Digging for due diligence : the case of non-state mineral supply chain regulation by ITSCI in Rwanda

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Digging for due diligence: The case of non-state mineral supply chain regulation by ITSCI in Rwanda

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Abstract: Today's complex mineral supply chains make it difficult to hold private actors to account in case they breach regulations. Non-state actors increasingly make efforts to help regulate these mineral supply chains via due diligence programmes. The purpose of this study is to investigate how non-state mineral supply chain regulation functions on the ground, and whether and under what conditions non-state actors can hold private actors to account. Based on an in-depth case study of the ITSCI programme in Rwanda, we demonstrate that although non-state regulation of mineral supply chains has huge potential, the ITSCI programme faces several challenges. We find that there are four conditions 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 meets the third condition on sanctions, but that it faces a number of challenges with respect to the first, second and fourth condition.

Key words: accountability; mineral supply chains; due diligence; ITSCI; Rwanda

1. Introduction

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". The idea is that mineral buying companies continuously monitor their suppliers and stop buying from them whenever they identify risks (Mayer et al., 2016). By making supply chain actors monitor each other, regulation is "outsourced to the regulated 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; p.425).

In the case of mineral supply chains, mandatory due diligence requirements are included in the US 'Dodd-Frank Act' Section 1502 (2010) and the EU Conflict Minerals Regulation (2017/821). It requires companies importing minerals from the African Great Lakes region to file an annual report, providing 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). Both US and EU conflict minerals regulations aim to break the link between minerals and conflict financing and ensure that human rights are respected during the extraction of and trade in minerals (SEC, 2012; European Commission, 2019).

This has resulted in several initiatives. For instance, the International Tin Supply Chain Initiative (ITSCI) or Better Sourcing Program (BSP) 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 and act upon risks. These programmes are non-state (private or non-profit) organizations monitoring standards (deFries et al., 2017). Most empirical studies on the implementation of due diligence on the ground have focused so far on the

DRC (see for studies on ITSCI in the DRC among others Wakenge, 2017; Vogel, 2018; Diemel & Hillhorst, 2018). However, we hardly know whether and under what circumstances non-state actors are able to hold private actors to account in case they breach transnational regulations. This paper aims to contribute to closing these research gaps by providing insights in the implementation of a due diligence programme in Rwanda.

In the case of the 3T supply chains, the OECD Guidance suggests to work with the ITSCI programme (OECD, 2016, p.15). ITSCI acquired a monopolistic position in the regulation of the 3T supply chains from the Great Lakes region (see Vogel, 2018; Perks, 2013). There currently exists some competition in the field of due diligence programmes, but compared to ITSCI, other programmes, such as BSP and Levara[1], 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 are allowed, but the market is so completely dominated by one [supplier] that the other [suppliers] might as well not exist (US Legal, 2019)."

We examine two questions: 1) How does non-state regulation of upstream mineral supply chains function on the ground? And 2) can non-state actors hold private actors to account for breaching regulations? We study the ITSCI programme[2] as an exemplary case study of the on-the-ground performance of non-state regulation at the upstream end of the supply chain (Bryman, 2012, p.70). The study focuses on Rwanda, where ITSCI has the most validated upstream companies and the highest validated mineral production in comparison to individual provinces in the DRC, or neighbouring countries Burundi and Uganda (ITSCI, 2020c).

Most data for this study was collected during a three months-stay in Rwanda by the first author from August until October 2019. Through snowball sampling[3] we purposively selected informants[4] for 51 semi-structured interviews, of which some were conducted with multiple informants (75 informants in total). 37 interviews were carried out in several locations in Rwanda, 14 interviews were done via Skype. The first author collaborated with local researchers for translation. All respondents were asked permission for a recording of the interview and all data is anonymized. The respondents were informed on the research objective during the interview arrangements and again before the start of the interview. Field notes containing delicate information were recorded in the first researcher's native language. Data were fully transcribed (for those who consented to audio-recording)[5] and coded using NVivo 12 software. Follow-up data were collected through desk research, personal communication and follow-up interviews between October 2019 and October 2020. The analysis is further based on field observations, primary documents obtained from respondents, as well as on secondary documents and online sources. Four methods of triangulation were used to ensure the internal validation and reliability of the data, particularly method triangulation, investigator triangulation, theory triangulation and data source triangulation (Cope, 2014).

In the following section we present our conceptual framework, before applying it to the case of ITSCI in Rwanda. In the discussion section, we answer the research questions and find that there are four conditions that need to be met for non-state actors to hold private supply chain actors to account.

[1] See Better Sourcing Programme (RCS Global Group, 2020) and Ravara programme (Levin Sources, 2020).
[2] For an extensive overview of the empirical data, see Postma and Geenen (2020).
[3] The snowball sampling started with the online ITSCI Full Membership list.
[4] These include but are not limited to upstream private actors as miners, cooperatives, and exporters, (inter)national government representatives, (inter)national civil society representatives, local advocacy groups, international donor representatives, journalists, researchers and consultants.
[5] Six interviews were not recorded but summarized based on the notes taken during the interviews.

Our case study reveals the potential, but also the risks of non-state supply chain regulation. Although the programme is able to hold private actors to account, it appears to act primarily in the interest of major industry organizations, instead of enabling a mineral supply chain free of conflict and human rights abuses. These findings are not merely relevant for ITSCI or the Great Lakes Region, but can inform policies on supply chain regulation more broadly.

2. From transparency to compliance

The current research on transnational regulation of mineral supply chains is heavily biased towards transparency (see Swift et al., 2019; Gardner et al., 2018). 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). 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).

The rationale behind transparency is that consumer pressure instigates compliance. However, this rationale does not necessarily work out as such 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. Tusikov (2017, p.339) understands non-state regulation as "non-state actors making, implementing and/or enforcing rules and standards". For the context of the current study, accountability can be understood as a private actor, i.e. the actor (for instance a minerals exporter), *answering* on its actions to a non-state regulator, i.e. the forum (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.14-15). Following Bovens (2007, p.451) we claim 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).

Further conceptualizing accountability, Schillemans et al. (2013, p.412) consider three phases in their *accountability cycle*. In the first *information phase*, the accountable subject provides information to the regulator, which is debated in the second *debating phase*. The accountable subject has the opportunity to clarify this information, after which the regulator poses a judgement and may or may not impose sanctions as a consequence of the accountable subject's behaviour in the third *sanctioning phase* (Schillemans et al., 2013).

Sanctions are understood as the punishments laid out in rules as a consequence for undesired behaviour (negative sanctions), in this study punishments for private actors resulting from breaching transnational regulations (based on Becker, 1968, p.43).

Sanctions instigate compliance. However, a narrow procedural view on compliance may result in a single focus on internal policies and reporting, instead of considering real changes on the ground. A company may be fully compliant with due diligence, but still contribute to conflict or human rights violations, or not worry about potential unintended or unrecorded consequences of their activities, when these do not fit the due diligence framework (see Krawiec, 2003). In a 2019 article Landau identifies the risk of "cosmetic compliance". This means that companies formally comply with due diligence but fail to "… regulate for meaningful human rights due diligence that is capable of achieving the public policy goals to which it is directed" (Landau, 2019, p.246).

3. ITSCI in Rwanda

Rwanda is not commonly known as a mining country. As Perks (2013) explains, this oversight is due to a single focus on the country's violent past (genocide) and its post-conflict transition towards impressive economic growth, combined with the "single story" of Rwanda as a transit for minerals smuggled from neighbouring DRC. However, ASM has been practiced since the Early Iron Age. Over the past couple of decades ASM has been integrated into local economies, directly and indirectly sustaining people's livelihoods, complementing farmers' livelihoods, and allowing quite substantial capital accumulation for some (Perks, 2013).

In 1996 the Rwandan government liberalized its mining sector, by promoting private (foreign) investment in a bid to increase the sector's productivity and transition from artisanal to semi-mechanized or fully mechanized production modes (Perks, 2016). Although these policy objectives were only partly achieved, in recent years some progress has been made towards formalization of ASM. For instance, the cooperative movement has been strengthened, and cooperatives focus on training and education (Perks, 2013). Minerals accounted for the third largest share in Rwandan exports (after tea and coffee) in 2018, generating 373 million USD in revenue (Uwiringiyimana, 2018). In 2019 there were 251 active mining and exploration companies, 175 pending licenses[6] 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 companies should comply with a range of health, safety and environmental obligations (RMB, 2018, p.46- 48).

3.1. Implementation

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). The International Tin Association (ITA) and the Tantalum-Niobium Study Center (T.I.C), two non-profit industry associations representing the tin and tantalum and niobium industries, anticipated on this embargo by developing ITSCI[7], a due diligence and mineral traceability programme (ITSCI, 2020a). Today the programme operates in Rwanda, the DRC, Burundi, and Uganda (ITSCI, 2020b). At the time of the

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

[7] Three of ITA's members, particularly the Malaysian Smelter Corporation Berhad, ThaiSarco Smelting and Refining and Yunnan Tin Group were actively involved in this (ITSCI, 2016; Interviews consultant 1, 24-09-2019; consultant 3, 26-10-2019).

field research, there were 31 active full members (companies with export capacity) in Rwanda[8]. A new full member is investigated via desk research by a Paris-based independent auditor (Synergy Global). In addition the independent auditor should *a priori* conduct a wave of audits in the Great Lakes Region every 18 months, but the last audits for full members in Rwanda were held in 2017[9].

ITSCI is managed by a governance committee consisting of two representatives, one of the ITA and one of the T.I.C[10]. They 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). An advisory panel to the governance committee is in place (ITSCI, 2020e). The governance committee is assisted by a secretariat that is part of the ITA, consisting of a programme manager and a team of five members (ITSCI, 2020f). ITSCI is not a separate legal entity from the ITA, but the ITA maintains separate bank accounts for the programme[11]. Upstream actors are covering at least 80% of the costs of the ITSCI programme via levies on exports in addition to annual and joining fees (ITSCI, 2020a). There are no details available online for the year 2020, for example, regarding how the operational costs are divided between ITSCI and Pact (ITSCI, 2020a).

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[12] -, checking production levels, and formulating recommendations to the government. In doing so, they collaborate with 97 Mineral Field Officers (hereafter MFO's) from the Rwanda Mines, Gas and Petroleum Board (hereafter RMB). These MFO's 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[13]). However, the ITSCI programme does not cover any costs of those MFO's, which are all paid by RMB[14]. At the time of the field research, the ITSCI programme covered 971 sites in Rwanda, of which 225 were active (Status report Q3, 2019, see 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. 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[15]. As explained below, persisting incidents may result in sanctions being applied.

3.2. Traceability

The ITSCI manual, paper-based 'bagging and tagging' 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

[8] ITSCI Online full membership list, November 2019.
[9] Interview Synergy Global, 03-09-2019.
[10] Interview T.I.C. Study Center Representative, 15-11-2019; OECD and Kumi consulting (2018, p.64).
[11] ITSCI feedback, 16-07-2020. Where we refer to ITSCI feedback or RMB feedback, we mean several rounds of feedback provided to the working paper of this study (see Postma and Geenen, 2020).
[12] Interview cooperative 2, 18-09-2019; Interview FM9, 28-09-2019.
[13] Interviews with cooperative 1, 19-08-2019; cooperative 3, 27-08-2019; FM12, 17-09-2019; FM1, 29-09-2019.
[14] RMB feedback, 26-10-2020.
[15] ITSCI feedback, 30-07-2020.

journey starts at the mine, where a cooperative[16] mines the raw ore and carries out the initial processing. The ore is manually crushed and panned, after which it is cleaned and separated. When the ore is dry, it is cleaned, manually separated and put in bags of maximum 70 kilogrammes, to be transported[17]. MFOs weigh the bags and provide a tag that has been distributed via the local Pact office to a RMB district office. They collaborate with traceability officers who work for the respective cooperatives (cooperatives' or companies' own staff) [18]. The information is independently recorded by the cooperative and the RMB in separate logbooks, which are shared with Pact[19].

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

In separate file

Source: first author's interpretation based on interviews and observations

[16] A cooperative is generally an organized group of artisanal miners, consisting of permanent and temporal workers.

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

[18] Tags consist of the two letters of the country where it should be used, following 7 numbers. For example: RW 1234567 for a hypothetical tag in Rwanda. This tag is registered under the mining site where it should be used.

[19] 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), Interviews Pact, 05-08-2019; observations during field visits FM12, 17-09-2019; FM11, 20-08-2019; cooperative 3, 27-08-2019.

A traceability officer working for a cooperative explained: *"The MFO's come to check the production that needs to be tagged. They come here, they open the locked box that is stored at the site with the tags and take some tags to tag the production. […] Then they continue their inspection. If they find a difference in production of a mining site that is not normal, you have to explain the factors that affected the production*[20]*."*

The minerals are transported to the *comptoir* (export company). At this point the bags are weighed and recorded again by a traceability officer working at the *comptoir*, in collaboration with a MFO who must ensure the information is accurate. The tags of the bags are cut and the minerals are further processed, tagged with a *négociant* tag and sold to the *comptoir* if the price is agreed upon[21].

If a sale is concluded, a traceability officer and a MFO 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 to be sent to the ITSCI Secretariat and RMB receives a copy of the logbooks. Pact stated that the Secretariat is in the process of digitalization and they are training the 97 MFO's to enter data using a tablet. ITSCI has communicated that it is migrating to electronic data capture using a mobile app[22] .

3.3. Monitoring

The seven ITSCI field officers are responsible for seven ITSCI zones in Rwanda[23]. They conduct baseline studies in cooperation with the MFOs for each mining site and stakeholders using the traceability system in Rwanda, which the MFOs can use as a point of reference[24]. The ITSCI baseline studies rest on information provided by the stakeholders to the ITSCI officers 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, and relations with local administration[25]. This baseline study can be updated later on. Pact is facilitating the traceability process 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).

The 97 MFOs are responsible for the data collection on the mineral production, as well as for the tagging of the bags[25]. During a visit for the tagging of the production, MFOs generally check the logbooks, the stock, working conditions and discrepancies in the weight of bags of minerals[26]. Furthermore, the MFOs provide occasional trainings for the management of cooperatives as well as for miners. During these trainings they may raise awareness on workers' health and safety issues, their rights, rules and regulations and the prevention of accidents[27].

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

[20] Interview cooperative 1, 19-08-2019.
[21] Interviews FM8, 18-09-2019; FM15, 25-09-2019.
[22] ITSCI feedback, 30-07-2020. Noteworthy is that digitalization has been the intention since 2013 (see Levin and Cook, 2013, p.36).
[23] ITSCI feedback, 30-07-2020.
[24] Interview MFO, 17-09-2019.
[25] Interview Pact programme manager, 05-08-2019.
[26] Interview MFO, 17-09-2019; Interview cooperative 1, 20-09-2019; Interview FM12, 17-09-2019.
[27] Interviews cooperative 1, 19-08-2019; cooperative 3, 27-08-2019.

Regarding the frequency, MFOs generally arrive on request by the respective company when the tagging needs to be done[28]. As a MFO 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. […]"*[29]. A former ITSCI member claimed that he frequently needed to "*fetch*" a MFO when they needed the tagging to be done and that the officers visited inconsistently[30]. One of the reasons is that the traceability process needs to be flexible and respond to variability in production[31], 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[32]. Moreover, MFOs are not always sufficiently motivated, something that was corroborated during our own field visits[33]. Since some mines are located in remote rural areas, transportation can also be a problem[34], and MFOs can even depend on companies to pick them up[35].

Further, respondents raised some concerns about the quality of the monitoring. As stipulated before, the MFOs use a paper-based system (tags and logbooks) to track the minerals from mine site to *comptoir*[36]. For MFOs, 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[37]. 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 that MFOs 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[38]. A representative from a local advocacy group stated: *"The ITSCI programme here in Rwanda, and the RMB do not have enough geologists or engineers. They just train them for a week to look at the mine site*[39]*."* 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 where the minerals where effectively extracted.

ITSCI commented that having access to geological data would not be sufficient, and that MFOs should rather use their own observations, their consistent presence on site, and their ample experience in the sector[40]. A previous MFO who currently works for an active ITSCI member stated that some of the MFOs have a good understanding of the sector and the traceability system, but 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*[41]*."* Finally, an investor in the Rwandan mining sector raised similar concerns about the monitoring by the seven ITSCI field officers: *"They don't have the resources. They only have a small office with like five people here. They don't actually do their job on the mine. They are not present there*[42]*."*

[28] Interviews FM5, 11-09-2019; FM12, 17-09-2019; Cooperative 3, 27-08-2019; MFO, 17-09-2019.
[29] Interview MFO, 17-09-2019.
[30] Interview FM3, 07-08-2019.
[31] Interviews FM15, 25-09-2019; Pact Programme manager 05-08-2019.
[32] Interviews FM5, 12-09-2019; FM7, 11-09-2019; consultant 3, 26-10-2019 and consultant 4, 10-11-2019.
[33] Interviews FM12, 17-09-2019; FM15, 25-09-2019.
[34] Interviews FM12, 17-09-2019; MFO, 17-09-2019; consultant 3, 26-10-2019; consultant 4, 10-11-2019.
[35] Notes field observations before interview MFO, 17-09-2019.
[36] Interview cooperative 1, 20-09-2019; Cooperative 3, 27-08-2019; FM8, 18-09-2019; FM4, 08-08-2019.
[37] Interview FM12, 17-09-2019.
[38] Interviews FM12, 17-09-2019; FM7, 11-09-2019; FM3, 07-08-2019; consultant 2, 09-10-2019; consultant 3, 26-10-2019; consultant 4, 10-11-2019; local advocacy group 1, 16-08-2019.
[39] Interviews local advocacy group 1, 10-11-2019.
[40] ITSCI feedback, 30-07-2020.
[41] Interviews FM12, 17-09-2019.
[42] Interviews FM8, 18-09-2019.

Several respondents from active 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[43]. It is reasonable to conclude that ITSCI faces some challenges regarding the access to and timeliness of information.

The programme is being digitalized[44], but digitalization does not allow MFOs to verify whether the minerals come from the site indicated on the tag. Further, digitalization does not necessarily mean greater access to the data, since the ITSCI Secretariat might still control the data management platform.

A final concern is about non-ITSCI minerals entering the ITSCI system, for which there are several indications. A first indication is the fact that some ITSCI mines produce very little, but their recorded production is high. 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 declare it and highlight it. But, then […] they will go somewhere else and you lose their supply[45]."* A second indication is the trade in tags. According to some sources, MFOs who are supposed to distribute the tags to the respective mines, could be involved in selling these tags for a profit[46]. An informant who used to be a MFO and currently works for an 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[47]."*

In her 2013 work, Perks wrote that "domestic theft has been both exacerbated and complicated by the sector's liberalization" (Perks, 2013, p.743). Either the privatized concessions are too vast to effectively manage and control, or minerals are taken from productive mines to be sold to adjacent under-performing mines. Perks adds that these practices became possible through the governments' reform processes, which resulted in a boom of the number of permits, while the government has insufficient monitoring capacity (idem). By contrast, informants told us it is more difficult to trade in tags nowadays[48]. 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[49]. Every increase or decrease in the amount of tags needs to be justified to the RMB district office. Then the MFO needs to check at the mining site whether this change is legitimized[50]. However, it appears that tags of one district can still be used somewhere else[51]. A MFO stated that some companies arrange among themselves who uses which tags, even though this is prohibited[52].

[43] Interviews FM3, 07-08-2019; FM5, 12-09-2019; FM8, 18-09-2019; FM9, 28-09-2019; Local Advocacy Group 1, 10-11-2019.
[44] Interview Pact data officer and programme manager, 05-08-2019.
[45] Interviews FM5, 12-09-2019.
[46] Interview traceability officer FM7, 11-09-2019.
[47] Interviews FM12, 17-09-2019, [ ] added for clarification.
[48] Interviews FM9 28-09-2019; Cooperative 1, 20-09-2019.
[49] Interviews Cooperative 1 20-09-2019; Cooperative 2, 18-09-2019; Pact data officer, 05-08-2019.
[50] Interviews FM12, 17-09-2019; Interview MFO, 17-09-2019.
[51] Interviews FM7, 11-09-2019; FM12, 17-09-2019.
[52] Interview MFO, 17-09-2019.

When there are incidents with tags (f.i. an error in the recording of the tag number), it reportedly takes a long time before these incidents are resolved[53] as the stakeholder needs to contact the local Pact office, which in turn needs to contact the ITSCI secretariat in London[54]. Regardless of how the paper-based bagging and tagging system may be misused, the fact is that minerals from non-ITSCI validated sites do enter the ITSCI system. ITSCI acknowledged this risk, but stated that controls are continuously adapted and improved to minimize this risk. The programme clarified that ITSCI is not the only actor responsible for monitoring, and that it follows up on such incidents together with RMB, local authorities, the Rwanda Mining Association and the Federation of Mining Cooperatives[55].

The UN reported the risk of non-ITSCI minerals entering the ITSCI system several years ago (UN Group of Experts, 2014, p.268). The discrepancy between real and recorded production in Rwanda was previously explained by minerals from DRC being smuggled into Rwanda, where they are tagged and exported as Rwandan production[56]. RMB told us that, in response, many procedures were put in place that minimize the risk of non-ITSCI minerals entering the ITSCI system[57]. However, in its most recent report, the UN Group of Experts still stated that non-ITSCI minerals enter the ITSCI system (UN Group of Experts, 2020).

3.4. Sanctions

In case of persisting incidents, the ITSCI governance committee may decide to suspend, and eventually expel mining sites, cooperatives, or full members. In first instance, for suspension, ITSCI field officers formulate a warning and make recommendations for improvement. When those are not followed up, field officers send the evidence to the ITSCI secretariat and governance committee[58]. However, several respondents raised concerns on inadequate follow-up and slow responses by the ITSCI secretariat to identified incidents[59]. Local stakeholder committees, that should follow up on incidents, were abolished with mining sector reforms in 2012 and 2013. It is discussed whether the committees should be re-established [60]. ITSCI stated that they have made several requests to the RMB to (re)establish them[55]. The RMB however communicated that, instead, local Taskforce Committees were formed in each district in 2018. These Committees consist of staff from several government bodies and deal with issues regarding illegal mining and non-compliance with national laws and regulations[61].

According to article 50 of the Rwandan Mining Law, 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. ITSCI can suspend a full member independently from the Rwandese government's assessment[62]. Given the de facto monopoly of the ITSCI programme, this implies that either not having access to tags, or being suspended or expelled, significantly constrains 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. ITSCI commented that the programme closely collaborates with the Rwandese government in case of persistent risks and only unilaterally suspends

[53] Interview FM 5, 12-09-2019, FM 7, 11-09-2019.
[54] Interview FM 5, 12-09-2019; Pact data officer, 05-08-2019, T.I.C. representative, 15-11-2019.
[55] ITSCI feedback, 30-07-2020.
[56] 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.
[57] RMB feedback, 26-10-2020.
[58] Interviews programme manager and data officers Pact Rwanda, 05-08-2019.
[59] Interviews FM3, 07-08-2019; FM5, 12-09-2019; FM8, 18-09-2019; FM9, 28-09-2019.
[60] Interview programme manager Pact Rwanda, 05-08-2019.
[61] RMB feedback, 28-10-2020.
[62] Interview Pact programme manager, 05-08-2020.

or expels an ITSCI member if the member in question did not pay the required membership fees or levies[63]. At the time of the field study three full members were suspended in Rwanda[64].

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 "blacklist"[65]). This list displays companies or mining sites where persistent risks are identified[68]. 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[66]. In response to this ITSCI stated that companies are responsible for their own due diligence[67], 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[68].

In case persistent risks are identified at the level of the exporters (full members), the exporter may be temporarily suspended from the programme, which is communicated to all stakeholders via a publicly available list (see ITSCI, 2020d). It is unclear how many cooperatives or mining sites have been temporarily suspended or expelled over the years; since the start of the programme 23 full members have been expelled in Rwanda (ITSCI, 2020d). Again, this does not 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 ends the ITSCI membership as well[69]. ITSCI field officers can make recommendations to the Rwanda Investigation Bureau (RIB) or to the local police in order to alarm Rwandese authorities[69]. 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[70].

4. Discussion

With respect to our first research question, we found that ITSCI faces a number of challenges regarding programme implementation. The monitoring quality and frequency of the MFOs and the ITSCI officers leave room for improvement[71]. Further, tags can be misused[72], information flows can be slow[73] and minerals from non-ITSCI sites may enter the ITSCI system[74]. This means that an ITSCI tag does not necessarily trace the minerals back to the mining sites from where these were extracted.

Returning to the first phase of the accountability cycle of Schillemans et al. (2013), we argued that transparency via accurate, timely and clear information is a prerequisite to ensure accountability. ITSCI does not always fulfil this condition. To start, as shown above, MFOs on the side of the RMB as well as traceability officers on the side of companies, do not merely transfer accurate and timely information

[63] ITSCI feedback, 30-07-2020.
[64] ITSCI Online full membership list, November 2019.
[65] Terminology used by respondents from FM11 and FM8.
[66] Interviews FM8, 18-09-2019.
[67] ITSCI feedback, 30-07-2020.
[68] Interview Pact data officer, 05-08-2019.
[69] Interview Pact programma manager, 05-08-2019.
[70] Interview FM7, 11-09-2019.
[71] Interviews consultant 3, 26-10-2019; FM12, 17-09-2019; FM5, 12-09-2019; Local advocacy group 1, 16-08-2019; FM8, 18-09-2019.
[72] Interviews FM5, 12-09-2019; FM7,11-09-2019; MFO, 17-09-2019.
[73] Interviews FM8, 18-09-2019; FM7, 11-09-2019; FM5, 12-09-2019; consultant 2, 09-09-2019; consultant 3, 26-10-2019.
[74] Interviews FM5, 12-09-2019; FM7, 11-09-2019; MFO, 17-09-2019; FM19, 15-11-2019; Video CNLFM.

from the members to the non-state regulator. This is due to a lack of human, technological and/or financial resources. Second, the independent auditor does not carry out regular audits on full members, and audits to approve new members are only based on desk-research. Third, the ITSCI Secretariat in London does not always provide accurate, timely and clear information either. ITSCI controls the data centrally from their London office, which puts the governance committee and Secretariat into very powerful positions, given the general paucity of data on mineral supply from the Great Lakes Region. Our findings confirm that information and frequent, qualitative monitoring reduce incentives for non-compliance, but provided information and monitoring are not sufficient to change the private actors' actions on the ground. The risk of 'being caught' is low, and hence there is little incentive for private actors to thoroughly conduct and act upon the due diligence.

Regarding the second (debating) phase of the accountability cycle (Schillemans et al., 2013), the ITSCI programme meets this condition. Depending on the seriousness and persistence of the incidents, the ITSCI and RMB monitoring agents give the 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 third (sanctioning) phase of the accountability cycle showed to be effective. The possibility of being excluded (even temporarily) from the ITSCI programme and hence potentially facing difficulties of participating in the international supply chain creates meaningful incentives for the private actors to comply with the regulations (*accountability*).

Turning to our second research question, the data shows that ITSCI can hold private actors to account as they can suspend or expel their members from the programme. We found that there are four conditions to be met for non-state regulatory actors to hold private actors to account. First, the due diligence programme should provide clear and timely information to all stakeholders. Second, high-quality and frequent monitoring should be ensured. Both elements are important to make companies *answerable*. Third, 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. Fourth, it is important that the governance of the due diligence programme acts in the public interest. In this sense, our study raised some concerns about ITSCI's organizational structure (see also OECD and Kumi Consulting, 2018). The ITSCI programme does meet the third condition on sanctions, but faces a number of challenges with respect to the first, second and fourth condition.

5. Conclusion

In conclusion we want to return to larger questions surrounding mineral supply chain regulation, particularly its impact on different chain actors and its relevance for sustainable development. In terms of impact, like other studies (see for instance Levin and Cook, 2013; Cook and Mitchel, 2014) our research confirmed that the costs and gains of supply chain regulation are unevenly distributed between upstream and downstream actors. Moreover, a previous study on the impact of Dodd-Frank in the DRC found that the law has not reduced conflict or improved livelihoods (Stoop et al., 2018). Of course, we still need more evidence on the long-term effects of due diligence on conflict financing and human rights. Mineral supply chain regulation has been introduced with the aim to essentially 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 mineral supply chains that avoid contributing to conflict, human rights abuses, or other risks such as bribery" (ITSCI, 2020). However, there is not yet sufficient evidence that due diligence regulation and non-state programmes, such as ITSCI, effectively lead to achieving those goals (see IPIS, 2019).

Although more research is needed, our study illustrates that in the case of mineral supply chains, there are strong indications that the risk of 'cosmetic compliance' is real (Landau, 2019). Due diligence should therefore be considered as an instrument to achieve an impact (desired change), not an end in itself.

When taking a too narrow procedural view on this matter, compliance risks to be merely cosmetic and not contribute to real change on the ground. As Perks stated in 2013 (p.737), “there is a tangible risk that […] mineral trade compliance focusing on ‘conflict free’ nomenclature will become a substitute for more substantive reforms to the ASM economy”.

Ultimately, we need to move beyond purely technical interventions and a narrow focus on compliance, in order to better respond to local realities. This requires taking due account of the surrounding political economy. For instance at the national level, we need to situate the implementation of due diligence within Rwanda’s mineral policies. At the regional level we need to consider cross-border smuggling networks that are firmly entrenched. At the international level we need to be attentive to power imbalances in mineral markets as in the case we presented here. While this study has focused on the implementation of ITSCI on the ground, our conclusions have implications for wider debates on mineral resources governance. Most importantly they caution us to be attentive to the distribution of costs and gains and the risk of monopolizing supply chain regulation.

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