

Analysis of the interactive map of artisanal mining areas in Eastern DR Congo



Editorial

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Front Cover image: Gold dust from an artisanal mine in South Kivu (IPIS, 2012)

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Executive Summary

In August 2009 the 'International Peace Information Service' (IPIS) published a first map of militarised mining areas in Eastern DR Congo. By 2012, the international interest in the issue had grown but the map was out-dated. To find a structural solution, IPIS sat down with the Congolese mining cadastre (CAMI) and agreed to set up a permanent system to monitor artisanal mining activities and the involvement of armed groups in the mineral exploitation and trade. A first version of the resulting map has been published at: www.ipisresearch.be/mapping-eastern-drc-2013. It shows the location of nearly 800 mining sites and 85 trading centres, including information about armed groups presence and involvement, and the scale of the mining activity. The map data and design will be updated in the following months.

The map shows how gold mining is currently the most important subsector in Eastern DRC's artisanal mining business. The collected data suggests that the number of miners active in gold mining is up to 4 times higher than that for tin, tantalum and tungsten combined. The current scale of artisanal gold mining has important consequences on the issue of armed group financing, especially because the DRC's gold production is exported almost entirely unrecorded. The map includes at least 410 cases of illegal taxation by armed groups or the Congolese army.

A formalisation of artisanal gold mining is urgently needed, including the identification of buyers who can be held accountable when their business dealings benefit armed groups. In addition, the replacement of illegal by state-controlled taxation would greatly benefit the Congolese treasury.

Opportunities for responsible gold sourcing, under the supervision of the DRC civilian authorities, are present throughout Eastern DRC. Following the progress made in cleaning up the trading chain of tantalum (coltan) and tin (cassiterite), North Katanga is an obvious candidate. Maniema province qualifies as well, given the near absence of armed groups. In Ituri, only two militia groups remain and a large majority of the gold production is free from armed group interference. Most militia activity is concentrated in North and South Kivu. Armed groups such as the NDC and UPCP have a long history of extensive involvement in mining. Nevertheless, opportunities for responsible sourcing exist in areas such as northern Lubero, and parts of Kalehe and Shabunda.

An important additional challenge for establishing responsible trading chains is improving the discipline of the Congolese army deployed near mining areas. The map shows FARDC interference at at least 265 mining sites. Featuring in the reported cases of illegal taxation and other misbehaviour are units from the military justice, special commando units, units from the old brigade structure and units from the new regiment structure.

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Background and introduction

In August 2009 the Belgian research institute 'International Peace Information Service' (IPIS), which has a long tradition in researching resource conflicts, published a map of militarised mining areas in the Kivu provinces of Eastern DR Congo.¹ At that time Congolese minerals, especially tin and tantalum, started to attract a lot of attention from Western consumers and governments who had learned that armed groups were financing themselves through the mineral exploitation and trade. With a limited budget and the collaboration of Congolese researchers, IPIS collected coordinates of the Kivus' most important mining areas and information on the on-site security situation.

By 2012, the interest in a map that could show the extent and concentration of the problem of conflict financing in DRC had grown considerably. In previous years, international organisations, such as the UN, ICGLR and the OECD, and the US with its Dodd-Frank Act, had launched a series of policy initiatives to curtail the international trade in 'conflict minerals' from the Great Lakes region.² The DRC government and international business had little option but to jump on board and try to implement them. Although IPIS' 2009 map still circulated, it was out-dated and of little use to those searching for accurate 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, production and world market prices.

To find a structural solution for the need of accurate and up-to-date information, IPIS sat down with the Congolese mining cadastre (CAMI), responsible for the DRC's mining concessions, including official artisanal mining zones. They agreed to partner up with IPIS in organising a permanent system to monitor artisanal mining activities and the involvement of armed groups and criminal networks in the mineral exploitation and trade. So as to ensure the optimal use of existing expertise, other Congolese mining services, in particular the 'Service d'Assistance et d'Encadrement du Small-Scale Mining' (SAESSCAM), were included in the collaboration as well as representatives from local civil society organisations who could contribute their perspective on security and human rights issues. Finally, the World Bank, through its PROMINES programme, and the Belgian Ministry of Foreign Affairs expressed their willingness to fund the mechanism.

In the meantime, halfway through the current project, a first version of the map resulting from the collaboration described above has been published at: www.ipisresearch.be/mapping-eastern-drc-2013. It shows the location of nearly 800 mining sites, and of 85 trading centres, in Eastern DRC. Besides the Kivu provinces, the map includes detailed information on artisanal mining in the neighbouring areas of North Katanga, Maniema and the Ituri District. The map design is still under development and currently provides information about the on-site presence of armed groups and criminal elements within the Congolese army (FARDC) and their activities, as well as indicators of the relative importance of the site. Subsequent map updates will allow viewers to access historical background information for selected sites and find additional explanation on the status of mines regarding ongoing validation, certification and traceability initiatives.³

¹ Interactive map of militarised mining areas in the Kivus, with Accompanying note, IPIS, August 2009, www.ipisresearch.be/mining-sites-kivus.

² See e.g. Guide to Current Mine Reform Initiatives in Eastern DRC, IPIS, April 2011, and, recently, Conflict minerals – An evaluation of the Dodd-Frank Act and other resource-related measures, Öko-Institut e.V., August 2013. In the Dodd-Frank Act, Section 1502, it is stated that the Secretary of State should produce "a map of mineral-rich zones, trade routes, and areas under the control of armed groups in the DRC and adjoining countries". Several such maps have been produced since the enactment of the law in July 2010, all based on the IPIS 2009 map for the Kivus (note above) and an IPIS 2010 study, with maps, for Maniema, North Katanga and southeastern Orientale Province: The complexity of resource governance in a context of state fragility. An analysis of the mining sector in the Kivu hinterlands, IPIS/International Alert, November 2010, www.ipisresearch.be/mining-hinterlands.

³ This additional information is already partially available. The map shows whether mining sites were validated by the DRC Government and when. Data on mining sites under the iTSCI scheme are not yet available. Despite an encouraging verbal agreement and subsequent requests, ITRI has not been able to share its information with the DRC Ministry of Mines or IPIS.

The data was collected by nine mixed teams composed of SAESSCAM agents and civil society representatives equipped with GPS devices and questionnaires. It was centralised by a focal point, based in Bukavu and composed of a SAESSCAM, a CAMI and an IPIS representative, before being corrected and published by IPIS on a web map. All the staff involved in the data collection have received a specific training by IPIS. Meanwhile, IPIS has organised an intensive training for CAMI staff as well, preparing them to gradually start managing the data and publishing the maps themselves.

The following text provides a summary of the data collected by those local teams between March and October 2013 as presented by IPIS on its web map. It analyses the most striking findings, focussing especially on developments in terms of security.

IPIS invites all of the users of the map to provide feedback for improvement. It believes the map to be a valuable resource for companies, in particular mineral traders, conducting due diligence on their supply chains. The map can help companies deciding where they will engage in responsible business. That said, it needs to be stressed that the map does not substitute a company's responsibility to conduct its own verification of the security conditions in the mining areas it sources from. Different from the DRC government mining site validation or the ICGLR regional certification mechanism, the map does not offer any legal guarantees.

A second important target audience of the map are local, national, regional and international policymakers. To them, the map can provide guidance to advance the further implementation of 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 problematic zones as well as mining areas offering opportunities for responsible trade. As such, it can be used to avoid draconian and indiscriminate measures such as the September 2010 presidential ban on all mining and related activities in the Kivus and Maniema.

Finally, researchers, campaigners and other observers might find the map a useful tool to monitor the performance of both mineral traders and policy makers when dealing with the issue of mineral trade from Congo's conflict-affected East.

Overview of the data and current status of the data gathering

The current data does not allow a complete quantitative analysis since some of the mining zones in the East are yet to be visited (see below). Nevertheless, the partial information does allow the identification of trends and conclusions on specific zones.

The field teams have so far visited the following areas:

Province of North Kivu:

- Territory of Lubero (except central west)
- Territory of Walikale (centre and west)
- Territory of Masisi (southeast, restricted access due to security situation)

Province of South Kivu:

- Territory of Kalehe
- Territory of Kabare
- Territory of Walungu
- Territory of Shabunda (north, west and south)
- Territory of Fizi
- Territory of Uvira

Province of Maniema:

- Territory of Lubutu (restricted access due to security situation)
- Territory of Punia (centre and north, restricted access due to security situation)
- Territory of Kailo (around Kailo town)
- Territory of Pangi (south)

District of Ituri (Orientale Province):

- Territory of Mambasa (west and east, restricted access due to security situation)
- Territory of Irumu (restricted access due to security situation)
- Territory of Djugu (yet incomplete due to number of mining sites)

Province of Katanga:

- Territory of Kalemie (north and west)
- Territory of Nyunzu (north and east)
- Territory of Moba (north and centre, restricted access because of security situation)

Over the next months, the field teams will conduct additional missions to the remaining mining areas of the provinces of North Kivu, South Kivu, Maniema and the District of Ituri in Orientale Province. Data gathering in Katanga is currently limited to the north of the province. CAMI and IPIS are planning an extension of the mapping to central Katanga starting from 2014.

Trends and partial conclusions from the map data

Overall trends

A first important finding is the fact that gold mining is currently the most important subsector in Eastern DRC's artisanal mining business. Even though there have been previous indications about the great extent of artisanal gold mining in the region,⁴ the data collected suggest a scale that probably surpasses any estimate or expectation. Even though the current data is incomplete and might underestimate the total proportion of employment in the 3T mines (tin, tantalum, tungsten), the difference is so big, that the trend is undeniable. A point in case are the renowned trading centres of Mubi and Ndjingala in Walikale. Although these towns are primarily known as (the most?) important hubs for the tin trade, it appears that the total value of gold traded there is equally important. Whereas the total value of the tin trade in Ndjingala is still considerably bigger, in Mubi gold is clearly the most important mineral traded.

Furthermore, the map shows that the number of miners active in gold mining - the incomplete count of estimates adds up to 130,000 - is nearly 4 times higher than that for tin, tantalum and tungsten combined. Needless to say, the profits to be made from the gold trade largely surpass those to be made from the other three minerals.

3T mining used to attract much larger crowds of miners. The reasons for the sharp decline are diverse. On the one hand 3T minerals, especially cassiterite, have become difficult to sell. Following the launch of the Conflict-Free Smelter programme, most international buyers refuse to buy materials beyond those brought to them through a 'closed pipeline'. The ensuing low demand has generated low prices (which already suffered from a low world market price) paid to the miners, many of whom lost motivation to continue mining for tin. In those areas where demand remained high - mostly sites with industry tagging in Katanga - machines and engineers started assisting the manual labourers, further reducing their numbers. Finally, several large 3T mining sites have depopulated because the remaining deposits have become difficult to reach. For example, Bisie (Walikale, tin) is partly flooded, in Mayi Baridi (Kalemie, tantalum) the soil/rocks are very hard and in Kamole (Idjwi, tungsten) the best deposits seem to be depleted.

The shift of artisanal miners from 3T mining to gold and the current scale of artisanal gold mining have important consequences on the issue of financing of armed groups and criminal networks. Gold is widely available all over Eastern DRC, including very remote areas. Therefore, armed groups who want to mine, trade or tax gold to finance their activities have plenty of opportunities, especially because the DRC's gold production is exported almost entirely unrecorded. A formalisation of artisanal gold mining is therefore urgently needed. The sector needs formal buyers who can be identified and held accountable when their business dealings benefit armed groups.

The need for a further formalisation and increased control of civilian authorities over the artisanal mining sector is also illustrated by the cases of illegal taxation our research teams have recorded. When armed groups or criminal networks interfere with the mineral exploitation and trade, it almost always includes taxation of mining and mining-related activities. Our research teams have recorded illegal taxation by either armed groups or FARDC at at least 410 mining sites. Often, the tax is periodically collected, for example every 1st and 15th of the month, by units specifically tasked with collecting taxes in the armed group's area of operations. Remarkably, in North and South Kivu they recorded 57 cases of 'double' illegal taxation, by both FARDC and armed groups in most cases, in 4 cases by two rebel groups and in one case even by two different FARDC units.

Finally it is worth touching on the performance of the FARDC in terms of non-interference with ongoing mining activities. Whereas the map shows that armed groups exert some kind of control over 200 sites, it also shows an FARDC interference at 265.

⁴ Already in our Accompanying note on the interactive map of militarised mining areas in the Kivus, IPIS, July 2009, p. 11.

A noteworthy additional observation is that the FARDC involvement does not appear to be limited to specific types of units or individual commanders. Even though some units may refrain from interfering with mining and mineral trade⁵, the map shows a wide variety of FARDC units making profits through taxation including units from the military justice, special commando units, units from the old brigade structure and units from the new regiment structure.

The regretful conclusion of the above is that the different army reforms seem to have had insufficient impact on correcting the conduct of units deployed in mineral-rich areas. Furthermore, given the overt implication of officers of the military justice in Beni in illegal taxation and forced mineral transactions, the prospects of judicial accountability are doubtful at best. Hopefully the DRC's upcoming army reform will help to address this issue.

In the paragraphs below we will single out some significant findings from the different provinces in which our teams have been collecting data, specifically focussing on opportunities for future responsible sourcing.

North Kivu

The cradle of several smaller uprisings since the formal end of the Congo wars, North Kivu remains a conflict-ridden province, especially in the southern territories of Nyiragongo, Rutshuru, Masisi and Walikale. In 2012 and 2013, the most intense fighting occurred in the territories of Nyiragongo and Rutshuru between the FARDC and the M23 rebels. Traditionally, in these areas, there has been virtually no mining activity. Further west, in Masisi and Walikale, numerous smaller armed groups operate and finance themselves at least partially through income from the abundant mining and mineral trade.

The closest mining area to the provincial capital of Goma is Rubaya in the territory of Masisi. The mines around Rubaya are well-known as one of Congo's major production centres of coltan (tantalum). Estimates collected from local mining officials show that the total amount of coltan traded through Rubaya amounts to at least 40 tonnes per month. Rubaya is currently controlled by the Nyatura militia group, which is present in both the trading centre and the mining areas. Officially the Nyatura are part of the FARDC and they wear army uniforms. Following the military advance of M23 in the second half of 2012, they received arms from the now suspended commander of the land forces General Amisi, after which they went through an 'accelerated integration programme'.⁶ They are though still perceived as militia members by the local population. Not only are the Nyatura an ethnic militia, dominated by Hutus, some of the group's factions have remained outside the FARDC and the integration process.

Our research teams have not been able yet to visit the southwest of Masisi territory (Ufamandu and Katoyi areas) because of violent clashes between the various militias controlling the area, notably the Nyatura, Raia Mutomboki and Mai-Mai Kifuafua. The same goes for the north of the territory, along the border with Walikale, where APCLS, Mai-Mai Sheka and FDLR fight each other.

To the west of Masisi, the territory of **Walikale** is troubled by the long-standing armed group Nduma Defense of Congo (NDC). The NDC is notorious for its interest in mining and mineral trade. Its commander, Sheka Ntabo Ntaberi, was a mineral trader before he became a rebel commander. The militia has established control over a string of gold mines in western, central and eastern Walikale. Sheka's control is sophisticated. He ensures that only his clansmen work at the gold mines and helps his allies into key administrative positions. Meanwhile his men tax a number of activities including entrance to the mine but also hunting permits. In addition, Sheka has assigned himself the exclusive right to sell cigarettes and alcohol at the mining sites.

In central and eastern Walikale the NDC has to tolerate the competition of other armed groups and the FARDC, interfering in both cassiterite (tin) and gold mining. Yet the militia has a history of fiercely protecting its interests in mining and waging war with competing armed groups. In September 2013 Sheka and his men were involved in a conflict with the Mai-Mai Simba of 'General' Mando in the west of the territory. They tried to assert their authority through brutal and intimidating strategies, such as

⁵ At 41 mines, our teams recorded the mere presence of FARDC, seemingly without any involvement in mining or mineral trade. These mines are not included in the above-mentioned figure of 265.

⁶ Final report of the UN Group of Experts on the DRC, 15 November 2012, par. 120-125.

decapitating Mai-Mai members they found at 'their' mining sites. Other armed groups are present in southwestern Walikale, notably the Raia Mutomboki who also interfere with the local mining sector. As a consequence, in some areas up to three different armed groups collected taxes during the period of research.

The north of **Lubero** territory and Beni are largely under control of the FARDC, exceptions being the remote northwestern part of Lubero and the northeastern corner of Beni bordering Uganda. The Mai-Mai Luc in the northwest are only a small threat to security. They have not launched any significant military operation in the last five years and probably much longer. Moreover, they have expressed their willingness to leave the bush on several occasions.⁷ Northeast Beni is controlled by the Ugandan rebels of ADF/NALU. There is some gold production in this zone, which has yet to be added to our map.

Throughout the rest of these two territories, it is the FARDC who organise the illegal taxation of mining activities. Consequently, most of Lubero's northern gold deposits could be considered for responsible sourcing depending on the FARDC units stopping their interference. According to the current version of our map, the gold mines controlled by Congolese army units represent a weekly production of more than 3.5 kg of gold.

The centre and south of Lubero are also important gold production areas. Unfortunately, here armed groups have a much stronger grip on the gold sector. The Rwandan FDLR rebels, but especially the local Mai-Mai forces from the UCP of 'General' Sikuli La Fontaine derive profits from a number of mining sites. The latter group controls the mining site of Musigha. Interestingly, this site has not been reported on by the press or in studies, though it appears to employ almost 17,000 miners producing up to 3.75 kilos of gold each week.

In addition to the gold, Lubero has a number of active tungsten (wolframite) mines to the northwest of Butembo at Etaito. These sites are controlled by the FARDC. Similar to their behaviour at gold mines, there are reports of army taxation under the guise of 'war contributions'. Etaito's tungsten ends up in Butembo. The weekly production appears to be almost 1 tonne.

South Kivu

Different from its northern neighbour, armed conflict in South Kivu has been mostly low-intensity in nature in the past years. Nevertheless a wide range of armed groups control pockets of territory, including some mining areas.

Kalehe and Shabunda are the territories bordering North Kivu. In both areas problems of armed group and FARDC interference with mining occurs. In **Kalehe**, units from Mai-Mai Nyatura, FDLR and Raia Mutomboki deploy regularly or permanently at mining sites.

In **Shabunda**, it is mostly the Raia Mutomboki interfering with mining activities. They control large parts of the territory and interfere in virtually all stages of the mineral trading chain by taxing both the "PDG's" (mine managers) and mineral buyers. In addition, they operate several road blocks and in some areas they collect a 20% tax from state agents.⁸ The Raia Mutomboki target gold mining as well as coltan, wolframite and cassiterite. Compared to IPIS' 2009 survey, coltan mining appears to be on the rise again in northern Shabunda. The incomplete production figures from the map show a monthly production of 30 tonnes. The coltan passing through local trading centres is estimated at 43 tonnes each month.

Both the territories of Kalehe and Shabunda are of particular interest because they are relatively near to mining sites where the tin industry association ITRI is involved in a bagging and tagging process that ensures trader access to clients adhering to the Conflict-Free Smelter programme. In the west, Shabunda borders Maniema and the validated mining site of Lubile, which is part of the larger Kalima concession. Mining sites in northern Kalehe are near the validated mine of Kalimbi, commonly referred to as Nyabibwe.

⁷ IPIS 2010, pp. 51, 54-55; UN Group of Experts 2012, par. 133-136.

⁸ The taxes are variable and can rise in case of need or when a certain opportunity presents itself. Our research teams were for example forced to pay a 10 USD tax after crossing a Raia Mutomboki roadblock because they were in the possession of a GPS device.

Whereas the interference of militia groups presents a risk to the ongoing closed pipeline initiatives, the relatively low intensity of the conflict also presents important opportunities. On the one hand, the proximity of occupied mining areas shows that a continuous monitoring of validated mining sites is necessary to ensure that outside minerals do not contaminate the supply chain of sites where tagging operations are ongoing. Our map shows for instance such a risk at the trading centre of Penekusu in southwestern Shabunda territory. Penekusu is under the military control of the Raia Mutomboki militia, which collects illegal taxes from the mineral traders. Because of the centre's proximity to the Maniema border, the traded minerals pass via Kindu before export. Each month at least an estimated 12 tonnes of coltan and 8 tonnes of tin arrive in Kindu from within a rebel-controlled area, posing the risk of contaminating the rest of the trading chain.

On the other hand, the proximity of validated mining sites presents an opportunity to enlarge the area for responsible sourcing to other sites, provided these are further secured. Our map shows that several mines in both Kalehe and Shabunda are currently under civilian control. An important number of the remaining mining sites is controlled by the FARDC. In the absence of major fighting, this should allow a further demilitarisation of the mining sites, gradual replacement by mining police and re-establishment of civilian control.⁹ Unfortunately, some of the FARDC units abuse their presence to collect 'war contributions' from the miners and mining communities. A common effort by all stakeholders could possibly resolve this situation, as shown in North Katanga where the FARDC have stopped all interference with the trade in tin and tantalum. In September 2013, it appeared that the mining police was in charge of the security of only one mining site for the whole of the territory of Shabunda. Meanwhile, the Congolese army continues to fulfil this task and even finds itself policing purely civilian matters, such as conflicts between communities of artisanal miners and companies holding mining concessions. A point in case is the FARDC intervention on behalf of Regal Resources (Box)

The problem of FARDC interference in mining and trade is particularly striking in the territory of **Fizi**, where they are present at practically all mining sites. Units of the 112th and 113th regiment levy illegal taxes and exploit several mining pits themselves. In addition, the 112th regiment obliges the miners to work for them during a few hours each week. Gold mining in Fizi is big business. Our teams estimate the total weekly production of the south at 17 kg and that of the north (Minembwe area) at 6 kg. It appears that over 12,500 diggers are working under FARDC control., nearly 10,000 in the south of the territory

FARDC intervention on behalf of Regal Resources

According to the Regal Resources website, the company entered into an agreement with Afrimines Resources SPRL to acquire a minimum 70% interest in a group of 14 exploration licences covering 2,000 km² of prospective ground in South Kivu Province.¹ In one of these concession areas, title 4799, increased tension between artisanal miners and the FARDC's 10092nd battalion, based in Kitindi, has been reported. The artisanal miners had been working in the area for years and were unwilling to abandon these sites upon the arrival of the company. Regal Resources wanted to continue its prospection. In the absence of mining police, they called on an FARDC unit to enter the concession area, chase the artisanal miners and secure the company's personnel. In the past, there have been several other companies who have found no other alternative but to turn to the FARDC to secure their access to a concession, including Banro and Casa Minerals.

¹ http://www.regalresources.com.au/index.php?option=com_content&view=article&id=46&Itemid=47

⁹ It should be noted that demilitarisation does not necessarily solve the issue of illegal taxation. Civilian authorities often levy illegal taxes too. Such cases have been reported in the course of this research. In the territory of Uvira, for example, a 30 USD tax on mineral transports levied by the mining police was reported. However, such information has not been included on the map because it is outside the scope of this project.

alone. Bearing in mind that in the south the soldiers charge the miners a tax of 500 FC (approximately 0,5 USD) each day, they could earn up to 5,000 USD/day from this type of taxation alone.

Apart from the FARDC, the FDLR and Mai-Mai Yakutumba control half a dozen of gold mines too. The FARDC's 112th regiment and Mai-Mai Yakutumba seem to have made some kind of arrangement at mining sites near the village of Ngalula. Whereas army officers operate numerous mining pits for their own benefit, Yakutumba collects taxes in the same area.

In **Walungu** territory and the north of Mwenga, at more than half of the sites miners are illegally taxed by FARDC, FDLR or Raia Mutomboki, or by two of these groups. Most mines in the neighbouring Nindja chiefdom of **Kabare** territory are controlled by Raia Mutomboki. Cassiterite is the most important mineral extracted in the area, with a weekly production of up to 16 tonnes, next to wolframite and gold.

The security situation in the mines of **Uvira** territory is notably better. No army or rebel presence is recorded. The area is though not very important in terms of production. In Lemera, easily the most important trading centre in the territory, a modest six tonnes of cassiterite are traded on a weekly basis. Unless additional deposits are discovered this is unlikely to attract much interest from traders.

A research team is currently visiting the mining areas of **Mwenga** territory.

Maniema

The data which is currently available for Maniema confirms the absence of armed groups and FARDC at a large number of mining sites. Responsible sourcing from Maniema, even beyond the sites where industry tagging is ongoing, is feasible and relatively easy compared to the Kivus.

Nevertheless, DRC authorities and mineral traders need to remain vigilant, as the map shows that in the territories of Punia and **Lubutu**, the FARDC are involved in illegal taxation of mining activities. The restart of mineral trade in Maniema province is still fragile. Any tolerance for FARDC interference does not only reflect badly on the area's image but risks jeopardising the whole process.

Therefore it is noteworthy that in most of the cases where FARDC involvement in mining is reported, notably in Lubutu territory, the soldiers belong to the 10th Brigade, which receives its orders from Kisangani. They are deployed in the FARDC's 7th military region, Maniema, in the framework of a military operation against the Mai-Mai Simba that is coordinated from Kisangani. The usefulness and effectiveness of this lengthy operation have though been questioned by international observers. The Simba of 'General' Mando are involved in gold mining in Maiko National Park and south of it. They trade their gold in Lubutu town, without being bothered by the FARDC.¹⁰

The territory of Lubutu is an exceptional area because it is the only mining zone on the current map with a notable diamond production. Each month, artisanal miners dig up at least 350 carats worth of diamonds. Even though the diamond sector is much more regulated than the gold sector – the DRC is a long-standing member of the Kimberley Process - it is not excluded from FARDC interference, as our map shows several cases of illegal taxation by the army. This creates a rather ambiguous situation. On the one hand, the DRC mining ministry, in its 'Note circulaire' of 6 September 2011, requires traders in gold, tungsten, tin and tantalum to adhere to the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas; the OECD guidance does not accept interference of a regular army in the artisanal mining sector and the notice explicitly obliges companies to ensure that their activities do not contribute to human rights violations. On the other hand, these conditions do not apply to the diamond trade since the Kimberley Process only concerns diamonds produced in areas controlled by rebels, not violence committed by government forces. Therefore a trader is currently allowed to buy diamonds in Lubutu, but no tin.

¹⁰ Cf. IPIS 2010, pp. 38-39; Final report of the UN Group of Experts on the DRC, 2 December 2011, par. 246-251.

Ituri

There is hardly any recorded tin, tantalum or tungsten mining in Ituri. The artisanal mining sector revolves almost entirely around the exploitation of gold. Even though our teams have not yet visited all of the major mining areas, they report an estimated weekly production of 39 kg for the current sample. This figure does not include the production of gold by semi-industrial operations on Ituri's rivers, which is unrecorded¹¹. On a yearly basis this would represent a production of at least 2 tonnes of gold. The bulk of the gold production comes from the territory of **Djugu** where the formerly renowned mining area of Kilo is located. Encouragingly, in Djugu there are no reports of FARDC interference with the gold production.

Problems of conflict financing are most pronounced in the southeast of the district in the territory of **Irumu**, which is partly occupied by rebels of the "Forces de résistance patriotique de l'Ituri" (FRPI). The armed group has generated an income from gold mines around the village of Bavi since many years. Reportedly, its leader Justin Banaloki, who is better known by his nickname 'Cobra Matata', occasionally works in the mining pits himself. In 2012, the FRPI were involved in lengthy negotiations with the FARDC high command on its demobilisation. A resolution seemed within reach but the process has completely stalled. The conflict re-escalated in the summer of 2013.¹² On 14 October 2013, Congolese Minister of Defence Ntambo declared that the FARDC had driven the FRPI from all town areas. The dissolution of the FRPI would probably end all armed group activity in Irumu, which would open up the area for the responsible sourcing of gold.

In the neighbouring territory of **Mambasa** the Mai-Mai Morgan are mostly known for their extensive poaching activities. However, they also regularly engage in looting and they are increasingly involved in extortion at mining sites. The Mai-Mai Morgan are a small group without a clear agenda. They have a reputation for violent behaviour towards local populations, including mining communities.¹³ They should be dealt with militarily but this is possibly hindered by alleged support of high-ranking FARDC officers profiting from Morgan's deliveries of ivory. Without Mai-Mai Morgan, Mambasa would be free of armed groups and – depending on FARDC conduct - open for responsible sourcing.

Finally, it is worth noting that our teams reported trade in coltan in the south of Mambasa territory, presumably from the area controlled by Mai-Mai Morgan. Even though the quantity – up to 25 tonnes per year - is less important than that of Masisi or Shabunda, it is worth tracking by both the industry and other stakeholders, especially because the coltan is sold to traders in Butembo, North Kivu.

Katanga

The data from North Katanga shows how tin and tantalum mining in the area is free from armed group interference. Security at such mines has improved considerably compared to six years before, when Mai-Mai, FARDC navy and FARDC land forces were still competing over the control of several sites.¹⁴ The combined pressure from provincial authorities and industry has led to the disengagement of FARDC from 3T mines and a spectacular improvement of North Katanga's trade reputation.

Despite these important achievements, the efforts have not led to an overall change of the FARDC's general disposition towards interference with artisanal mining. For example, our map shows that the 61st Brigade has installed an extensive system of biweekly tax collection at a string of gold mines in the east of **Kalemie** territory. Miners report that those who fail to pay the taxes suffer from physical punishment and other human rights violations. Furthermore, in the territory of **Nyunzu**, an FARDC unit from Kongolo has deployed at the recently discovered gold mine of Musebe and has taken an unhealthy interest in the ongoing mining activity.

¹¹ Cf. IPIS 2010, pp. 48, 52

¹² Cf. Midterm report of the UN Groups of Experts on the DRC, 19 July 2013, par. 79-82.

¹³ Because of the rebel group's violent attitude, our research teams were not able to visit mining sites under Morgan's control and were obliged to collect information from neighbouring villages.

¹⁴ Mapping interests in conflict areas: Katanga. Update September-November 2007, IPIS, January 2008, pp. 5-6; Mapping conflict motives: Katanga. Update December 2007-May 2008, pp. 6-7; Idem. Update May-September 2008, pp. 6-7; IPIS 2010, pp. 22-23.

It is worth drawing the attention to the sudden appearance and booming of the Musebe gold mine in early 2013. In a few months, the population of miners has grown to 15,000¹⁵ or even 30,000¹⁶. Evidently, most of these miners have left behind other sites, including tantalum mines.

Although this latest movement seems to be unprecedented in scale, it is not the first time that North Katanga has seen large shifts of miners after the (re)discovery of a promising deposit. Other well-known cases from recent years include the mines of Lunga, Kisengo and Kahendwa. The massive population movements combined with the prospect of wealth and fortune tend to result in acute health, safety and security problems. As such, they can seriously disrupt established trading chains of companies trying to conduct due diligence and to source responsibly. One can also reasonably assume that similar events will occur in the future. Therefore the DRC government and other stakeholders should develop a response strategy to prevent or mitigate these negative impacts.

The third territory of North Katanga so far visited in the framework of this research is **Moba**. The west of Moba borders the so-called 'triangle of death' in central Katanga where Mai-Mai militias waged a brutal war until 2006. Since an unlikely coalition of independence fighters and former Mai-Mai emerged in the same area in 2011, insecurity is again on the rise. 'Kata Katanga' combatants are present in western Moba, but not in the east, where a number of gold mines produce at least 3 kg of gold each week. In fact, eastern Moba is virtually free from interference of rebels or army in the mineral trade.¹⁷ The area would therefore be a good candidate for any attempt to organise official gold trade from a responsible supply chain.

¹⁵ Number reported by our local teams that visited the site on the 30th of March 2013. Reportedly the mining population has grown significantly after their last visit.

¹⁶ Number reported in a Radio Okapi article from the 25th of June 2013, <http://radiookapi.net/sante/2013/06/25/katanga-4-personnes-succombent-des-maux-de-tete-la-toux-la-mine-musebe/>

¹⁷ There have been reports of occasional visits by the FARDC navy seeking to make some profit. The area is isolated and can best be reached via Lake Tanganyika.