo on exports from the region (see Jeffrey, 2012; Stoop et al., 2018). Moreover, the programme has made meaningful achievements in building capacity for local operators, for instance by assisting smaller companies with formalizing their operations; it has shown flexibility to changing circumstances in the volatile mining sector; and it has succeeded in scaling up (ITSCI, 2020). At the same time, both academic and media articles have raised the concern that the ITSCI programme has acquired a (near) monopoly on due diligence programmes in 3T supply chains from the Great Lakes Region (Vella, 2019; Vogel et al., 2018; Vogel, 2018; Radley and Vogel, 2014; Vogel and Raeymaekers, 2016; Cuvelier et al., 2014). According to empirical evidence from Eastern DRC, this is enabled by a mineral-buyer monopsony. As stated by Vogel (2018, p.99), "having a buyer-end monopoly (i.e. monopsony) for legally exported 3T since 2012, iTSCi excludes alternative supply chains, denying access to many participants of local mineral markets". In an article that was published in the *Washington Post* in 2014, Vogel and Radley conclude on the basis of their field research in the DRC that "the industry-led traceability scheme currently serves more as an artificial price-control mechanism and a monopolization tool: the levy ITRI [one of the two industry associations governing the scheme][4]demands for each ton of tin is directly subtracted from the official selling price […]. The net effect is that Congolese miners must pay the international tin industry for the right to sell their minerals with a tag that implies – but does not necessarily achieve – conflict-free status."

There currently exists some competition in the field of due diligence programmes[5], but compared to ITSCI, other programmes have not (yet) achieved the same significant scale and capacity. For this reason the present paper adopts the term "de facto monopoly". A de facto monopoly can be defined as "a system where many suppliers of a product [or service] are allowed, but the market is so completely dominated by one [supplier] that the other [suppliers] might as well not exist[6]. This is a monopoly that is not created by the government. Antitrust laws try to eliminate such kind of situations" (US Legal, 2019; Hovenkamp, 1984, p.1264).

[4] […] added for clarification

[5] See the Better Sourcing Programme (RCS Global Group, 2020) or the recently launched Ravara programme (Levin Sources, 2020)

[6] […] added for clarification

We examine the ITSCI programme as an exemplary case study of the on-the-ground performance of non-state regulation at the upstream end of the supply chain. We focus on the implementation of the ITSCI programme in Rwanda, where most of ITSCI's members (upstream companies) are located and where the highest tagged mineral production is achieved – in comparison to individual provinces in the DRC, or neighbouring countries Burundi and Uganda (ITSCI, 2020c). The Rwandese context is furthermore particularly interesting due to the increasing attention for human rights in their mining operations (*New Times*, 2019; RMB, 2018). At the same time there is growing objection against the most widely implemented due diligence and mineral traceability programme in their country: "Rwanda has said that the ITSCI programme, an international scheme designed to regulate minerals mined from the Central African region, is expensive, unnecessary and prohibitive for miners" (Bizimungu, 2019). In recent communication, RMB states that "RMB is not against [mineral] traceability: we fully support it and implement it as required. What we continue to advocate, is to reduce the cost burden, which the ITSCI system shifts disproportionately to [..] the upstream mining community"[7] (RMB Feedback, 26 October 2020). To our knowledge, this is the first academic study focusing on the implementation of the ITSCI programme in Rwanda.

Methods: data collection, analysis and validity

This is a qualitative research study, which principally relies on a three-month research stay in Rwanda, where the first author has interviewed 75 respondents. The respondents participated in 51 semi-structured interviews: 37 of which were carried out in several locations in Rwanda, 14 of which were done via Skype. The first author collaborated with local researchers for translation. She scheduled follow-up interviews with several of the respondents. Respondents were purposively sampled to represent a wide range of views and to have sufficient experience with the research topic. For example, interviews were conducted with 10 active full members (membership status at the time of the field research), two former members who had withdrawn from the programme, six former members who had been expelled, and one provisional member. In total, 32 respondents working for 19 active or former members participated. Twenty representatives of three cooperatives were interviewed. These respondents all provided valuable insights based on their first-hand experiences in working with the ITSCI programme from their respective positions in the upstream supply chain. The remaining respondents represented, among others, local and international civil society, local advocacy organizations, independent auditors, consultants and donors. ITSCI appointed Pact (ITSCI's field operator) as the local point of contact for the ITSCI programme. Staff at Pact have been interviewed. After publishing a first version of the Analysis & Policy Brief of the research, ITSCI provided feedback, which was taken into account for an updated version of the research, including for this paper. Interviews were fully transcribed[8] and coded using NVivo 12 software. Our analysis relies on these interviews, which present a wide range of first-hand experiences with the ITSCI programme. The analysis is further based on field observations, primary documents obtained from respondents, as well as on secondary documents and online sources. The ITSCI website has been consulted first during the period August-October 2019, and updates from July-November 2020 have been taken into account as much as possible.

The assessment of the reliability of the information occurred in two phases. First, the credibility of the source was evaluated by positioning its stakes in the mining sector in Rwanda, as well as the relation to and experience with the research topic. Second, the information provided was in itself assessed by careful triangulation with other sources (Kelliher, 2005, p.45) to strengthen the validity of the results (see Geneva Standards of Proof, 2015; Cope, 2014). Triangulation is understood as "… the use of

[7] [..] added for clarification

[8] With the exception of three interviews: two respondents did not consent to audio-recording and in one interview the recorder failed. In those three cases detailed notes were taken

multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena" (Cope, 2014, p.545; Patton, 1999). Scholars agree that there exist four types of triangulation to analyze and interpret data (Cope, 2014; Patton, 1999). The first is method triangulation, which compares data collected by various means (f.e. transcripts from interviews with notes on field observations) about the same phenomenon. Second, the data can be triangulated by involving two or more researchers or experts on the phenomenon to provide multiple perspectives on the (interpretation of the) data, which is known as investigator or analyst triangulation. Third, theory triangulation is understood as the use of different theoretical lenses to look at the same data. Fourth, the triangulation of data sources logically entails the convergence of information acquired via different sources of data, for instance by comparing the statements of different informants, or comparing what informants state anonymously with what they state in public or in the presence of other informants. A different range of perspectives on the phenomenon should be considered by consulting different groups of stakeholders with a variety of relations to the research topic (which is important to reasonably explain potential convergence or divergence in the data). Further, the data could be triangulated with previous research, media articles and other secondary documents on the phenomenon (Cope, 2014; Patton, 1999).

In this study, all four types of triangulation of the preliminary results have been applied. As stated above, the analysis of the data is based on different qualitative research methods, particularly on interviews with informants who have first-hand experience with the research subject, as well as notes on field observations and document analysis (method triangulation). The researcher purposively selected informants with extensive experience in and knowledge of the mining sector in Rwanda who assessed the preliminary results of the research independently from each other. Researchers with extensive experience in the mining sector in the Great Lakes Region or the ITSCI programme (or both) in particular provided detailed feedback as well (investigator or analysist triangulation). The theoretical perspectives on the interpretation of the data derive from, among others, political science, economics, law and development studies (theory triangulation). The perspectives of different groups of stakeholders with different relations to the phenomenon were included in the research. Comparisons were made between what respondents stated anonymously and in the presence of other stakeholders or the research phenomenon itself. These preliminary results were in turn compared with primary documents obtained from informants, previous research and media articles on the same phenomenon and other secondary documents (data source triangulation).

The study focuses on implementation in Rwanda and does not consider the full supply chain. Given the sensitivity of the topic at hand as well as some of the information collected, the first author had to navigate quite a complex field, being reflexive on her own position as a researcher, while at the same time protecting the respondents.

The ITSCI programme

When the Dodd-Frank act was signed into law in 2010 (SEC, 2012), scholars warned of a de facto embargo on so-called 'conflict minerals' from the Great Lakes Region (Jeffrey, 2012; Stoop et al., 2018). Two non-profit industry associations anticipated on this embargo by developing ITSCI (previously iTSCi), a due diligence and mineral traceability programme. These two non-profit industry associations are the International Tin Association (ITA)[9] and the Tantalum-Niobium Study Center (T.I.C)[10] representing the tin and tantalum and niobium industries, respectively (ITSCI, 2020a).

[9] ITA's vision is "To bring leading companies together to defend and grow markets for tin by exploiting its superior technical properties contributing to sustainable development and improved quality of life." (ITA, 2020). ITA was formerly called the International Tin Research Institute (ITRI)

[10] T.I.C.'s objective is, among others, to: "Collect from the members (via an independent company to ensure confidentiality), statistics on raw material production, processors' receipts and product shipments, and

Although the ITSCI programme was formalized in 2011, a working group initiated by the ITA consisting of among others three of ITA's members, particularly the Malaysian Smelter Corporation Berhad, ThaiSarco Smelting and Refining and Yunnan Tin Group[11], already started developing ITSCI prior to the US and EU regulations (ITSCI, 2016).

Today the programme operates in Rwanda, the DRC, Burundi, and Uganda (ITSCI, 2020b). All actors with exporting capacity in upstream mineral supply chains are eligible to become full members of the ITSCI programme. Prospective applicants should send a membership agreement to the secretariat, after which an independent auditor reviews the file via desk-research[12] and advises the governance committee on whether or not to accept the company as a member[13]. This process, which should normally take eight weeks, involves the payment of a joining fee of 1800 USD and an annual membership fee of 1800 USD[13]. Our research in Rwanda, however, revealed several cases in which the application process took longer (from six months up to two years) – a period during which a 'provisional member' does not receive tags[14]. Unless the company adheres to another due diligence programme or can convince the buyer of the minerals that credible due diligence has been conducted, it cannot prove the origin of minerals which makes legal mineral trade in, as well as exporting from, Rwanda very difficult[15]. At the time of the field research (November 2019), there were 31 active Full Members in Rwanda[16]. According to the latest membership list, there are 25 active Full Members in Rwanda[16].

ITSCI's stated purpose is to "create responsible mineral supply chains that avoid contributing to conflict, human rights abuses, or other risks such as bribery, currently in Central Africa" (ITSCI, 2020). In its feedback to the authors of this study, however, ITSCI put much more emphasis on the identification and mitigation of risk as a purpose of the programme (ITSCI feedback, 30 July 2020). As will be detailed below, ITSCI traceability relies on a manual, paper-based 'bagging and tagging' system, which should in principle trace containers at the smelter level all the way back to the mine site from where the minerals were extracted (ITSCI, 2016). However, it should be noted that mineral traceability is only one part of conducting due diligence (ITSCI feedback, 30 July 2020), which is an ongoing process through which companies identify, mitigate and anticipate on risks in their supply chain.

Governance and finance

ITSCI is managed by a governance committee consisting of two representatives, one of the ITA and one of the T.I.C. One representative of each organization acts in addition as a deputy in case this is necessary[17]. These two representatives are in charge of the finances and overall direction of the programme, and they have a final decision on whether to suspend and expel members (ITSCI, 2020a)[18]. An advisory panel to the governance committee is in place, which is "open to NGO's and others with expertise in the relevant implementing countries and with an appropriate knowledge of the mining

capacitor producers' receipts for tantalum, while for niobium raw production and processors' product shipments are collected, and to report consolidated data to the membership on a quarterly basis (T.I.C., 2020)

[11] Interviews consultant 1 and 3

[12] Interview independent auditor

[13] Interviews programme manager Pact Rwanda

[14] FM 1 (2 years), FM 2 (1 year), FM 9 (6 months), FM 14 (8 months)

[15] Interviews FM 1 and FM 2

[16] ITSCI Online full membership list, https://www.itsci.org/partners/, Last consulted November 2020

[17] Interview T.I.C. Study Center Representative; OECD and Kumi consulting (2018, p.64)

[18] In theory there should have been four organizations on this governance committee, but the International Tungsten Industry Association (ITIA) as well as civil society organizations have refused to be part of it for unknown reasons, according to an interview with a T.I.C. Study Center Representative

sector and mineral trade" (ITSCI, 2020e). The website currently lists three members. According to a 2018 study by OECD, the advisory panel was not institutionalized and had no formal oversight function (OECD and Kumi Consulting, 2018, p.63). Since August 2020, the website states that these three "panel members receive information on activities and challenges faced by ITSCI and are welcome to provide suggestions or other comment (sic)" (ITSCI, 2020e). The governance committee is further assisted by a London (St. Albans)-based secretariat that is part of the ITA, consisting of a programme manager and a team of six members. The secretariat manages the manually collected traceability data from the Great Lakes Region and "holds and shares information as agreed" (ITSCI, 2020f).

Upstream actors are sharing at least 80% of the costs of the ITSCI programme via levies on exports and annual and joining fees, while downstream members, who benefit most from the mineral traceability in response to consumer pressure, only cover less than 1% of these costs. ITSCI aims to increase the latter's share up to 10% in the future (ITSCI, 2020a). ITSCI has not received new donor support since 2017, but states that is does receive partial donor funding for specific projects – the details of which are not publicly available and have not been provided in response to our question (ITSCI Feedback, 1 September 2020; ITSCI, 2020a). It is noteworthy that the programme had over 2.2 million dollars in operations reserve in 2019, which equals 3 months of operational costs (ITSCI, 2020a). There are no details available on their website for the year 2020 and it is unclear how the operational costs are divided between Pact and ITSCI, as well as between different countries (ITSCI, 2020a). As will be outlined below, some of our respondents raised the concern that this lack of transparency inhibits them from understanding how these funds are invested back into the region[19]. According to the 2018 study by OECD and Kumi Consulting, the turnover of the ITSCI programme is significantly larger than any other financial asset of the ITA (2018, p.64). The programme is currently in the process of raising new funds in response to the Covid-19 crisis, which caused a fall in metal prices, decreasing mineral trade and therefore ITSCI's financial revenue (ITSCI, 2020g). This contradicts the alleged financial sustainability following the programme's claim to not having received new donor support in recent years (see ITSCI 2020a).

Although ITSCI is not a separate legal entity[20], the ITA maintains separate bank accounts for the programme (ITSCI Feedback, 16 July 2020) and "… all programme revenues are kept in trust" (OECD and Kumi Consulting, 2018, p.64). During the period in which the field research took place, this was not explicitly stated on ITSCI's webpage on finances, but has been recently updated (ITSCI, 2020a). Exploring this further, in the United Kingdom, where the ITA and hence the ITSCI programme are formerly registered, there are several consequences to keeping funds of a charitable or non-profit organization in trust in terms of taxes, compliance and reporting to governing bodies (United Kingdom Government, 2018; Thomson Reuters, 2020). Depending on the specific legal trust fund structure of the ITSCI programme, this could reasonably explain (see *Geneva Standards of proof*, 2015) the lack of transparency on operation costs per country in the Great Lakes Region.

Implementation

Although not commonly seen as a country dependent on mineral resources, minerals accounted for the third largest share in Rwandan exports (after tea and coffee), generating 373 million USD in revenue in 2018 (Uwiringiyimana, 2018). In 2019 there were 251 active mining and exploration companies, 175 pending licenses[21] and an estimated 20.000 to 55.000 (part-time) artisanal miners digging 3T minerals (The New Times, 2019). In order to legally mine and trade, cooperatives and

[19] Interviews FM 12, FM 5, FM 8, Local Advocacy Group 1

[20] ITSCI is not a registered (charitable or non-profit) organization, but a programme governed by industry associations ITA and T.I.C. and implemented by non-profit organization Pact and local governments

[21] Official data of Rwanda Mines, Gas and Petroleum Board (RMB) received from an informant in December 2019 (not available in public reports)

companies are required to obtain a permit and comply with a range of health, safety and environmental obligations (RMB, 2018, p.46- 48).

In Rwanda, the US-based non-profit organization Pact is responsible for implementing the ITSCI programme. The local Pact team in Rwanda includes the programme manager, four staff members working on data processing (checking and entering of the data from the manual paper logbooks into the computer) and seven ITSCI field officers. These field officers are in charge of monitoring: visiting the upstream stakeholders – according to respondents once every three months[22] –, checking production levels, and formulating recommendations to the government. In doing so, they collaborate with 97 Mineral Field Officers from the Rwanda Mines, Gas and Petroleum Board (RMB). These RMB Mineral Field Officers have been assigned to monitor all active mining and exploration companies, which they are expected to visit regularly (on average once a week, but this could be more or less depending on the production[23]). According to the most recent status report (Q3 of 2020), the ITSCI programme covers 990 sites, 194 of which were active at the time of the report (ITSCI, 2020c).

ITSCI reports that in 2019, 442 joint ITSCI-RMB visits were conducted to different sites and 14 formal meetings were held with RMB officials. ITSCI furthermore communicates that the number of incident reports increases every year. An incident categorization system is in place, with 'level 1' being very serious incidents such as human rights violations, and 'level 3' being the least serious, such as a discrepancy in the recording of a tag number. ITSCI states that when a level 1 incident is reported, the procedure provides that the ITSCI governance committee is informed within 24 hours and members as well as the Rwandan government are alerted within two weeks (ITSCI Feedback, 30 July 2020). As explained below, persisting incidents may result in sanctions being applied.

Traceability system

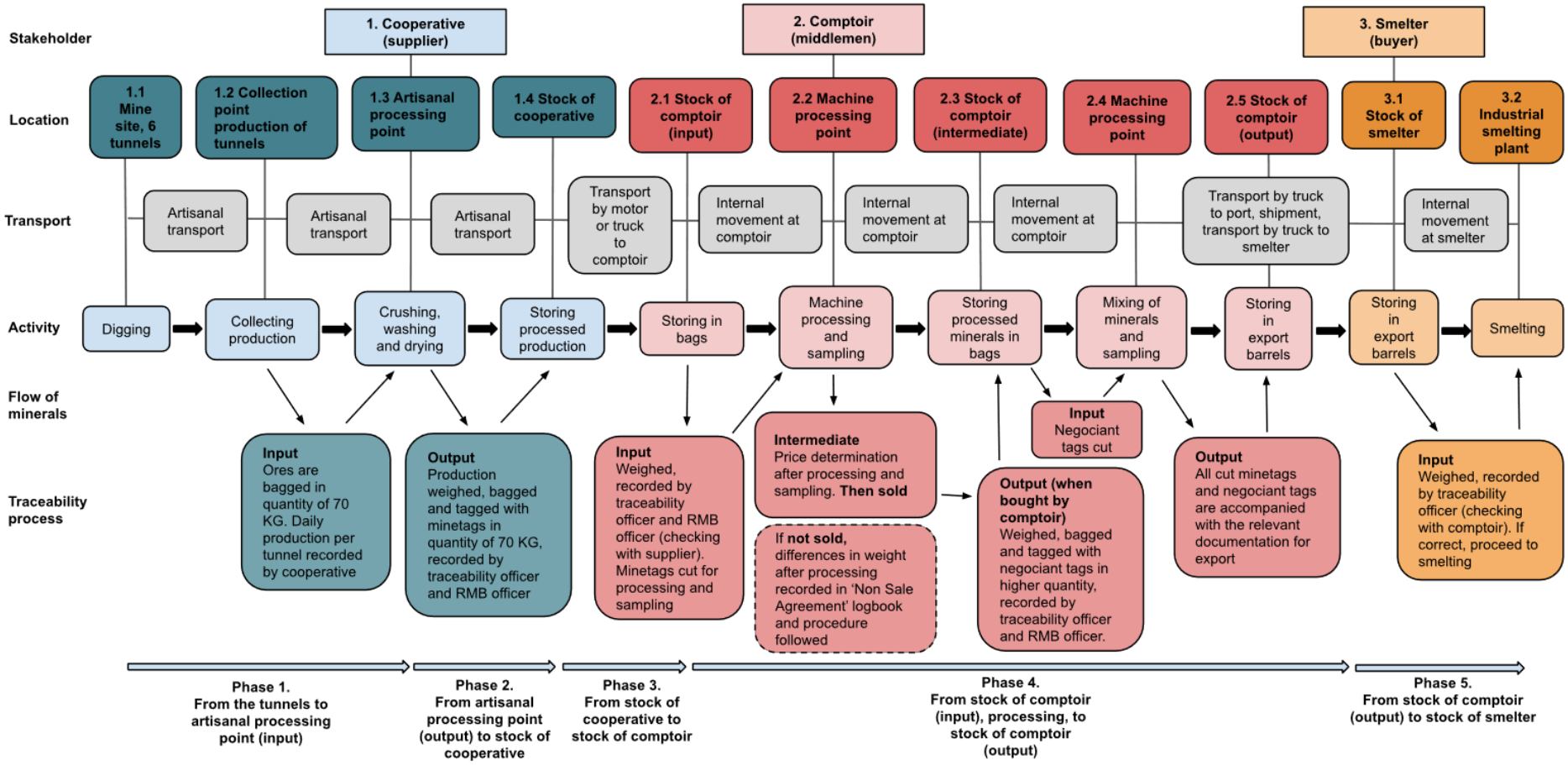
The ITSCI paper-based 'bagging and tagging' manual system tracks the journey of the minerals from the mine site registered under the tag to the smelter (see figure 1). Let's look at a model example to illustrate the traceability process – note that many variations of upstream supply chains exist on the ground and the reality is more complex than the stylized example shows. In this example the journey starts at the mine, where a cooperative mines the raw ore and carries out the initial processing. The ore is manually crushed and panned, after which it is cleaned and separated. Then the production is spread out on the ground to dry in the sun. When dry, the ore is cleaned, manually separated and put in bags of maximum 70 kilogrammes, to be transported[24]. RMB Mineral Field Officers weigh the bags and provide a tag that has been issued by ITSCI via the local Pact office to a RMB district office.

[22] Interview cooperative 2, Interview FM 9

[23] Interviews with cooperatives and mining companies

[24] Interviews with and observations at three cooperatives during field visits; Correspondence with Pact Rwanda, December 2019

Figure 1. The ITSCI traceability process for an ideal type 3T supply chain in Rwanda



Source: first author's interpretation based on interviews with full members, cooperatives and Pact

They collaborate with traceability officers who work for the respective cooperatives (cooperatives' or companies' own staff)[25]. The information is independently recorded by the cooperative and the RMB in separate logbooks, which are shared with Pact[26]. The minerals are transported to the *comptoir* (export office). At this point the bags are weighed and recorded again by a traceability officer working at the comptoir, in collaboration with a RMB Mineral Field Officer who must ensure the information is accurate. The tags of the bags are cut off and the minerals are further processed, tagged with a *négociant* tag and sold to the *comptoir* if the price is agreed upon. The price is determined based on the quality of a production sample (the purity of the ore) taken by the *comptoir* (sometimes the sample is in addition verified by an independent private laboratory, for example Alex Stewart International), as well as the daily market price per kilogramme of processed ore[27]. In case no agreement is reached between the *comptoir* and cooperative, all ore is bagged, weighed and recorded again.

The cut tags are recorded on a non-sale agreement form, but no new tags are used at this stage. The minerals can then be taken to another *comptoir*, accompanied with the non-sale agreement form and the cut tags as evidence[28]. If a sale is concluded, a traceability officer and a RMB Mineral Field Officer verify the production and a *négociant* (traders') tag is provided. The data collected on the paper datasheets are entered into the computer at the local Pact office and then sent to the London-based secretariat that manages the database for entry, assessment and validation, while RMB also receives a copy of the logbooks. Pact stated that the secretariat is currently in the process of digitising the data collection system and they are training the 97 RMB Mineral Field Officers to enter data using a tablet. ITSCI has communicated that it is migrating to electronic data capture using a mobile app (ITSCI Feedback, 30 July 2020).

Monitoring

According to ITSCI, monitoring efforts focus on sites with higher risks, such as sites reporting high production, sites at risk of being linked to informal trade, or sites suspected of violating procedures, which explains why some sites are more frequently monitored than others (ITSCI Feedback, 30 July 2020). ITSCI provides regular training to RMB Mineral Field Officers (currently 97 in total) and to companies (ITSCI Feedback, 30 July 2020).

The 7 ITSCI field officers are responsible for 7 ITSCI zones in Rwanda (ITSCI Feedback, 30 July 2020). They conduct baseline studies in cooperation with the RMB Mineral Field Officers for each mining site and stakeholder using the traceability system in Rwanda, which the RMB Mineral Field Officers can use as a point of reference to verify their observations[29]. The ITSCI baseline studies rest on information provided by the stakeholder to the ITSCI officer and ITSCI's own observations made during a field visit, including the number of workers, the tools used, management structure, size of mining site(s), estimated production, investments made, relations with local administration[30] etc. This baseline study can be updated accordingly following further visits, since issues such as international

[25] According to FM 12 and FM 15, a tag consists of the two letters of the country in which it is used, following 7 digital numbers which varies according to the serial number of the country. For example: RW 1234567 for a hypothetical tag in Rwanda. This tag is registered under the mining site where it should be used. However, according to informants from FM 12 and notes from a follow-up interview with the programme manager of Pact, only the ITSCI secretariat in London has full access to the database to check whether the tag on the bag belongs to the mining site it is used

[26] ITSCI's policy is to distribute three copies of the record sheets to the three parties, 1) White (ITSCI), 2) Yellow (Supplier) and 3) Pink (RMB), according to Pact staff and observations during field visits

[27] Interviews FM 8, FM 15

[28] Correspondence with Pact Rwanda, December 2019

[29] Interview RMB Mineral Field Officer

[30] Interview Pact programme manager

mineral prices, seasonality, access to financial resources and so on render mine production highly volatile. The number of tags provided, is decided on together with the RMB Mineral Field Officers (ITSCI Feedback, 30 July 2020).

During a visit (which can be announced or unannounced), the ITSCI field officer monitors among other things the overall operations (for example, whether there is actual activity observed on the mining site), the production level, the stocks, the recordings in the logbooks, the potential security risks, the working conditions and other relevant factors[31]. The ITSCI field officer checks whether ITSCI procedures are followed (are the tags correctly applied to the bags, are the tag numbers registered in the logbook, are there discrepancies between estimated production, observed production, and recorded production etc.) and provides advice or assistance where necessary. As a Pact data officer told us: "Our field team, they go there [to the field] and give them [companies or individuals] advice. [...] But we don't have the people who have higher expertise in mining, but you can give some small advice. Giving guidance… so that, based on those advices, they [companies or individuals] can improve their activities"[32]. Pact is facilitating the traceability process and checks and transfers the data to the ITSCI secretariat, in London. In 2019, there was an average monthly production of 521,337 kilograms traced by the ITSCI system in Rwanda (ITSCI, 2020c).

It is important to note that the 97 RMB Mineral Field Officers (not the 7 ITSCI field officers working for Pact) are responsible for the data collection on the mineral production, as well as for the tagging of the bags[33]. During a visit for the tagging of the production, RMB Mineral Field Officers generally check the logbooks (again, if the estimated production corresponds with the observed production and recorded production), the stock (for example whether the minerals in the stock correspond to the number of tags allocated to the mining site) as well as the working conditions[34]. They can also weigh a bag of minerals to check whether it corresponds to what is being declared[35]. Furthermore, the RMB Mineral Field Officers play an important role in providing occasional trainings for the management of cooperatives as well as for miners. During these trainings they may raise awareness on health and safety issues, their rights, rules and regulations and the prevention of accidents[36]. Informants stated that health and safety in mining is a key priority for the RMB[37].

During our field research several respondents raised some concerns about the frequency and the quality of monitoring, as well as about the accessibility of information. In what follows we summarize these concerns.

Regarding the frequency, it should be noted that the RMB Mineral Field Officers generally arrive on request by the respective company when the tagging needs to be done[38]. As one RMB Mineral Field Officer explained: "We are three workers in the district. […] We visit according to the company, according to the production, then go to put tags on the production, like yesterday I was here to put tags on the production. Today I'm back to visit another company. But normally I come on Friday. So then I will go to visit other companies. […] So that is how the work is. Then another one [another RMB Mineral Field Officer] now is going to distribute the tags in the district. [...] Every day we have a program, we sit together to prepare the whole day to satisfy companies, we supervise their workers

[31] Interview Pact data officer; Summary of ITSCI Incident reports 2017
[32] Interview Pact data officer. […] added for clarification; Summary of ITSCI Incident reports 2017
[33] Interview Pact programme manager
[34] Interview RMB Mineral Field Officer, Interview cooperative 1, Interview FM 12
[35] Interviews FM 5, Interviews FM 15
[36] Interviews Cooperative 1 and 3
[37] Interviews FM 15, Interview Advocacy Group 1
[38] Interviews FM 5, FM 12, Cooperative 3, RMB Mineral Field Officer

and their standards"[39]. A former ITSCI member claimed that he frequently needed to "fetch" an RMB Mineral Field Officer when they needed the tagging to be done and that the officers visited inconsistently[40]. One of the reasons is that the traceability process needs to be flexible and respond to variability in production[41], which explains why the frequency of visits can vary between mining sites. Several respondents, however, believe that monitoring visits on the ground are less frequent than they should be[42]. According to some respondents, moreover, RMB Mineral Field Officers are not always sufficiently motivated, something that was corroborated during one of our own field visits[43]. A traceability officer working for a former ITSCI member stated that the RMB Mineral Field Officers came very irregularly and sometimes not in a sober state. When he reported this to the ITSCI secretariat, they in turn communicated this to the RMB and those officers were dismissed[44]. Since some mines are located in remote rural areas, transport can also be a problem, as was confirmed by several respondents[45] and by the first researcher's own observation that one RMB Mineral Field Officer depended on the company's car to pick him up[46].

Further, respondents raised some concerns about the quality of the monitoring. As stipulated before, the RMB Mineral Field Officers use a paper-based system (tags and logbooks) to track the minerals from mine site to *comptoir*[47]. For RMB Mineral Field Officers, it can be challenging to verify whether a given production level or mineral quality is credible for a given mine or not, since they do not have sufficient geological data on these mines to triangulate their observations, let alone the technology to verify the data[48]. Although they can use the baseline studies conducted as a point of reference, it remains difficult to cross-check whether the information on the tags is correct. Seven respondents stated independently from each other that RMB Mineral Field Officers appear to lack sufficient knowledge of the geological context, as well as the technological tools to do a thorough credibility check on the information on the tags, such as whether the minerals have really been sourced in a particular mine[49]. A representative from a local advocacy group stated: "… The ITSCI programme here in Rwanda, and the RMB, do not have enough geologists, they don't have geologists and many engineers. They just train them for a week to look at the mine site"[50]. This indicates that while the ITSCI system does indeed track tags on bags of minerals to the mining site registered under the corresponding tag number, it cannot be guaranteed that this is also the mining site from which the minerals were extracted. On this specific point, ITSCI commented that having access to geological data would not be sufficient, and that RMB Mineral Field Officers in the first place should make use of their own observations, their consistent presence on site, and their ample experience in the sector (ITSCI feedback, 30 July 2020). A previous RMB Mineral Field Officer who currently works for an active ITSCI member stated that some of the RMB Mineral Field Officers have a good understanding of the sector and the traceability system, for instance thanks to the training they received. Others need more supervision. "Because someone can come and you see he doesn't care about what he does, he just needs to be on site making sure he got something whether it's a mistake or not a mistake. Which is wrong."[51] Finally, one of our informants (an investor in the Rwandan mining sector) raised similar concerns about the monitoring by the 7 ITSCI field officers: "They don't have the resources. They only have a small office with like five people here. They don't actually

[39] Interview RMB Mineral Field Officer
[40] Interview FM 3
[41] Interviews FM 15
[42] Interviews FM 5, FM 7, Consultant 3 and 4
[43] Interviews FM 12 and FM 15
[44] Interviews FM 7
[45] Interviews FM 12, RMB Mineral Field Officer, Consultant 3 and 4, observations during field visits
[46] Notes field observations before interview RMB Mineral Field Officer
[47] Interview Cooperative 1 and 3, FM 8, FM 4
[48] Interview FM 12
[49] Interviews FM 12, FM7, FM3, Consultant 2, Consultant 3, Consultant 4. Local Advocacy Group 1
[50] Interviews Local Advocacy Group 1
[51] Interviews FM 12

do their job on the mine. They are not present there"[52].

Regarding the accessibility of information, the 2018 OECD study concluded that "a significant amount of information is publicly available on the ITSCI website, including on member companies, risks and annual reports, albeit not always in a particularly accessible format and not always in a timely manner" (OECD and Kumi Consulting, 2018). It should be noted that some commercially sensitive information, such as on production levels, need not be made public according to the OECD Guidance. It is true that the ITSCI website provides a lot of information. At the time we were drafting this paper (August 2020), available incident summaries for Rwanda went up to June 2019 (according to ITSCI procedures incidents may remain open for up to 6 months while the information is being verified and/or acted upon), the latest Governance Assessment dated from 2013 and the last Annual Field Reports dated from 2018 (the 2019 report has been made available since then). Although ITSCI provides monthly incident summaries to its members, respondents from active members and former members told us that information flows between Pact, the ITSCI data team and the members are not optimal in their view. They complained, for instance, that information does not flow quickly enough, and that members do not have access at all times to information regarding their own supply chain as information passes through the secretariat[53]. It is reasonable to conclude that ITSCI does provide a large amount of information to both the upstream stakeholders and the public – and in this sense goes beyond what is expected by OECD –, but that some challenges remain regarding the access to and timeliness of information.

One of Pact's data officers stated that they are in the process of digitising the data collection system by training the RMB Mineral Field Officers to enter data using a tablet[54]. Although this could potentially speed up the data collection and verification of the tracking process, ITSCI is right in arguing that this cannot be a silver bullet (ITSCI Feedback, 30 July 2020). Moreover, it does not change the fact that RMB Mineral Field Officers cannot verify that the tagged minerals in fact come from the site indicated on the tag. Further, it does not necessarily change who will have access to the data, since the data management platform might still be managed by the ITSCI secretariat in London[55]. Regarding the latter, one respondent was clear in saying that the physical distance is hindering a deep understanding of on-the-ground realities. He said: "They are running the programme from London. That is the first mistake. They have no idea, when you speak with them via email. They ask questions, which are fair questions, but they have never been here so they don't know how it works"[56].

A final point concerns the auditing. Exporters working with the ITSCI programme (full members) should as a modus operandi be audited every 18 months by the Paris-based independent auditor Synergy Global[57] (these audits are however not mandatorily required by the OECD Due Diligence Guidelines, see OECD, 2016) and be regularly checked by the government's RMB Mineral Field Officers and ITSCI's field officers. The RMB Mineral Field Officers should visit the full members according to their trade frequency and the mineral quantity that needs to be tagged (recalling that the tagging always occurs together with the RMB). The cooperatives and smaller suppliers without export capacity should be checked by their buyers (as due diligence prescribes) and additionally be monitored by the RMB Mineral Field Officers and ITSCI's field officers[58].

[52] Interviews FM 8
[53] Interviews FM 3, 5, 8, 9, Local Advocacy Group 1
[54] Interview Pact data officer and programme manager
[55] Follow-up interview programme manager of Pact
[56] Interviews FM 8; similar concerns raised by Local Advocacy Group 1 and FM 9
[57] Interview independent auditor Synergy Global
[58] Interviews Pact Rwanda

In practice, however, we found the last audits of the full members in Rwanda by the independent auditor were conducted in 2017. Synergy Global confirmed that they had some new audits planned for 2020[59], but to what extent these have been carried out (and to what extent this may be Covid-related) remains unclear. At the time of the field research, at least seven full members in Rwanda had not yet experienced an independent audit as they became a member after 2017 (ITSCI, 2020d), and some of our informants claimed never to have heard about an independent auditor, even though they have been a full member since before 2017[60]. ITSCI did not provide a clear explanation for this, and repeated that those audits are not required by the OECD Guidance (ITSCI Feedback, 1 September 2020).

Non-ITSCI minerals entering the ITSCI system

There are several indications that ITSCI tags are used to tag production that has not been sourced in ITSCI mines. A first indication is the fact that some ITSCI mines produce very little, but their recorded production is high. One of our informants (an active exporter) stated: "… but he is trading, he is coming with tags and I see that this mine that they have visited two times, there is nobody. But they still get tags, and they still come to sell". He added: "If you want you can be stupid and go and do your thing, and declare it and highlight it. But, then they won't come to you anymore. They will go somewhere else and you lose their supply[61]".

An informant who works for an active ITSCI exporter and has been working with the ITSCI programme for many years explained further: "… then he comes with ten people underground. They start mining. They tell you: 'We are back in activity, please come and visit now, we are getting production. Come and visit, please we need the tags again'. Because ITSCI supervision… They don't have tracking, the way to track underground. Someone could come and show the production from the other site, you can't know. Telling him: 'We have been mining the whole week, we produced such an amount of kilograms of cassiterite or tantalum, we need our production to go to the market'. Then the ITSCI officer will be confused because they don't have the capacity to assess, or to make a survey on the ground"[62].

An active ITSCI exporter confirmed that minerals from elsewhere enter the ITSCI system at the production stage (phase 1 in Figure 1), as this is easier than to enter those minerals into the system at the stage of export. He stated: "Are they [RMB Mineral Field Officers] on the field every day? (Interviewer: I don't know). They don't… They come to the mine when the mine declares that they have enough [production] and they want to tag. So, they come, they see 5 tons, you think they will not tag it [even though it is likely not to come from there]? […] It starts from the beginning, that's how it gets passed. They don't do it, for example, at the exporter's place or… no, no… [at the exporters] it [the production] comes with tags"[63].

A second indication for non-ITSCI minerals entering the ITSCI system is the trade in tags. According to some sources, RMB Mineral Field Officers who are supposed to distribute the tags to the respective mines, could be involved in selling these tags for a profit. A traceability officer working for a former ITSCI exporter stated: "On the day of picking the tags, you find around 30 field officers coming for the tags. You ask: 'Where are those people going to use those tags?'. They are on it. Some tell you, 'Now we are rich!'"[64]. An informant who used to be a RMB Mineral Field Officer and currently works for an

[59] Interview independent auditor Synergy Global
[60] Interview FM 1
[61] Interviews FM 5
[62] Interviews FM 12, [ ] added for clarification
[63] Interviews FM 5, [ ] added for clarification
[64] Interview traceability officer FM 7

active ITSCI exporter stated: "If you don't have production you will find someone who buys [your] tags just to sell his minerals, but if you have your minerals you don't sell your tags, because operation activities of mining are costly"[65].

Other informants stated it is more difficult to trade in tags nowadays[66]. New tags are collected at the district distribution point twice a month and evidence of the previously used tags needs to be provided. All issued tags are documented, and excess tags need to be delivered back to the distribution point or used during the next production, which are recorded as well[67]. Every increase or decrease in the amount of tags requested needs to be justified to the RMB district office. Then the RMB Mineral Field officer needs to check at the mining site whether this change is legitimized[68]. However, it appears that tags of one district can still be used somewhere else[69]. A RMB Mineral Field Officer stated that some companies arrange among themselves who uses which tags, even though this is prohibited[70].

Further, when there would be incidents with tags (e.g. an error in the recording of the tag number), it reportedly takes a long time before these incidents would be resolved[71] as the stakeholder needs to contact the local Pact office, which in turn needs to contact the ITSCI secretariat in London[72]. Regardless of how the paper-based bagging and tagging system may be misused, minerals from non-ITSCI validated sites do seem to enter the ITSCI system, as explained below. ITSCI also acknowledges this risk, but stated that controls are continuously adapted and improved to minimize this risk. ITSCI also points out that they are not the only actor responsible for monitoring, and that they follow up on such incidents together with RMB, local authorities, the Rwanda Mining Association and the Federation of Mining Cooperatives (ITSCI feedback, 30 July 2020).

In their response, RMB states that according to their procedures, ITSCI and RMB jointly determine the quantity of tags a stakeholder may use on a weekly basis during a baseline assessment. This baseline assessment is then updated accordingly during regular inspection visits in the field to prevent mineral tagging incidents. Changes in production level or operations will therefore be detected. The RMB Mineral Field Officer responsible for the tagging must, according to the procedure, tag minerals from licensed and certified mines, and is expected to report on any relevant changes in observed circumstances or challenges regarding the traceability system in their respective working area. The RMB Mineral Field Officers are further cooperating with local administration officials, who in turn share information on any suspended or unlicensed mining activities. Regarding the procedures put in place, the RMB finds it difficult to relate to the statements made by informants on non-ITSCI minerals entering the ITSCI system to their observed reality (RMB Feedback, 26 October 2020).

The discrepancy between real and recorded production in Rwanda has been previously explained by minerals from DRC being smuggled into Rwanda, where they are tagged and exported as Rwandan production (UN Group of Experts reports[73]). A video produced by La Commission Nationale de Lutte contre La Fraude Minière (CNLFM)[74], shown at a OECD Forum on Responsible mineral supply chains'

[65] Interviews FM 12, [ ] added for clarification
[66] Interviews FM 9 and Cooperative 1
[67] Interviews Cooperative 1 and 2, Pact data officer
[68] Interviews FM 12, Interview RMB Mineral Field Officer
[69] Interviews FM 7, FM12
[70] Interview RMB Mineral Field Officer
[71] Interview FM 5, FM 7
[72] Interview FM 5, Pact data officer, T.I.C. representative
[73] UN Group of Experts final reports 2010 p.78, 2011 p.6, 2012 p.4 and 43, 2013 p.40, 2014 p.45, 2015 p.34, 2016 p.26, 2017 p.18, 2019 p.31.
[74] La Commission Nationale de Lutte contre La Fraude Minière is a Congolese organization fighting against

side event in 2018, documents that 3T minerals mined in the DRC are smuggled from North Kivu into Rwanda's Western province, accompanied with prefilled ITSCI documents stating the minerals were sourced in Rwanda[75]. An active ITSCI exporter explained: "Everybody uses the [ITSCI] tags to be covered and they send it overseas. And the origin becomes one. But, go around in the country, even if you are not a miner or a specialist or whatever, you will see. Those mines cannot produce that kind of tonnage. […] The quality is better here [Rwanda], the quantity is better there [Eastern-DRC]. So, people, they bring it from there [Eastern-DRC], they mix it with what they have here [Rwanda] and then, they sell it. With the tags of ITSCI"[76].

As stated previously, ITSCI acknowledges these risks and credible organizations such as the UN have pointed this out for several years (UN Group of Experts, 2014, p.268). Moreover, stakeholders have called upon the ITA and T.I.C. to improve the ITSCI system[77]. Still, several respondents who have been working with ITSCI for years, pointed out to us that significant changes have not been made[78]. Today, only data on production per country is publicly shared (ITSCI, 2020c), and ITSCI does not provide detailed data anymore to the UN (see reports published by the UN Security Council since 2015, UNSC, 2019), indicating that the programme has become less transparent over the years. In its most recent report, the UN Group of Experts still reports on non-ITSCI minerals entering the ITSCI system (UN Group of Experts, 2020).

Sanctions

In case of persisting incidents[79], the ITSCI governance committee may decide to suspend, and eventually expel, mining sites, cooperatives, or full members. In first instance ITSCI field officers will always formulate a warning and recommendations for improvement. When those are not followed up on, ITSCI field officers are supposed to send the evidence to the ITSCI secretariat and governance committee[80]. However, several respondents also raised concerns on inadequate follow-up and slow responses by the ITSCI secretariat to identified incidents[81]. Like in the DRC, local stakeholder committees used to be in place in Rwanda to follow up on incidents, but these were abolished after some mining sector reforms in 2012 and 2013[82]. The idea is that these local stakeholder committees would be re-established, but for unknown reasons this has not yet been done[82]. ITSCI stated that they have made several requests to the RMB to (re)establish these local stakeholder committees (ITSCI Feedback, 30 July 2020).

In their response, however, RMB communicates that there are equivalents of the local stakeholder committees in place. In 2018, local Taskforce Committees have been formed in each district. The Taskforce Committees are composed of staff from RMB, Rwanda Defence Force (RDF), Rwanda National Police (RNP), Rwanda Investigation Bureau (RIB), Rwanda Environmental Management Authority (REMA) and District staff in charge of Natural Resources. The mandate of each committee is to deal with issues regarding illegal mining, as well as with non-compliance with national laws and regulations (particularly regarding safety and environment). The Taskforce Committees further

illegal sourcing and trade in minerals

[75] Video on mineral smuggling via the ITSCI programme in the first author's possession

[76] Interview FM 5, [ ] added for clarification

[77] Report from a regional exporters meeting facilitated by the ICGLR (2017), calling upon ITSCI to make significant improvements to the system; similar recommendations made by OECD and Kumi Consulting, 2018

[78] Interviews Consultant 1 and 2, FM 1, FM 9, Cooperative 1

[79] As stated before, incidents levels range from 1 till 3, with 1 being very serious as human rights violations and 3 being the least serious, as a discrepancy in the recording of a tag number

[80] Interviews Programme manager and data officers Pact Rwanda

[81] Interviews FM 3, 5, 8 and 9

[82] Interview programme manager Pact Rwanda

address conflicts between communities and mining operators, as well as other issues raised by local authorities (RMB Feedback, 28 October 2020). This indicates that the upstream stakeholders, civil society as well as community representatives are not directly included in those committees, but could be represented by proxy depending on the issues raised by local authorities or stakeholders.

ITSCI's quarterly status reports from 2018-2019, however, do not report on these district-level Taskforce Committees (see ITSCI, 2020c). They state that discussions on the establishment of local committees are ongoing, and that a national committee is "being established" (mentioned in every report between Q3 2018 and Q3 2020). In Q1 2018, a committee consisting of exporters was established, but is no longer reported on from Q3 2018 onwards. In Q1 and Q3 2020, the status reports mention that eight District Mining Task Forces are active (not in Q2 because of Covid-19 measures). There are 30 districts in Rwanda. It is therefore unclear how this information obtained from ITSCI and Pact relates to the information obtained from RMB.

At the time of the field study only three full members were suspended in Rwanda[83]. Our interviews indicated two main reasons for this relatively low number of suspensions. First, ITSCI believes the programme should keep on working with respective stakeholders in order to improve the situation and act upon risks, rather than evade them[84]. Second, ITSCI has an incentive to keep members on board since they receive levies based on export volumes[85]. In response to this, ITSCI stated that the number of members makes no difference to the level of funding, and that this level would remain the same even if there were only one exporter who traded the same volume (ITSCI Feedback, 30 July 2020). Three active ITSCI exporters we interviewed stated independently from each other that they pay more in levies to the ITA than what they pay to the Rwandese government[86], even though the 97 RMB agents are responsible for the tagging and need to qualitatively and frequently monitor the mining sites and companies. According to one active ITSCI exporter, one withdrawn exporter and one suspended exporter, it also appears that there are significant differences between what exporters need to pay in levies between countries[87]. In line with these findings, previous research by Cook and Mitchell (2014, see p.6) on the cost of due diligence in Rwanda raised similar concerns on the transparency regarding the ITSCI levy-setting, budget justification and cost distribution along the supply chain.

Informants stated that these levies paid by the exporters are 'shared' along the supply chain, all the way up to the level of the cooperatives and mining sites[88]. These costs are deducted from the price a mineral buyer pays for the minerals to a mineral supplier. The wages of the interviewed mineworkers varied between 1000 and 2000 RWF per day[89] (more or less between 1 and 2 USD per day, depending on the exchange rate). When the governance bodies of the cooperatives were asked whether they could indicate how much their cooperative pays for the ITSCI programme, or in other words, how much is deducted from the price they receive for the minerals to help pay for the levies, they answered that this depends on the individual arrangements with the mineral buyer[90], but some informants did not know how much they indirectly pay for the ITSCI programme[91]. Representatives of Cooperative 1 explicitly stated that this deduction negatively affects the wage of the mineworkers and that they have been calling upon local advocacy groups to help lower or even remove those costs[92]. This confirms

[83] ITSCI Full Membership list, November 2019
[84] Interview programme manager Pact Rwanda
[85] Interviews FM 7, 8 and 15
[86] Interviews FM 15, FM 5, FM 8
[87] Interviews with FM 5, FM 7, FM 19; Cooperative 1, Cooperative 2, Cooperative 3
[88] Interviews with FM 5, FM 7, Consultant 3
[89] Interviews with members of Cooperative 1, Cooperative 2 and Cooperative 3
[90] Interviews with members of Cooperative 1 and Cooperative 3
[91] Interviews with members of Cooperative 3
[92] Interviews with members of Cooperative 1

findings from the study by Cook and Mitchell (2014, p.6): "… such costs [ITSCI levies][93] put pressure on the commercial competiveness of the national mining sector and are passed upstream to the mining company or cooperative."

According to article 50 of the Rwandan Mining and Quarry Operations Law (2018), it is illegal to buy or sell minerals without the proof of their origin (RMB, 2018). This means in practice that without documentation proving the source of the minerals, it is illegal to trade minerals within and export from Rwanda. Given the de facto monopoly of the ITSCI programme (see below), this implies that being suspended from ITSCI has the potential to significantly constrain a company's market access (sometimes temporarily), even in cases where companies still hold a government license, adhere to a different due diligence programme, or conduct their own due diligence.

If persistent risks are reported at the level of the mining site or cooperative, this is communicated to all ITSCI stakeholders via a monthly confidential due diligence list, or in the words of some informants, a "blacklist"[94]. This list displays companies or mining sites where persistent risks are identified and that need additional visits and investigations by its buyers (ITSCI Feedback, 30 July 2020). An exporter and investor in the Rwandan mining sector however raised concerns over the fact that the information on this list is at least three months old, which then means that the monthly update they receive is outdated and which makes it difficult to act upon the obtained information[95]. In response to this ITSCI stated that companies are responsible for their own due diligence (ITSCI Feedback, 30 July 2020), meaning companies should not solely rely on the information acquired via the ITSCI system. On average, mining sites or cooperatives get three months to solve the incidents before being put on the list, but this depends on the severity of the incident[96].

In case persistent risks are identified at the level of the exporters (full members), the exporter may be temporarily suspended from the programme. Suspension is communicated to all stakeholders via a publicly available list (see the full members list by ITSCI, 2020d). Striking is that ITSCI can suspend a full member independently from the Rwandese government's assessment[97]. ITSCI commented that they always collaborate closely with the Rwandese government in case of persistent risks and only unilaterally expel or suspend an ITSCI member when the member in question did not pay the required membership fees or levies (ITSCI Feedback, 30 July 2020).

In case of serious and repeated incidents, a full member can be expelled from the ITSCI programme. Although it is unclear how many cooperatives or mining sites have been suspended or expelled over the years (meaning they are temporarily or permanently excluded and do no longer receive tags), since the start of the programme 23 full members have been expelled in Rwanda (ITSCI, 2020d). Again, this does not automatically mean that they lose their mining or trading license, but it may constrain their international market access. At the same time, of course, the government's RMB can also withdraw mining or trading licenses if a company does not act in accordance with domestic laws. Such loss of license automatically ends ITSCI membership as well[98]. ITSCI field officers can make recommendations to the Rwanda Investigation Bureau (RIB) or to the local police in order to alert Rwandese authorities[98]. But according to an interviewee who said he filed several cases to the local prosecutor's office against illegal mining, these are rarely followed up on[99].

[93] [..] added for clarification
[94] Terminology used by respondents from FM 11 and FM 8
[95] Interviews FM 8
[96] Interview data officer Pact Rwanda
[97] Interview Programme manager Pact Rwanda
[98] Interview Pact programme manager
[99] Interview FM 7

De facto monopoly

Rwandan law requires cooperatives and companies to prove the origin of minerals, but these minerals do not necessarily need to be tagged by the ITSCI programme (even though explicitly mentioned as a traceability initiative for the upstream sector by the OECD, 2016, p.15, p.38-39). Since 2016 an alternative due diligence programme has been rolled out: the Better Sourcing Programme (BSP). It has been initiated by RCS Global Group, a private company. It is currently active in upstream supply chain monitoring and traceability and operates for profit. BSP principally differs from ITSCI with regard to data sharing, the technology for data collection and the way of conducting due diligence[100]. Although we have not been able to study the implementation of BSP on the ground – and this was not the focus of the research – interviews and observations have revealed the following notable differences.

Whereas ITSCI data are centrally managed by the ITSCI secretariat and members do not have direct access to this data[101], BSP provides the stakeholders working with their programme with direct access to information on their upstream supply chains via an online data platform. In contrast to ITSCI's paper- based system, BSP is based on barcode scanning and an algorithm calculating mass balance. Traceability and incident identification and reporting are done by the BSP field team. BSP has a permanent presence at the companies or sites, and BSP traceability officers rotate between such sites every few days. Finally BSP works only with stakeholders who cover full upstream supply chains; they have no individual memberships for upstream stakeholders[102].

Even though the BSP is found to be more advanced in terms of technology and consistent monitoring[103], interviewees working for four active ITSCI exporters stated that they are not considering a switch[104]. The reason given by two consultants is that for pragmatic reasons, some smelters prefer the ITSCI system as they fear high transaction costs when having to switch to a new system[105]. Furthermore, four informants (three of which have extensive experience in the downstream sector) stated independently from each other that ITSCI is able to influence the purchasing decisions of some mineral buyers, which enables ITSCI's de facto monopoly on due diligence programmes in the region[106]. Exploring this further, the major tin smelters that were involved in the development of the ITSCI programme are also members of the ITA (recalling that this is one of the two organizations governing ITSCI) (ITA, 2018). Two of these smelters[107] explicitly mention relying on ITSCI traceability on their websites.

[100] Interviews BSP
[101] Interviews FM 3 and FM 7
[102] Interviews BSP, Interviews FM 3
[103] Interviews FM 3, FM 7, FM 19
[104] Interviews FM 6, FM 8, FM 9, FM 10
[105] Interviews consultant 1 and 2
[106] Interviews consultant 1 and 2, FM 19, FM 8
[107] For MSC: "Currently between 15-20% of the tin MSC produces is sourced from predominantly artisanal miners in Central Africa. The majority of the smelter's intake from Central Africa comes from Rwanda, or from the southern Katanga Province of the DRC which is not within the recognised conflict areas of Eastern DRC. MSC, as a leading member of the International Tin Association (ITA), has been pro-active in developing the ITRI Tin Supply Chain Initiative (iTSCi) traceability and due diligence system designed to differentiate between conflict and non-conflict sources in high risk areas and promote progressive improvement of the mining areas where the artisanal miners operate. All tin concentrates purchased by MSC from Rwanda and Katanga is obtained through the iTSCi programme and in accordance to internationally recognise due diligence guidance." https://www.msmelt.com/policy-on-conflict-minerals.php
For ThaiSarco: "Thaisarco uses supply chain traceability schemes such as ITSCI tagging scheme." https://thaisarco.com/Home/SupplyChain

Respondents noted that the ITA can put pressure on its members to work with ITSCI traceability[108]. A consultant with extensive experience in the downstream sector explained: "… But some smelters may be a little… reluctant. Because they can get pressure from ITSCI, and then do not have access to the other members of the ITSCI scheme. Smelters may not have the opportunities to have both ITSCI and BSP. That's why the sanctions you referred to can be applied by ITSCI"[109]. A traceability officer with extensive experience in the Rwandan mining sector confirmed that ITSCI can tell smelters where to buy from (and where not to buy from): "ITSCI can say to our client like: 'The minerals from BSP members… We don't know about the traceability. It's not good.' And they will not buy"[110]. He further elaborated on the power ITSCI holds in the market[111], to the extent that if governments were to decide to stop working with ITSCI, they would "stop their minerals to be bought and sold"[110] which would result in losses of hundreds of millions of dollars in mineral revenue. One of our respondents stated "The only thing they [the ITSCI programme] have is power. When you look at their set-up, you do not find the skilled personnel to facilitate the programme"[112]. He recalled how ITSCI representatives at the T.I.C. General Assembly in Kigali (2018) explicitly said that exporters would have difficulties finding a buyer if they decide not to work with ITSCI[112]. An investor in the Rwandan mining sector confirmed: "On the international mineral market you need ITSCI certification [sic]. This is where they play"[113].

The report resulting from a local exporter meeting (2017) in the Great Lakes Region states: "Exporters expressed concern on the issue of monopoly of ITRI/iTSCi in mineral traceability and strongly requested the ICGLR Secretariat and Member States to look into possibilities of having more options for traceability/due diligence service providers for purposes of competition that would lead to innovation and cost reduction"[114]. In the meantime, other due diligence programmes are in place, as noted before. Three previous ITSCI members in Rwanda were reportedly able to change to BSP because they could make individual deals with buyers themselves, but according to some informants, this was only possible because they supply significant volumes[115]. Switching due diligence programmes (or conducting their own due diligence) can be more difficult for smaller companies.

A former ITSCI member with mining sites in Eastern DRC switched to BSP because he experienced minerals from his concessions being stolen, whitewashed and tagged as minerals from neighbouring countries. The theft, whitewashing and the switch costed the company additional "millions of dollars"[116]. The company asked ITSCI if they could lower the levies because security expenses went through the roof as they tried to counter the theft and smuggling. Instead of assisting the member, ITSCI increased the levies. When the member refused to pay these increased levies and contacted ITCSI's ombudsman, ITSCI allegedly refused to meet[117]. The company then changed to BSP. When cargo was exported from Eastern DRC to the smelter with all correct documentation traced by ITSCI in October 2018, it was refused by the smelter when it arrived in December 2018. The given reason was that the company had resigned from the ITSCI programme before the arrival of the cargo at the smelter level[116]. ITSCI informed its members that the company was no longer a member

[108] Interviews FM 19, FM 8, FM 5, Consultant 1, Consultant 3
[109] Interview consultant 2
[110] Interviews FM 15
[111] The power of the ITSCI programme has been a recurrent theme in at least 14 interviews, including FM 2, FM 3, FM 5, FM 7, FM 8, FM 9, FM 12, FM 15, FM 19, Consultant 1, Consultant 2, Consultant 3, Consultant 4 and Local Advocacy Group 1
[112] Interview Local Advocacy Group 1
[113] Interview FM 8, [ ] added for clarification, even though ITSCI is not a certification initiative but a due diligence programme, several informants used this phrasing
[114] Report of the Regional conference of mineral exporting companies in the Great Lakes Region, facilitated by the ICGLR (2017)
[115] Interviews FM 3, FM 2
[116] Interviews FM 19, FM 8
[117] Interview FM 19

of the ITSCI programme and that members would therefore need to conduct their own risk evaluation (ITSCI Feedback, 30 July 2020). Smelters buying minerals from that company would do so at their own risk. By the time of our field research, the company still had two containers that needed to be shipped, but could not find buyers[117].

Responding to these different statements, ITSCI denies improperly influencing company decisions and states that it all comes down to whether the seller of minerals can convince the buyer of those minerals that adequate due diligence has been performed (ITSCI Feedback, 30 July 2020). ITSCI stresses that they do not interfere in the market, and that upstream operators are completely free to use other due diligence programmes or ways of conducting due diligence (ITSCI Feedback, 30 July 2020).

Discussion: The ITSCI programme as non-state regulator

Going back to our main research question, we found that ITSCI can hold private actors (their members) to account, as the latter are required to answer to ITSCI and debate the acquired information with one of the ITSCI bodies. In case the outcome of the debate on the acquired information is considered unsatisfactory, ITSCI can eventually suspend or expel the private actors from the programme. Given ITSCI's current de facto monopoly, this may severely affect the private actors' access to markets.

In terms of programme implementation, ITSCI is facing a number of challenges. We found evidence that the monitoring quality and frequency of the RMB Mineral Field Officers and the ITSCI field officers leave room for improvement due to insufficient human, technical and financial resources[118]. Furthermore, tags can be misused[119], information flows can be slow[120] and minerals from non-ITSCI sites may enter the ITSCI system[121]. This means that an ITSCI tag does not necessarily trace the minerals back to the mining sites from where these were extracted.

Recalling that ITSCI is governed by only two representatives of two industry organizations that represent the interests of major tin and tantalum-niobium companies, these organizations de facto exercise regulatory power over an entire mineral sector in the Great Lakes Region. ITSCI states to have acted on recommendations from the OECD to create a new position of 'ITSCI programme manager', who reports to the ITSCI governance committee (ITSCI Feedback, 1 September 2020). The position was previously held by the ITA representative in the ITSCI governance committee (OECD & Kumi Consulting, 2018, p.64). Moreover, local members, stakeholders and civil society organizations are not included in the governance committee of the ITSCI programme. In response to this, ITSCI commented that civil society is included in local stakeholder committees and in other roles within ITSCI (ITSCI Feedback, 30 July 2020). However, as stated before, these local stakeholder committees are currently not formally functioning in Rwanda[122]. It has been mentioned that NGO representatives can volunteer to become members of the advisory panel, but the role of this panel is unclear (and one of the three members listed on the website is no longer working for the organization he is said to represent) (ITSCI, 2020e; Life & Peace Institute, 2020). According to the 2018 OECD evaluation, the advisory panel was not institutionalized and had no oversight function (OECD and Kumi Consulting, 2018, p.63). Moreover, advice is not the same as decision-making power. If ITSCI values the input of local stakeholders in the governance and execution of the programme, then the voices of local stakeholders per country could be included, with equal voting power. Regarding this latter suggestion,

[118] Interviews Consultant 3, FM 12, FM 5, Local advocacy group 1, FM 8
[119] Interviews FM 5, FM 7, RMB Mineral Field Officer
[120] Interviews FM 8, FM 7, FM 5, Consultant 2, Consultant 3
[121] Interviews FM 5, FM 7, RMB Mineral Field Officer, FM 19, Video CNLFM
[122] Interview Pact programme manager

ITSCI commented that this could result in a conflict of interest (ITSCI Feedback, 30 July 2020). This in turn raises questions about whether the current governance committee does not have a conflict of interests[123] of its own, as they act both in the capacity of governance committee members for a non-profit, and representatives of an industry organization[124].

In Rwanda, ITSCI monitors the implementation of the rules in collaboration with a non-profit organization, the Rwandan government and an independent auditor. Small firms without exporting capacity are not within the scope of the independent auditor, but are jointly monitored by the non-profit organization and government agents. According to the literature, theoretical advantages of this joint monitoring approach are cost reductions for the upstream stakeholders, while the specific technical capacity of the non-state regulator (ITSCI) is shared with artisanal and small-scale producers and innovation is spurred by competition between the traceability and due diligence programmes (Braithwaite, 1982). In practice, however, not all these advantages equally apply. ITSCI is found to be very costly for upstream operators (levies)[125], but possibly even more so for the smaller ones[126]. The paper-based system slows down information flows, and innovation stimulated by competition is yet to materialize, as competitors have not (yet) achieved operations on a similar scale. Respondents confirmed that companies do not want to risk being denied access to trade with other ITSCI members or smelters working with the ITSCI programme[127].

Still according to the literature, accurate, timely and clear information is the first step in ensuring accountable behaviour (Schillemans et al., 2013), but the ITSCI programme does not appear to fully meet this requirement. Firstly, while RMB Mineral Field Officers and ITSCI field officers need to transfer accurate and timely information from the members to the due diligence programme, field research indicated that this is not always the case. This is mostly due to insufficient human, technological and financial resources. Secondly, the independent auditor is expected to carry out regular audits on full members (even though these are not mandatory per OECD Due Diligence Guidance), but in recent years these have not been organized. ITSCI commented that these audits are, among other factors, what differentiates the programme from other due diligence programmes, but did not explain why the last audits have been conducted in 2017 and not in recent years (ITSCI Feedback, 30 July 2020). Furthermore, the audits to approve new full members are only based on desk-research. As we outlined above, the ITSCI secretariat on its part does not always provide its members with accurate, timely and clear information either. ITSCI commented that the programme is not responsible for due diligence (companies remain responsible for their own due diligence), the programme is not responsible for the tagging (local government agents are responsible for the tagging), and the programme is not responsible for the follow-up on incidents (the local government authorities need to follow-up on incidents) (ITSCI Feedback, 30 July 2020). Interpreting these statements, it appears that ITSCI's sole responsibility is the tracking of tags on bags to the registered mining site under these tags, and the identification of and reporting on risks to help companies conduct due diligence.

[123] A conflict of interest being "a situation in which a person has a duty to more than one person or organization, but cannot do justice to the actual or potentially adverse interests of both parties" (Legal Dictionary, 2020).

[124] See the objectives of ITA (2020) and T.I.C. (2020) on their websites. See also previous concerns raised on the ITSCI programme's concealing of its corporate identity under a 'non-profit' façade in the DRC (Vogel, 2018, p.98).

[125] Interviews FM 1, FM 3, FM 5, Report from a regional exporters meeting facilitated by the ICGLR (2017)

[126] Vogel et al (2018) found prices to be lower in some certified mines, which may indicate that costs are shifted on to the producers. De Brier et al (2020) found that prices are higher, but found no statistically significant difference between miners' income in certified and non-certified mines. De Brier et al (2020) conclude there is a need to further research the due diligence cost.

[127] Interviews Consultant 1 and 2, FM 15

ITSCI acts as an important gatekeeper by controlling the data centrally from its London office. This puts the governance committee and secretariat into very powerful positions, especially given the general paucity of data on mineral supply from the Great Lakes Region (much of which flows illegally or informally, hence unrecorded. See OECD, 2012, p.7). ITSCI states that they are exploring a digitised system, but that some confidential commercial data cannot be made public and "must be maintained by ITSCI only" (ITSCI Feedback, 30 July 2020). This also means that members pay for this information on risks and mineral tracking, but do not have direct access to this information (not even concerning their own supply chain) and in addition need to acquire more information themselves to verify the ITSCI information. Informants further raised the concern that the information flows via the ITSCI programme are slow, but the migration towards a digitised system could speed up the data collection process. Further, even when the information on risks and mineral tracking is provided, it does not necessarily mean that the companies act on this information (for example, recalling the case in which an exporter stated to know that a certain production level is not plausible for a mining site but does not refrain from buying as it is still tagged).

Our findings thus confirm 1) that transparency of information does not necessarily result in better performance on the ground, and 2) that qualitative monitoring is crucial to help reduce the incentive for non-compliance. Because of infrequent monitoring and limited capacity, the risk of 'being caught' is low, reducing the incentive of private actors to act upon the information acquired via due diligence (programmes).

Depending on the seriousness and persistence of the incidents, ITSCI field officers and RMB Mineral Field Officers give private actors the opportunity to explain their non-compliance and try to cooperatively come to a solution (*answerability*). However, this may take a lot of time. The findings so far indicate that the idea of transnational non-state regulation is a plausible alternative to fill regulatory gaps, but it shows that the level of monitoring and information gathering and -sharing in the case of the ITSCI programme can be improved. However, if imposed, sanctions proved effective (*accountability*). The possibility of being excluded (even temporarily) from the ITSCI programme and the resulting constrained access to the international markets creates incentives for the private actors to comply with the regulations (see Parker and Lehman Nielsen, 2011, p.382). These findings indicate that the sanctions available under transnational non-state regulation should be of relevant size and severity corresponding to the extent to which the regulation has been breached, and therefore do not necessarily have to be juridical (see Scott, 2012, p.5-6). However, sanctions are unidirectional and ultimately only negatively affect members at the upstream end of the supply chains, especially small firms. In the case under study, the main reason why the sanctions are effective is the fact that ITSCI has acquired a de facto monopoly on mineral traceability and due diligence programme's in 3T supply chains from the region. The programme owes this de facto monopoly to a large extent to the strong position of its founding organizations ITA and T.I.C. According to our informants, companies that decide not to work with ITSCI risk being denied access to trade with other ITSCI members or smelters working with the ITSCI programme (see above).

ITSCI commented that they do not in any way improperly influence company decisions and that the decision of what companies do or do not purchase remains with the companies. ITSCI further stressed that they are not a market participant that is able to misuse a dominant market position. However, if companies are not "meeting the expectations of the supply chain, then they may find it more difficult to locate a buyer" (ITSCI Feedback, 30 July 2020). Yet several respondents said that ITSCI puts pressure on members not to work with competing due diligence programmes[128]. Concerns were also raised about revenues gained from mineral extraction and trade not being invested back into the region[129]. In raising these concerns, respondents referred, amongst others, to the fact that the wages and means

[128] Interviews FM 8, FM 7, FM 19, Consultant 1

[129] Interviews Consultant 1, FM 15, Local Advocacy Group 1, Local Civil Society Group 1

of transportation of the 97 RMB Mineral Field Officers are not paid via the levies raised by the ITSCI programme[130], that the RMB Mineral Field Officers and ITSCI field officers currently do not make use of technological equipment to determine the geological fingerprints of minerals (on the spot), that the tags and logbooks are paper-based (even with the use of 97 tablets for the data-entry from the paper logbooks into the database and the use of ChainPoint software[131]), and that the ITSCI field team with 7 field officers as well as the local Pact team are relatively small[132]. When asked to comment on this, ITSCI referred to the disclosure of their expenses in the field, which is published on the website (ITSCI Feedback, 1 September 2020). However, as stated earlier, this does not detail operation costs per country, nor does it specify the break-down of the expenses for 'field operations' (see ITSCI, 2020a). RMB on its part stated that the levies raised by ITSCI are used for the functioning of the programme only, and that RMB would be interested to learn via clear and tangible examples how the revenue raised via the ITSCI levies is invested back into Rwanda (RMB Feedback, 28 October 2020).

An informant who works for an active ITSCI exporter and who has been working with the ITSCI programme for many years recommended: "Equipment is needed because we want to do radiation underground, to make sure what the soil under the ground is really containing. But you can't find that with ITSCI. Maybe they need to invest this money they are getting from the service, they need to invest it back, making sure they do a real research on each site they service to ensure that this site is containing those minerals"[133]. An exporter as well as a representative of a local advocacy group stated that they would like to see the levies paid to the ITSCI programme invested back into the stakeholders working at the level of the mining site, as well as mining communities[134], for instance by providing training on due diligence, health and safety standards in mining, or on environmental protection.

Conclusion

Supply chain regulation is increasingly outsourced to non-state actors, which raises accountability questions. In the case we describe, companies are responsible for conducting due diligence, but they heavily rely on a traceability and due diligence programme that provides supply chain information, monitors standards and helps private companies identify and act upon risks. To hold private companies to account in such a context, we argue, there are four important conditions. Firstly, the due diligence programme should provide clear and timely information to all stakeholders. Secondly, high-quality and frequent monitoring should be ensured. Both elements are important to make companies *answerable*. Thirdly, to make them *accountable*, there should be a possibility of imposing credible sanctions. For instance, when non-compliant companies face difficulties finding a buyer for their products, this constitutes a credible sanction. Fourthly, it is important that the governance of the due diligence programme acts in the public interest. In this sense some concerns have been raised about ITSCI's organizational structure (OECD and Kumi Consulting, 2018). It is reasonable to conclude that the ITSCI programme does meet the third condition on sanctions, but that it faces a number of challenges with respect to the first, second and fourth condition.

Finally, we argue that due diligence should be considered as an instrument to achieve an impact (desired change), not an end in itself. As stated in the introduction, the US and EU regulations have been set up with the aim to break the link between minerals exploitation/trade and conflict/human rights abuses. ITSCI states on its website that the programme's purpose is "to create responsible

[130] Interviews FM 15, Follow-up interview Pact programme manager, confirmed by RMB (RMB Feedback, 28 October 2020)
[131] Chainpoint did not respond to the request to provide information on the purchasing costs or operation costs of their services
[132] Interviews FM 12, FM 5, FM 8, Local Advocacy Group 1
[133] Interviews FM 12
[134] Interviews Local Advocacy Group 1, FM 14

mineral supply chains that avoid contributing to conflict, human rights abuses, or other risks such as bribery" (ITSCI, 2020).

However, the positive effect of due diligence on human rights or conflict cannot be simply assumed. Companies may be 100% compliant with due diligence requirements, but not contribute to the desired policy goal (desired change). In a 2019 article Landau draws attention to the risk of "cosmetic compliance". This means that companies formally comply with due diligence by adopting all necessary "internal policies and compliance structures", but fail to address "the question of how to regulate for meaningful human rights due diligence that is capable of achieving the public policy goals to which it is directed" (for a recent comprehensive report on the shortcomings of transnational voluntary regulation in protecting human rights, see MSI Integrity, 2020).

It is reasonable to conclude that there is indeed a risk of cosmetic compliance in the case of mineral supply chain due diligence. A recent IPIS study (2019) in the DRC concluded that the positive effect of due diligence on human rights compliance is still unclear, and that more research is needed to verify the assumed causal relations (the study found that participation in due diligence programmes correlates with better human rights outcomes, but this may well be due to the fact that such programmes are implemented in more stable and accessible areas). This also joins previous academic studies on the impact of Dodd-Frank in the DRC, among others by IOB colleagues, which have found that it has not reduced conflict or improved livelihoods (Stoop et al., 2018). More independent research is needed to follow up on these issues in the medium and the long run.

Recommendations

Following up on our conclusions we formulate a set of recommendations (see table 1 for an overview of all recommendations); some of which are specifically aimed at ITSCI, while others are more broadly applicable. First of all, with respect to information, we recommend that the ITSCI programme speed up its efforts to innovate and digitise the paper-based system so as to improve the flow of and accessibility of information. Secondly, with respect to monitoring, there is scope to improve the human, technical and financial resources of the monitoring bodies on the ground (both state and non-state). Monitoring should go beyond what has been labelled *cosmetic compliance* (Landau, 2019) and be focused on real and significant change on the ground. Local stakeholder committees that include local community and civil society representatives should help prevent and follow up on incidents. Thirdly, policy-makers should consider including a sanctioning clause in the existing due diligence regulations for mineral importing companies at the downstream end of mineral supply chains. An environment for mineral traceability and due diligence programme competition should be enabled to spur innovation and lower the costs of due diligence for upstream companies. Fourth, we recommend that the ITSCI programme improves its governance structure, which currently heavily relies on the industry associations ITA and T.I.C., which each have one representative in the Governance Committee. We recommend to include international and local civil society as well as upstream stakeholders in the governance of the programme, and to relocate the secretariat to the Great Lakes Region. Finally, more research needs to be done on the effect of due diligence (programmes) on human rights compliance by upstream stakeholders and on the cost of due diligence.

Table 1. Overview of recommendations

	Stakeholder	Recommendation
1.	**ITSCI**	To speed up the efforts to innovate and digitise their paper-based mineral traceability system. Recommendations could be formulated during a multi-stakeholder consultation;
2.	**ITSCI**	To invest in technology to give the stakeholders access to a database concerning information on at least their own supply chain at all times;
3.	**ITSCI**	To speed up the membership acceptance procedure so as to shorten the period of 'provisional membership' as much as possible, in order not to create a situation in which companies can legally operate (as per government license) but do not have access to ITSCI tags;
4.	**ITSCI, Pact**	To raise awareness among cooperatives and miners on the ITSCI levies as they should be more aware of how much they indirectly pay for due diligence;
5.	**ITSCI, RMB**	To increase the frequency and quality of the monitoring visits, both state and non-state. To reinforce the human, technical and financial resources of the monitoring agents;
6.	**ITSCI**	To consider increasing the frequency, the scope (of issues that are being looked at) and the reach (of stakeholders to be audited) of independent audits, as well as a rotating system for independent auditors;
7.	**RMB**	To help enable stronger and more accurate follow-up on issues raised by stakeholders, for instance by actively including upstream stakeholders, local civil society and representatives of mining communities in the Taskforce Committees on district level;
8.	**EU Commission**	To amend the 2017 EU Regulation during the 2023 revision and include a sanctioning clause for EU importers in case of non-compliance with due diligence on EU level;

9.	**ITSCI, International and local civil society, upstream stakeholders**	To improve the governance structure of the ITSCI programme, by encouraging advocacy groups, civil society and other interest groups to consider joining the ITSCI governance committee. A multi-stakeholder consultation per country in the Great Lakes Region could help formulate conditions under which a new governance structure of the ITSCI programme might operate and how the voting power could be distributed in an equal manner. It could further help to balance the interests of the different stakeholders, as the local mining sectors, the local and international civil society, and the interests of industry associations and downstream actors;
10.	**ITSCI, ICGLR, OECD, (Inter)national civil society**	To consider establishing a formally functioning committee overseeing the ITSCI governance committee and programme, working together with the ICGLR, OECD and civil society to conduct independent operational and (additional) financial audits of the ITSCI programme;
11.	**ITSCI**	To consider relocating the ITSCI secretariat to the Great Lakes Region;
12.	**ICGLR, OECD, (Inter)national civil society, Academics**	To conduct an extensive study on the real due diligence cost per group of upstream stakeholders per country in the GLR[135], to use as a point of reference;
13.	**ICGLR, OECD, (Inter)national civil society, Academics**	To conduct additional studies on the effect of due diligence on human rights compliance by upstream stakeholders, preferably making a comparison between different ways of conducting due diligence;
14.	**RMB**	To enhance an environment for competition between due diligence and traceability programmes so as to spur innovation and lower costs;
15.	**OECD**	To include a clear format per group of stakeholders in the Guidance on how to report on due diligence, as companies report inconsistently (some reports are superficial and others are extensive);

[135] Due diligence costs differ per group of stakeholders and even per stakeholder within this group, depending on several factors as the composition of their individual supply chain and operation capacity. It is hence difficult to estimate and generalize costs per stakeholder. However, it should be possible to establish margins for these costs that depend on a number of pre-identified indicators.

16.	**OECD**	To include suggestions for other due diligence programmes or ways to conduct due diligence for the upstream mineral sector in the Guidance.

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