

The Implications of Transnational Crime for Stability in Conflict-Affected Environments:
Illicit Mineral Networks in the Democratic Republic of the Congo

**** Draft Version****

Dr Georgia Lysaght

University of Wollongong

Introduction

Transnational crime (TNC) networks are difficult to map and chart due to their flat and flexible structures, which continually adapt to the changing external environment. Unlike traditional organised crime groups, these networks are protracted, unordered, and linked by weak ties. Elements of TNC networks inevitably intersect with conflict-affected environments, which typically suffer from a weak rule of law, accompanied by high levels of violence, insecurity and underdevelopment. A fragile state apparatus and an unstable security environment renders these regions particularly vulnerable to the most labour-intensive elements of TNC, or the 'dirty end' of the supply chain, such as the mining and transport of raw conflict minerals, opium poppy cultivation, and overland cocaine trafficking. The conflict landscape houses a complex set of relationships between actors who are involved in both militant and illicit activities. The lines between illicit and licit are further blurred when civilians are compelled by physical or financial coercion to participate. In Afghanistan for example, opium poppy is cultivated almost exclusively by peasant farmers, who then sell the crop to local traders, which is again on-sold and at some stage turned into heroin. The environment offers a crude choice to cultivate or risk starvation thus making the label of 'criminal' difficult to stick. The situation in the Democratic Republic of the Congo (henceforth DRC) is similarly complex, with both local and international criminal, civilian, business, and military components participating in various capacities, in the illicit trade of DRC-sourced conflict minerals. A particularly striking element of the illicit network industry in DRC and its interface with the ongoing conflict is the extreme levels of sexual and gendered violence perpetrated against the civilian population as a weapon of war and power. A reported 45,000 civilian deaths a month are the result of violent conflict over DRC's notorious 'lawless mines'.¹ This paper will examine the networks that both underpin and promote the continuance of DRC's illicit mineral trade.

Data and Method

The data for this study is cultivated from three key sources: a 2009 report by Global Witness,² the 2008 Final Report of the Group of Experts in the Democratic Republic of the Congo,³ and the 2009 Final Report of the Group of Experts on the Democratic Republic of the Congo.⁴ Morselli notes that "once the parameters of a setting are clearly established, it is often a challenge to assess the extent to which individuals interacting within those parameters are missing. Thus, what social network researchers refer to as a 'whole network' is rarely whole to begin with".⁵ While the key reports are not insulated from the pitfalls common to researching illicit activity, they are grounded in a compilation of field interviews, field observations, audio and video recording, private and

¹ Journeyman Pictures, 2005.

² Global Witness (2009) 'Faced with gun, what can you do? War and militarisation of mining in Eastern Congo'

³ United Nations (2008) 'Final Report of the Group of Experts on the Democratic Republic of the Congo', S/2008/773

⁴ United Nations (2009) 'Final Report of the Group of Experts on the Democratic Republic of the Congo', S.2009/603

⁵ Morselli, C. (2009) *Inside Criminal Networks* Springer, New York: 44.

government documents, and government documents and data. The content of these reports includes- the names of private individuals and groups (companies) found to be involved in the conflict minerals trade; the names of militant groups (including the Congolese army) and key individuals found to be involved in the conflict minerals trade; and the relationship between these groups. Although the accuracy and integrity of data collected can never be completely guaranteed, the information presented by The Group of Experts and Global Witness is considered highly reliable by a number of NGO's, International Organisations, scholars and researchers not aligned with either organisation. In fact, the Group of Experts Report in particular has formed the basis of many subsequent analyses about conflict minerals trading in the DRC.

Information about trading relationships between actors was extrapolated from the key documents and tabulated. The actors were then assigned codes based upon their categorised role in the minerals trade:

Artisanal Miners (AM)

Foreign Importers (FI)

International Traders (IT)

Local Traders (LT)

Militant Components (MC)

Trading Houses (TH)

Transit Traders (TT)

Although not finite, the categories reflect the main stages of the trading network starting at the mining face and ending with the foreign importers. The AM category appears only once as it was not possible to chart 750,000 to 2,000,000 AMs and their relationships with one another. The author could not locate a more accurate estimate or numbers of AMs per mining area; however, this has been tagged as an empirical area requiring further deskwork and fieldwork. The FI category includes all the foreign importers, or end users for this study, which were reported to have trading relationships with actors selling illicit DRC minerals. ITs are foreign registered companies that run trading houses or manage trading operations inside as well as outside of DRC. These international traders were often reported to be responsible for some trading inside DRC and in part for organising trading to foreign importers. LTs represent the small scale DRC traders (both individuals and small companies) who trade minerals between each other and also in local market places. In the later discussion note that it is this category that is comprised of individuals who are considered *negociants*. Because porters often are acting on behalf of local traders, or double as local traders themselves, they also fall under LT. Rebel, milita, and Congolese army groups constitute the MC category, hence the term 'Militant' to represent state and non-state elements. The key reports did provide some specific information on relationships between particular named military and militia personnel and LTs and THs. These individuals were not considered as separate components but were placed under the umbrella of their military or militia group. Transit Traders, or the TT category, represents a distinct element of the network. These are trading houses located across the border from DRC in neighbouring Rwanda, Tanzania, and Burundi. TT's import minerals trafficked across the border and export them to FI's in an effort to distance them as commodities of conflict origin. Finally, THs are also referred to as *comptoirs* in the discussion below and are comprised of the reported trading houses (of which in total there are some 40, although not all appear in the key reports) in DRC. While virtually all actors' names are freely available in all three (and other)key reports the purpose of this paper is not a name and shaming exercise. Rather, it presents an analysis

of the illicit trading relationships between private and militant components based in a violent conflict environment. A binary network analysis was conducted with the statement 'trades with' to map the relationships between actors and determine the trading network. Centrality measures a) confirm the prevalence of military components in the minerals trade, and b) indicate potential sources of external pressure through pre-financed supply chains.

Time and network factors pose two potential limitations to the paper. First, the availability of reliable information for mineral trading in DRC is restricted to the years 2007 to 2009. Thus, the scope of the paper can only present an analysis specific to these years, however, it may be considered broadly representative of longer network patterns. Second, the paper does not include the final-end consumers (such as electronics manufacturers) as part of its analysis. Reliable data about trade relationships cannot be sourced at this point in time regarding the trade flows for this group and beyond. Therefore, the network presented in this paper does not extend beyond the trade relationships of the FI's, who typically process the minerals before they are on-sold with minerals sourced from other countries to electronics (and other) manufacturers.

Conflict Minerals and Legality

Deeming minerals illicit is a particularly difficult process particularly because the actual commodity itself is not considered illegal. That is, commodities such as narcotics are necessarily recognised as illicit by virtue of their chemical composition, while to trade in minerals is not necessarily illegal. Yet widespread concern about the so-called blood diamond phenomenon, originating in Sierra Leone and Liberia, resulted in lobbying against the trade in conflict minerals by mainstream media, scholars, and NGOs. Thus, in recent years the connection between illicitness and conflict minerals has gained international and national legal traction. In the United States, the Dodd-Frank Wall Street Reform and Consumer Protection Act was passed by Congress in July 2010. Conflict Minerals section (1502) is a direct response to the extraction and trading of minerals originating in the DRC, a violent conflict environment. It contains a disclosure requirement for companies to undertake supply chain due diligence, and report to the Securities and Exchange Commission on whether their products contain conflict minerals. While the adequacy (or lack thereof) of Dodd-Frank 1502's requirements are widely debated, it nevertheless flags the United States' recognition that so-called 'conflict minerals' are indeed illicit. Supported by the United Nations when it came into effect in 2000, the 'Kimberley Process Certification Scheme' requires that rough diamonds sourced from non-conflict locations be certified before entering the international trading market. The intended outcome of these regulations is to create transparent supply chains that effectively prohibits consumer companies from purchasing conflict-minerals. In turn the sources are financially starved, which undermines the illicit network at its origin and provides an incentive for the creation of licit commodity networks in its place. Whilst noble, the complicating factors of conflict and poverty mean that a large percentage of the Congolese civilian population, an estimated 10 million⁶ people, rely upon this trade for their livelihood- besides the artisanal miners and porters, a number of tributary enterprises have been set up around the mining sites, such as the sale of food and water to the miners and militants. While the debate about conflict mineral regulations is beyond the scope of this paper, it is asserted here that minerals traded from the conflict zones of the DRC are considered illicit by the international community.

⁶ Nest, M. (2011) *Coltan*, Policy Press, Cambridge:37.

A History of Violent Conflict

DRC has one of the most turbulent histories of state-sponsored and civil violent conflict in the world, of which the details here are lacking and brief. In the mid-nineteenth Century the Congolese people were the target of Arab slave traders, and later King Leopold II's *Forces Publique* carried out incredible acts of violence against the population. In a contemporary context, the reign of dictator President Mobutu Sese Seko (1965-1997) inflicted large scale violence and murders, while the so-called Congo Wars also resulted in an extreme civilian death toll. Bordering Uganda, Rwanda, Burundi, and the United Republic of Tanzania, Eastern Congo is in particular remains a hotbed of political and 'ethnic' tensions. Land and agricultural ownership has been continually contested by civilians and the Congolese state since the occupation of King Leopold's forces. In 1994, the Rwandan genocide sparked a mass exodus from the country across the border into Eastern Congo. Around 2 million Rwandan Tusti and Hutu people fled in from the genocide and later from fear of the reprisals. DRC was subsequently host to a number of militia groups (originating from within DRC and also from bordering countries) who opposed to a range of issues including the authority of the central government, the ownership of land, and the control over resources- they waged conflict against the state, one another, and in particular, against the civilian population. It is too simplistic to assert, as some authors have, that the contemporary DRC conflict trajectory has shifted decidedly from a political one driven by greed for resources. The complexities underpinning a conflict of such scale, in terms of deaths and violence, and protraction, are beyond the scope of this paper. Suffice to say here that the struggle for control over natural resources, in particular minerals, features as prominent part of the conflict landscape.

The rise of the illicit minerals industry in DRC as a serious economy of scale may be marked from the beginning of the Second Congo War (also known as the Coltan War) in 1998. Officially the war concluded in 2003, however, violence and hostilities continue to the present day. Around 5.4 million people have been a killed as a resulted of conflict and associated poverty between 1998 and 2009. Sexual and gender violence is the DRC's hallmark weapon of war, with all groups (including the FDLR) carrying out systematic, wide scale rapes. A research team from the International Food Policy Research Institute at Stony Brook University in New York and the World Bank found that around 1,152 women are raped in DRC every day.⁷ Complicit in such violence are the two strongest militant groups who control the vast cassiterite, coltan, wolframite, and gold deposits located in the North and South Kivu areas of Eastern Congo are the *Forces démocratiques pour la liberation du Rwanda* (FDLR, Democratic Forces of the Liberation of Rwanda) and the Congolese army- the *Forces armées de la République démocratique du Congo* (FARDC, Armed Forces of the Democratic Republic of Congo). The FDLR is a Rwandan Hutu militia group, the leaders of which allegedly played a central role in the 1994 Rwandan genocide. Fearing reprisals from the events of 1994, the FDLR crossed the border into the DRC and has remained a prominent group in the area. While the FARDC is stationed in Eastern Congo to mitigate inter-militia hostilities yet it plays a central role in the Congolese mining industry. Other militant groups active in the area *Congrès national pour la defence du people*

⁷ Adetunji, J. (2011) 'Forty-Eight Women Raped in Congo Every Hour, Study Finds', *The Guardian*, 12 May.

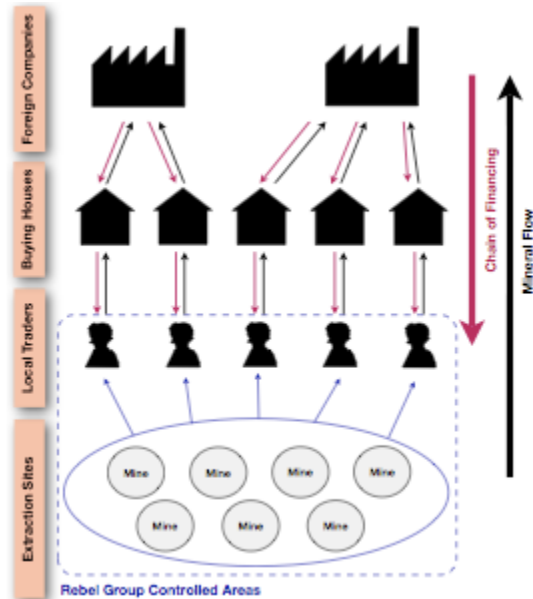
(CNDP), *Patriotes resistants congolais* (PARECO, Congolese Resistance Patriots), the Lord's Resistance Army (LRA, from Uganda), and other *mai-mai*.

DRC's Illicit Mineral Network

Used in motherboards and other electronics, alloys, personal and industrial tools, ammunition, medical equipment, automobiles, and a host of other instruments the level of DRC-origin minerals on the world market is significant. For example, Géraud found that “an estimated 80% of the world's known coltan supply is in Africa, and 80% of this is believed to be located in the DRC”.⁸ This paper does not focus on one particular mineral, rather it encompasses the four minerals traded in bulk out of DRC, that is, coltan, cassiterite, wolframite, and gold. Particularly because around 70 per cent of DRC-sourced minerals are extracted and traded illicitly, the supply chain paths can vary considerably, however, with this in mind a brief overview remains necessary. Typically, the mineral supply chain starts with extraction and moves through internal traders, across the border, and then onto foreign importers. Although artisanal miners can purchase permits, the arrangements vary from mine to mine. Various Generals, Commanders and other militant personnel of rank often ‘own’ a particular mine shaft. In these situations artisanal miners are met at the mine mouth by agents (some of whom work for militant components) who collect the minerals, allowing the miners to retain a small percentage as payment. At the mines, minerals (with the exception of gold), are loaded into 50kg sacks and transported by porters out of the forest, where the mines are located, and onto transport, whether it be the planes at Walikale airstrip near Bisie mine, trucks or cars. In areas where the militant groups have been met with resistance by the local population, extreme violence, and in particular rape, is used to coerce this labour force into working. Child labour is also commonplace on the mine sites. Between the mine and the point of export, minerals are sold and re-sold by as much as six times by a series of local traders (some militant personnel also act as local traders, some local traders have a direct relationship with militant personnel), some of whom are known as *negociants*, between each other or at small local markets, and then reach the main trading houses, or *comptoirs*, of Goma and Bukavu. This loosely describes the DRC supply network. Minerals are then mostly smuggled across the border into neighbouring Burundi, Rwanda, and Tanzania, and sold onto foreign importers for processing. In the processing and smelting houses DRC minerals are mixed with minerals from other sources and then sold on to manufacturing companies, and then onto the retail market. Figures 1, 2, and 3 exemplify the various trading networks described. It is sometimes difficult to conclusively determine the operational location(s) of the aforementioned foreign importers as they are often large and transnational in nature with various subsidiaries, mother-houses, operations houses, managers, and shareholders all in different parts of the world.

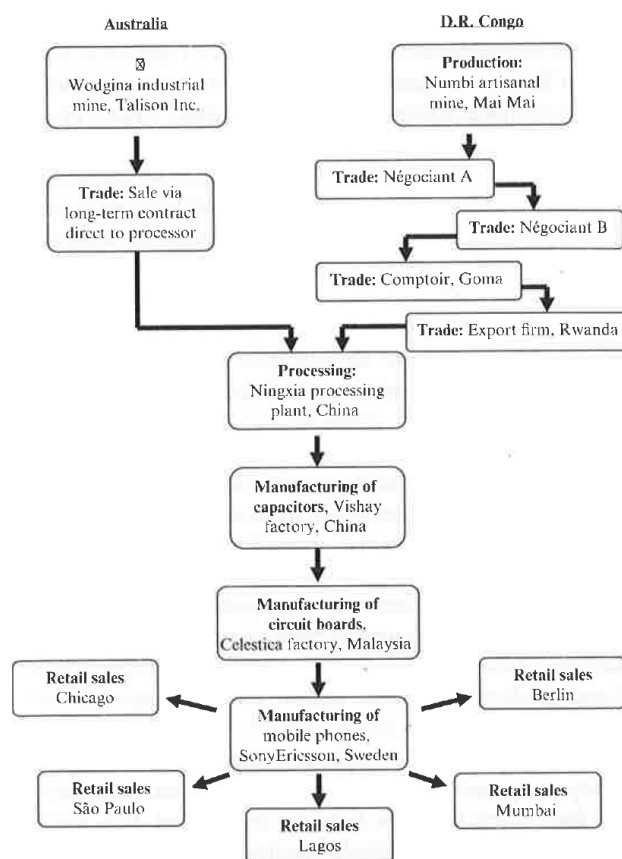
⁸ de Ville, Géraud (c.2009) ‘An outline of trade flows of legally and illegally extracted mineral resources from fragile states: The case of coltan in the Kivus, DRC’, Pathfinder Programme, Institute for Environmental Security.

Figure 1: Tantalum (Coltan) Supply Chain from Militant Controlled Mining Sites



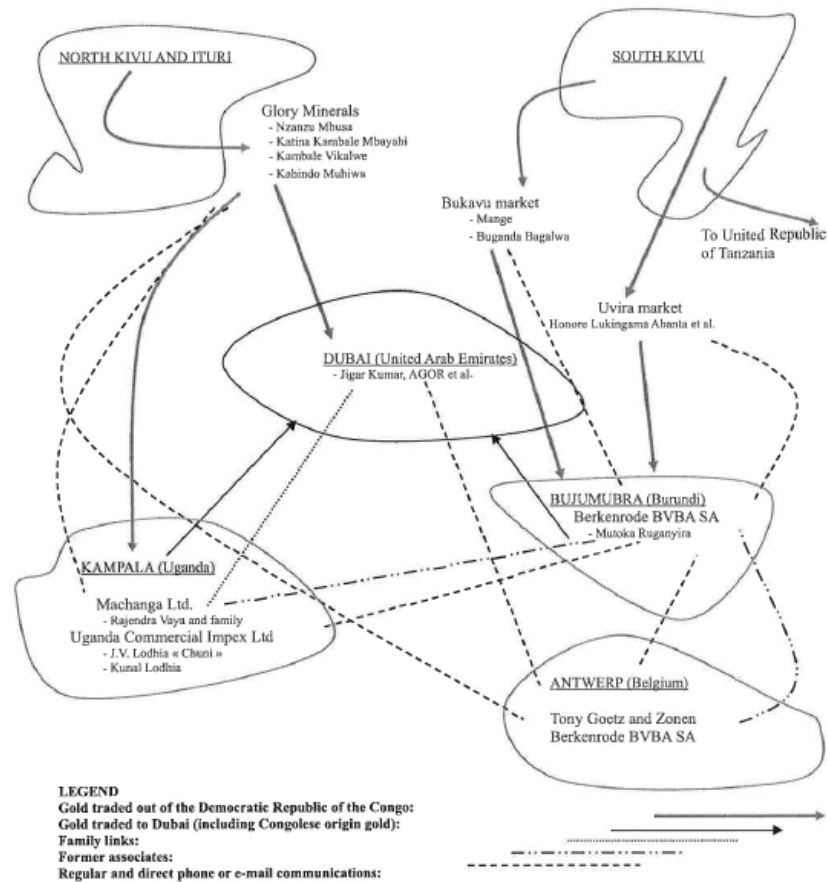
Taken from: de Ville, Géraud (c.2009) 'An outline of trade flows of legally and illegally extracted mineral resources from fragile states: The case of coltan in the Kivus, DRC', Pathfinder Programme, Institute for Environmental Security.

Figure 2: Hypothetical Tantalum (Coltan) Supply Chain c.2007



Taken from: Nest, Michael (2011) *Coltan*, Policy Press, Cambridge: 61

Figure 3: Gold Networks of North Kivu, South Kivu, Uganda, Burundi and the United Arab Emirates



United Nations (2009) 'Final Report of the Group of Experts on the Democratic Republic of the Congo', S.2009/603, Annex 52: 173

Based around the mines, the militant groups (primarily FDLR and FARDC) form the virtual start point of the supply network which operates DRC's illicit mineral trade. On a day to day basis, these groups cooperate, even sharing roads, trucks, and planes to move the minerals which are extracted by the artisanal mining force. However, contestation over mine 'ownership' is common and often involves fighting resulting in both large-scale militant and civilian deaths. As previously stated, it is often assumed that these domestic networks are the driving forces that shape the conflict landscape in the vying for access to profits from export onto the international market. Indeed, current research from the political science, conflict studies, sociology, and anthropological disciplines largely focuses upon the relationships between the prominent state, sub-state and non-state actors, the role of the international community in mitigating the conflict, and the phenomena of so-called ethnic conflict in this intra-state war when analysing the various motivations for DRC's protracted violent conflict.

In particular, the *comptoirs* or trading houses have been subject to scrutiny of late, as they represent the final resting place of minerals in DRC before they are trafficked to transit countries and/or released into international circulation. In particular the *comptoirs* are a source of legitimacy for foreign importers wishing to remain distanced from the illicitness of the industry and networks that control it. Foreign importers have often claimed that because the *comptoirs* that supply their

minerals are legitimate businesses registered with the DRC government, they are assured that product has originated from a conflict-free DRC mining site. The *comptoirs* themselves too claim that they do not knowingly source minerals from conflict areas. The aforementioned Global Witness Report wrote to a number of *comptoirs* to ask how they ensured their minerals were conflict-free and that they were not fuelling violence- “Representatives of several *comptoirs* claimed that they could not know exactly where minerals came from, as it was not possible to distinguish minerals from different sites, and that minerals from different locations were often mixed together before reaching them”, however, Global Witness also reported that the businesspeople managing these *comptoirs* “have extensive networks of contacts in the mining areas of both provinces and use local agents to visit the mining sites and trading centres”.⁹ Furthermore, The Group of Experts 2008 Report states that “many *negociants* have told the Group that *comptoirs* need to know where the product comes from, as the ore content carries from one area to the next. In addition, these buying houses are aware of the presence of armed groups, as their taxation often drives prices higher. In practice, many *comptoirs* work with preferred *negociants* who they know and trust, pre-financing their activities. These *negociants* have often developed close relationships with FDLR at mining sites”.¹⁰

While foreign importers are not necessarily looked upon favourably, they are often rendered peripheral in the *Greed and Grievance* style rhetoric framing debates around the drivers of conflict and criminal networks. Rather they are considered benefactors, irresponsible ones at that, of a conflict and illicit activity from which they are removed. Often, foreign importers are profiled in the research as a group of self-interested actors that should ‘know better’, and who indirectly provide capital to violent groups and thus by extension fuel war. Yet this appraisal still displaces the foreign importers as the end-users who sit outside the direct domestic trading and border smuggling networks. Such a position also allows foreign importers to maintain a moral and legal distance, and a marked lack of directness, from the illicitness of the minerals that they purchase. As stated previously, foreign importers tend to claim their purchases are legitimate as they are sourced from registered *comptoirs*, while others attribute responsibility to the Congolese government. In communication with Global Witness, one foreign importer argued that it was the “exclusive responsibility of the Congolese state” to ensure that all minerals exported outside the country were conflict-free, not the responsibility of the importer.¹¹ Yet a number of factors strongly suggest that foreign importers, first, are acutely aware of the origin of the conflict minerals they import, and second, are more integrated into the illicit trading network as pivotal, not peripheral, actors than what has been initially understood.

TNC mappings involving natural resource extraction in conflict-affected environments have conventionally conceptualised the agitators or warring parties as the central actors who drive illicit activity, and the external component as those who inadvertently at worst, or inconsiderately at best, fuel the conflict by providing capital and profits. However, network-based evidence increasingly

⁹ Global Witness (2009) ‘Faced with gun, what can you do? War and militarisation of mining in Eastern Congo’: 56.

¹⁰ United Nations (2008) ‘Final Report of the Group of Experts on the Democratic Republic of the Congo’, S/2008/773: 20

¹¹ Global Witness (2009) ‘Faced with gun, what can you do? War and militarisation of mining in Eastern Congo’: 64.

suggests that TNC networks are not necessarily formed nor function in this way. For example, the position of West Africa as a transit region for cocaine trafficking over the last decade demonstrates that drivers *outside* the West Africa-located network (namely cocaine producers in Colombia and cocaine retailers in Western Europe) play a pivotal role in driving the illicit supply chain. The implications for conflict and violence were understood by then UNODC-chief Maria Antonio Costa, who in 2009 stated that “West Africa is under attack, from within and especially from aboard”.¹² Other international agencies too are starting to recognise the levity of such activity and the influence that it may have upon protracted conflicts as external actors strive to keep the controllers of resources and land intact. Network analysis allows us to re-think the impacts of relationships between actors regardless of geographic distance or stage in the supply chain. Such a proposition reconfigures our understanding of this illicit trading network, the driving forces that shape it and, by extension, the elements underpinning violent conflict in DRC. It is not argued here that militant components, *negociants*, and *comptoirs* are begin actors manipulated into procuring conflict minerals for foreign importers, but rather that foreign importers are not as benign as originally understood. The next section will consider profit motive, proportion of conflict minerals in DRC, and pre-financing relationships to further analyse the role of foreign importers in the network.

First, a profit motive may be utilised to determine in part those actors most invested in maintaining a particular supply chain. DRC minerals can often be purchased at a lower than market price, because of the low costs associated with exploitative labour (or in some cases forced labour), cash transactions, and tax evasion for illicit minerals trading. Table 1 demonstrates the high profits actors *outside* of the DRC yield from the trade of DRC coltan, the vast majority of which is extracted and traded illegally. In terms of profit, the militant groups only receive around 1% of the global profit from the trade and in fact internal revenue only stands at around 12%. However, international minerals brokerage firms, processors, and capacitor manufacturers derive 14%, 27%, and 46% respectively, accounting for 87% of profit in total. This suggests that while militant groups and traders inside DRC also stand to profit from trade in coltan, the transit traders and foreign importers too have an interest in keeping the supply chain (and conditions conducive to low costs, hence prices) intact.

¹² United Nations Office on Drugs and Crime, (2009c) ‘Transnational Trafficking and the Rule of Law in West Africa: A Threat Assessment’, July: 30.

Table 1 Distribution of Tantalum (Coltan) Profits, c.2000		
Actor in the supply chain	Distribution on profits	
	In the DRC	Globally
Team of creuseurs (6 persons)	17	2
Chief of mine	10	1
<i>Petits négociants</i>	10	1
<i>Gros négociants</i>	13	2
<i>Comptoir</i>	10	1
Taxes to RCD-Goma	7	1
Other licences and fees	22	3
Armed groups	11	1
<i>Revenue in D.R. Congo</i>	<i>100%</i>	<i>12%</i>
Minerals brokerage firm		14
Processor		27
Capacitor manufacturer		46
<i>Global revenue</i>		<i>100%</i>

Taken from: Nest, Michael (2011) *Coltan*, Policy Press, Cambridge: 59.
Source: adapted from Le Billon, Philippe & Hocquard, Christian (2007), *Filières industrielles et conflits armés: le cas du tantale dans la région des Grands Lacs. Écologie & Politique* 34, 83-92, p.90. Le Billon and Hocquard based their table on information from Martineau, Patrice (2003), *La route commerciale du coltan: une enquête*. Groupe de recherche sur les activités minières en Afrique, Faculté de science politique et de droit, Université de Québec, Montréal; and de Faily, Didier (2001), *Coltan: pour comprendre*. In: *L'annuaire des Grands Lacs*, L'Harmattan, Paris, pp. 279-306.

Second, foreign importers and transit traders create distance from the network by claiming that minerals sourced from the DRC originate from non conflict areas. This claim is disputed because first, often local traders sell a mix of conflict and non-conflict minerals, and second, the overwhelming majority of DRC minerals originate from areas of conflict. Due to the absence of formal reporting on conflict-minerals in-country, as is typical of all illegally traded commodities, the precise accuracy of figures may be questioned, however, it may be concluded that the illicit minerals industry in DRC is indeed representative of an economy of scale. The United Nations Transnational Organized Crime Threat Assessment¹³ estimates around \$130 million worth of cassiterite is trafficked out of DRC every year. According to research conducted by a documentary team, this constitutes around 70% of total cassiterite mined and exported. Similar proportions exist for coltan, whilst reliable figures on wolframite are more difficult to obtain. However, The Group of Experts report sourced a 2009 DRC Report estimating around “40 tonnes, or \$1.24 billion of gold, is smuggled out of the Democratic Republic of the Congo each year”. The Group conducted further research and concluded that on “the basis of that figure and other interviews, the Group estimates that armed groups, in particular, FDLR, may derive several million dollars of revenues each year from the trade, which therefore represents one of the most significant avenues of direct financing”.¹⁴ Figures 4 and 5 represents the trading data collected from the three key reports. MC1 and MC2 yielded the highest centrality scores, suggesting that most DRC minerals are sourced, or pass through, areas of

¹³ UN, (2009) ‘Transnational Organised Crime Threat Assessment’: 261

¹⁴ United Nations (2009) ‘Final Report of the Group of Experts on the Democratic Republic of the Congo’, S.2009/603: 72

conflict. IT's and TH's also feature prominently, particularly those who were listed by the Group of Experts as being largely responsible for trading in conflict minerals. Large scale foreign importers of DRC minerals, as is indicated in the Centrality analyses, reflecting supply chains from AMs, to MCs, to LTs, to THs, IT's, to TT's, to FI's, will unavoidably purchase from areas of conflict. Thus the argument by FI's, that they are unaware of whether their purchases are from a conflict area or not, must be met with scepticism considering the proportional scale of such operations in DRC. Figure 4 also demonstrates that there are some variational instances of FI's purchasing directly from TH's, bypassing IT's and TT's.

Figure 4: Centrality, DRC Illicit Minerals Trading Network

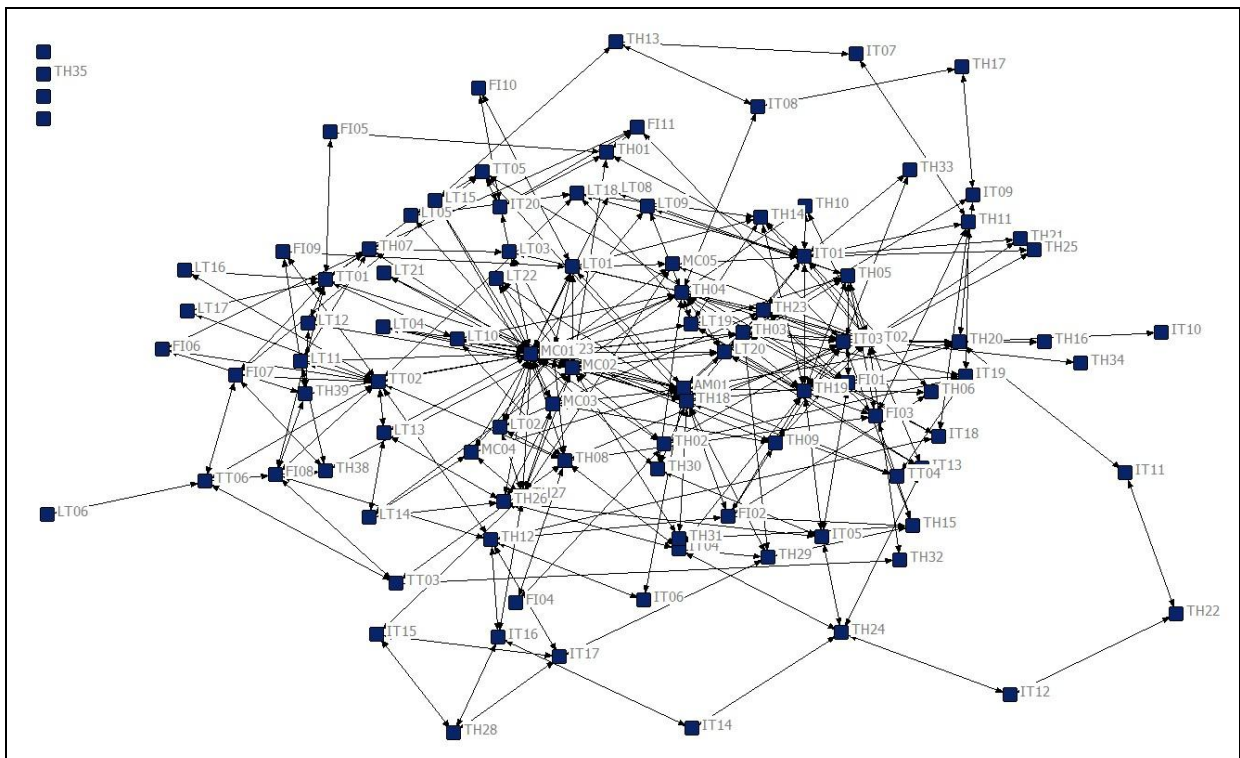
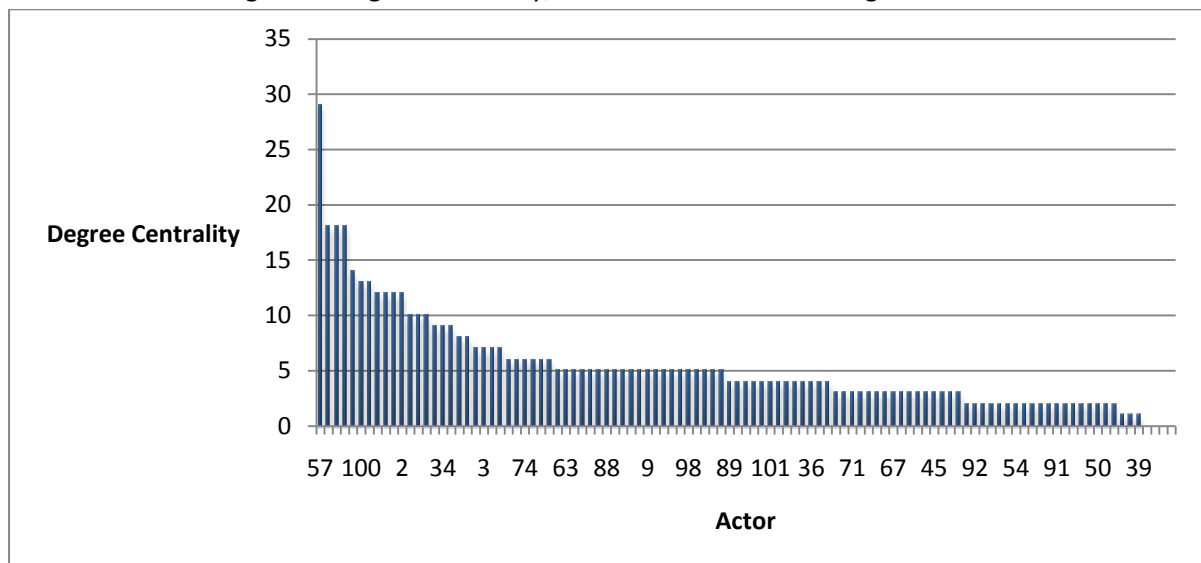


Figure 5: Degree Centrality, DRC Illicit Minerals Trading Network

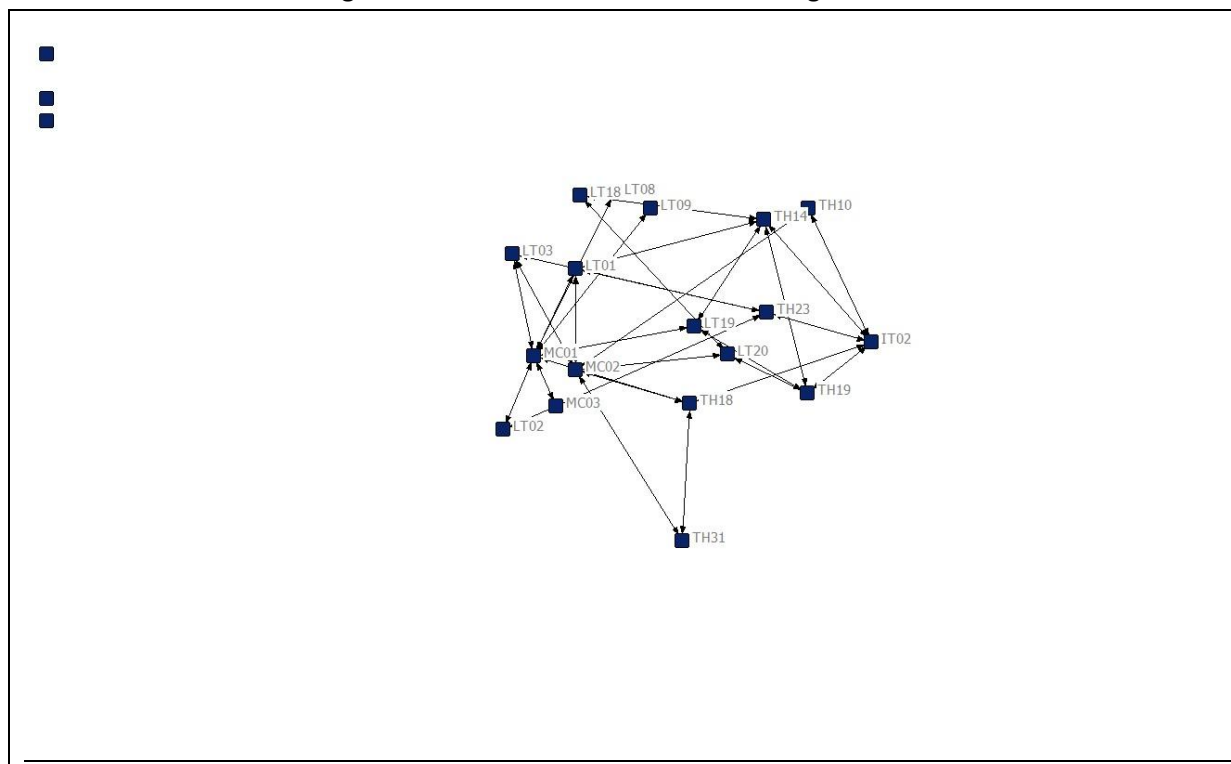


While the profit motive and proportion of conflict minerals provide compelling evidence to suggest that foreign importers are more aware than previously understood of the minerals' origins that are being purchased from DRC, they continue to remain somewhat peripheral to the network. However, the Group of Experts collected evidence from field interviews that revealed "some of the foreign companies pre-finance their 'own' *comptoirs* [THs], in other words, acknowledging a chain of financing that flows from the foreign companies down to the FDLR-controlled mining pit".¹⁵ Global Witness confirmed that this was also the case for pre-financing that started with foreign companies and flowed down to FARDC-controlled mining pits, asserting that "some of these foreign companies are also using suppliers who buy minerals produced by the FARDC".¹⁶ However, neither report went on to demonstrate potential pre-financed networks. By using one of the FI's named by the Group of Experts as a pre-financer as a start point, the data extracted and tabulated using the 'trades with' relationship revealed the set of actors involved in one particular pre-financed network. While this does not draw upon of specific pre-financing records (ie Actor A pre-finances Actor B), it demonstrates the relationship of a pre-financer with other actors in the illicit minerals supply network. In this sense the network is reconfigured as the foreign importers are placed not just as ignorant or opportunistic bystanders, but rather as key drivers of this illicit industry. It shows that despite being located at the 'end' of the supply chain, these actors remain very much central to the network and have a vested interest in keeping the arrangement intact. As stated in the previous section, this network can only be considered *a potential* network as it is based upon trading relationships between 2007 and 2009. As businesses open and close, and relationships change, so too may the specific actors involved in this network.

¹⁵ United Nations (2008) 'Final Report of the Group of Experts on the Democratic Republic of the Congo', S/2008/773: 20.

¹⁶ Global Witness (2009) 'Faced with gun, what can you do? War and militarisation of mining in Eastern Congo': 61.

Figure 6: Potential FI Driven Pre-Financing Network



*Please note amendment – IT02 should read FI11

Future Research and Conclusion

Further research is required to drill down into the trading, and in particular pre-financing, networks to produce a more detailed understanding of what constitutes a very complex set of relationships. It is essential to understand those factors underpinning the illicit minerals trade in DRC as these factors also contribute significantly to conflict and violence in unstable environments. Hanneman assertion that “ideally we will know about all of the relationships between each pair of actors in the population”,¹⁷ is an aspiration most criminologists and researchers of *the illicit* agree is unobtainable. However, more primary research may be conducted so that as much as possible is known about the relationships between the actors. Further fieldwork interviews and the collection of official documents and company records would contribute to the existing knowledge base. This would serve to update the information in the key reports, which is for 2007 to 2009 only. Inevitably the particular actors presented in this study may have changed, but it will be useful to observe whether or not the trading relationships between the actor categories have remained intact post-2009. It would also prove useful to collect further data on the concentration of miners in various areas. While the intent of this paper is to present a broad canvas of an illicit minerals network, a more detailed analysis may be procured if a single mineral is considered in isolation. For example, Figure 3 shows the complexity and array of actors involved the gold trading networks associated with FDLR controlled pits. A network analysis solely of this area could also yield more specific results.

This paper has demonstrated that illicit minerals trading is comprised of a complex network with various sets of pressure points located within and external to the country in question, and at all

¹⁷ Hanneman, R.(2005) ‘Why formal methods?’ in Hanneman and Riddel, *Introduction to Social Network Methods* University of California, Riverside, CA: (published in digital form at <http://faculty.ucr.edu/~hanneman/>).

stages of the supply chain. The data extracted from the key reports provides important insights into the structure of these networks and the relationship between militant, civilian, corporate domestic and foreign actors. The data was used to demonstrate the centrality of militant groups in the illicit trade of Congolese minerals and concluded that a vast proportion are of conflict origin. Potential pre-financing relationships were also yielded, reflecting the pivotal role played by foreign importers.