

# Analysis of the interactive map of artisanal mining areas in eastern DR Congo

*2015 update*

*International Peace Information Service (IPIS)*



# Editorial

## **Analysis of the interactive map of artisanal mining areas in eastern DR Congo: 2015 update**

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**Front Cover image:** Cassiterite mine Malemba-Nkulu, Katanga (IPIS 2015)

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**International Peace Information Service (IPIS)** is an independent research institute, providing governmental and non-governmental actors with information and analysis to build sustainable peace and development in Sub-Saharan Africa. The research is centred around four programmes: Natural Resources, Business & Human Rights, Arms Trade & Security, and Conflict Mapping.

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## Executive summary

Since 2009 the Belgian research institute International Peace Information Service (IPIS) has published maps containing data on mineral production and security issues at mining sites in eastern DR Congo. The interactive web maps and accompanying reports<sup>1</sup> have provided important information to a wide range of international stakeholders that are trying to address the links between armed groups' financing modalities, and mineral exploitation and trade.

The [interactive web map](#) presented with this report shows the location of 253 trading centres and 2,026 mining sites in eastern DR Congo<sup>2</sup>, 1,635 of which have been visited by IPIS teams since 2013. The map provides information about the on-site presence and activities of armed groups and the Congolese army (FARDC), as well as indicators of the relative importance of the site. It also shows whether mining sites have been 'validated' (licensed to operate) by the Congolese government or if they are covered by the iTSCi supply chain initiative. With the map, IPIS and the Congolese Mining Register (*Cadastre Minier, CAMI*) provide an update of information gathered in a project that has been running since 2013, financed by IOM, PROMINES (World Bank) and the Belgian Ministry of Foreign Affairs.

The current report presents a detailed analysis of the data gathered at the 775 active mines visited by the IPIS teams in 2015. It also includes a general analysis of the 1,615 mines visited in the period 2013-2015, which employ around 239,700 miners.

Gold is by far the most important mineral in eastern DR Congo's artisanal mining sector, with around 80% of the miners in the 2013-2015 dataset working in a gold mines. Based on a conservative analysis of the production estimates, a digger produces on average around 1.17 grams of gold per week, which leads to an estimated annual production of 11.6 tons of gold on the mining sites that were visited by the field teams between 2013 and 2015.

In the 2013-2015 dataset the 3T sector employs around 16% of the artisanal miners in eastern DRC. Of the estimated 42,800 3T miners in the dataset, approximately 22,400 were working on mining sites covered by the iTSCi traceability program.

The field teams observed an armed presence at 56% of the mines between 2013 and 2015. At 38% of the mines, FARDC elements were permanently or regularly present, although in 11 percentage points, no interference with mining activities was observed. At least one non-state armed group was present at 25 % of the mining sites. When disaggregating the data between 3T minerals and gold, it immediately becomes apparent that there is far less armed interference in the 3T sector. About 21 % of artisanal 3T miners in our 2013-2015 survey work under the influence of armed actors, compared to 64 % in the gold sector.

Several differences appear between each of the eastern provinces. In the territories that have been visited in the former Orientale province, gold was nearly the only mineral that artisanal miners exploited. In its southern territories, bordering North Kivu and Maniema, more than 90 % of the miners in the 2015 dataset are working in mines where armed men were observed. The main armed actors interfering in former Orientale's gold sector are FARDC elements. There have also been some cases of interference by Mai-Mai Simba and FRPI rebels.

In North Kivu, 3T minerals are also an important source of income for many artisanal miners: 32% of them work in 3T mines, whereas 69%<sup>3</sup> of them work in gold mines. The province's mining sector is traditionally affected by the interference of armed men, even though two major mining sites have been demilitarised over the last years, i.e. Omate and Bisie. Besides elements of the FARDC, fighters of the armed groups FDLR and NDC are notorious for the income they generate from North Kivu's mining sector. For example, illegal taxation at a string of gold mines in Lubero territory renders the FDLR more than 6,000 USD per week.

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1 Consult IPIS website: [ipisresearch.be/home/conflict-mapping/maps/conflict-mapping-drc/](http://ipisresearch.be/home/conflict-mapping/maps/conflict-mapping-drc/)

2 The map includes detailed information on artisanal mining in the Kivu provinces, eastern Maniema, Ituri, Bafwasende territory in Tshopo, Tanganyika, and the Bukama, Malemba-Nkulu, Mitwaba and Pweto territories in former Katanga province.

3 Note that these numbers don't exactly add up due to the presence of multiple minerals at some of the mining sites

Gold is also by far the number one mineral in South Kivu, employing 87 % of the province's workforce in the 2015 dataset. As opposed to North Kivu, there is a clearer difference between various minerals with regards to levels of armed interference. 77 % of the visited gold mines endure some form of armed presence, while this is 46 % for 3T mines. While FARDC elements are by far the main armed actors interfering in the province's artisanal mining sector, the Raïa Mutomboki are also present at some mines in Shabunda.

Maniema's mining sites are largely free from militarisation, as opposed to the other provinces. Despite the relatively low interference of armed men in the province's mining sector, a lot of barriers to curtail illegal trade persist. Nevertheless, some responsible trading initiatives are currently being developed in Maniema, i.e. the iTSCi traceability system and the support to the cooperative COMICA at the Matete gold mine near Banro Corporation's concession. These efforts however still have to cope with several incidents and complaints of local actors.

At mining sites that have been visited in the old Katanga province (Tanganyika, Haut-Lomami and Haut-Katanga), there were hardly any reports of armed actors' interference.

# 1. Background and introduction to the interactive web map

## IPIS' mapping project of eastern DR Congo's artisanal mines

The Belgian research institute International Peace Information Service (IPIS) has a long tradition in researching resource conflicts. In August 2009 IPIS published a map of militarised mining areas in the Kivu provinces of eastern Democratic Republic of the Congo (DRC).<sup>4</sup> At that time, Congolese minerals, especially tin and tantalum, had started to attract a lot of attention from Western consumers and governments, who learned that armed groups were financing themselves through mineral exploitation and trade. For its map, IPIS collected coordinates of the most important mining areas in North and South Kivu, along with information such as minerals mined, numbers of workers, trade routes and centres, and the on-site security situation. In 2010, IPIS carried out a similar mapping exercise in the 'hinterlands' of the Kivu provinces, northern Katanga, Maniema and south-eastern Province Orientale.<sup>5</sup>

By 2012, interest in a map showing the extent and concentration of the problem of conflict financing in the DRC through mineral exploitation and trade had grown considerably. By that time, a series of policy initiatives to curtail international trade in 'conflict minerals' in the Great Lakes region had been launched by international organisations such as the UN, ICGLR, and OECD, as well as by the United States government (with Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act). The DRC government and international businesses had little option but to try to implement them. Although IPIS' 2009 map was still in circulation, it had become less useful to those searching for recent information. The problem of conflict financing can shift from one area to another in the course of a few months as armed groups change positions. In addition, artisanal mining is sometimes characterised by sudden large migrations of miners, following changes in security, season, production, and world market prices.

This led to the development of the first phase of this renewed mapping project, which took place in 2013-2014. To find a structural solution for the need for accurate and up-to-date information, IPIS partnered up with the Congolese Ministry of Mines to develop a permanent system to monitor artisanal mining activities and the involvement of armed groups and criminal networks in mineral exploitation and trade. The Mining Register (*Cadastre Minier*, CAMI) acted as the Ministry's focal point. Other Congolese mining services, particularly the *Service d'Assistance et d'Encadrement du Small-Scale Mining* (SAESSCAM) and the *Divisions provinciales des mines*, were included in the collaboration, along with representatives from local civil society organisations. The World Bank, through its PROMINES programme, and the Belgian Ministry of Foreign Affairs, funded the project. The collaboration resulted in two interactive maps published in November 2013 and October 2014 respectively.<sup>6</sup>

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4 Interactive Map of Militarised Mining Areas in the Kivus (MiMiKi) and Accompanying Note available at: <http://ipisresearch.be/publication/accompanying-note-interactive-map-militarised-mining-areas-kivus/>.

5 IPIS/International Alert, The Complexity of Resource Governance in a Context of State Fragility: An analysis of the mining sector in the Kivu hinterlands, November 2010: report and interactive web maps available at <http://ipisresearch.be/publication/complexity-resource-governance-context-state-fragility-analysis-mining-sector-kivu-hinterlands/>.

6 Analysis of the interactive map of artisanal mining areas in eastern DR Congo, November 2013 (analysis and webmap at <http://ipisresearch.be/publication/analysis-interactive-map-artisanal-mining-areas-eastern-dr-congo/>); Analysis of the interactive map of artisanal mining areas in eastern DRC: May 2014 update (analysis and webmap at <http://ipisresearch.be/publication/analysis-interactive-map-artisanal-mining-areas-eastern-drc-may-2014-update/>).



Shop near mining site, Sud-Kivu (Photo: IPIS)

## The 2015 CAMI-IPIS map of artisanal mine sites

A new phase of the project, which was implemented throughout the year 2015, comprised updating the information and visiting mining sites in areas that had not yet been covered. Funding from the International Organisation for Migration (IOM) and PROMINES enabled this research. The resulting updated version of the interactive map can be found at <http://www.ipisresearch.be/mapping/webmapping/drcongo/v4>.

The map shows the location of 253 trading centres and 1,635 mining sites in eastern DR Congo that have been visited since 2013. Of these sites, 205 have been visited both during the first (2013-2014) and second (2015) phase of the CAMI-IPIS mapping project. Locations of mining sites which were visited before 2013 have also been added, as well as mines visited by the *equipes conjointes de qualification*, bringing the total number of sites displayed on the map to 2,026. Along with the Kivu provinces, the map includes detailed information on artisanal mining in the provinces of Ituri, Tshopo (Bafwasende territory), eastern Maniema, Tanganyika, Haut-Katanga (Mitwaba and Pweto territories), and Haut-Lomami (Malemba-Nkulu and Bukama territories).

The map provides information about the on-site presence and activities of armed groups and units of the Congolese army (FARDC), as well as indicators of the relative importance of the site. The user can apply several filters to the data in order to produce maps that show specific types of minerals or specific types of armed actors present at the mine (see screenshot of the selection menu). Users can also find whether mining sites have been 'validated' (licensed to operate)

**> Carte de base**  
**> Ensembles**  
**> Année de dernière visite**  
**▼ Substances minérales**

- Or
- Cassitérite
- Coltan
- Wolframite
- Diamant
- Tourmaline
- Cuivre
- Améthyste
- Monazite
- Galène
- Pyrite
- Argent
- Digénite
- Grenat

**> Traitement de l'or observé**  
(sites visités en 2015)

**▼ Présence armée** lors de la dernière visite

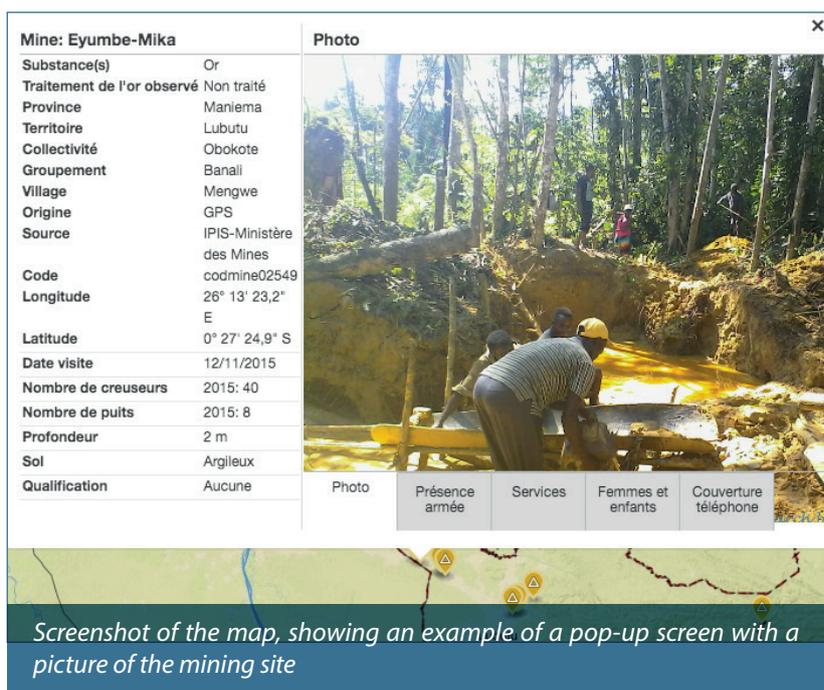
- Pas de présence armée constatée
- Groupe armé local
- Groupe armé étranger

**FARDC**

- Pas d'ingérence constatée
- Éléments indisciplinés

*Screenshot of the selection menu, showing the options for 'types of minerals' and 'armed presence'*

by the Congolese government<sup>7</sup> ([link to map](#)) or are covered by the iTSCi supply chain initiative ([link to map](#)), or whether they are located on a mining permit granted by CAMI ([link to map](#)). A search tool allows the user to look for particular mining sites or villages. For mining sites that were visited in 2015, additional filters can be applied, based on the presence of mining services, phone coverage, the observed gold processing method, and destination of the minerals to local trading centres as well as to the final destination prior to export ([link to map](#)). The pop-up window that appears when clicking on the symbol of a site also includes information on the presence of women and children and their activities, as well as a photo of the site (see screenshot of the map).



## Methodology

The data was collected by ten **'field teams'**, each composed of a SAESSCAM or *Division des mines* agent and a civil society representative. Each team was equipped with Android smartphones and satellite communicators for efficient mobile data collection. The field teams collected data on production and the destination of the minerals and interviewed several respondents per mining site on the presence and interferences of armed groups, among other things.

The teams were required to take pictures at each of the visited sites and to collect phone numbers of their respondents, allowing the project supervisors to verify their presence and the quality of the data collected. A focal point, based in Bukavu and composed of a SAESSCAM, a CAMI and an IPIS representative, oversaw the day-to-day field operations. A call centre composed of two CAMI consultants contacted the respondents at the mining sites, to verify and update the information gathered. Furthermore, the data was cross-checked with information provided by SAESSCAM and *Division des mines* antennas and with third party sources.

IPIS also organised intensive training on mobile data collection and GIS database management for mining officials in Kinshasa, preparing them to gradually start managing the data collection and the publication of the maps themselves.

## Intended audience

The map is an invaluable resource for local, national, regional and international **policymakers**. The map can provide them with guidance in implementing policy initiatives to tackle the issue of conflict financing through mineral exploitation and trade. The map particularly enables area-specific policy interventions, because it identifies and demarcates both problematic zones and mining areas that offer opportunities for responsible trade. As such, it can be used to avoid indiscriminate measures that affect all mining and related activities in eastern DRC.

<sup>7</sup> Mines visited by the *equipes conjointes de qualification* of the Congolese government, have been added to the map. This set of mines includes mines that have not been visited by IPIS-CAMI field teams, notably in the provinces of Bas-Uele (Bondo territory) and Lualaba (Lubudi territory).

A second important target audience consists of **researchers, campaigners and other observers**. They will find the map a useful tool for monitoring the performance of both mineral traders and policy makers when dealing with the issue of mineral trade in conflict-affected eastern DRC.

Finally, **companies**, in particular mineral traders and refiners, will find the map a useful tool for conducting due diligence on their supply chains in their efforts to assess actual and potential risks in their current operations, as well as pointing out unexploited, conflict-free areas that might be eligible for sourcing.

That said, it needs to be stressed that the map is not a substitute for a company's responsibility to conduct its own verification of the security conditions in the mining areas it sources from. In contrast to the DRC government mining site validation, or the ICGLR regional certification mechanism, the map does not offer any legal guarantees.

## Guide to the web map

This subsection provides an explanation that will help users to explore all different options of the interactive web map.

**Search option:** on the left, in the upper corner of the screen you can find the search option that can be used to search for specific villages, cities, mining sites etc.

When clicking on a mining site or selling point, a **pop-up screen** shows the most important information for that mining site, such as the number of workers and the armed presence. For the sites visited in 2015, the pop-up screen also gives information on the presence of state agents, whether there is network coverage and a photo of the mining site. If the site has been visited multiple times, different tabs will give the above mentioned information on each visit, for example for the armed presence in 2015 and 2013.

Only for some of the mining sites the presence of women and children was recorded, as well as the type of work they were engaged in at the time of the visit and whether women had separate sanitation. These questions were included to better correspond with the information gathered by the ministerial qualifications.

Through a **selection menu** at the right side of the screen, the user can apply several filters to the data to produce maps showing specific types of minerals or specific types of military control. The different types of filters are listed below.

**Année de dernière visite:** by default, the mining sites visited in 2013, 2014 and 2015 are toggled on. Each year can be shown separately or together when toggling on/ off each year. In the image of the selection menu displayed here, for example, only the mining sites visited in 2015 have been selected.

| Mine: Omate                |                                      | Présence armée                 |      |      |
|----------------------------|--------------------------------------|--------------------------------|------|------|
| Substance(s)               | Or                                   | 2015                           | 2013 | 2009 |
| Traitement de l'or observé | Mercure, Non traité                  | Éléments indisciplinés         |      |      |
| Province                   | Nord-Kivu                            | NDC                            |      |      |
| Territoire                 | Walikale                             | Permanente                     |      |      |
| Collectivité               | Wanlanga                             | Non permanente                 |      |      |
| Groupement                 | Utunda                               | Fréquence de présence          |      |      |
| Village                    | Bakondjo                             | Contrôle(s) exercé(s) sur site |      |      |
| Origine                    | GPS                                  | taxation                       |      |      |
| Source                     | IPIS-Ministère des Mines             | achètent des minerais          |      |      |
| Code                       | codmine00382                         | travaux forcés                 |      |      |
| Longitude                  | 27° 51' 37,9" E                      | creusent eux-mêmes             |      |      |
| Latitude                   | 1° 5' 39,2" S                        | monopole de commerce           |      |      |
| Date visite                | 02/07/2015<br>24/08/2013<br>2009     | pillage                        |      |      |
| Nombre de creuseurs        | 2015: 2234<br>2013: 980<br>2009: 330 | Photo                          |      |      |
| Nombre de puits            | 2015: 17<br>2013: 68                 | Présence armée                 |      |      |
| Profondeur                 | 21 m                                 | Services                       |      |      |
| Sol                        | Argileux                             | Femmes et enfants              |      |      |
| Qualification              | Aucune                               | Couverture téléphone           |      |      |

Example of a pop-up screen at the web map. This example shows the presence of armed actors in Omate in 2013.

Image of the selection menu at right side of screen.

**Substances minérales:** When ticking a specific mineral, only the sites where that specific mineral was found during the last visit will show on the map. The image of the selection menu displayed here will only show the visited gold mines.

**Traitement de l'or:** For the mining sites visited in 2015, the map shows how gold has been treated, either with mercury or cyanide or no treatment at all. This example shows all the gold sites visited in 2015 where gold was treated with mercury.

**Présence armée:** The armed presence on the mining sites during the last visit is divided by the sites that have no armed presence ([link to map](#)), the sites where a local armed group was present ([link to map](#)), the sites where a foreign armed group was present ([link to map](#)), and the sites where the FARDC was present. The latter sites are subdivided in sites where the FARDC was present but no interference was recorded ([link to map](#)) and the sites where elements of the FARDC were illegally interfering on the sites ([link to map](#)).

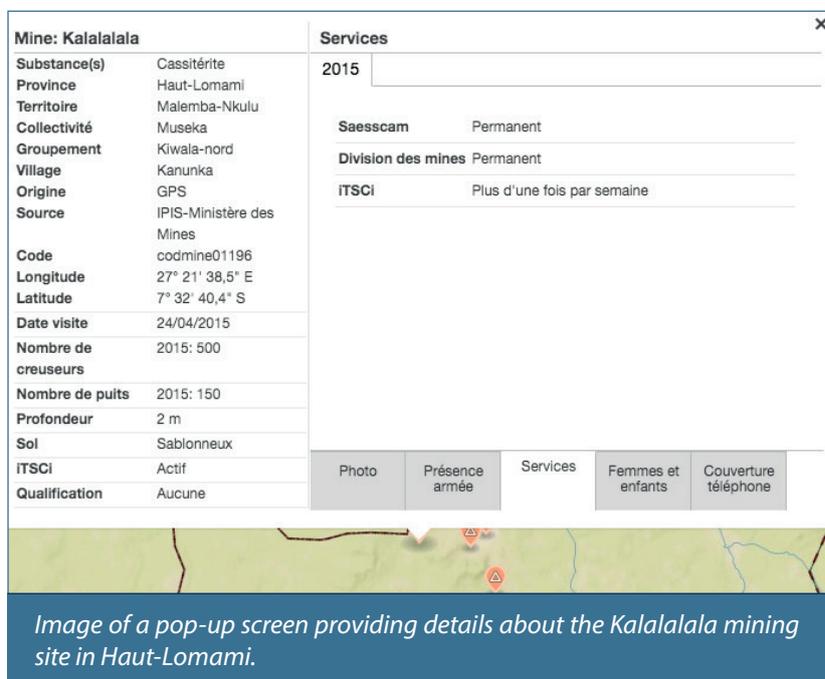
**Présence services:** in 2015, the field teams gathered information on the presence of state services at the mining sites. The example displayed here shows that the cassiterite site Kalalalala had a permanent presence of SAESSCAM and the Mining Division, iTSCi was present on the mining site at least once a week.

**Qualification ministérielle:** All the sites that have been visited by a ICGLR qualification team are shown on the map and subdivided by the qualification they received (green, yellow or red). The majority of them were also visited by the IPIS field teams, this information is also included on the pop-up screen.

**Nombre de creuseurs:** visited mining sites have been categorized in three categories: small mining sites with less than 50 miners, medium mining sites that host between 50 and 500 miners and big mining sites where more than 500 people are working.

**Destination des minéraux:** For the minerals gold, cassiterite and coltan, the transport routes are shown on the webmap to the selling points (green lines) as well as to the final destination within the DRC (red lines) ([link to map](#)).

**Titres miniers:** The data from CAMI that has been integrated in the webmap shows the specific geographical information of the mining titles and permits. More detailed information can be found when clicking on one of the permit areas ([link to map](#)).



## 2. General Security Situation in 2015

Drafting a situation report on eastern DRC's armed groups has become more complex over the last years, given the conflict's increasingly fragmented nature. This is due to the disappearance or scattering of large rebel movements as well as the proliferation of smaller armed groups and local defence forces.<sup>8</sup>

A study by Stearns and Vogel published in December 2015 identified more than 70 groups in the Kivu provinces alone.<sup>9</sup> Most of these groups have less than 300 fighters, although numbers vary. In some areas, the presence of a high number of small armed groups has contributed to the militarisation of non-military domains of social life, including for example local armed groups' involvement in settling land disputes, or influencing local political decision-making.<sup>10</sup>

The chapter is divided in several sections, each providing concise background information on the most important armed groups whose presence was observed at the mining sites visited by our field teams in 2015.

### FDLR

Following the disappearance of M23 from Congolese territory, the *Forces Démocratiques de Libération du Rwanda* (FDLR) became the biggest armed group in eastern DRC. There are contradictory claims regarding the group's strength throughout the year 2015. While the Congolese government estimated that it counts less than 400 rebels, MONUSCO put the figure close to 1,000, and other sources suggested it could consist of 1,600, or even more than 2,000 combatants.<sup>11</sup> The group's geographical spread was sizeable, including parts of the territories of Walikale, Lubero, Rutshuru and Masisi in North Kivu, Mwenga, Uvira and Fizi in South Kivu, and Kalemie in Tanganyika.<sup>12</sup>



Sud-Kivu, Kalehe (Photo: IPIS)

Following the passing of the FDLR's deadline to voluntarily disarm by 2 January 2015, the FARDC launched its military operation Sokola II against the militia.<sup>13</sup> According to the UN Group of Experts, the impact of the operation was rather limited at first.<sup>14</sup>

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- 8 For more background on the drivers behind the armed group proliferation, see: Verweijen J. & Iguma C., *Understanding armed group proliferation in eastern Congo*, RVI PSRP Usalama Project Briefing paper 7, December 2015.
  - 9 Stearns J.K. & Vogel C., *The Landscape of Armed Groups in the Eastern Congo*, Congo Research Group, Center on International Cooperation, December 2015.
  - 10 For more information on militarisation in Uvira, see Verweijen J., *A Microcosm of Militarization: Conflict, governance and armed mobilization in Uvira, South Kivu*, RVI PSRP Usalama Project Report, February 2016.
  - 11 Stearns J.K. & Vogel C., *The Landscape of Armed Groups in the Eastern Congo*, Congo Research Group, Center on International Cooperation, December 2015.; The UN Group of Experts estimated FDLR's troop strength at between 1,400 and 1,600. (UN Group of Experts on the DRC, *Final report*, S/2016/466, 23 May 2016, §7.)
  - 12 Ibid.; there are three main FDLR factions, of which the most important is FDLR-Foca, and the two smaller are FDLR-Rudi, and FDLR-Soki.
  - 13 Despite MONUSCO's plans to join the operation, it withdrew its backing of the offensive in February 2015 because the DRC government refused to dismiss two generals leading the operation whom the UN accused of human rights abuses.
  - 14 UN Group of Experts (GoE) on the DRC, *Midterm report*, S/2015/797, 16 October 2015, p. 9 and § 22, 33.

While the FDLR lost all of their major positions in **South Kivu**, in the second half of 2015 they were able to slowly return to some of the areas they occupied before the operation, including the Uvira highlands and northern Mwenga.<sup>15</sup> Some income-generating activities reportedly continued, especially looting (to compensate for some of the lost revenue), mineral trafficking and cannabis production and trade.<sup>16</sup>

With regards to **North Kivu**, the army launched the offensive as from late February 2015, in the territories of Rutshuru and Masisi. However, civil society complaints quickly arose, stating that Sokola II neglected Lubero, while FDLR's presence is prominent in this territory. For example, there have been numerous reports of human rights violations and terror as well as parallel administrations and illegal taxation by the rebels in the border area with Walikale and Rutshuru territories.<sup>17</sup> In its March 2016 report, the UN Group of Experts however reports that the intensity of the operations increased in the second half of 2015 in North Kivu, and that the FARDC managed to capture some FDLR headquarters in eastern Walikale by December 2015.<sup>18</sup> Furthermore, it reported that the FDLR had to cope with additional losses by Mai-Mai attacks.<sup>19</sup> (See next subheading)

## Mai-Mai

The local perception in Lubero territory (**North Kivu**) of being neglected during the anti-FDLR operations in early 2015, has prompted increased Mai-Mai activity in its southern border area ([link to map](#)). Late 2015, Guidon's faction of the Nduma Defense of Congo (NDC) (called NDC-Rénové)<sup>20</sup> reportedly allied with a Lubero Mai-Mai group, mainly composed of ethnic Nande and Kobo to attack FDLR positions in the *groupement* Ikobo, on the Walikale-Lubero border.<sup>21</sup> This Lubero Mai-Mai group fights under the name of *Union des Patriotes pour la Défense des Innocents* (UPDI) and aims to prevent the FDLR from moving north.<sup>22</sup> Furthermore, both NDC-Rénové and UPDI allegedly received support and ammunition from some FARDC networks to join the Sokola II fight against the FDLR.<sup>23</sup> Prior to this, in the first half of 2015, Sheka's faction of NDC had also clashed with FDLR elements in southern Lubero.<sup>24</sup> These fights reportedly pushed the FDLR rebels north into the southern part of Lubero.<sup>25</sup>

In southern Lubero, the FDLR maintain an alliance with the Mai-Mai Lafontaine (*Union des Patriotes Congolais pour la Paix*, UPCP), who were accused of serious human rights violations in the second half of 2015.<sup>26</sup> Just like the FDLR rebels, they have also fought on several occasions with NDC-Sheka,<sup>27</sup> and the UPDI. In late December 2015, serious fighting occurred between the two groups in Lafontaine's stronghold Mbwavinywa, in southeast Lubero.<sup>28</sup>

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15 UN GoE, S/2015/797, p. 8; Report of the Secretary-General on MONUSCO, S/2015/1031, 24 December 2015, p. 6.

16 UN GoE, S/2015/797, § 34. When in May 2015 our field teams visited mine sites in the Itombwe forest in Mwenga, the FDLR had just left and the area was controlled by FARDC. Twaibu J. (*Les FDLR dans le sud du Sud Kivu après l'opération Sokola II*, Rift Valley Institute, 20 January 2016) reports that by the end of 2015 FDLR based in Miki and Kitopo in the same forest were exploiting and trafficking in gold and cassiterite again. According to the same author, FDLR based in the Muhuzi area (Luindi *chefferie*, Mwenga) were trafficking in cannabis.

17 Consultation of several press articles from Radio Okapi and RFI between February and November 2015.

18 UN Group of Experts on the DRC, *Final report*, S/2016/466, 23 May 2016, §10.

19 *Ibid.*, §11.

20 NDC is an armed group in Walikale territory, commanded by Sheka Ntabo Ntaberi since 2009. Mid-2014, the group's second in command, Guidon, decided to create a rivalling faction, the NDC-Rénové

21 Consultation of several press articles from Radio Okapi.

22 Radio Okapi, *Les FARDC poursuivent leur déploiement à Ikobo*, 10 January 2016.

23 Vogel C. & Mvano C., *The dogged persistence of the FDLR*, <http://congoresearchgroup.org/>, 4 March 2016.; UN Group of Experts on the DRC, *Final report*, S/2016/466, 23 May 2016, §80.

24 Radio Okapi, *3 morts dans les combats entre Mai-Mai Cheka et FDLR à Lubero*, 7 March 2015.

25 Vogel C. & Mvano C., *The dogged persistence of the FDLR*, <http://congoresearchgroup.org/>, 4 March 2016.

26 UN, Conference de presse des Nations Unies du mercredi 18 novembre 2015; Radio Okapi, *La société civile du groupement Tama dénonce l'emprise des Mai-Mai*, 6 August 2015.

27 GADHOP, *Nord Kivu le calme est revenu dans le village de Pita kongo, quartier général de l'UPCP de Kakulse Sikuly La Fontaine*, 14 October 2015; AfroAmerica Network, *Congolese Rebel General Lafontaine's troops battling Rwandan-Backed Cheka's fighters in Lubero, North Kivu, DRC*, December 2015.

28 Radio Okapi, *8 morts dans les combats entre groupes armés*, 29 December 2015; Radio Okapi, *Des villages se vident suite aux combats entre miliciens*, 27 December 2015.

In **South Kivu**, Mai-Mai activity has been more low profile, with few reports of security incidents and attacks by Mai-Mai groups in 2015.<sup>29</sup> Nevertheless, there were some attacks by different factions. For example, in the south of Fizi territory, the Mai-Mai Yakutumba remained active in 2015, sporadically attacking civilians and FARDC positions.<sup>30</sup> In Kalehe, the Mai-Mai Kirikicho and Mai-Mai Kifuafua attacked civilians in the beginning of 2015 and Mai-Mai Nyatura clashed with the FARDC in August 2015.<sup>31</sup>

Also in the **former Katanga** province, Mai-Mai groups persisted in 2015, although their activity has decreased. The Mai-Mai group Kata Katanga (or Bakata Katanga), striving since 2012 for the secession of Katanga, has caused severe insecurity in the past,<sup>32</sup> but few incidents involving this group have been reported throughout 2015.

Other armed group activity in **Central Katanga** (Manono, Pweto, Malemba Nkulu, Mitwaba) has also decreased in 2015. Several armed group factions, including Kata Katanga and Mai-Mai led by Gédéon have rendered themselves to the FARDC.<sup>33</sup> Nevertheless, Mai-Mai groups were still present in Central Katanga, and incidents were reported in Mitwaba and Malemba Nkulu.<sup>34</sup>

In **Ituri**, Mai-Mai activity persisted in Mambasa territory. The Simba militia of the deceased commander Paul Sadala, known as Morgan, continued to terrorise the local population under the command of rebel leaders Manu and Mangaribi.<sup>35</sup> The non-unified militia contained several Mai-Mai groups that occasionally competed with each other over, for example, the control of mining sites.<sup>36</sup>

## Raïa Mutomboki

Throughout 2015, different factions of Raïa Mutomboki continued to be active in **North Kivu** and especially **South Kivu**. According to Stearns and Vogel, 16 different factions of Raïa Mutomboki combatants operated in the latter province,<sup>37</sup> each driven by other interests and subject to different local politics and leadership.<sup>38</sup>

Raïa Mutomboki has especially been active in Shabunda territory, and to a lesser extent in Kabare and Kalehe territories where there have been reports



Sud-Kivu, Fizi (Photo: IPIS)

29 Analysis of all the major Congolese media reports in 2015 (IPIS weekly security briefings, <http://ipisresearch.be/weekly-briefing/>)

30 Radio Okapi, *Deux militaires tués par des Mai-Mai Yakutumba à Fizi*, 2 September 2015; ACP, *999 familles fuyant les combats entre les FARDC et les Mai mai vivent sans assistance*, 24 October 2015; Radio Okapi, *Trois morts lors des affrontements entre FARDC et Mai-Mai Yakutumba à Fizi*, 24 March 2015; Report of the Secretary-General on the MONUSCO, S/2015/1031, 24 December 2015, p. 6.

31 HIIK, Conflict barometer, p. 33.

32 For more background on the Kata Katanga, see Berghezan G., *Groupes armés au Katanga: Épicentre de multiples conflits*, GRIP, 2015.

33 Le Potentiel, *Plus de 3.000 ex-combattants attendent leur intégration dans l'armée à la base militaire de Kamina au Katanga*, 6 March 2015; Consultation of several press articles from Radio Okapi.

34 Ibid.

35 IRIN, *Congo's forgotten war: The militia of Mambasa*, 8 January 2016.

36 Conférence de presse des Nations-Unies, MONUSCO du 2 septembre 2015: <https://monusco.unmissions.org/LinkClick.aspx?fileticket=wAmLZ85lluw%3D&tabid=11477&mid=14932&language=en-US>

37 Stearns J. & Vogel C. (December 2015), op. cit.

38 Stearns J., *Raia Mutomboki: The Flawed Peace Process in the DRC and the Birth of an Armed Franchise*, RVI Usalama Project, 2013, p. 8; APDHU, *Rapport Kalehe, Walikale*, 2015, p. 41.

of harassment of the population, abductions, looting, extortion and rapes – often in the vicinity of mining sites.<sup>39</sup>

## FRPI

In **Ituri**, negotiations with the *Forces de résistance patriotiques en Ituri* (FRPI) rebels did not end the violence and insecurity in the province. Two attempts at disarmament, in late 2014 and in June 2015, failed and were followed by FARDC operations supported by MONUSCO. The military operations scattered the FRPI throughout the Walendu Bindi area in the south of Irumu territory.<sup>40</sup>

Allegedly, the operations significantly weakened the group's operational effectiveness,<sup>41</sup> but serious human rights violations continued to be attributed to the scattered FRPI factions. These incidents included looting, extortion, killing and sexual violence in Walendu Bindi.<sup>42</sup>



Ituri, (Photo: IPIS)

39 Report of the Secretary-General on the MONUSCO, S/2015/486, 26 June 2015, p. 5

40 The UN Group of Experts estimated FRPI's troop strength in June 2015 to be somewhere between 400 and 600 elements. Source: UN Group of Expert on the DRC, *Midterm report*, S/2015/797, 16 October 2015, § 36.

41 Report of the Secretary-General on the implementation of the Peace, Security and Cooperation Framework for the DRC and the Region, 22 September 2015, S/2015/735, §3.

42 UN Group of Expert on the DRC, *Midterm report*, S/2015/797, 16 October 2015, § 44.

### 3. Artisanal mining sector: general insights and trends from the map

This section provides an overview of the general trends and key findings based on the information collected by the field teams since 2013. The data includes information collected during the 2013-2014 project and the 2015 project.<sup>43</sup> When sites were visited multiple times we will consider the most recent information.

First, general figures such as the relative importance of the different minerals in the artisanal sector will be covered. Next, developments in gold and 3T (tin, tantalum and tungsten metals, with their respective minerals cassiterite, coltan and wolframite) production and trade will be discussed in more detail. Finally, the level and modalities of armed interference on mining sites are analysed.

Chapter 4, on the other hand, will provide a detailed analysis of the 2015 dataset per province.

One important note must be made about the way percentages of mines and workers are computed. On a mining site, multiple minerals may be found and multiple armed actors may be present. We consider, for example, a mine to be a cassiterite mine when cassiterite is (one of) the mineral(s) being mined. Similarly, we will consider all present workers to be workers at a cassiterite mine. If another mineral ore is found at the same mine, this mine, as well as its workers, is also counted as a mine for that mineral ore. Therefore, the percentage of mines per type of mineral will add up to slightly more than 100 %. The same approach is used for the armed actors, analogously causing the share of mines and workers under presence of the different armed actors to add up to more than 100 %.<sup>44</sup>

#### General figures

Between 2013 and 2015, IPIS has visited 1,615 mining sites, which employ an estimated 239,721 artisanal miners. The 775 mining sites visited throughout 2015 host an estimated 100,300 miners. The sites visited in 2015 concern either areas that had not yet been covered during the 2013-2014 project or that have been revisited given their economic or security-related importance - resulting in some 200 sites being visited during both campaigns. Hence, the two phases are rather complementary than serial.

It is difficult to give an estimation of the total number of artisanal mining sites in eastern DRC and hence to give an idea on the percentage of mining sites covered by the CAMI-IPIS study. The calculated total of 239,721 artisanal miners should be read with some caution, as the number of miners is subject to fluctuations that are inherent to the artisanal sector, due to shifting seasons and the discovery or depletion of important deposits. For example, in March 2013 some 15,000 miners were active at the Musebe gold mining site in Nyunzu territory (Tanganyika), only a mere 250 were still present at the site in July 2015.

The collected data corroborates the predominant importance of the **gold sector**, as observed in our previous report. Of the 239,700 artisanal miners, 193,000 (80 %) were working in one of the 1,220 visited gold mines. Most areas, apart from Maniema and former Katanga province, and to some extent North Kivu, are almost exclusively characterised by the exploitation of gold. We will discuss these provincial differences in detail in chapter 4.

An estimated 42,800 diggers (18 %) work on the 390 **3T** mining sites visited in the framework of this study since 2013. Some 32,000 of them are active at sites where cassiterite is mined, whereas coltan and wolframite mining sites employ some 15,500 and 1,800 miners.<sup>45</sup>

Some two % of the diggers in our survey were producing **diamonds**. The artisanal diamond mining sites that were visited in the framework of the project are mainly located in northern Bafwasende territory

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43 For completeness, we note that about 20 mines were found to have zero workers and can be considered inactive or abandoned mines. They are displayed on the map, but were left out of all our statistics beyond this point.

44 7 % of all mines feature more than one type of mineral (most often cassiterite in combination with coltan), and 11 % of all mines feature more than one armed actor.

45 Mind the note on the previous page, explaining that on some mining sites, multiple minerals may be found. Therefore, the percentage of mines per type of mineral will add up to slightly more than 100 %.

(Tshopo), Lubutu territory (Maniema) and in western Walikale (North Kivu), hosting a total of about 4,100 diggers. Apart from diamonds, **tourmaline** is the most important gemstone in eastern DR Congo. Tourmaline is found in a string of several mining sites along the border between North and South Kivu, as well as in eastern Manono territory (Tanganyika). On the sites visited by the field teams, there were a total of 3,900 diggers. However, this number fluctuates significantly depending on the site being in preparatory or production phase.

### Tourmaline in the Kivus<sup>46</sup>

In September 2015, IPIS carried out field visits to tourmaline producing mine sites in northern Kalehe (South Kivu) and southern Masisi (North Kivu) in partnership with Goma-based SaveActMine.

These visits confirmed the emergence of tourmaline as a significant mineral of interest in that region since 2012. Rising gemstone prices saw reports of the sector attracting thousands of workers in the Kivus during boom periods in 2014 and 2015.<sup>47</sup> Indeed, the field visit from July 2015 attested to between 2,000 and 3,000 workers working at tourmaline sites in the north of Kalehe territory alone. These numbers appeared however to have fallen notably by September 2015.

Nevertheless, with four out of five miners at sites around the mining town of Numbi (Kalehe) reportedly engaged in tourmaline extraction, the town has now become a significant trading hub for these stones in the Kivus. This burgeoning interest has likewise been attended by a rise in applications for export licenses covering coloured gemstones in both Kivu provinces.

Improvements in the general security situation around Numbi and Ngungu (Masisi) in September 2015 were reflected in an absence of armed groups and FARDC elements on tourmaline sites in these vicinities. Nevertheless, the close proximity of military camps to mine sites and the recourse of some former rebel fighters to local banditry renders questions into matters such as beneficial pit ownership a necessary component of due diligence enquiries in such localities.

### Gold production and trade

The collected information on the number of diggers and on the estimated weekly production on the 1,220 visited gold mines since 2013, allows for an estimate of the average gold production and generated revenues per digger. Based on a conservative analysis of the production figures, a digger produces on average around 1.17 grams of gold per week. These estimates are in line with the average production per digger as observed during a pilot project by Partnership Africa Canada to track and certify artisanal gold in Mambasa territory, and with qualitative research by the University of Antwerp on miner's revenues.<sup>48</sup> It is important to note that there are



Tourmaline (Photo: IPIS)

46 For further please see: IPIS, *Coloured Gemstones in Eastern DRC: Tourmaline Exploitation and Trade in the Kivus*, May 2016, available from: <http://ipisresearch.be/publication/coloured-gemstones-in-eastern-drc-tourmaline-exploitation-and-trade-in-the-kivus/>.

47 Tanganyika too has seen reports of a rising interest in tourmaline.

48 In 2013, Geenen et al wrote for example that their respondents reported about an average production of 433 gr per month during a period of high production and 53 gr during low production, in South Kivu, with an average number of workers per shaft of 33. In Ituri, the high production estimates went up to 784 gr per month, and low production period monthly production was reported to be an average of 272 gr, with 125 workers on average per site: Geenen S., Fahey D., Iragi Mukotanyi F., *The future of artisanal gold mining and miners under an increasing industrial presence in South Kivu and Ituri, eastern Democratic Republic of Congo*, University of Antwerp/IOB, June 2013, p. 21.; Partnership Africa Canada, *Tracking, Certifying and Exporting Artisanal Gold from Eastern DRC Summary Evaluation of Pilot Project at Mangi*, April 2014, pp. 9, 19 and 20, <http://www.resolv.org/site-ppa/files/2013/02/Final-phase-III-and-summary-evaluation-FINAL-GC-WG-PAC-Comments-FINAL.pdf>; N. Stoop et al, *Relocation, reorientation, or confrontation? Insights from a representative survey among artisanal miners in Kamituga, South-Kivu*, Institute of Development Policy and Management, April 2016, p. 24 <https://www.uantwerpen.be/images/uantwerpen/container2673/files/Publications/WP/2016/09-verpoorten-stoop-kilosho.pdf>

large differences in productivity, depending for instance on the quality of the deposits, the season and the pits being in preparatory or production phase.

The estimated total annual **gold production** on the mining sites that were visited between 2013 and 2015 is 11.6 tonnes. This estimation needs to be read with some caution, as important fluctuations were observed in the number of miners on some revisited sites. In addition to miners' mobility, also other factors - including the season and preparatory/production phase - cause fluctuations in a mine's productivity throughout the year. However, given the size of our dataset and the equal spread of visits throughout the year, we believe this production figure to be a reasonable and valuable estimate.

The above-mentioned estimation does not take into account the semi-industrial exploitation by dredges, such as in Ituri and on the Ulindi river in Shabunda territory, both reportedly producing several tons per year.<sup>49</sup> Taken together with the rise of industrial gold production – over 30 tonnes in 2015 –, the DR Congo has become an important gold producer in Africa.<sup>50</sup>

According to the collected data, the **gold price** at mining site level has decreased from an average of 40.1 USD per gram in 2013 to an average of 35.7 USD per gram in 2015. This corresponds to a seven % decrease, compared to eleven % on the world market during the same period. This slump in prices has had an important effect on artisanal miners' average revenues, which decreased from between 63 and 94 USD per month to between 56 and 84 USD per month.<sup>51</sup>

Notwithstanding the recent decrease in prices, based on our 2013-2015 data, the artisanal gold sector still generates at least an estimated 437 million USD per year in eastern DRC at the level of the mining sites. Although essential for local communities, the Congolese state only benefits from a fraction of the generated revenues. Official exports of artisanal gold in 2015 only amounted to 254 kilograms.<sup>52</sup>

### 3T production and trade

Since 2014, the **iTSCi traceability scheme** for 3T minerals has considerably broadened its geographical scope by covering sites in *i.a.* Walikale and Lubero territories in North Kivu, and Mwenga territory in South Kivu.<sup>53</sup> The data gathered by the field teams since 2013 counted 42,800 artisanal miners on 3T sites, of which 22,400 work on sites covered by iTSCi. An iTSCi report of 2015, however, provides a higher estimate of some 41,000 miners.<sup>54</sup> This difference can be explained by the fact that some iTSCi sites have not been covered by our field teams and that iTSCi's implementing partner PACT has access to more up-to-date information, compared to the data gathered by the field teams during their last visit, which in some cases date back to 2013.

In spite of its increased scope, several 3T producing areas are **not yet covered by the iTSCi scheme**. This seems to be either because the sites have not yet been validated by ministerial decree, or because of on-going insecurity in the area or inaccessibility. Notable examples hereof include the Lulingu area in Shabunda (South Kivu), as well as northern Masisi (North Kivu). Taking into account the information collected by our field teams since 2013, there would be an estimated 20,400 diggers working on non-covered 3T sites.

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49 COSOC – GL (Coalition of civil society organizations in the Great Lakes Region against illegal exploitation of natural resources), *La ruée vers l'or à Shabunda, pratiques et impacts de l'exploitation minière par dragues*, August 2015; IPIS, *Analysis of the interactive map of artisanal mining areas in eastern DRC: May 2014 update*.

50 Ministère de mines, CTCPM, *Statistiques minières : Année 2015*, March 2016.

51 Under the assumption that miners can keep between one third and half of the value of their production. In our 2014 report, the average income was estimated to be between 70 and 105 USD per month. These figures are in line with estimates based on in-depth field research by Geenen in South Kivu, who calculates that miners might earn between US\$ 36 and 118 per month during a mine's preparatory period, and between US\$ 128 and 195 per month during periods of high production. Geenen S., 'Qui cherche, trouve': The political economy of access to gold mining and trade in South Kivu, DRC, IOB, University of Antwerp, May 2014, p. 173; Pact, PROMINES Study: Artisanal Mining in the Democratic Republic of Congo, June 2010, pp. 98-99

52 Ministère de mines, CTCPM, *Statistiques minières: Année 2015, Mars 2016*, [http://mines-rdc.cd/fr/documents/Statistiques/2015/Statistiques\\_minieres\\_annee\\_2015.pdf](http://mines-rdc.cd/fr/documents/Statistiques/2015/Statistiques_minieres_annee_2015.pdf)

53 [https://www.itri.co.uk/index.php?option=com\\_mtree&task=att\\_download&link\\_id=55491&cf\\_id=24](https://www.itri.co.uk/index.php?option=com_mtree&task=att_download&link_id=55491&cf_id=24)

54 iTSCi/Pact, *Status Report iTSCi DRC Field Operations January – June 2015*, July 2015, p. 3.

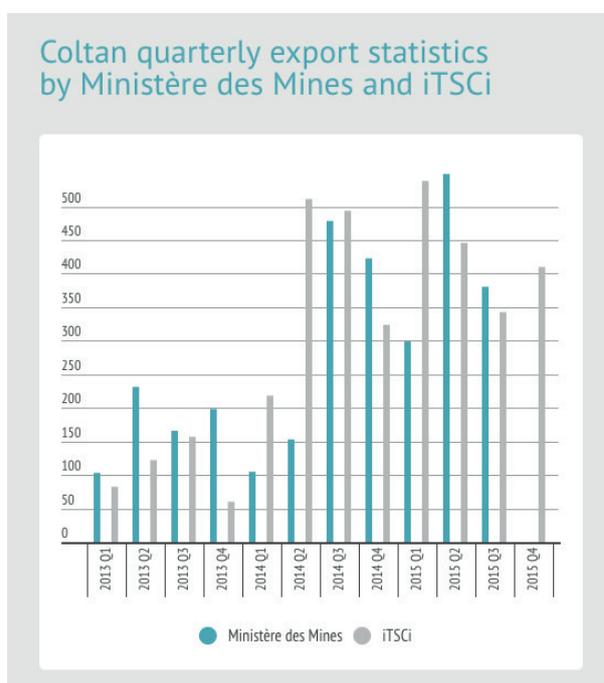
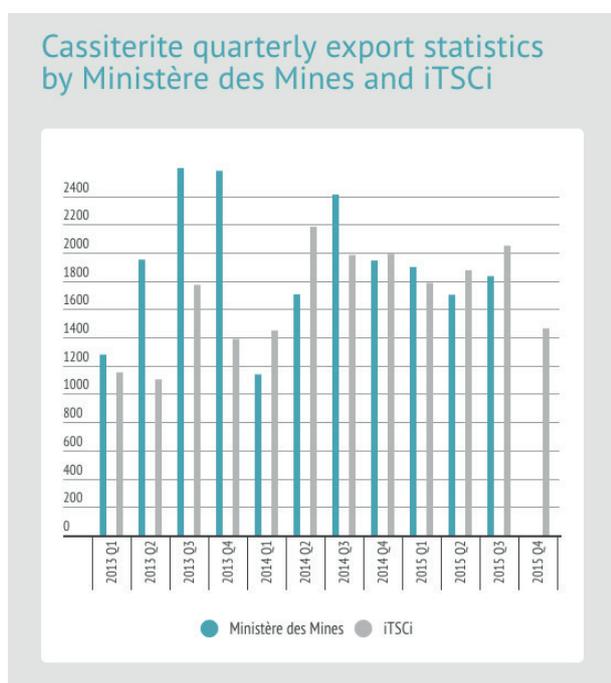
In combination with the aforementioned estimate of the total number of workers provided by iTSCI, maximum two out of three 3T miners in eastern DR Congo are currently working on iTSCI covered sites. This can on the one hand be considered as a remarkable achievement in improving traceability and advancing clean supply chains since the programme implemented its pilot phase in 2010. On the other hand, these numbers also indicate that at least one third of 3T miners would still be producing outside of the traceability scheme.

It is surprising that since 2014, the non-iTSCI covered part of the production no longer appears in the Ministry of Mines' official **export statistics**. Whereas in 2013 iTSCI covered cassiterite exports were 65 % of total exports, this amounted to 104 % in 2014. The same goes for coltan.

Apart from statistical errors, an explanation could be the widespread stockpiling of 3T minerals that were produced outside of the iTSCI programme.<sup>55</sup> A notable example hereof is the stockpile of cassiterite produced at Bisie Mpama, Walikale.<sup>56</sup> However, it seems implausible that all of the non-iTSCI covered 3T minerals are being stockpiled, as this would be associated with significant cash flow problems and investment risks for both producers and buyers. As neither statistical errors nor existing stockpiles seem to account for the difference between production and export of non-iTSCI covered 3T minerals, this difference could indicate the possible contamination of legitimate supply chains and cross border smuggling.<sup>57</sup>

| Yearly export statistics in metric tons for 3T minerals by the Ministry of Mines |             |         |            |
|--|-------------|---------|------------|
| year   | Cassiterite | Coltan  | Wolframite |
| 2013   | 8406.81     | 698.14  | 95.24      |
| 2014   | 7198.84     | 1158.91 | 17.5       |
| 2015   | 5433.4      | 1228.03 | 21.05      |

| Yearly export statistics in metric tons for 3T minerals by iTSCI |             |        |            |
|--|-------------|--------|------------|
| year   | Cassiterite | Coltan | Wolframite |
| 2013   | 5415.67     | 421.41 | 66.98      |
| 2014   | 7605.54     | 1546.7 | 17.5       |
| 2015   | 7174.56     | 1736.5 | 34.95      |



55 Mineral Supply Chains and Conflict Links in Eastern Democratic Republic of Congo, IPIS Study commissioned by the OECD, 2015, p. 39  
 56 IPIS, *Third Party Review of the Bisie Security Report*, July 2016; Pact Institute, *Bisie Security Report: For the period 2010-September 2015*, commissioned by iTSCI, March 2016; Synergy Global Consulting, *Independent assessment of the minerals evacuation process from Bisie, Walikale Territory, North Kivu Province, DRC*, December 2015.  
 57 See for instance UN Group of Experts (GoE) on the DRC, *Midterm report*, S/2015/797, 16 October 2015; UN Group of Experts on the DRC, *Final report*, S/2016/466, 23 May 2016, §116-121. For ITRI's comments regarding the Midterm report, see [https://www.itri.co.uk/index.php?option=com\\_mtree&task=att\\_download&link\\_id=55360&cf\\_id=24](https://www.itri.co.uk/index.php?option=com_mtree&task=att_download&link_id=55360&cf_id=24)

This being said, at several of the non-iTSCi covered sites, such as in the Ufamandu I and II *groupements* in Masisi territory (North Kivu), miners reportedly migrated to sites where the traceability scheme already had been implemented. Those who did remain complained about lower prices and lack of buyers, indicating how the implementation of the traceability scheme might create market forces favouring those supply chains.

## Armed presence at mining sites

This section will first present the most recent armed presence information for all 1,615 mining sites visited since 2013. Thereafter, some trends will be identified for the 200 sites that have been visited during both the 2013-2014 and 2015 phase of the project.

At 44 % of the 1,615 visited sites, no armed presence was observed during the last visit, whilst at 56 % of the sites at least one armed actor was present. At 38 %, elements of the FARDC were permanently or regularly present, although in 11 percentage points of those, no interference with mining activities was observed. At least one non-state armed group was present at 25 % of the mining sites. Aggregating the presence of non-state armed groups and interfering FARDC presence, 47 % of the mines saw interference of at least one armed actor.

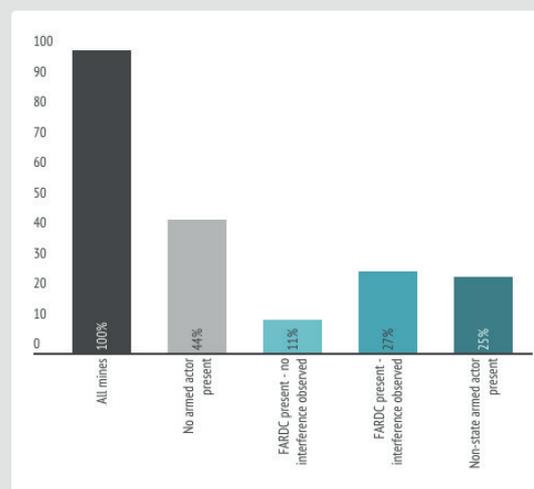
As these statistics are unrelated to the size of the mining sites, the number of miners working in those sites gives a better indication of the overall degree of militarization of the artisanal mining sector in eastern DR Congo. Similarly, we find that 56 % of workers are working in a mine where at least one armed actor is present. The figure breaks this further down by armed actor.

In line with the findings of our previous report,<sup>58</sup>

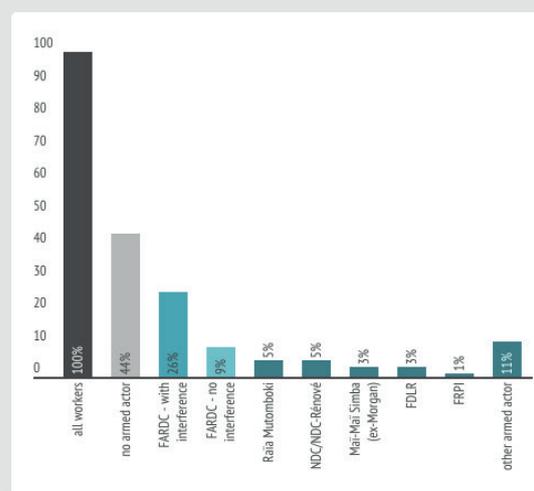
**FARDC elements** are the most important armed actors illegally benefitting from artisanal mining.

About 63,000 (26%) artisanal miners were working on sites where FARDC soldiers had been reported to interfere with mineral production and trade. Compared to the findings of the previous phase (2013-2014) of the project, there has been an increase in 2015 in miners working on sites where FARDC elements were present, but not observed to be interfering. This being said, at a significant part of these sites, FARDC elements' control was reported albeit in less visible ways, such as through pit ownership, the verification of which was beyond the scope of this mapping study. The development of a comprehensive strategy to reduce FARDC presence at mining sites, including through prevention and supporting military justice, thus emerges as a clear – but so far neglected – priority.

Armed presence on 1615 mines in 2013-2015

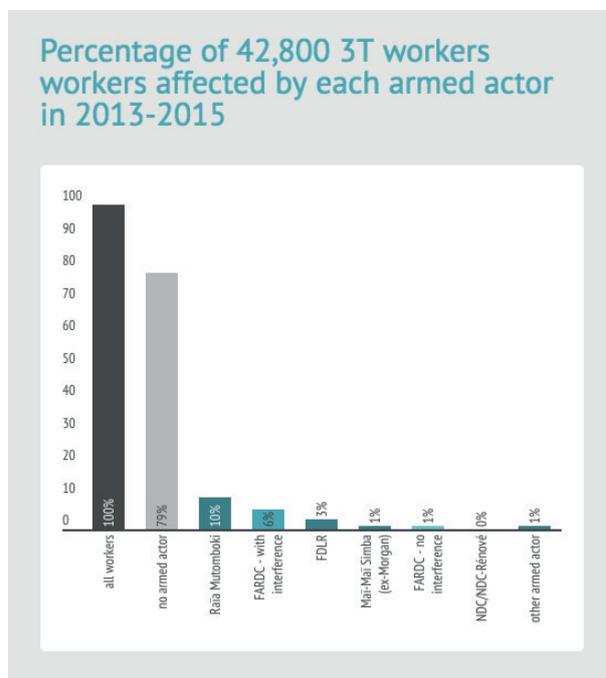
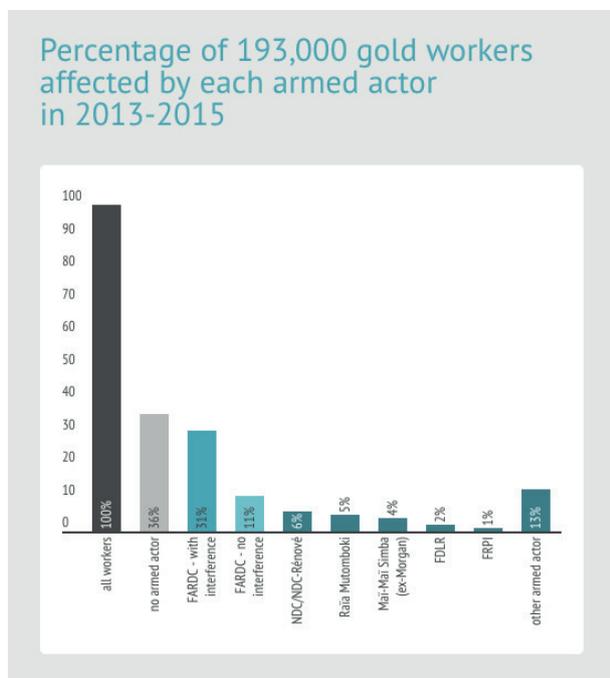


Percentage of 239,700 workers affected by each armed actor in 2013-2015



58 IPIS, *Analysis of the interactive map of artisanal mining areas in Eastern DR Congo: May 2014 update*, May 2014.

The two **armed groups** with the largest grip on the artisanal mining sector are the Raïa Mutomboki (13,000 miners, i.e. 5%) and the NDC/NDC-Rénové (12,000 miners, i.e. 5%) in their respective areas of operation. For more information on these groups, see Chapters 2 and 4. The FDLR interferes with the work of 5500 (2%) miners. The other actors include different Mai-Mai groups (notably Mai-Mai Yakutumba, UPCP and Mai-Mai Simba), FRPI, and others.



When **disaggregating the data between 3T minerals and gold**, it immediately becomes apparent that there is far less armed presence in the 3T sector. Some 64 % of gold miners work in the (permanent or regular) presence of an armed actor, compared to 21 % of 3T miners. Moreover, it is noteworthy that the presence of FARDC elements, as compared to interference by other armed groups, is relatively much more limited in 3T mining: 7 % points on a total of 21 % of 3T workers that work in the presence of an armed actor. For gold workers, this is 46 % points on 64 %. A decrease in armed presence on 3T sites can be observed in the 2015 dataset as compared to the 2013-2014 dataset, with 30 % of miners affected during the first phase and 16 % during the last. This decrease can mainly be attributed to the inclusion of 3T mining sites in largely demilitarized areas of former Katanga province and the sharp decline in activity at, as well as the demilitarization of, Bisie Mpama in Walikale.

Concerning gold, the addition of new areas to the database and map has had the inverse impact on general levels of armed presence. On the sites visited throughout 2013 and 2014, an estimated 57 % of gold miners were working in the presence of at least one armed actor. At the sites visited in 2015, 78 % of miners are affected. Rather than reflecting an increase in armed control over gold mining sites since 2013, the higher number is the result of the inclusion of areas that had not been visited prior to 2015 due to the prevailing insecurity. The Bakaiko *groupement* in Ituri and the Lubero river area in North Kivu are clear examples. In the newly covered Bafwasende territory (Tshopo), very high levels of militarization were observed as well.

Most **instances of armed interference** on mining sites concern illegal taxation. While 56 % of mines endured the (permanent or regular) presence of an armed actor, taxation had been reported in 42 % of all mines. Such taxes are typically at between 1000-2500 Congolese Francs (FC) per week for a worker.<sup>59</sup> Pit managers are taxed at a substantially higher rate, for instance at around 30,000 FC per month in Mambasa. In the large majority of cases, taxes are levied on a lump-sum basis. Throughout 2015, only ten % of illegal taxes were levied as a percentage of production, most often between ten and 15 %.

The field teams also questioned various stakeholders at the mines, about illegal taxation. In the 2015 dataset, including 775 mines, the total amount of taxes levied by armed actors, at the level of the mine, almost rose to an estimated hundred thousand USD per week at gold mines, and almost ten thousand at 3T mines. FARDC elements take the biggest share of these profits, roughly estimated at 70% of the total amount of these taxes.

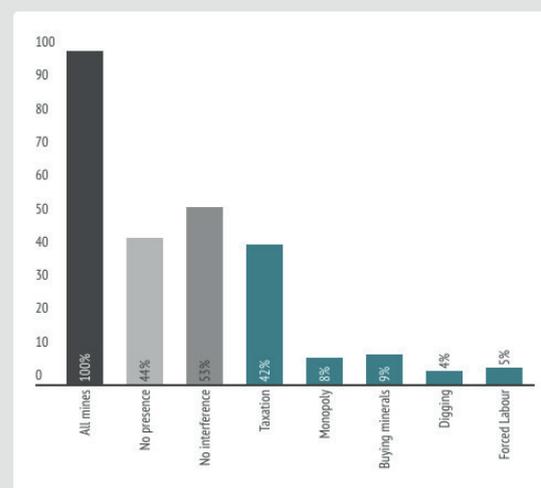
Armed actors buying minerals were observed in 9 % of all mines. Armed actors establishing a monopoly over the sales of certain commodities, such as beer, soap, cigarettes and palm oil, were observed in 8 % of all mines. Such monopolies are particularly recurrent in the territories of Bafwasende, Mambasa, Lubero, Masisi and Walikale.

In around five % of the mines, artisanal miners were forced to work on average two to four days per month for the armed actor present. Such abuse was in over 90 % of cases committed by elements of the FARDC, for instance in the territories of Fizi (South Kivu) and Bafwasende (Tshopo).

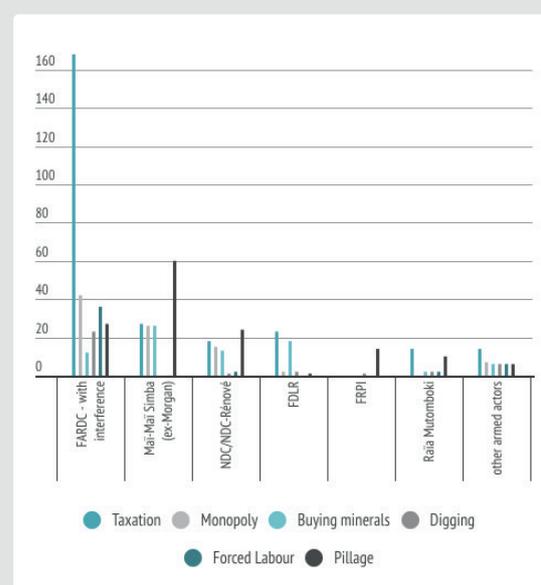
In the 2015 phase of the project, the field teams also specifically asked about pillaging by different armed actors. The survey revealed that FARDC elements that interfere in the mining sector are not very dependant on pillaging to make a profit. These elements often seem to limit their interferences to illegal taxation.

Most armed groups, on the other hand, do pillage most of the mines that they visit regularly or occasionally. In many cases, these robberies weigh heavily on artisanal miners, who develop strategies to avoid these robberies or just leave the site (e. g. see section 4.1. on FRPI and Mai-Mai Simba). A notable exception is the FDLR, which controls a string of gold mines in Lubero. The FDLR refrain from pillaging, which seems to match their lasting presence and control in the area by means of a parallel administration, which will be discussed in section 4.2. This does not necessarily describe the FDLR's attitude in general, but rather the type of long-lived control they enjoy in the centre of Lubero.<sup>60</sup>

Relative occurrence of various types of interference at 1615 mining sites in 2013-2015



Type of interference by armed group on 775 mines visited in 2015



59 FC, or *Franc Congolais*. In 2015, the value of the Congolese franc fluctuated between 931 and 918 francs for one US dollar.

60 For example, following their losses of ground during the Kimia II military operations in 2009, the FDLR have been accused of revenge attacks against the local population.

## Armed presence on revisited sites

As mentioned above, the field teams revisited 200 sites in 2015 that had already been visited in 2013-2014. Out of these sites, 109 are located in South Kivu and 23 in Mambasa territory (Ituri). This allows us to identify some evolutions over the last three years, especially for the aforementioned areas. Given the fact that the number of miners fluctuates according to season, production phase of the mine and the discovery of new deposits, trends should

| armed actor                      | 2013-2014 | 2015 |
|----------------------------------|-----------|------|
| <i>no armed actor</i>            | 114       | 100  |
| <i>FARDC - with interference</i> | 60        | 57   |
| <i>NDC/NDC-Rénové</i>            | 8         | 10   |
| <i>Raïa Mutomboki</i>            | 7         | 5    |
| <i>FARDC - no interference</i>   | 4         | 27   |
| <i>FDLR</i>                      | 5         | 2    |
| <i>Mai-Mai Simba (ex-Morgan)</i> | 1         | 3    |
| <i>other armed actor</i>         | 7         | 3    |

therefore be treated with caution, as armed presence is often also linked to a mine's productivity.

In 2013-2014, **FARDC elements** were present at 64 of the 200 sites. In 2015, such presence was reported in 84 sites, being a net increase of 31 %. The sites that had no FARDC presence in 2013-2014, but did have a presence in 2015, were mainly gold mines. In Mambasa, FARDC elements bolstered their presence from 4 to 17 out of the 23 revisited sites. In South Kivu as well, overall FARDC presence significantly increased, especially in Mwenga. In some other territories in South Kivu, such as Kalehe and Walungu, a slight decrease in FARDC presence was observed. Although not geographically comprehensive, the data is yet another illustration that the involvement of FARDC elements in the artisanal mining sector is a persistent phenomenon. The data also shows that especially the presence of '**FARDC elements without reporting of interference**' has increased.

The number of mining sites for the non-state armed groups is too small to show a representative view of their evolution. This underlines the need for more encompassing systematic follow-up research.

## Some elements on mining governance

When superimposing the more than 2,000 sites visited since 2009 on the **mining titles** attributed by the Congolese *Cadastre minier*, it becomes apparent that about 62 % of the mining sites are located on either exploration or exploitation permits of industrial companies ([link to map](#)). Only 15 mining sites are located on *Zones d'exploitation artisanale* (ZEAs), as required by the mining code. On most of the ZEAs, no mining activity was recorded, seemingly indicating a disconnect between the situation on the ground and decision making processes. According to some mining officials, such requests are rarely based on a thorough assessment of mining activity or potential of the zone. The current draft law revising the 2002 Mining Code, explicitly mandates SAESSCAM to initiate these proceedings.<sup>61</sup>

The finding that some 38 % of mining sites are located in areas free of any mining title, shows that the implementation of additional ZEAs can greatly contribute to the strengthening of the artisanal miners' legal status and thus to the formalisation of the sector. Recent efforts by the Ministry of Mines, for instance establishing a string of new ZEAs in Walikale in March 2016, are in this respect a positive development.

In 2015, the field teams also gathered information on the **presence of state services** at the mining sites, including SAESSCAM and the Mining Division. When consulting the pop-up windows of the different mines, it will indicate whether these services are present at the mine, and if yes how permanent (e.g. permanent, one time per week/per month, ...). Both SAESSCAM and the Mining Division were present at 67% of the mines, as discussed above either permanent or occasionally. While an increasing coverage of mining sites by these services should be encouraged, in order to improve formalisation of the artisanal sector, several issues persist. In several cases, miners complained about illegal taxation by these services.

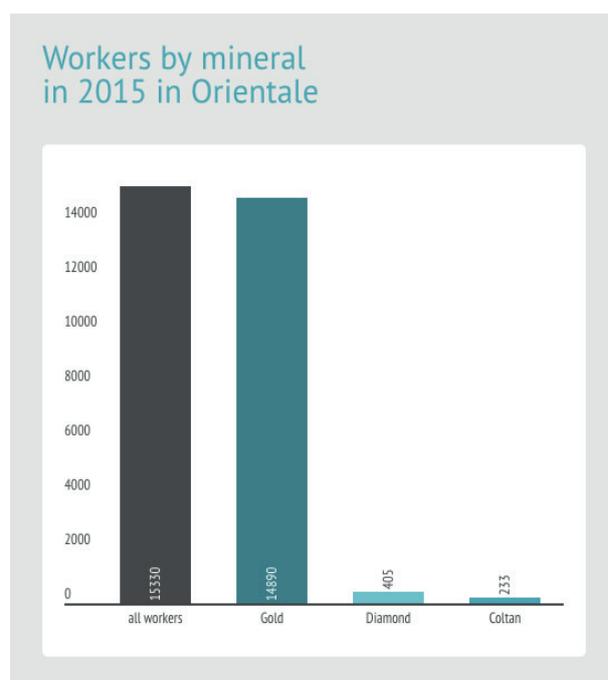
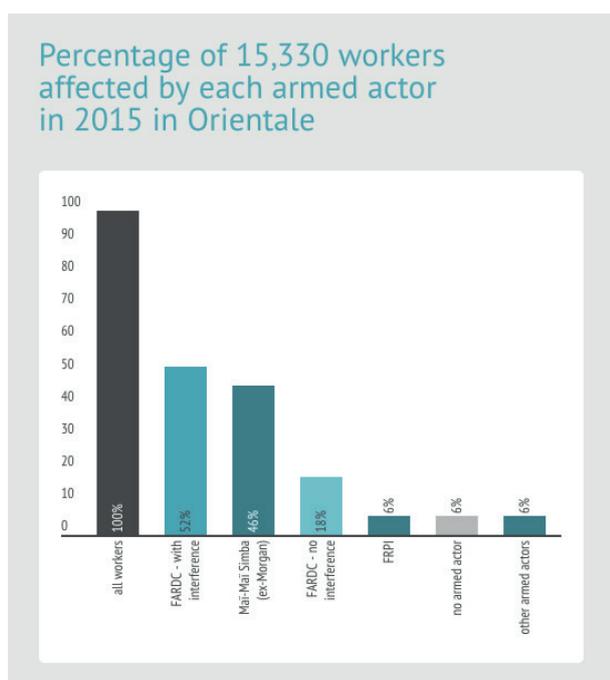
61 Art. 90 of the Projet de loi modifiant et complétant la Loi No. 007/2002 du 11 juillet 2002 portant code minier.

## 4. Description of trends and presence of armed actors per province

This section presents the findings from mine visits during the 2015 phase of the project, listed by province. Since the previous chapter focussed on the most recent data from both the 2013-2014 and more recent 2015 field visits, we first quickly mention some key figures specifically for 2015, in order to put the following provincial data in context.

During the 2015 phase, 775 mines were visited, of which 523 are gold mines and 254 are 3T mines. The total amount of artisanal workers on these mines is 100,300, and 72,500 and 24,400 on gold and 3T mines, respectively. Of the 775 visited mines, presence of an armed actor was observed in 53 % of cases. In 15 % of all cases FARDC was present but not interfering, whilst in 25 % of cases they were interfering. In 18 % of all cases a non-state armed actor was present. The principal criminal activity is illegal taxation, occurring in 34 % of all mines visited (representing 41 % of the miners), whilst monopoly of goods sold at the mining site, buying of minerals or digging by the armed actor, or forced labour for the armed actor occurred in five to twelve % of cases.

### Province Orientale



For the 2015 mapping exercise, the field teams have visited a total of 190 mining sites in the former Province Orientale<sup>62</sup>, which employed around 15,300 miners. Gold is nearly the only mineral that artisanal miners exploit in the southern part of the former province. 97 % of the Orientale miners in our 2015 survey dug for the precious metal. Most of the other miners were digging for diamonds in Tshopo

The territories that have been visited by the field teams in 2015, are somewhat different from the 2013-2014 project. The Ituri district's northern territories of Mahagi, Aru and Djugu, which are important gold producing areas and were relatively free from armed interference in mining and mineral trade, have not been revisited in 2015. The more conflict-prone territories of Mambasa and Irumu, were revisited.

62 The former Orientale Province has been split in four new provinces, being Ituri, Tshopo, Haut-Uele and Bas-Uele.

Furthermore, Tshopo's Bafwasende territory, which also has an important history of Mai-Mai activity, was covered for the first time. As a result of this selection of territories, overall levels of militarisation are high.

In the three selected territories, armed men were observed at 89 % of the mining sites (168 sites out of a total of 190), which employed 94 % of the miners in the 2015 dataset for Orientale. Even though these territories are thus not representative for the whole of the new Tshopo and Ituri provinces, it nevertheless shows that these provinces face serious challenges regarding the interference of armed groups in their artisanal gold exploitation and trade.

The main actor interfering in former Orientale's gold sector is the **FARDC**. They have elements present at 71 % of the sites (employing 69 % of the miners), although in one out of three of these cases, they are not interfering.

Especially **Bafwasende** experiences a high level of FARDC interference at mining sites ([link to map](#)). Out of the 83 sites visited in 2015, army soldiers were present at 77 of them (93 %). At about half of these sites (43), no interference was reported. The latter sites are however among the smaller ones, meaning that 65 % of the 5,800 miners in Bafwasende still experienced interference from the FARDC.



Orientale, Bafwasende (Photo: IPIS)

## Irumu

In Irumu, the field teams have visited a total of 45 sites, all gold mines in the *chefferie* Walendu Bindi ([link to map](#)). The population in this area suffers from extortion and human rights violations committed by FRPI rebels. These fighters are currently scattered in small groups throughout Walendu Bindi due to MONUSCO-supported FARDC operations against them.<sup>63</sup>

The presence of the **FRPI** is also notable in the Walendu Bindi's gold mines. The field teams reported militiamen maintaining a permanent presence in three sites, digging for gold themselves. However, being scattered in small groups, their interference does not entail a firm control over exploitation in most cases. More frequently (at 14 of the 16 sites where FRPI presence was registered), people reported how the rebels regularly pillaged the sites at times of high production.<sup>64</sup> To avoid these pillages, many miners

63 UN Group of Experts on the DRC, *Midterm report*, S/2015/797, 16th October 2015, § 35-36, 44.

64 The UN Group of Experts confirms this situation in their latest report, stating that '*the current situation was different from that of previous years, when FRPI elements were physically and permanently present at mining sites ... Since the beginning of FARDC operations in August 2013, FRPI has been repeatedly pushed out of its positions in the area. Today, FRPI elements are primarily focused on looting and taxation.*' UN Group of Expert on the DRC, *Final report*, S/2016/466, 23 May 2016, § 129.

testified how they only started working from nine o'clock onwards, and left the site at the latest at four in the afternoon.

Aside from the FRPI, **FARDC** elements are also heavily interfering in mining activity in the area, levying illegal taxes at 60 % of all sites on a weekly basis, affecting over 1,900 gold miners. Nevertheless, at some sites miners testified how FARDC's presence brought security, in exchange of course for a *ration militaire* or gold ores, which they described as '*le prix de la paix dans laquelle ils se trouvent*'.

## Mambasa

Finally, Mambasa territory's mining sites are strongly affected by the presence of the **Mai-Mai Simba** rebels linked to the deceased commander Paul Sadala, aka 'Morgan'<sup>65</sup> ([link to map](#)). In 2015, field teams visited 62 gold mines located southwest of Mambasa town. Small groups of armed fighters under the command of leaders Manu and Mangaribi have been observed at about half of these sites, which employ over 3,600 miners out of a total of 6,700 for Mambasa. Mangaribi's men seem to be present at most of those sites on a permanent basis, levying illegal taxes, exerting a monopoly over trade in consumer goods, and forcefully buying gold through barter trade. Manu's men seem to be more involved in ivory poaching, but also rob miners at times.

Apart from interference from Mai-Mai Simba, **FARDC** soldiers had firm control over mining activity in Mambasa territory in 2015, with 42 % of visited sites subjected to their presence. Armed actors' interference is however undoubtedly even higher through indirect taxation. People at a particular mining site reported how they never observed armed men at the site, but it was well known that the pit boss paid the *ration militaire* at the level of his hometown, being the trading centre of Mayuano. It is also remarkable that military presence has increased considerably in Mambasa over the last years. The field team has revisited 23 sites in the territory. While no more than four of those were subjected to military presence in 2013-2014, the field teams reported the presence of armed men at 19 of those sites in 2015. Over the same period, the total number of miners at all those sites decreased from around 3,800 to 1,900. Even though in a few cases flooding and a lack of solid material had been raised to account for this decrease, in most cases people did report that robbery and a deteriorating security situation has been the main reason for miners' departure.

A notable case is the gold mine of Muchacha ([link to map](#)), which is located in the western part of the Okapi Wildlife Reserve. Before 2015, Muchacha was the base of the deceased Simba rebel leader Morgan.<sup>66</sup> The mining camp was reportedly home to about 8,000 people who lived and worked there, and represented the economic heart of the Simba rebels.<sup>67</sup>

Early 2015, FARDC and park rangers had removed all miners from the mine, in an effort to fight illegal exploitation within the Reserve. After a while, however, they allowed miners to return under their strict control. By August 2015, an estimated 800 diggers were working at the site. Both park rangers and FARDC elements were involved in illegal taxation. The latter reportedly charge 10 % of the production, and also impose forced labour and a monopoly over mineral trade. Furthermore, they also exert a monopoly over local trade, for example over fuel supplies for the motor pumps, and once a week they impose *salongo* on the miners.

In 2016, however, the situation seems to have changed once again, following several reports on armed group incursions at the site, involving among others various Mai-Mai Simba groups.<sup>68</sup>

65 Morgan died in April 2014 under suspicious circumstances after he had surrendered himself. (IPIS, *Analysis of the interactive map of artisanal mining areas in Eastern DR Congo: May 2014 update*, May 2014, p. 10.)

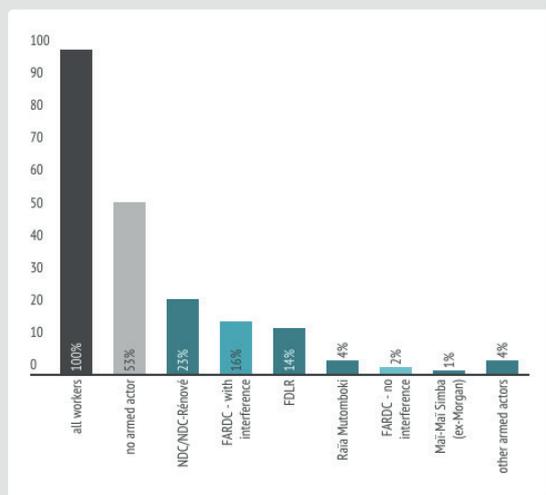
66 UN Group of Expert on the DRC, *Midterm report*, S/2014/428, 25 June 2014, § 71.

67 Stokes E., *The struggle to save the Congolese unicorn*, America Al-Jazeera, 23 February 2015.

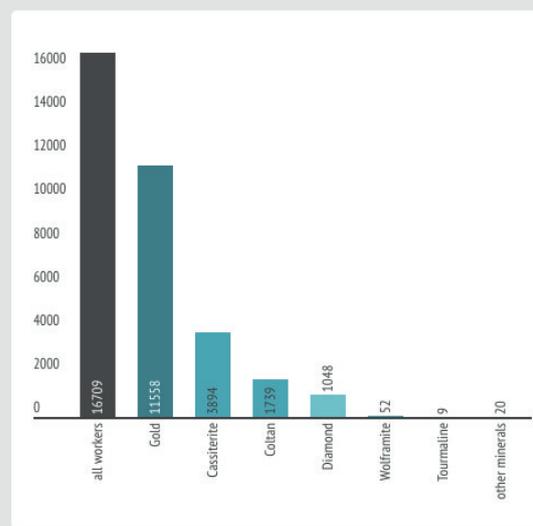
68 Various Radio Okapi articles; UN Group of Expert on the DRC, *Final report*, S/2016/466, 23 May 2016, § 128.

## North Kivu

Percentage of 16,709 workers affected by each armed actor in 2015 in North-Kivu



Workers by mineral in 2015 in North-Kivu



Similar to the eastern DRC in general, **gold** is the number one mineral in North Kivu. In 2015 the field teams have visited 150 mining sites in the province, more specifically in the territories of Lubero, Walikale and Masisi. More than half of the visited mines are gold mining sites, employing 69 % of the miners in our survey (11,558 out of a total 16,709 miners).

Besides gold, Walikale is traditionally known for its **cassiterite** production ([link to map](#)). Out of the 150 mines in the 2015 dataset for North Kivu, 38 concerned cassiterite mining and another 25 coltan mining. These sectors employ respectively 23 % (3,900) and 10 % (1,740) of all miners in the 2015 survey.

North Kivu's mining sector has especially been known for its high level of **armed group interference**. The 2013-2014 data already showed that armed groups were present at 80 % of the mines that were visited by the field teams.<sup>69</sup> With regards to the sites that were visited in 2015, 59 % was affected by the interference of at least one armed group. The affected sites employed 47 % of the miners in our North Kivu dataset for 2015, while it was 80 % in 2013-2014.

The figures in the previous paragraph reveal a decrease of direct interference of armed actors at mining sites. Indeed, at the 20 sites that have been revisited in North Kivu, there seems to be a slight decrease of armed actors' interference. While all of them were subjected to the presence of armed men in 2013, this was only the case for 15 of them in 2015. The impact is even significantly bigger when considering the number of miners, as two big mines in Walikale territory have been largely demilitarised, being Bisie and Omate. Together, these mines employ almost 2,800 diggers, representing 17 % of the miners in the 2015 dataset on North Kivu. Furthermore, while 90 % of the mines in Lubero and 77 % of the mines in Walikale visited by the field teams experienced armed interference in 2013-2014, these figures have dropped to 75 % and 53 % respectively for those sites that have been visited for the first time in 2015.

It should however be noted that some international observers have argued that certain state security agents have developed strategies to circumvent the restrictions on their direct interference in the mineral sector, e.g. through pit ownership via intermediaries.<sup>70</sup>

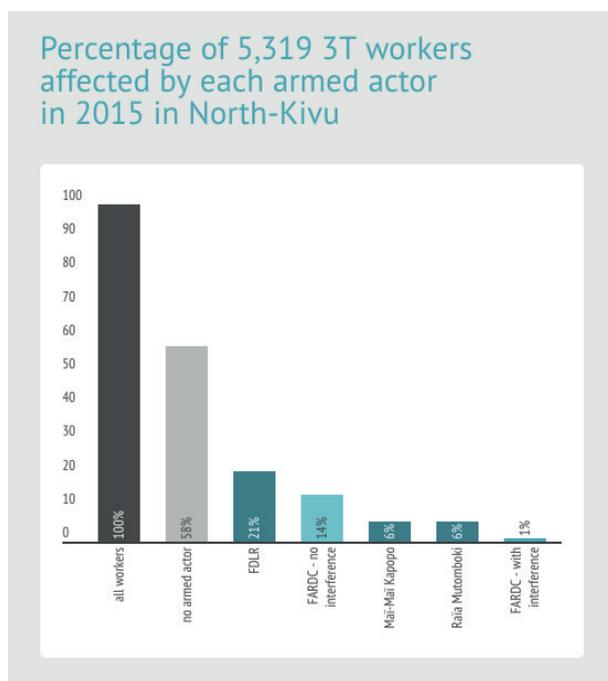
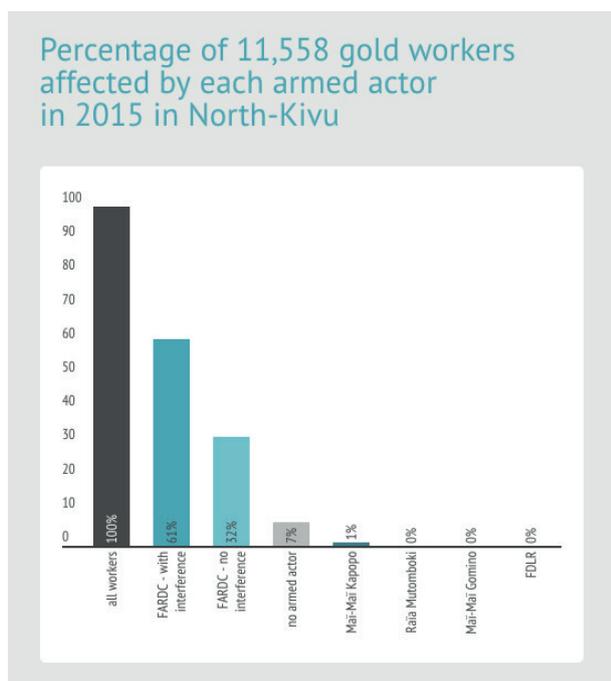
69 IPIS, *Analysis of the interactive map of artisanal mining areas in Eastern DR Congo: May 2014 update*, May 2014, pp. 14-15.

70 Cuvelier J., Van Bockstael S., Vlassenroot K. & Iguma C., *Analyzing the Impact of the Dodd-Frank Act on Congolese Livelihoods*, SSRIC, November 2014.

The role of **non-state armed actors** with regards to interference in mining and mineral trade is relatively bigger in North Kivu than in eastern DRC in general. FDLR and NDC are the main actors, together with some FARDC elements.

In contrast to the general eastern DRC figures, there is no huge difference between the various minerals with regards to armed group presence in North Kivu. With regards to gold, 49% of the miners work in the presence of an armed group, while this is 40% in 3T mines. It should however be noted that this figure is seriously influenced by the Omate gold mine, which is free from armed presence and employs over 2,000 miners. 67 % of the gold mines is still affected by the presence of armed men.

Furthermore, there are significant differences within the 3T sector. While armed groups interfere in the business of 46 % of the cassiterite miners, this is the case for no more than 27 % of coltan miners. These differences, however, do not seem to be linked to the nature of the minerals. Coltan mining is mainly limited to Masisi, an area where mining is less affected by armed group interference than the rest of the province.



## South Lubero

### FDLR

The FDLR's prominent presence in North Kivu's artisanal gold mining sector has been confirmed by the 2015 mapping data ([link to map](#)). Out of the 150 sites visited in North Kivu, their presence has been observed in 24 mines, where more than 2,276 miners are working. Nearly all of those miners are digging for gold.

Local communities in the Walikale-Lubero territorial border area complained about the rebels' parallel administration, as well as their involvement in illegal logging and gold mining.<sup>71</sup> The data between 2013 and 2015 reveals how FDLR's **illegal involvement in gold** mining is especially notorious in the centre and the south of Lubero territory. Taking into account the sites visited in Lubero from 2013 to 2015, more than 4,200 miners were working in the area under FDLR control. Taking into account the 2015 data, the FDLR might earn over 6,000 USD per week just from taxing gold miners in the area. Furthermore, interviewees have reported that the rebels are also involved in the gold trade, as they are buying minerals at the mines.

71 Radio Okapi, 11 localités d'Ikobo administrées par les FDLR, selon des notables locaux, 24 November 2015.

Furthermore, the 2013-2014 data and reports<sup>72</sup> reveal how the FDLR allies of **Mai-Mai Lafontaine (UPCP)** also control several gold mines about 50 to 75 km to the southwest of Lubero town ([link to map](#)). Chapter 2 discussed that NDC and UPDI rebels fought the FDLR-UPCP coalition in late 2015. Furthermore, the FARDC launched a military operation early 2016, and pushed UPCP away from some of their strongholds in the extreme southern part of Lubero, such as Mbwavinywa. Consequently, the UN Group of Experts reported that the NDC-Rénové rebels took over the important Musigha gold mine (which has seen an important decrease in activity since 2013) from the FDLR-UPCP coalition in 2015.<sup>73</sup> The FDLR rebels' control over gold mines located more north-westwards, has however not been affected.

### ***NDC and FARDC***

Most of the Lubero sites under FDLR control suffer from incidental pillaging by NDC rebels under the command of one Claude Berezi. In total, the 2015 dataset reports about the pillaging of 18 mines by NDC in the area ([link to map](#)). Furthermore, the web map shows that some FARDC elements are also involved in the militarisation of Lubero's mines ([link to map](#)). Thirteen sites, employing almost 1,000 miners, experienced some interference from army elements, who ask miners on average for 1,000 FC every two weeks, which amounts to an average of 1,900 USD in total per month.



Nord Kivu Lubero

72 IPIS, *Analysis of the interactive map of artisanal mining areas in Eastern DR Congo: May 2014 update*, May 2014, pp. 14-15.

73 UN Group of Expert on the DRC, *Final report*, S/2016/466, 23 May 2016, § 130-131.

## Walikale

### NDC-Rénové

As discussed before, the NDC profits from gold through incidental pillaging in Lubero. In Walikale territory, however, NDC rebels profit from a more entrenched interference. In the 2013-2014 dataset, **NDC** interference under the command of Sheka had already been reported in 82 gold mining sites in the centre of Walikale territory, in the *groupements* Ihana and Utunda. More than 9,700 miners were subjected to illegal taxation by the rebels.

Sheka has however been weakened over the last years, and has lost some grip on gold mining in Walikale. His rule has been weakened by his rival Guidon, who founded his own NDC faction, **NDC-Rénové**. In 2015, this breakaway rebellion clashed with Sheka's NDC fighters in Walikale,<sup>74</sup> and has been fighting FDLR and Lafontaine at the Walikale-Lubero border area, allegedly with the support of some FARDC networks.<sup>75</sup>

In 2015, the field teams reported about NDC-Rénové's presence at 19 mining sites, employing more than 1,600 miners in Walikale's *groupement* Utunda. The rebels' interference usually concerned illegal taxation and a monopoly over the trade of gold, cigarettes and alcohol. In two cases there were reports of forced labour.

Of the 82 sites in Utunda/Ihana that were under control of NDC in 2013, six were revisited in 2015. All six sites were subjected to Guidon's rebels' tax collection. Because neither in 2015, nor in 2013, any mine in eastern Utunda that was visited was free from armed interference, it seems likely that most of those 82 sites that were visited in the area in 2013, are currently under Guidon's control.

### Raïa Mutomboki and Ma-Mai Kifuafua

Aside from NDC's and FDLR's serious interference in the mining sector, the 2015 dataset also gives insight in the 'financing of rebels' in the mines of the southern part of Walikale ([link to map](#)). Raïa Mutomboki as well as Mai Mai Kifuafua profit from cassiterite exploitation in the area. The hostile relationship between both groups<sup>76</sup> led to serious fighting in 2015. They both struck alliances with rivaling factions of the NDC rebels. While Sheka's rebels allied with the Raïa Mutomboki of Commander Ngoa Bisiri, Guidon's fighters allegedly sided with the Mai-Mai Kifuafua.<sup>77</sup>

The **Mai-Mai Kifuafua**, which are commanded by General Delphin and might include up to 400 rebels<sup>78</sup>, control some cassiterite mines in southeast Walikale territory, which employ a few hundred miners. They impose forced labour, dig for minerals themselves, and demand 10 % of miners' production. These illegal taxes might yield them over 2,000 USD per month.

Furthermore, the field teams encountered **Raïa Mutomboki** elements led by General Elenge at several cassiterite mines in the *groupement* Bakano, to the west of the Mai-Mai Kifuafua's base. Their illegal taxes affect some 240 miners. Local chiefs and civil society representatives have complained about Elenge's terror against the local population.<sup>79</sup> The field teams did however not manage to visit mining sites in Kahuzi Biega national park, which might even have revealed more sites under Elenge's control.

Remarkably, while the field teams reported visits of Elenge's Raïa Mutomboki at the cassiterite mines of Ibondo(-Busonsa) and Kibindobindo (-ya Pascal and -ya Jeanne) between late July and early August 2015, the **joint qualification teams** qualified these sites green in January 2016. The field teams reported about pillaging (Kibindobindo ya Jeanne) and weekly illegal taxation (Kibindobindo ya Pascal) by the rebels. It illustrates once more the volatility of the situation on the ground with regards to mining and armed group activity.

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74 For example: Radio Okapi, *Les FARDC se retirent du groupement Ihana*, 02 April 2016.,

75 Vogel C. & Mvano C., *The dogged persistence of the FDLR*, <http://congoresearchgroup.org/>, 4 March 2016.

76 Already in 2013, disagreements led to hostilities between Mai Mai Kifuafua and Raïa Mutomboki in southeast Walikale territory. (Source: Vogel C., *Recent developments around Raïa Mutomboki*, 8 February 2014.)

77 Radio Okapi, *5 civils tués dans des accrochages entre miliciens à Walikale*, 10 August 2015.

78 MONUSCO, *Conférence de presse des Nations Unies du mercredi 26 août 2015*

79 Radio Okapi, *Les Raïa Mutomboki accusés de pillages et d'arrestations arbitraires à Bakano*, 23 February 2015.

Further east, in the *groupement* Bakondjo (southwest Walikale territory), another faction of **Raïa Mutomboki**, commanded by Colonel Mirage, profits from the area's gold production ([link to map](#)). In this area, the field teams encountered 1,500 miners digging for gold. The rebels demanded local chiefs to levy taxes on their behalf from the gold miners.

### **FARDC**

The FARDC presence at mining sites in Walikale has been a serious issue in the past. For many years, **Bisie** has been the best-known case study of the conflict minerals problem. Over the last years, illegal involvement of armed actors seems to have disappeared at the mine, which is confirmed by the field team visit in June 2015 ([link to map](#)). However, there have been reports of illegal taxation by FARDC and other state services at roadblocks on the road to Bisie. Also, the number of miners has decreased drastically. While several thousands of miners worked at the Bisie mine until a few years ago, only around 500 were observed in June 2015.<sup>80</sup>

Despite the disappearance of armed interference in Bisie, several mines in the neighbourhood are still affected by army units ([link to map](#)). Soldiers of the **Walikale Military Base** (*Base Militaire de Walikale*, BAWA) were reportedly exerting control over the mines of Bakha, Kalay Boeing and Kalay Boeing-Mont Agoma, when the field teams visited them in June 2015. Those mines employ an estimated 550 miners in total. More recently, however, in January 2016, Kalay Boeing-Mont Agoma has been qualified green by the joint qualification team, as it did no longer observe the presence of armed actors.<sup>81</sup>

Furthermore, FARDC BAWA elements have been involved in several other mines in eastern Walikale, affecting an additional 800 miners that dig for cassiterite, diamonds and gold. The soldiers demand between 10 and 15 % of the mineral production, which might yield them several thousands of dollars per week.

### **Masisi**

As opposed to mines in most of North Kivu's territories, Masisi's sites have been largely free from military or rebel involvement over the last years ([link to map](#)). The 2015 dataset only shows a few small coltan and cassiterite mines in northern Masisi that have been affected by the involvement of **FDLR and Mai-Mai Nyatura**. The latter is a Congolese Hutu militia that has been allied for several years with the FDLR. Most of those rebels interfere by digging themselves and exerting control over the mineral trade.

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80 More detailed information on Bisie can be found in: IPIS, *Third Party Review of the Bisie Security Report*, July 2016; Pact Institute, *Bisie Security Report: For the period 2010-September 2015*, commissioned by iTSCi, March 2016; Synergy Global Consulting, *Independent assessment of the minerals evacuation process from Bisié, Walikale Territory, North Kivu Province, DRC*, December 2015.

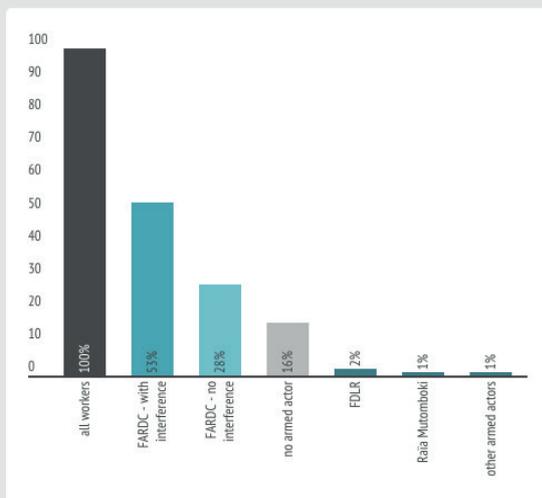
81 The Ministerial decree that validates the results of the qualification mission however calls 'Kalay Boeing – Mont Agoma' 'Kalay Boeing'.

## South Kivu

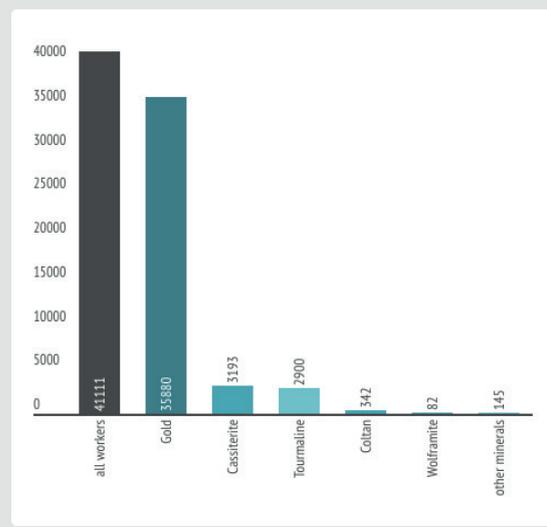
In 2015, IPIS has visited 200 mining sites in South Kivu, with about 41,000 workers. Remarkable is the relatively high number (20) of **big mining sites** (sites with more than 500 miners) in the province, compared to the rest of eastern DRC which has a total of seven such mines.

The majority of the visited mines are **gold** mines (73 %), and employ 35,900 workers or 87 % of the workforce of all the sites visited in South Kivu in 2015. 3T minerals are found at only 30 % of the visited mines, employing no more than 8 % of the miners in the South Kivu dataset.

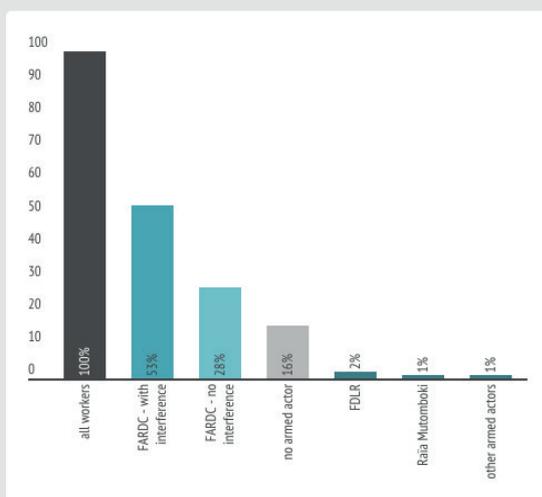
Percentage of 41,111 workers affected by each armed actor in 2015 in Sud-Kivu



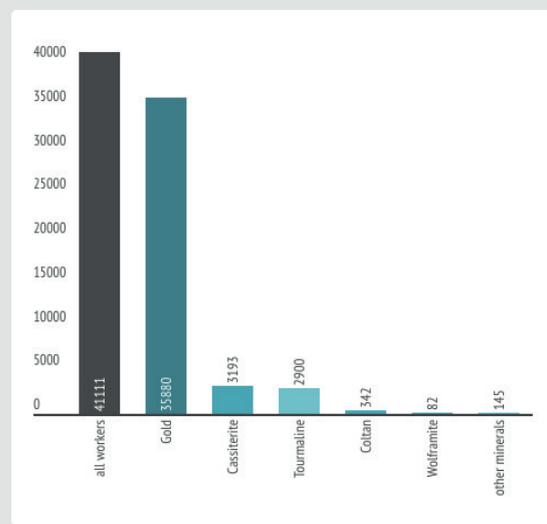
Workers by mineral in 2015 in South-Kivu



Percentage of 41,111 workers affected by each armed actor in 2015 in Sud-Kivu



Workers by mineral in 2015 in South-Kivu



There is an important difference between the various minerals with regards to levels of **armed interference**. 77 % of the visited gold mines endure some form of armed presence, mostly FARDC elements. These percentages are considerably lower for the 3T sites, of which 46 % experiences the presence of armed men. 33 % of all visited 3T mines have an FARDC presence and 23 % have a non-state armed group present, of which the majority concerns Raïa Mutomboki on cassiterite mines.

However, in one third of the militarised mines, the field teams did not report any interference.

At the 30 trading centres visited in South Kivu, the FARDC had a permanent presence in 87 % of the trading centres. However, illegal taxation was only reported in three of these trading centres.

## Fizi

In Fizi territory, 25 of the 26 gold mines visited in 2015 had an **FARDC** presence, either permanent or units passing by once a week. At almost all of these mines, soldiers levied illegal taxes, and at some there were reports of pillaging (36 %), forced labour (46 %) and/or militaries that were digging themselves (42 %).

Especially the findings in the Misisi-Lubichako area – in the south of Fizi territory, where the local economy is almost exclusively dominated by artisanal gold mining – reveal huge profits from illegal taxation at mining sites ([link to map](#)). A few big gold mines, employing about 6,000 miners in total, have attracted the attention of elements that reportedly operate under the command of the notorious Colonel Samy Matumo.<sup>82</sup> At least ten gold mines in the Misisi-Lubichako area were very lucrative for some FARDC elements, as **officers** (including Colonel Samy) earned thousands of US dollars per week through illegal taxation.

Cases of FARDC elements making high profits from Misisi's gold mines were also confirmed by research of the UN Group of Experts. In 2015, they reported that some officers from the FARDC 33<sup>rd</sup> Military Region were based on gold mines in Misisi.<sup>83</sup> The UN Group also found that in three mineshafts, FARDC officers earned between 5,000 and 13,000 USD per week.<sup>84</sup> Furthermore, the UN Group of Experts' 2016 report states that Colonel Samy '*continues to operate an illegal barrier between mining and processing areas*'. Furthermore, it reports that miners have to pay 500 Congolese francs to enter the mining sites, and bicycles transporting gold ores to processing areas have to pay a thousand Congolese francs.<sup>85</sup>

Not only were FARDC elements illegally taxing, the Misisi gold mines and their trading centres were equally lucrative for representatives of **state services**. Officials from SAESSCAM, *Division des Mines, Direction Générale des Impôts*, and customary chiefs are also taxing, per miner, per pit and/or per '*négociant*'.<sup>86</sup>

## Kalehe

According to the 2015 dataset, mining sites in Kalehe are almost free of militarization. Only two of the 41 mining sites visited in 2015 had an FARDC presence and none of the visited mining sites had the presence of another armed group. According to other sources, mining sites in Kahuzi-Biega are militarized.<sup>87</sup> However, the field teams did not visit the sites in the national park and cannot confirm this information.

Nineteen gold mines and twenty 3T mines have been visited in the territory, both categories employing about 1,300 miners. More alluring, however, seem to be the territory's tourmaline mines. The five tourmaline sites visited in July 2015 reportedly hosted over 2,900 miners. These numbers appeared however to have fallen notably during a field visit in September 2015. ([link to map](#))

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82 Colonel Samy Matumo used to command the 85th FARDC Brigade, which controlled the Bisie mine in Walikale (North Kivu) between 2006 and 2009. This control was characterised by illegal taxation and numerous human rights violations, including arbitrary arrests, child labour and forced labour.

83 Group of Expert on the DRC, *Midterm report*, S/2015/797, 16 October 2015, § 74-75.

84 Group of Expert on the DRC, *Midterm report*, S/2015/797, 16 October 2015, § 77.

85 UN Group of Expert on the DRC, *Final report*, S/2016/466, 23 May 2016, § 134-136.

86 IPIS data 2015. See also: Commission d'enquête de l'assemblée provinciale de la province du Sud-Kivu, *Rapport de mission sur les activités minières dans le territoire de Fizi*, February 2014.

87 APDHU (Action for Protection of Human Rights and Communal Development), *Rapport d'analyse de contexte socio-économique, environnementale, sécuritaire et politique du territoire de Kalehe et ses environs*, December 2015, pp. 19-21.

## Mwenga

On the majority of mining sites in Mwenga, gold is exploited. The field teams visited 44 gold mines and 11 cassiterite mines in 2015. **FARDC** elements were present at all but two of the gold sites, and were levying illegal taxes at 55 % of the gold sites. Especially in western Mwenga, elements of the FARDC have been reported to be profiting from gold exploitation ([link to map](#)). The amounts collected depend greatly on the mine. Taxation numbers were collected on fourteen sites. While on six mining sites they reportedly collected less than 100 USD per week, on six gold mines this is between 100 and 300 USD a week. In two remarkable cases, they collected considerably more: on Mwanba gold site around 2,500 USD was earned per week and on Likalanga site around this amounted to 4,000 USD a week.

At 19 of the visited gold mines, a conflict was reported between the Canadian gold **company Banro** and artisanal miners. These sites alone already employ 16,000 miners. Most of the artisanal mining sites in Mwenga are actually located on concessions of Banro's subsidiaries Kamituga Mining, Lugushwa Mining and Twangiza Mining ([link to map](#)). In Mwenga, these sites employ almost 21,000 miners, just for the sites visited by the field teams. These miners will only willingly leave the company's concessions if they can access productive mining zones elsewhere, or if they can develop alternative livelihoods outside the mining sector.<sup>88</sup>

The field teams also visited about 15 mining sites in the **nature reserve Itombwe** ([link to map](#)).<sup>89</sup> The majority of these sites are gold mines, even though there is also an important cassiterite mine, Kasenge, which employs around 700 workers. At half of the sites, a non-state armed group profited in one way or another, levying illegal taxes, pillaging the sites, imposing forced labour, or digging themselves. In two cases it concerned the FDLR, while in all other cases Mai-Mai groups were the perpetrators.<sup>90</sup>

At three in four of the Itombwe sites, FARDC also passed by occasionally,<sup>91</sup> but in most cases they did not interfere in any way in the exploitation.



Sud-Kivu, Shabunda (Photo: IPIS)

88 Stoop, N., Kilosho Buraye, J, & Verpoorten, M., *The social minefield of gold digging in Kamituga, South-Kivu*, Amani Itakuya Essay Series II, #14, 30 July 2015.

89 For a background on artisanal mining in the Itombwe forest: Estelle Levin & WWF, *Exploitation minière artisanale dans la réserve naturelle d'Itombwe, RDC*, June 2013.

90 In one case this was the group Mai-Mai Gomino Nyamulenge, in all the other cases this was the Mai-Mai Kapopo.

91 The frequency was often about once a month.

## Shabunda

In the territory of Shabunda, the field teams visited 61 artisanal mines in 2015, 45 of which were gold mines, 17 were cassiterite mines and 11 were coltan mines. Of all the mines visited, 95 % had an **armed presence**. In 60 % of those cases, however, the **FARDC** was present, without any reports of the soldiers interfering in mineral production or trade.

**Raïa Mutomboki** groups were present at 20 % of the mines visited in Shabunda. This is certainly an underestimation, as some areas could not be visited because of the high levels of insecurity. For example, the field teams did not visit mines in the surroundings of Nyambembe and Lulingu for security reasons, due to Raïa Mutomboki's presence.

Raïa Mutomboki groups were profiting from both gold and cassiterite mines in 2015. Raïa Mutomboki Kazimoto is for example levying illegal taxes at several cassiterite mining sites in Bamuguba-Nord in the *chefferie* Bakisi, north Shabunda ([link to map](#)). The amounts collected on the sites visited in 2015 were quite low because most of these mines are very small and have a limited production. Yet, the UN Group of Experts reported that on other cassiterite mines in Shabunda, Raïa Mutomboki factions collected more than 40,000 USD from taxation between November 2014 and May 2015.<sup>92</sup>

### Shabunda dredges

Part of Shabunda's rich gold deposits are exploited both artisanally and industrially through dredges that operate mainly on the Ulindi River. In April 2015, the General Directorate for Administrative, Judicial, Property and Share Revenues in Shabunda counted at least 150 dredges along the length of the Ulindi River.<sup>93</sup> The civil society organization COSOC-GL published a report in August 2015 stating that there were 175 dredges in Shabunda territory.<sup>94</sup>

Estimates on the production per dredge differ. According to the COSOC-GL report, the daily production per dredge is 150 grams. While this number has been disputed within the sector, the field teams found similar production data when visiting the dredges. However, an important nuance should be made here. The production of 150 grams of gold per day is the production when the dredge is fully operational and equipped. It is however not uncommon that the daily production is zero gram. Hence, the number cannot simply be multiplied by 365 days to calculate a yearly production.

Gold exploitation through dredges on the Ulindi river has been suspended since July 2015.<sup>95</sup> Nevertheless, exploitation has continued, including in the territory under control of Raïa Mutomboki.

## Walungu

In Walungu territory, the field teams have visited 17 sites that had also been visited by the joint qualification team ([link to map](#)). The qualification team visited the majority of them in 2011, and hence, the situation on the mining sites has changed in the meantime. Nevertheless, the qualification has remained the same in the absence of a new joint validation mission.

Seven visited sites by the field teams, which were previously qualified yellow, did not have any armed presence in 2015. The gold site Nyamurhale, qualified as red in 2014 because of illegal interferences by

92 Group of Expert on the DRC, *Midterm report*, S/2015/797, 16 October 2015, p. 14.

93 UN Group of Expert on the DRC, *Midterm report*, S/2015/797, 16 October 2015, p. 13.

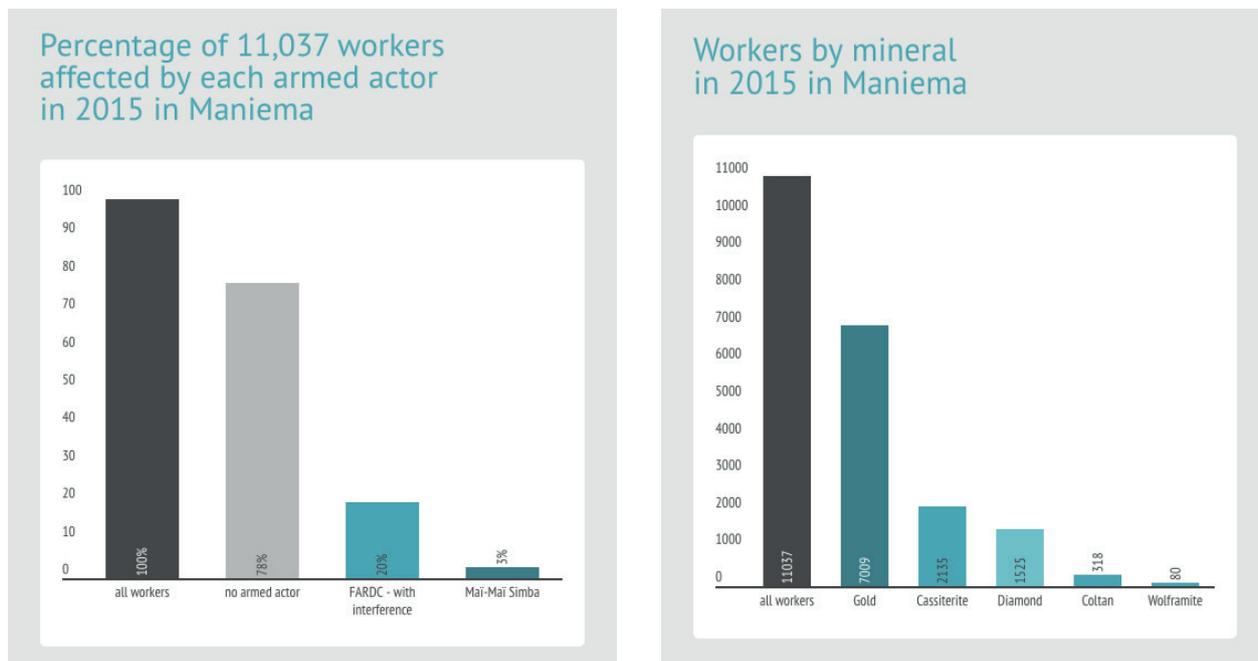
94 COSOC – GL (Coalition of civil society organizations in the Great Lakes Region against illegal exploitation of natural resources), *La ruée vers l'or à Shabunda, pratiques et impacts de l'exploitation minière par dragues*, August 2015, p. 13; More recently Global Witness also reported on it: Global Witness, *River of Gold: How the state lost out in an Eastern Congo gold boom, while armed groups, a foreign mining company and provincial authorities pocketed millions*, July 2016.

95 Arrêté du Gouverneur du Sud-Kivu Numéro 015/025/GP/SK du 13/07/2015.

FARDC elements, had no armed presence in September 2015. The gold site Mukungwe,<sup>96</sup> validated red in 2012, had an FARDC presence in 2015, but without any interferences recorded at the mining site. One of the gold sites that was marked green, the small gold site Cidirha, did have a presence of FARDC elements who illegally taxed miners.

These examples illustrate how quickly the security situation at mining sites can change and hence the need for the qualification missions to regularly revisit and re-qualify the sites.

## Maniema



In 2015, the field teams visited 113 mining sites in Maniema with around 11,000 miners, more specifically in the northern territories of Lubutu and Punia ([link to map](#)), and in the southern territory Kabambare ([link to map](#)). The majority of the visited mines are gold mines (57 %), and employ 7,000 workers. 3T mines only make up 42 % of the visited mines, employing 2,500 workers. An additional 1500 workers are active on one small and one very large diamond site (Kibanguma).

Maniema's mining sites are largely free from militarisation. In Kabambare, there have not been any reports about interference of armed men in the mines visited by the field teams. Gold mining in Lubutu and Punia, however, still suffers from a few problematic cases.

## Lubutu

Lubutu's Maïko National Park is still home to the **Mai-Mai Simba** of General Mando ([link to map](#)). They control gold mining in the park, levying illegal taxes and participating in the gold trade. There have even been reports of forced labour. Furthermore, the rebels also have a monopoly on the sale of alcohol and cigarettes at several gold mines.

96 Miners also left the big mining site Mukungwe, partly because the production has decreased this year and partly because of conflicts between the artisanal miners, a few families who claim property rights and the Canadian company Banro. (Africa Mining Intelligence, *Violence flares anew in Mukungwe concession*, # 357, December 2015; Radio Okapi, *Sud-Kivu: les activités tournent au ralenti après l'assassinat des creuseurs*, 9 March 2015). For more information on Mukungwe see: Mthemba-Salter, G., *OECD Baseline study two: Mukungwe artisanal mine, South Kivu, Democratic Republic of Congo*, OECD, November 2014.

Back in 2013, the field teams reported that **FARDC** patrols from Ntufia (southeast Lubutu territory) occasionally passed by nearby cassiterite mines, asking the SAKIMA (Congolese state miner, *Société Aurifère du Kivu et du Maniema*) representative to contribute to ‘the war effort’. In 2015, these patrols have not been reported. However, before entering and leaving the Ntufia sector, all passers-by had to pay between 500 and 1,000 Congolese Francs at an FARDC barrier. This illegal taxation allegedly discourages traders and diggers to come to the area.

Also, several kilometres southwest from Ntufia, there is an important diamond mine employing 1,500 workers called Kibanguma, where a police officer and an FARDC soldier own several pits ([link to map](#)).

### Punia

Another important case of armed interference in mining is the involvement of an **FARDC** battalion in a dozen of gold mines in Punia territory, which employ over 2,100 diggers ([link to map](#)). These soldiers reportedly levy illegal taxes on a monthly basis, which renders them an estimated 3,500 USD per collection.

The military and other armed groupings are however not the only actors interfering illegally in the province’s mining sector. There have been plenty of cases in Punia and Lubutu of illegal taxation by several **state agents**, representing the mining services, DGM (Direction Générale de Migration), ANR (Agence Nationale de Renseignements), the police, etc., especially at gold mining sites.



Maniema, Kabambare (Photo: IPIS)

### Kabambare

As mentioned above, there have been no reports of armed presence at the mines visited in Kabambare in 2015, as opposed to 2013-2014, when FARDC elements had been observed at a few mines and trading centres. Nevertheless, the involvement by a retired **FARDC** general was reported in two sites in Kabambare. At one site (Lubondozi 3), he reportedly owns one or more mineshafts, while at the Luiko river, he allegedly owns a dredge to exploit gold. In both cases, state agents are reportedly barred from visiting the site, possibly under threat of physical violence. The retired general, Sikatenda Shabani, also appears extensively in the latest UN Group of Experts report for widespread extortion of gold throughout Fizi territory, South Kivu.<sup>97</sup>

97 UN Group of Expert on the DRC, *Final report*, S/2016/466, 23 May 2016, § 101-108.

Furthermore, besides state agents interferences, in several cases, and most notably in Kabambare, there have been reports of **customary authorities** levying taxes on gold mining and barring mining authorities from visiting the mines.

## Opportunities and challenges for responsible sourcing initiatives

The low level of armed interference in mining in Maniema creates opportunities for responsible sourcing efforts. A major development in Maniema's mining sector is the implementation of ITRI's traceability programme, **iTSCi**. The programme has been launched in the province in 2012 around Kailo and Kalima. Later, the programme was expanded to northern Maniema, notably to Punia and Kasese in February 2014,<sup>98</sup> and to Lubutu in early 2015.

iTSCi's rapid expansion in Maniema is illustrated by the province's production figures. It reported an approximate **production** of 1,222 tonnes of 3T minerals in the province between January and June 2015, reportedly involving an estimated 7,221 miners.<sup>99</sup>

Within the iTSCi project, local state agents are responsible to weigh and tag bags and to record them in order to ensure traceability.

At several mining sites in Punia, however, it was reported that the **tagging** is not executed at the mining site, but at nearby villages. ([link to map](#)) At one site for example, minerals were reportedly tagged in the site of Saulia, about 20 kilometres in the direction of Punia town. In another case, state agents tagged the bags only once a week, when they visited the miners' campsite instead of the mine.

In Lubutu, there were allegations of *négociants* being in possession of iTSCi tags. Furthermore, in Lubutu as well, bags were reportedly tagged at the centre of Osso, instead of the mining site.

In its bi-annual report on the first half of 2015, iTSCi recognises that it has to deal with several **incidents** with regards to tagging in Maniema. It mentions the breaking and loss of tags, and confirms that state agents have been missing from mine sites, allegedly due to non-payment of salaries.<sup>100</sup>

Furthermore, at several mines in southeastern Lubutu, complaints have been raised about the Maniema Mining Company's (**MMC**) monopoly over the mineral trade. The MMC is a mineral exporter based in Kindu and a member of ITRI. It has signed an agreement with SAKIMA, which gives the *comptoir* exclusivity to buy artisanally mined 3T minerals from SAKIMA's concessions in the territories of Pangi, Kailo, Punia and Lubutu.<sup>101</sup>

In Lubutu, it is however remarkable that some of the mines where stakeholders complained about MMC's monopoly are located outside of SAKIMA's concessions. Furthermore, it is highly recommended that the *comptoir* assesses the risks of contamination of its supply chain considering the abovementioned allegations of illegal taxation by FARDC in Ntufia.

Another effort with regards to responsible sourcing has been implemented near **Banro** Corporation's Namoya concession in northern Kabambare. Banro and the provincial government negotiated a deal with artisanal miners' representatives. The provincial government provided the gold deposits around **Matete** to the miners that were regrouped in the cooperative COMICA.<sup>102</sup> ([link to map](#))

At the gold mines around Matete, a lot of interviewees complained about the COMICA cooperative, and the alleged interests that several state services and provincial politicians have in the cooperative. Furthermore, people complained that local communities have not yet benefitted from any support of the cooperative.

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98 ITRI, *Further iTSCi extension of conflict-free minerals to benefit communities in Northern Maniema*, 18 February 2014.

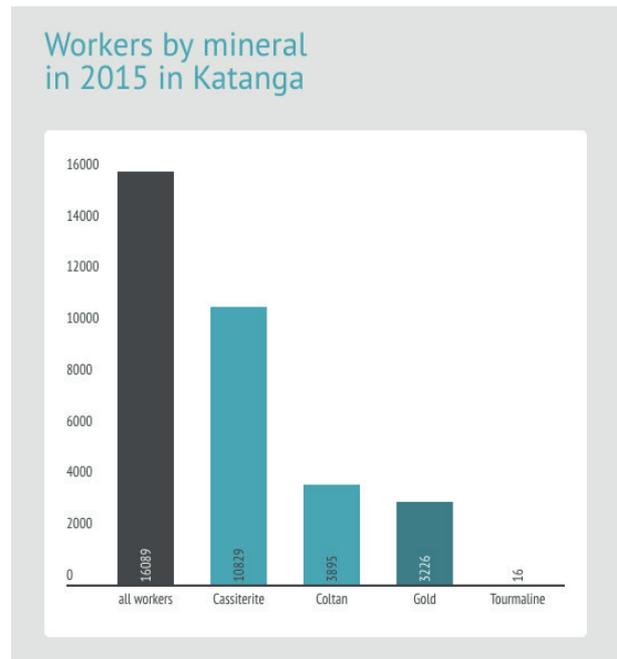
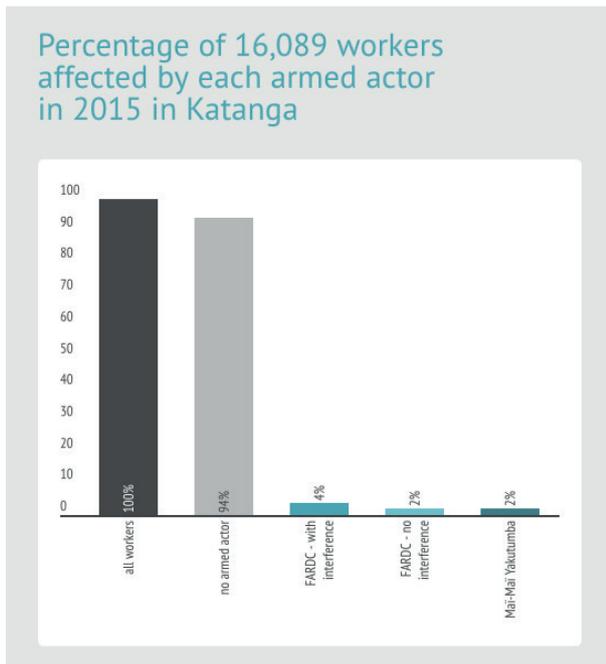
99 iTSCi/Pact, *Status Report iTSCi DRC Field Operations January – June 2015*, July 2015, pp. 3, 6.

100 iTSCi/Pact, *Status Report iTSCi DRC Field Operations January – June 2015*, July 2015, pp. 14-16.

101 Maniema Libertés, *La participation de la société civile et les investissements internationaux dans le secteur des ressources naturelles*, mars/avril 2015

102 Banro Corporation, *Créer des emplois et de nouvelles possibilités économiques, Rapport sur le développement durable 2015*, pp. 17-19.

## Katanga



In 2015 a total number of 122 mines were visited in the former province of Katanga, including 40 gold mines and 82 3T mines. These employ 16,000 workers in total, with the gold and 3T sector employing 3,200 and 12,800 workers each.

## Tanganyika

The field teams have visited 55 artisanal mining sites that employ 5,700 miners in the Tanganyika province in 2015, more precisely in Manono, Nyunzu and Kalemie territory. The majority of those mines are **gold** mines (33 mines or two in three), followed by 22 **coltan** mines, and 3 **cassiterite** mines. They respectively employ an estimated 2,800, 1,800 and 1,000 miners ([link to map](#)).

The number of miners working on the majority of the visited cassiterite, coltan and gold mines has seen a recent decline. The price drop for the minerals, most importantly cassiterite, can be a first explanation for this. Secondly, the field teams visited the majority of the mining sites in seasons in which water problems hindered full production, either because of a water scarcity (both drinking water and water to wash the minerals) or floods. Thirdly, there are specific explanations for individual mines. **Musebe** gold mine for example counted 15,000 miners in March 2013 and 250 in July 2015 ([link to map](#)). This drop was caused by a decrease in production. Since 2013, the miners have exploited the same pits, and most have become depleted or dangerous because they are too deep. Moreover, the company MEDRARA has the exploitation rights over Musebe and its surroundings, which has discouraged miners to stay, as they knew they would have to leave sooner or later when the company would start its exploitation.

In 2015, the interference of **armed men** at the mines seems to have decreased, when comparing the 2015 dataset to the 2013-2014 dataset. While the number of militarized mines in 2013-2014 was already lower than in other provinces in eastern DRC, the in 2015 visited mining sites in Tanganyika were almost all **not militarized**.

Only at a few gold mining sites close to the border with Fizi (South Kivu), in the north of Kalemie, **FARDC** elements were observed ([link to map](#)). These sites employ around one thousand miners, which do represent 34 % of the gold miners in the 2015 Tanganyika survey. A few smaller sites (Kilwe, Milonge, Kabobo and Tuki), which employ around 250 diggers in total, have also been affected by interference of

the **FDLR and Mai-Mai Yakutumba**, involving illegal taxation, pillaging, and forced labour. The FARDC reportedly maintains a peaceful coexistence with the two armed groups. Another site, Monde Arabe, hosts 500 gold miners and has the permanent presence of FARDC elements, who are digging for gold themselves. The soldiers are part of the unit commanded by the notorious Colonel Samy Matumo, who is also involved in some illegal interference in the south of Fizi territory (see section 4.3).

In Nyunzu territory there have been no reports of armed interference in mining ([link to map](#)). Nevertheless, the conflict between two ethnic communities, Batwa (Pygmies or Bambote) and the Luba, had some impact on artisanal mining. No armed presence was recorded, but production occasionally decreased due to armed violence in neighbouring villages.

### Central Katanga

The field teams also visited 67 mining sites in Haut-Katanga (Pweto and Mitwaba territory) and Haut-Lomami (Malemba Nkulu and Bukama territory) ([link to map](#)). The majority of these mines (about 80 %) were cassiterite mines. No armed presence was reported on any of the 67 visited mining sites. This corresponds with the overall security climate in Central Katanga, which saw a reduced armed group activity in the year 2015.

Also in these provinces, the number of diggers considerably reduced, again mainly caused by the drop of prices on the local and world market.



*Katanga, Nyunzu (Photo: IPIS)*

## 5. Conclusion

This IPIS report accompanies the latest version of **the interactive web map** ([link to map](#)), showing the location of more than 2,000 artisanal mining sites in eastern DRC.<sup>103</sup> The report's analysis focuses on the data gathered in cooperation with the Congolese Mining Register (*Cadastre Minier, CAMI*), between 2013 and 2015, during which the field teams visited 1,615 mines employing around 239,700 miners.

**Gold** is undisputedly the most important mineral in eastern DRC's artisanal mining sector, employing around 80% of the miners in the 2013-2015 dataset. Those miners produce, roughly estimated, around 11.6 tons of gold per year, with an estimated value - at the level of the mining sites - of 437 million USD.

Furthermore, 16% of the artisanal miners in the 2013-2015 dataset work in eastern DRC's **3T** sector. Of the 42,800 3T miners in the dataset, about 22,400 were working on mining sites covered by the traceability program iTSCi.

Overall, **armed presence** at mining sites has persisted over the last years in eastern DRC. The field teams reported about an armed presence at 56 % of the mines in the 2013-2015 dataset.

When analysing armed presence at the mines in more detail, one will observe remarkable differences between gold and 3T minerals. There is far less armed interference in the 3T sector. Approximately 21 % of artisanal 3T miners in the 2013-2015 dataset experienced some kind of interference of armed actors, which is an important decrease compared to IPIS findings in 2009-2010. At that time, about 57% of the 3T miners was working in the presence of these actors. In the artisanal gold sector, on the other hand, 64% of gold miners are still affected by the presence of armed actors, similar to the 67% noted in 2009-2010.

Nevertheless in the more conflict-prone provinces, 3T mines also still have to endure a certain level of interference by armed actors. Respectively 40% and 42% of 3T miners in North and South Kivu, in the 2015 dataset, experienced the presence of an armed actor at the site, compared to 49%<sup>104</sup> and 93% respectively for gold.

The above already illustrates that each province deals with its own specific characteristics. As **Maniema and Tanganyika's** mines are largely free from armed presence, they offer important opportunities for responsible sourcing and for an increasing attention to the contribution of artisanal mining to local development. Nevertheless, the report also illustrates that even in these relatively stable provinces, some challenges persist. In Maniema, for example, there have been reports of illegal taxation by various authorities, risks of contamination of clean supply chains, and social tensions. In both provinces there have been some reports of a few high-grade FARDC elements that continue to profit from the artisanal mining sector.

**Ituri and the Kivu provinces**, on the other hand, still struggle with the interference of several armed actors at their mining sites.

Several non-state armed groups continue to profit from the artisanal mining sector, most notably the FDLR, NDC/NDC-Rénové, the Raïa Mutomboki and Mai-Mai Simba. Besides FDLR, most of them also seem to rely partly on pillaging to generate an income from the artisanal mining sector. A strategy that weighs heavily on artisanal miners.

FDLR and FARDC elements, on the other hand, seem to refrain from pillaging, and seem to rely especially on illegal taxation. A strategy that seems to be compatible with their more lasting presences in their areas of control.

FARDC elements remain the primary armed actors interfering in the artisanal mining sector. At 39 % of the mines in the 2015 dataset, FARDC elements were permanently or regularly present. Moreover, there have also been numerous detailed reports of notorious FARDC officers continuing to profit through direct or indirect interference from the artisanal mining sector. The development of a comprehensive strategy

103 The map includes detailed information on artisanal mining in the Kivu provinces, eastern Maniema, Ituri, Bafwasende territory in Tshopo, Tanganyika, and the Bukama, Malemba-Nkulu, Mitwaba and Pweto territories in former Katanga province.

104 It should however be noted that this figure is seriously influenced by the Omate gold mine, which is free from armed presence and employs over 2,000 miners. 67 per cent of the gold mines is still affected by the presence of armed men.

to reduce FARDC presence at mining sites, including through prevention and supporting military justice, thus emerges as a clear – but so far neglected – priority.

Nonetheless, some positive developments need to be encouraged. A few big mining sites in North Kivu have been freed from FARDC elements' interference over the last years. Close monitoring of the risk of the development of more indirect modes of illegal profit, however, seem to be of utmost importance.