

Coltan, the Congo and your cell phone

The connection between your mobile phone and human rights abuses in Africa

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11 April 2011



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Executive summary

Civil wars often concern and are frequently extended by the presence of natural resources (e.g., diamonds in Sierra Leone). Control over the Coltan ores in the eastern part of the Democratic Republic of the Congo (DRC) has helped to fund domestic militia and foreign armies, prolonging the war crimes and human rights abuses committed there over many years.

From Coltan ores are extracted the metals tantalum and niobium which have several uses in advanced technology products, notably in high density capacitors used in cameras, mobile phones and other compact electronic devices. One of the principal sources of Coltan has been the DRC.

The United Nations Security Council has supported peace-making efforts in DRC. It has also sought to eliminate the flow of funds to militia groups through their sale of Coltan ores or “taxes” imposed on such sales.

The International Court of Justice (ICJ) has held that removal of Coltan ores by an occupying foreign army is looting and a war crime.

The OECD has developed guidelines for the due diligence which multi-national corporations should use to ensure the provenance of minerals and metals that might originate from the DRC. This supports the UN in its efforts to suppress funding for groups engaged in war crimes and human rights abuses.

The USA has legislated to require due diligence, auditing and public reporting of the use of such minerals. Its Securities and Exchange Commission (SEC) has developed the detailed reporting requirements for users of possible “conflict minerals”.

Other jurisdictions, including the European Union (EU), are under pressure to follow this example.

Industry groups have established voluntary procedures that complement the OECD guidelines in certifying the source of metals in final products.

While much progress has been made, there is still considerable work required to ensure the traceability of ores, both in terms of geochemistry and in audited documentation.

Keywords: War crimes, Human rights abuses, Minerals, Computers, Mobile phones.

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1. Introduction

The connection between your mobile phone and the war crimes and human rights violations committed for more than a decade in the eastern part of the Democratic Republic of the Congo (DRC) lies in the metallic ores found there.¹ The ores contain metals valued for their use in a range of high technology products. By controlling the mining, in order to impose a “tax” or simply to expropriate the ores, a variety of armies and militia, regular and makeshift, domestic and foreign, have found the means to continue their conflicts, including the purchase of arms.

A strong correlation has been shown between valuable resources and civil wars.² Whereas, there was little evidence for grievances as the determinant of conflicts, with neither inequality nor political oppression increasing the risk, where one ethnic group made up 45-90 per cent of the population, there was a higher risk of civil war. Primary commodities increase the risk of conflict and are liable to prolong conflicts, as with:

- Diamonds in Angola;
- Drugs in Colombia; and
- Timber in Cambodia.

Economies dependent on primary resources are associated with corruption and subject to economic shocks, which exacerbate the problems of civil conflict.

Modelling the rivalry between a corrupt ruler and a group of potential predators, confirms that when once started, the abundance of natural resources and the ruler’s kleptocratic tendencies determined the intensity of the conflict.³ The “real engine” of the wars and civil conflicts in central Africa has been greed, with competition between “warlords” for the appropriation of valuable resources.

The use of natural resources to fund conflicts came to public attention through the 2006 movie *Blood Diamonds*, starring Leonardo di Caprio.⁴ Some recent notoriety arose from the testimony of Naomi Campbell who admitted receiving blood diamonds from Charles Taylor, the then President of Sierra Leone.⁵ He was being tried for war crimes before a Special Court in The Hague.⁶ Non-governmental organisations (NGOs) put considerable pressure on the diamond mining and distributing firms to suppress the trade in blood diamonds, in an effort to diminish the underlying conflicts.⁷ The result was the Kimberley Process Certification Scheme, created to ensure that the sale of diamonds did not fund rebel movements engaged in civil wars.⁸

In eastern DRC at least five million people have been killed in the conflicts, of whom some 40 per cent were women and children, with a similar number displaced. There has been

¹ DRC has been, sequentially, the Congo Free State, Belgian Congo, Congo-Léopoldville, Congo-Kinshasa, and Zaire, before becoming the Democratic Republic of the Congo in 1998 (the ccTLD was changed from .zr to .cd). Kinshasa, the name of the capital, was used to distinguish DRC from the Congo-Brazzaville, the Republic of the Congo.

² Paul Collier & Anke Hoeffler (2001) *Greed and grievance in civil war*. Washington DC, World Bank.
<http://ideas.repec.org/p/wpa/wuwpdc/0409007.html>

³ Ola Olsson & Heather Congdon Fors (2004) “Congo: The Prize of Predation” *Journal of Peace Research* 41 (3) 321-36.

⁴ <http://www.imdb.com/title/tt0450259/>

⁵ Naomi Campbell’s ‘blood diamond’ testimony at war crimes trial. *The Guardian*. 5th August 2010.
<http://www.guardian.co.uk/law/blog/2010/aug/05/naomi-campbell-blood-diamonds>

⁶ <http://www.sc-sl.org/>

⁷ Franziska Bieri (2010) *From blood diamonds to the Kimberley Process: How NGOs cleaned up the global diamond industry*. Farnham: Ashgate Publishing.

⁸ http://www.kimberleyprocess.com/home/index_en.html

systematic recruitment and the use of child soldiers, together with widespread sexual violence.

The forces causing this devastation have included:⁹

- Lord's Resistance Army (LRA);
- Uganda People's Defence Forces (UPDF);
- Rwandan Patriotic Army (RPA);
- *Forces démocratiques de libération du Rwanda* (FDLR);
- Armée Patriotique Rwandaise (APR);
- A variety of groups of Congolese rebels, such as the Armée Nationale Congolaise (ANC); and
- Elements within the official DRC army, the *Forces armées de la République démocratique du Congo* (FARDC).

These military groups realigned their objectives towards the control of mineral deposits, in order to operate protection-racketeering and more general economic exploitation of local populations.¹⁰ They were sustained by "taxing" the small scale miners and their intermediaries. Bizarrely, this echoed the grim colonial history of the Belgian Congo.¹¹

The ores in question are:

- Cassiterite (from which Tin is extracted, leaving a "synthetic concentrate" which contains Niobium and Tantalum);
- Coltan (from which Niobium and Tantalum are extracted);
- Gold; and
- Wolframite (from which Tungsten is extracted).

Niobium and Tantalum have a wide range of uses, including:¹²

- Surface Acoustic Wave (SAW) filters in mobile phones;¹³
- Lenses with high refractive indices for:
 - spectacles,
 - digital cameras,
 - mobile phones, and
 - ink jet printers;
- Layers in semiconductor circuits;
- Compact capacitors used in smaller electronic devices such as:
 - hearing aids,
 - pacemakers,
 - mobile phones,
 - games consoles,
 - digital cameras,
 - MP3 players,
 - Global Positioning Systems (GPS), and
 - automotive electronics (e.g., controllers for airbags); and
- Computer hard drives.

⁹ Dena Montague (2002) "Stolen goods: Coltan and conflict in the Democratic Republic of Congo" *SAIS Review XXII* (1) 103-18.

¹⁰ Stephen Jackson (2003) "Fortunes of war: The coltan trade in the Kivus" pp 21-36 in Sarah Collinson (ed.) *Power, livelihoods and conflict: case studies in political economy analysis for humanitarian action*. London: Humanitarian Policy Group. HPG Report 13. <http://www.odi.org.uk/resources/download/241.pdf>

¹¹ Adam Hochschild (2006) *King Leopold's ghost: A story of greed, terror, and heroism in colonial Africa*. London: Pan.

¹² Tantalum-Niobium International Study Center. <http://www.tanb.org/>

¹³ There is a short explanation in Wikipedia at http://en.wikipedia.org/wiki/Surface_acoustic_wave

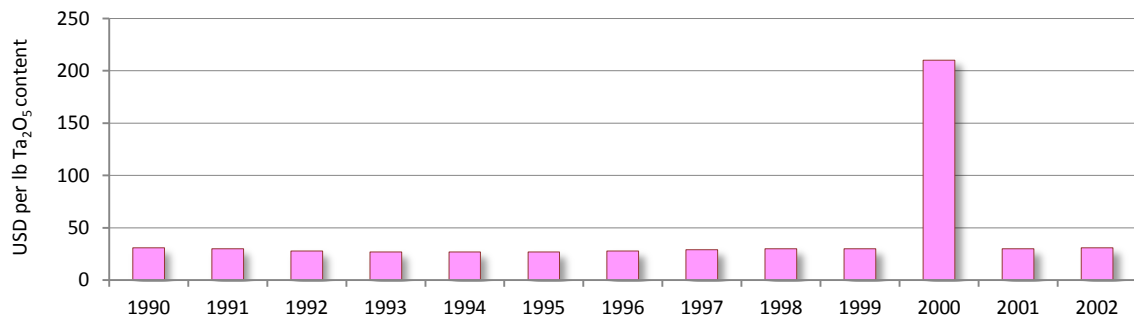
Gold is used in electronics because of its very high conductivity, while Tungsten is used in electrical light bulbs.

This paper examines first the uses of coltan. It next considers the actions of the United Nations, in particular of the Security Council, in respect of the troubles in eastern DRC. The OECD guidelines for multi-national corporations are examined. Next it briefly describes developments in the DRC, in particular of the mining sector. The actions of the USA to suppress the flow of funds from purchases of Tantalum to rebel groups in DRC are analysed. The same issues are explored for the European Union. The activities of governments of the adjoining countries are reported. A number of industry initiatives are analysed. Finally conclusions are drawn and issues for further research identified.

2. From coltan to capacitors

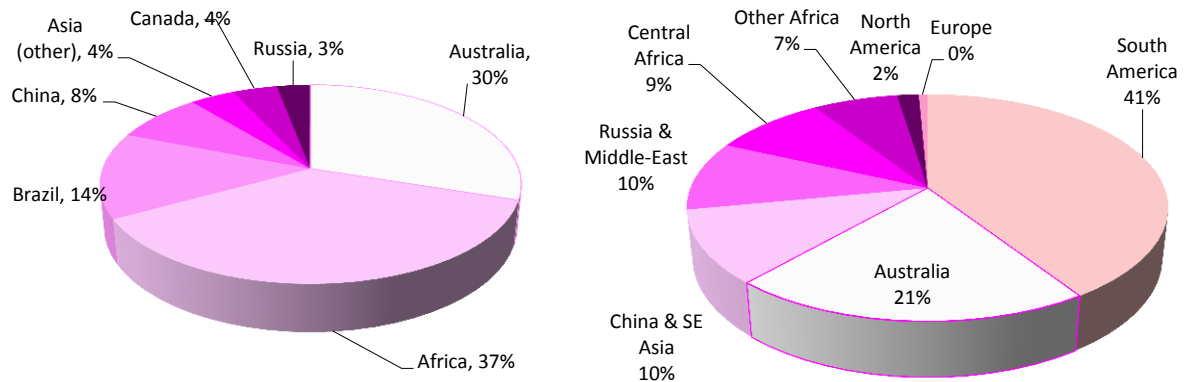
The more valuable metal in the coltan ore is Tantalum (Ta), with demand having grown at around 5 per cent per annum since 1990. There was a spike in prices during the last phase of the dot com boom, which drew attention to coltan mining in eastern DRC (see Figure 1).

Figure 1 Average year-end prices for Tantalite¹⁴



Primary production of tantalum in 2008 was 4.3 million lbs of Ta₂O₅ (see Figure 2), with a further 1.7 million lbs obtained from scrap and tin slag, to meet total demand of 6.0 million lbs. Reserves are distributed somewhat differently from production, reflecting the costs of extraction. It is estimated there are several decades of production in the ground, depending on the market price, the extraction and processing costs, and the levels of recycling.

Figure 2 Tantalum primary production and reserves



Primary production of Ta in 2008 (Source: Talison)

Estimated world reserves of Ta of 698 million lbs (Source: TIC)

¹⁴ Source: GeSi.

The mining of coltan in the Congo is often described as artisanal. Teams of a few individuals clear some jungle, dig into the soil, extracting and washing nuggets of ore from shallow deposits. These are then sold through chains of middle-men. It is a surprisingly basic process, more nineteenth century gold rush than the twenty-first century uses of the metals. When there is sufficient material it is sent to Europe or Asia by air freight, often passing through Burundi, Kenya, Rwanda and Zimbabwe, routes chosen as a result of different levels of taxes and bribes, together with the effects of smuggling and looting. Most of the trading is by confidential deals amongst private firms, with very little public disclosure.

African Research Bulletin described the process by which the middlemen bring the coltan from the mines to sell at one depot.¹⁵ A separation process is begun by casual labourers at the depot, paid less than USD 1 per day, to remove iron impurities using magnets. The remaining ore was then taken to Kigali for shipment to the metal refiners. The middlemen were being paid USD 1.59 per lb in 2007, when the world market price was USD 8-18 and once refined into capacitor grade tantalum powder is worth USD 350-400 per lb.

The niobium and tantalum are extracted, separated and refined into metals. Powder for use in capacitors accounts for around 50 per cent of total tantalum consumption, with another 15 per cent used to make foil and wire for capacitors, which are then incorporated into electronic equipment (see Figure 3). Although the tantalum content of a personal computer is less than 0.02 per cent it is still worth recycling, though it is best done manually to remove the relevant components.

Figure 3 The tantalum capacitor value chain¹⁶



Smelting is dominated, by three firms that buy 80 per cent of the ore:

- Cabot Corporation (USA);
- H C Starck (Germany); and
- Ningxia Corporation (China).

It is believed that since Cabot and Stark announced they would not buy Congolese coltan, most of the Coltan from the DRC is now being processed in China and Kazakhstan.¹⁷

The major manufacturers of capacitors are:

- AVX Corporation (Kyocera Group, Japan);
- Kemet “the capacitance company” (USA);
- NEC (Japan);
- Samsung (South Korea); and
- Vishay (USA).¹⁸

¹⁵ *Africa Research Bulletin* No. 17533, August 16th–September 15th 2007.

¹⁶ Source: Global Advanced Metals.

¹⁷ Kazatomprom is the principal processor in Kazakhstan. <http://www.kazatomprom.kz/>

¹⁸ In 2008, it acquired a specialised tantalum capacitor product line from Kemet.

Tantalum is also used to harden steel alloys for jet engines, in bio-neutral alloys for surgical instruments and as tantalum carbide in cutting tools.¹⁹ Niobium is used in steel alloys, for example, in gas pipelines and, like Tantalum, in bio-neutral applications.

3. United Nations

The situation in the DRC has been repeatedly addressed by the United Nations Security Council for over a decade (see Table 1). In its most recent resolution the Security Council reiterated its serious concern about the presence of armed groups and militias in eastern DRC, “which perpetuate a climate of insecurity in the whole region” and demanded that all armed groups, in particular the FDLR and LRA, “immediately lay down their arms and cease their attacks against the civilian population”. It renewed and sought to tighten the implementation of the arms embargo.

The Security Council also:

Recalling the linkage between the illegal exploitation of natural resources, illicit trade in such resources and the proliferation and trafficking of arms as one of the major factors fuelling and exacerbating conflicts in the Great Lakes region of Africa ...

Supporting the commitment of the Government of the Democratic Republic of the Congo to rid the trade in natural resources of criminal networks and welcoming the enhanced collaboration between the Government of the Democratic Republic of the Congo and the Group of Experts in this area

The Security Council called on all states to take appropriate steps to raise awareness of the guidelines, and to urge importers, processors and consumers of Congolese mineral products to exercise due diligence in applying the guidelines by:

- Strengthening company management systems;
- Identifying and assessing supply chain risks;
- Designing and implementing strategies to respond to identified risks;
- Conducting independent audits; and
- Publicly disclosing supply chain due diligence and findings.

It also recommended that all states, particularly those in the African Great Lakes region, publish regular and complete import and export statistics for natural resources including gold, cassiterite, coltan, wolframite, timber, and charcoal.

¹⁹ Siegfried Behrendt, Michael Scharp & Lorenz Erdmann (2007) *Rare metals: Measures and concepts for the solution of the problem of conflict-aggravating raw material extraction – the example of coltan*. Dessau: Umweltbundesamt (Federal Environment Agency).

Table 1 Resolutions of and reports to the UN Security Council

	<i>Resolutions</i> ²⁰	<i>Expert reports</i> ²¹
2010	S/RES/1952 (2010), S/RES/1925 (2010)	S/2010/596, S/2010/252
2009	S/RES/1906 (2009), S/RES/1896 (2009)	S/2009/603, S/2009/253
2008	S/RES/1857 (2008), S/RES/1856 (2008), S/RES/1843 (2008), S/RES/1807 (2008), S/RES/1799 (2008), S/RES/1797 (2008)	S/2008/773, S/2008/772, S/2008/43
2007	S/RES/1794 (2007), S/RES/1771 (2007), S/RES/1768 (2007), S/RES/1756 (2007), S/RES/1751 (2007), S/RES/1742 (2007)	S/2007/423, S/2007/40
2006	S/RES/1736 (2006), S/RES/1711 (2006), S/RES/1698 (2006), S/RES/1693 (2006), S/RES/1671 (2006), S/RES/1669 (2006), S/RES/1654 (2006)	S/2006/525, S/2006/53
2005	S/RES/1649 (2005), S/RES/1635 (2005), S/RES/1628 (2005), S/RES/1621 (2005), S/RES/1616 (2005), S/RES/1596 (2005), S/RES/1592 (2005)	S/2005/436, S/2005/30
2004	S/RES/1565 (2004), S/RES/1552 (2004), S/RES/1533 (2004), S/RES/1522 (2004)	S/2004/551
2003	S/RES/1501 (2003), S/RES/1499 (2003), S/RES/1493 (2004), S/RES/1489 (2003), S/RES/1484 (2003), S/RES/1468 (2003), S/RES/1457 (2003)	-
2002	S/RES/1445 (2002), S/RES/1417 (2004), S/RES/1399 (2004)	-
2001	S/RES/1376 (2001), S/RES/1355 (2001), S/RES/1351 (2001)	Report ²²
2000	S/RES/1332 (2000), S/RES/1323 (2000), S/RES/1316 (2000), S/RES/1304 (2000), S/RES/1291 (2000)	-

An Expert Panel provides the Security Council with reports on the grim and frequently sordid details of the exploitation of the peoples and natural resources, including the forests and wildlife (see Table 1).

A detailed mapping exercise of human right abuses for the decade from 1993 to 2003 observed that:²³

Between August 1998 and January 2001, ANC/APR soldiers and Mayi-Mayi²⁴ fought for control of the mining town of Lulingu, which has a large number of coltan mines and was therefore seen as a strategic target by the belligerents.

Civilians who attempted to resist the theft of their natural resources, or who did not collaborate with those in power, were subjected to attacks. Entire villages were displaced to make way for mineral or timber exploitation and armed groups engaged in massacres, sexual violence and cruel and inhuman treatment in the process. They also attacked and burned villages in order to seize coltan that had been mined artisanally by the residents.

Coltan traders were also the victims of murder, torture, ill-treatment and arbitrary detention. In July 2001, for example, soldiers from the ANC reportedly killed a mineral trader and twelve porters at Punia, in Maniema Province, on the orders of the local authorities, in order to seize a large cargo of coltan and gold, along with a substantial amount of cash. The victims were accused of spying for the Mayi-Mayi.

²⁰ United Nations, Security Council Resolutions. <http://www.un.org/Docs/sc/>

²¹ Security Council Committee established pursuant to resolution 1533 (2004) concerning the Democratic Republic of the Congo. <http://www.un.org/sc/committees/1533/egroup.shtml>

²² <http://www.un.org/News/dh/latest/drcongo.htm>

²³ UNHCR (2010) *Democratic Republic of the Congo, 1993–2003: Report of the Mapping Exercise documenting the most serious violations of human rights and international humanitarian law committed within the territory of the Democratic Republic of the Congo between March 1993 and June 2003*. Geneva: UN Office of the High Commission for Human Rights.

²⁴ Mayi-Mayi or Mai-Mai is a general term for community-based militia groups in the DRC.

In North and South Kivu, the ANC and the APR reportedly established a system of forced labour in the coltan mines, including the use of children, and made the local population abandon agriculture in favour of mining.

Sexual violence has not been an unfortunate by-product of war, but is a deliberate tactic used as a weapon of war. It has often been fuelled by militias and armies fighting for control over minerals.²⁵

The UN Environment Programme (UNEP) has discussed the problems associated with coltan, in particular the destruction of wildlife habitats.²⁶ The UN Office on Drugs and Crime (UNODC) has recognised the role of coltan and its illegal shipments, though noting its recent decline in importance as the prices of tin (cassiterite) and gold have risen.²⁷

Despite the conclusions of the Security Council, the issue of eliminating conflict minerals from their use in products has not been taken up by the International Telecommunication Union (ITU), which is the UN agency engaged with a sector that makes extensive use of tantalum and niobium.

4. Organisation for Economic Cooperation and Development

In January 2011, the Organisation for Economic Cooperation and Development (OECD) published guidelines for the due diligence to be exercised by companies to ensure that the sources of minerals or components including the metals used in their products and in manufacturing processes are not related to conflicts.²⁸ It is the first instance of a collaborative, government-backed multi-stakeholder initiative on the responsible management of mineral supply chains from areas affected by or at risk from conflicts. This is a voluntary and non-enforceable measure, building on and consistent with:

- OECD Guidelines for Multinational Enterprises;²⁹ and
- OECD Risk Awareness Tool for Multinational Enterprises in Weak Governance Zones.³⁰

They are intended to assist companies respect human rights in such areas by avoiding the purchases of minerals from or “taxed” by groups engaged in unlawful conflicts, by means of transparent chains of supply for the minerals. The guidelines are to help countries to benefit from their natural resources, while preventing the extraction and trade of minerals to fund conflicts and human rights abuses.

²⁵ Shelly Whitman (2010) “Sexual violence, coltan and the Democratic Republic of Congo” in Matthew A. Schnurr and Larry A. Swatuk (editors) *Critical environmental security: Rethinking the links between natural resources and political violence*. Halifax: Centre for Foreign Policy Studies.

²⁶ UNEP (2009) *From conflict to peacebuilding: The role of natural resources and the environment*. Geneva: UN Environment Programme.

²⁷ UNODC (2010) *Crime and instability: Case studies of transnational threats*. Vienna: United Nations Office on Drugs and Crime.

²⁸ OECD (2010) *OECD due diligence guidance for responsible supply chains of minerals from conflict-affected and high-risk areas*. Paris: Organisation for Economic Cooperation and Development.
<http://www.oecd.org/dataoecd/62/30/46740847.pdf>

²⁹ OECD (2008) *Guidelines for multinational enterprises*. Paris: Organisation for Economic Cooperation and Development.
<http://www.oecd.org/dataoecd/56/36/1922428.pdf>

³⁰ OECD (2006) *Risk awareness tool for multinational enterprises in weak governance zones*. Paris: Organisation for Economic Cooperation and Development.
<http://www.oecd.org/dataoecd/26/21/36885821.pdf>

The guidance was developed to support the UN Security Council resolutions on DRC, using a multi-stakeholder process, involving countries that are members of the OECD and ICGLR plus South Africa, with the participation of industry and civil society. Consultation meetings were held in Paris and Nairobi. The intention was that the guidelines would be practical, emphasising collaborative and constructive approaches.

Due diligence is described as an “on-going, proactive and reactive process through which companies can ensure that they respect human rights and do not contribute to conflict”. The steps involved are:

- Identifying the circumstances of the extraction, transportation, handling, trading, processing, smelting, refining and alloying, manufacturing and selling of products that contain minerals originating from areas affected by or at high risk of conflict;
- Evaluating those circumstances against the standards set in the company’s supply chain policy; and
- Mitigating or eliminating identified risks through a risk management plan.

All companies in the supply chain are expected to conduct due diligence. They can collaborate in:

- Capacity building for due diligence;
- Cost-sharing for specific elements of due diligence; and
- Between upstream and downstream companies.

They are also building partnerships with international and civil society organisations.

The OECD is continuing its activities through its Investment Committee, which monitors progress and will conduct periodic reviews.³¹ It also provides, through national contact points (NCPs), means for individual cases to be raised with national governments.

It has been argued that the multi-stakeholder approach adopted by the OECD compliments traditional command and control systems, which is necessary to address the extra-territorial problems in global supply chains.³² It is a means by which governments can collectively encourage manufacturers and smelters to address the commercial aspects of the conflicts.

5. Democratic Republic of the Congo

At independence, the prospects for DRC were considered to be good, a combination of ending a very difficult and often brutal colonial era with the vast mining resources, including copper, cobalt, diamonds and gold. From the outset there were concerns over secession by certain regions.³³

³¹ http://www.oecd.org/department/0,3355,en_2649_34863_1_1_1_1_1,00.html

³² Amy Lehr (2010) “Old and new governance approaches to conflict minerals: All are better than one” *Harvard International Law Journal Online* 52 (11) 148-170. http://www.harvardilj.org/2010/11/online_52_lehr/

³³ Belgium itself now faces the threat of secession.

Figure 4 Map showing the Democratic Republic of the Congo³⁴



In the 1970s an unending sequence of economic crises began, caused by corruption and misrule, rebellions and foreign military incursions including the largest war in African history, involving fourteen nations (see Table 2).³⁵ From the 1960s to his removal in 1996, President Mobutu Sese Seko ran a patrimonial system, for himself a small coterie around him, with no regard for the consequences for others. Monies were siphoned out of the country, rather than being reinvested.

³⁴ Source: Wikipedia. http://en.wikipedia.org/wiki/Democratic_Republic_of_the_Congo

³⁵ See, for example, "State failure in the Congo: Perceptions & realities", a special issue of the *Review of African Political Economy* 29 (93/94). <http://www.jstor.org/stable/i384263>

Table 2 Evolution of the political economy of DRC³⁶

1965-1969	Strong copper prices, significant US aid, liberal investment code, important foreign investments. Nationalisation of <i>Union Minière du Haut Katanga</i> (UMHK) in 1966.
1971-1974	Zairianisation (major nationalisation of foreign investments) and the beginning of the crisis
1975	World copper prices plummet, high inflation and devaluation of Zaire currency
1980	Crisis temporarily lets up, inflation under control and positive balance of payments
1983-1986	World Bank imposes structural adjustment programmes (SAPs) and strict austerity policies
1990	SAPs unable to redress situation, social situation tense
1991-1996	GECAMINES production continues to decline. Riots in Kinshasa with heavy loss of life, bankruptcy of public service sector and hyperinflation (almost 1000% in 1994). 1994 saw the arrival of hundreds of thousands of people in eastern DRC – either fleeing from or perpetrators of the Rwandan genocide.
1997-1999	Downfall of Mobutu in '97. No coherent economic policy under Laurent-Désiré Kabila. The economy is devoted to the war effort, with new contracts with foreign companies reshaping the mining sector. Resources looted by Rwandan and Ugandan aggressors – booty offered to Zimbabwe and Angola in exchange for military support.
2000-2006	Joseph Kabila (son of Laurent-Désiré) liberalises economy and re-establish negotiations with IMF and World Bank. Foreign debt approx. USD 9 billion. No improvement in social conditions
2006-2011	First democratic elections in 2006.

What was becoming a failed state ceased to be attractive to the capital-intensive mining and processing of copper and cobalt ores. Investment effectively stopped in 1974, with nationalisation of the mining companies. For many years no major commercial partner was tempted to invest because of the security problems caused by invading forces, rebels and a history of looting and destruction. Whereas, the smuggling of diamonds, gold and timber was possible without capital, using crude extraction techniques and generating substantial “profits” or “taxes” for the Mobutu regime. Later coltan was added to the repertoire of low-tech high-margin smuggled resources.

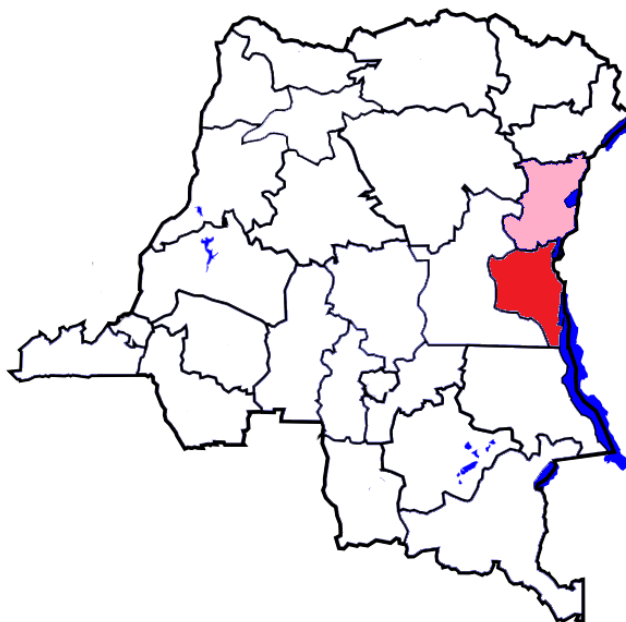
Large parts of eastern DRC were occupied by foreign forces, including those of Burundi, Rwanda, Uganda and Zimbabwe. Originally, they came to fight the likes of:

- *União Nacional para a Independência Total de Angola* (UNITA);
- Interahamwe (Hutus who had sought refuge from genocide in Rwanda); and
- Lord’s Resistance Army.

However, they stayed to take a share of the resources. Indeed adjoining countries achieved significant boosts to their exports and economic growth by looting the DRC.

³⁶ Theodore Trefon, Saskia van Hoyweghen & Stefaan Smis (2002) “State failure in the Congo: Perceptions & realities” *Review of African Political Economy* 29 (93/94) 379-88. <http://www.jstor.org/stable/4006785> .

Figure 5 The provinces of North and South Kivu in the DRC³⁷



Rwanda occupied the adjoining North and South Kivus provinces (see Figure 5), which are important coltan producing regions. Stockpiles of coltan were expropriated to Kigali and sold abroad in breach of international law. Analysis of:³⁸

The U.S. Geological Survey records of tantalum imports reflect the extra-budgetary system implemented by the Rwandans and the Ugandans for exporting Congolese coltan. From 1998 to 2000, tantalum imports to the United States were specifically listed as originating from the Democratic Republic of Congo. Yet, at that time Rwanda and Uganda controlled the Congolese coltan mines, and the Congolese Ministry of Mines reported zero production of tantalum both in 1998 and 1999, and only 550 metric tons of tantalum in 2000.

Rwandan President Paul Kagame described the war in DRC as being “self-financing”, a view with which the UN panel of experts concurred.³⁹

In Rwanda, Kagame has suppressed political dissent and manipulated elections to guarantee his control.⁴⁰ He is under investigation for human rights abuses and for the conspiracy to destroy the plane carrying his predecessor. While Kagame was travelling to speak at the ITU Council in 2008, his head of protocol, Lt. Col. Rose Kabuye, part of his group, was arrested in Frankfurt Airport on a warrant issued by a French *juge d'instruction* concerning the conspiracy to destroy the plane carrying the Kagame's predecessor.⁴¹ The President and other members of his party had diplomatic immunity.

³⁷ Source: Wikipedia. http://en.wikipedia.org/wiki/North_Kivu

³⁸ Dena Montague (2002) “Stolen goods: Coltan and conflict in the Democratic Republic of Congo” *SAIS Review* XXII (1) 103-18.

³⁹ Para 114 in UN (2001) *Report of the panel of experts on the illegal exploitation of natural resources and other forms of wealth of the Democratic Republic of the Congo*. New York: United Nations. <http://www.un.org/News/dh/latest/drcongo.htm>

⁴⁰ Filip Reyntjens (2011) “Constructing the truth, dealing with dissent, domesticating the world: Governance in post-genocide Rwanda” *African Affairs* 110 (438) 1-34.

⁴¹ President Kagame's Head of Protocol arrested in Germany. *Hirondelle News Agency* (Lausanne), 10 November 2008. <http://allafrica.com/stories/20081110196.html>

Three cases were opened by the DRC before the International Court of Justice (ICJ), for armed aggression by:

- Burundi;⁴²
- Rwanda;⁴³ and
- Uganda.⁴⁴

The cases against Burundi and Rwanda were later dropped. Rwanda had argued that the ICJ had no jurisdiction, that it had not given its consent to the jurisdiction of the court in the case and that the UN Convention against Torture was not in force between Rwanda and DRC.

Only one case reached judgement, with the ICJ finding that Uganda had violated:

- The principles of non-use of force in international relations and of non-intervention;
- Obligations under international human rights law and international humanitarian law; and
- Other obligations owed to the DRC.

In particular, the ICJ held that Uganda was the occupying power and thus had all the associated duties and responsibilities. Ugandan soldiers engaged in looting and plundering thus violating:

- Article 47 of the Hague Regulations of 1907; and
- Article 33 of the Fourth Geneva Convention of 1949.

Although there was insufficient evidence that the Ugandan state engaged in looting, it had failed to stop its soldiers, making itself liable. The ICJ required Uganda to pay compensation to DRC.⁴⁵

It follows that the coltan looted from the DRC by Rwanda must similarly have violated the Hague Regulations and the Fourth Geneva Convention.

The exploitation of natural resources during armed conflict can be more effectively prosecuted as the war crime of pillage of public and private property.⁴⁶ While it could be considered an environmental war crime this seems to both inappropriate and unlikely to be successful.

The governments of China and DRC signed an agreement in 2007, valued at USD 9 billion with DRC providing 620,000 tonnes of cobalt and 10,000,000 tonnes of copper in return for infrastructure to be constructed by the Chinese, such as roads, railways, hydroelectric power stations, universities, and health centres.⁴⁷ In 2009, the value was reduced to USD 6 billion.

⁴² Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Burundi) <http://www.icj-cij.org/docket/index.php?p1=3&p2=3&code=cb&case=115&k=1d>

⁴³ Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Rwanda) <http://www.icj-cij.org/docket/index.php?p1=3&p2=3&code=cr&case=117&k=85>

⁴⁴ Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda) <http://www.icj-cij.org/docket/index.php?p1=3&p2=3&code=co&case=116&k=51>

⁴⁵ Margaret E. McGuinness (2006) "Case concerning armed activities on the territory of the Congo: The ICJ finds Uganda acted unlawfully and orders reparations" *ASIL Insights*. <http://www.asil.org/insights060109.cfm>

⁴⁶ Michael A. Lundberg (2008) "The plunder of natural resources during war: A war crime (?)" *Georgetown Journal of International Law* 39 (3) 495-526.

⁴⁷ Stephanie Wolters "DRC, China unveil 'Marshall plan'" *Mail & Guardian*, 28May 2008. <http://www.mg.co.za/article/2008-05-28-drc-china-unveil-marshall-plan>

Global Witness, a leading NGO, has expressed concern over this deal, not least since it has never been published though an unconfirmed version had been leaked.⁴⁸ They allege that it was unclear how either the minerals were to be priced or the value of the infrastructure to be determined. The resulting ambiguity makes it very difficult to determine if and when the pledges were being met. Global Witness believes that the financial risk is loaded disproportionately on the DRC. A study of Chinese mining firms in Gabon and the DRC found very little knowledge of schemes such as EITI and concern that such “Western” schemes highlighted only Chinese operators.⁴⁹

In September 2010, President Joseph Kabila suspended mining in three provinces:⁵⁰

- North Kivu;
- South Kivu; and
- Maniema

This was to allow the sector to be cleaned up, in order to give people there safer living conditions.

In March 2011, the government ended the six month ban on mining in eastern DRC which had been aimed at stopping the rebel groups and militia benefitting from mineral sales. Major offensives had been launched by the police and army to stop those groups. The Minister of Mines Minister, Martin Kabwelulu, claimed the ban had served its purpose.

In early 2011, stakeholders in the mining sector signed a code of conduct intended to reduce fraud and increase transparency.⁵¹ The principal provisions are:

- All artisanal miners and mineral traders must obtain permits;
- Miners must sell only to authorized buyers;
- Selling within sites of exploitation is prohibited;
- Miners can work only in authorized areas;
- Minerals must be traded for domestic or foreign currency and must not be bartered;
- Traders must disclose their accounts to provincial mining officials and provide full contact details of their customers;
- The employment of children in mines is prohibited; and
- Civil society groups will make local populations aware of the new measures.

The effectiveness of the code will take several months to evaluate.

6. United States of America

In the Dodd-Frank Act of 2010, the USA legislated for a requirement that manufacturers certify that their purchases of potential “conflict minerals” and the metals smelted from them do not come from sources involved in funding war crimes and human rights abuses in the DRC.⁵²

⁴⁸ Global Witness “\$6bn Congo-China resource deal: urgent need for tighter anti-corruption measures”, 8th March 2011.

<http://www.globalwitness.org/library/6bn-congo-china-resource-deal-urgent-need-tighter-anti-corruption-measures>

⁴⁹ Johanna Jansson, Christopher Burke & Wenran Jiang (2009) *Chinese companies in the extractive industries of Gabon & the DRC: Perceptions of transparency*. Stellenbosch: Centre for Chinese Studies.

⁵⁰ Kabila suspends mining in eastern DRC. *RFI English*. 10 September 2010.

<http://allafrica.com/stories/201009110002.html>

⁵¹ IRIN – Humanitarian News and Analysis. *Congo-Kinshasa: New rules for miners*. 17 March 2011.

<http://allafrica.com/stories/201103180635.html>

⁵² Dodd-Frank Wall Street Reform and Consumer Protection Act (public law 111-203, H.R. 4173 [11th]).

<http://www.gpo.gov/fdsys/pkg/PLAW-111publ203/content-detail.html>

Section 1502 of the Act added Section 13(p) to the Securities and Exchange Act of 1934. This gave the minerals as:

- Cassiterite;
- Coltan;
- Gold; and
- Wolframite.

It also granted the power to the U.S. Secretary of State to identify further minerals, if these were determined to have been used to finance conflict in the DRC and the adjoining countries.

Implementation is by the Securities and Exchange Commission (SEC), following a public consultation, through a modification of its reporting requirements.⁵³ Corporations, possibly as many as six thousand, for which conflict minerals are necessary to the functionality of a product or for the production of a product, whether manufactured directly or by a third party, are to be required to disclose in their annual reports whether these minerals and metals originated in the DRC or an adjoining country. They must then provide a report with a description of the due diligence processes undertaken to determine both the source and the chain of custody of such conflict minerals and metals. These reports are to be audited independently, in accordance with standards to be set by the U.S. Comptroller General.

The SEC held a consultation on its proposed rules initially to close in January 2011, but extended to 2 March 2011.⁵⁴ Some concern was expressed at the likely cost, scope and definition of the various terms in the proposed rules. The wording of the Act on manufacturing left the possibility that mining was not included, even if this would be illogical. A definition of recycling was required to ensure it could not be used to obscure the inclusion of illicit processed metals. There were suggestions that the burden might force US-listed firms to avoid the DRC to the disadvantage of its citizens.

A number of legal arguments were raised in the comments. One concern was whether the compelled speech (i.e., the obligation to report) violated the jurisprudence on the first amendment to the US Constitution. Another constitutional issue was whether the SEC had adequately addressed the economic consequences of the proposed rules, including their likely effects on competition.

Some companies had already made public statements on being conflict-free, for example, Apple.⁵⁵ Intel has made a general statement in its Corporate Social Responsibility,⁵⁶ with a specific statement on its commitment on conflict minerals.⁵⁷

Section 1504 of the Dodd-Frank Act, also known as the Energy security through transparency Act (ESTTA), amends the Securities and Exchange Act to require oil, gas and mining companies to disclose certain key financial data relating to their overseas

⁵³ SEC proposes specialized disclosure of use of conflict minerals under Dodd-Frank Act. Securities and Exchange Commission, Washington DC. Press release: 15 December 2010.

<http://www.sec.gov/news/press/2010/2010-245.htm>

⁵⁴ SEC proposes specialized disclosure of use of conflict minerals under Dodd-Frank Act. 2010-245. 15 December 2010. <http://www.sec.gov/news/press/2010/2010-245.htm>

⁵⁵ Apple Supplier Responsibility 2011 Progress Report

http://images.apple.com/supplierresponsibility/pdf/Apple_SR_2011_Progress_Report.pdf

⁵⁶

<http://www.intel.com/Assets/PDF/Policy/CSR-2009.pdf>

⁵⁷ Intel (2010) Socially responsible sourcing statement.

<https://supplier.intel.com/static/intel%20conflict%20of%20free%20statement.pdf>

operations.⁵⁸ The intention of the US Congress was to shine a “spotlight on the shadowy financial arrangements” in which payments may go to heads of state personally, rather than to the states, where proportions were being diverted for personal spending and private investment. Information about such payments is considered unlikely to be of concern to shareholders, since it does not assist them in managing their exposure to risk, though it may be of interest to a few NGOs and some individuals who wish to track payments for resources. One concern is that the SEC may not have the resources to police the accuracy of the data provided. Yet to be effective the measure requires someone to check the data with funds received in the developing country and to act on any discrepancies. Simple corruption can be prosecuted under the Foreign Corrupt Practices Act, enforced by Department of Justice.⁵⁹

There is also a provision in the Democratic Republic of the Congo Relief, Security, and Democracy Promotion Act of 2006, promoted by the then Senator Obama, to impose sanctions against states engaged in trade in conflict minerals.⁶⁰

A further legal avenue would be the Alien Tort Statute or Alien Tort Claim Act (ATCA).⁶¹ This would require that a corporation to be subject to jurisdiction of the US courts and the complainant would have to show that the corporation had, through payments made for coltan ore or the processed metals, aided and abetted violations of customary international law, such as the human rights abuses known to have taken place in the DRC. However, the final judgement in such a case would be far from being certain.

7. European Union

The issue of growing demand for coltan and the continuation of the civil war in DRC was raised in the European Parliament in 2001.⁶² In 2002, in response to another parliamentary question the EC observed that there were no compelling reasons to impose sanctions on any of the parties.⁶³ Then in 2003, the European Parliament adopted a resolution condemning the illegal exploitation of the natural resources of the DRC and both recognising and supporting the work of the UN Security Council on the issue.⁶⁴ It also called on the European Commission to propose a legal framework for the responsibility of private companies, operating in third countries, in order to combat the illegal exploitation of their natural resources.

A question asked in the Parliament in 2002 concerned the possibility that the Tantalum-Niobium International Study Center (TIC) was a “front organisation for a cartel which

⁵⁸ Daniel M. Firger (2010) “Transparency and the natural resource curse: Examining the new extraterritorial information forcing rules in the Dodd-Frank Wall Street Reform Act of 2010” *Georgetown Journal of International Law* 41 (4) 1043-95.

⁵⁹ Richard L. Cassin (2008) *Bribery abroad: Lessons from the Foreign Corrupt Practices Act*. Raleigh: Lulu.com.

⁶⁰ Public Law No. 109-456.

⁶¹ Maheta M. Molango (2008) “From ‘blood diamond’ to ‘blood coltan’: Should international corporations pay the price for the rape of the DR Congo?” *Gonzaga Journal of International Law* 12 (2).

<http://www.gonzagajil.org/content/view/191/26/>

⁶² Written question E-1539/01 by Erik Meijer (GUE/NGL) to the Commission. 28 May 2001 (2002/C 40 E/048).

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:040E:0051:0052:EN:PDF>

⁶³ Parliamentary question E-3498/2001: Answer given by Mr Nielson on behalf of the Commission. 22 February 2002.

<http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2001-3498&language=EN>

⁶⁴ European Parliament resolution on the illegal exploitation of the wealth of the Democratic Republic of the Congo. 30 January 2003.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2004:039E:0073:0075:EN:PDF>

determines coltan prices".⁶⁵ This arose from an investigation by a committee of the Belgian federal parliament.^{66, 67}

In February 2011, the European Commission adopted a Communication, prepared by DG Enterprise, addressing the challenges of commodity markets and raw materials, looking at these as critical economic inputs.⁶⁸ It reported that the EU was 100 per cent dependent on non-EU sources for imports of Niobium and Tantalum, with only 11 per cent of Niobium coming from recycled sources and 4 per cent of Tantalum. Although the EC in did not make the link to conflict minerals two respondents to the consultation did, one suggesting that much of the Chinese metal came from the DRC.⁶⁹

Margaret Wallstrom, the UN Special Representative on sexual violence and a former member of the European Commission, called on the EU to follow the example of the USA in adopting a law on conflict minerals:⁷⁰

It is now time for Europe's leaders to step up to the plate, as a sign of universal resolve to protect the most vulnerable.

The issues concerning conflict minerals are the responsibility of DG Internal Market, with Commissioner Michel Barnier proposing to extend disclosure requirements to the extractive industry, leaving open the possibility of adding other sectors at a later stage.⁷¹

8. International Conference of the Great Lakes Region

The International Conference of the Great Lakes Region (ICGLR) comprises the governments of:⁷²

- Angola;
- Burundi;
- Central African Republic;
- DRC;
- Kenya;
- Republic of Congo;
- Rwanda;
- Sudan;
- Tanzania;
- Uganda; and
- Zambia.

⁶⁵ Written question E-0931/02 by Bart Staes (Verts/ALE) to the Commission. 5 April 2002. (2002/C 277 E/123) <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:277E:0110:0110:EN:PDF>

⁶⁶ Parliamentary question E-3498/01. Answer by the Commission.

<http://www.europarl.europa.eu/sides/getDoc.do?type=WQ&reference=E-2001-3498&language=EN>

⁶⁷ Sénat de Belgique (2003) *Commission d'enquête parlementaire chargée d'enquêter sur l'exploitation et le commerce légal et illégal de richesses naturelles dans la région des Grands Lacs au vu de la situation conflictuelle actuelle et de l'implication de la Belgique*. Ref: 2-942/1. Brussels: Sénat de Belgique.

<http://www.senate.be/www/?Mival=/dossier&LEG=2&NR=942&LANG=fr>

⁶⁸ EC (2011) *Communication on tackling the challenges in commodity markets and on raw materials*. Brussels: European Commission. COM(2011) 25 final.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52011PC0025:EN:NOT>

⁶⁹ Plansee (2010) Replies to the Commission consultation:

http://ec.europa.eu/enterprise/policies/raw-materials/files/pc-contributions/org-011-plansee_en.pdf

⁷⁰ Paul Redfern. "UN official urges EU states to embrace laws on trade in conflict minerals" *The East African*. 20 September 2010. <http://allafrica.com/stories/201009201169.html>

⁷¹ Andrew Willis "EU prepares clampdown on conflict minerals" *EU Observer*, 11 March 2011.

<http://www.euobserver.com/>

⁷² <http://www.icglr.org/index.php>

It is the regional body most directly concerned with the issue of conflict minerals.

The Pact on Security, Stability and Development in the Great Lakes Region, signed by heads of states in Nairobi on December 15th 2006, provides a legal framework and the agenda for ICGLR.⁷³ It aims to create the conditions for security, stability and development in the region. There are ten protocols associated with the Pact of which one is the Protocol Against the Illegal Exploitation of Natural Resources, implemented through the Regional Initiative against the Illegal Exploitation of Natural Resources (RINR).⁷⁴

RINR aims at breaking the link between taxes on mineral revenues and financing of rebel groups. It comprises the following tools:

1. Regional certification for tracking the chain of custody of key minerals;
2. Harmonisation of national legislation;
3. Regional database on mineral flows;
4. Formalisation of artisanal mining processes;
5. EITI peer learning process; and
6. A whistle-blowing mechanism.

The chain of custody of minerals will be tracked from mine to point of export, with independent third party auditing and full public disclosure of audited mineral flows. This work is in collaboration with the OECD and is supported by Canada, Ireland and Switzerland.⁷⁵

Rwanda has asked for a delay in implementation, claiming it is needed to include smaller mining operations.⁷⁶ This is vitally important, since it is essential to ensure that coltan from the DRC is not being smuggled through Rwanda.

The ICGLR submitted comments to the U.S. SEC expressing its support for the US Dodd-Frank Wall Street Reform and Consumer Protection Act, and the efforts of the US government to assist the governments and institutions of the Great Lakes Region in eliminating conflict minerals and the financing of armed groups.⁷⁷

9. Industry initiatives

Manufacturers have responded to the UN Security Council resolutions and to the work of NGOs by analyses and studies of their supply chains.⁷⁸ The result has been initiatives on supply chain management, including:

- ITRI Tin Supply Chain Initiative (iTSCi);⁷⁹
- Chain of Custody in the Diamond and Gold Jewellery Supply Chain;⁸⁰

⁷³ Pact on Security Stability and Development in the Great Lakes Region.

http://www.icglr.org/IMG/pdf/Pact_on_Security_Stability_and_Development_in_the_Great_Lakes_Region_14_15_December_2006.pdf

⁷⁴ The ICGLR Regional Initiative against the Illegal Exploitation of Natural Resources (RINR). Press release. 19 February 2011. <http://www.icglr.org/spip.php?article94>

⁷⁵ Shawn Blore and Ian Smillie (2011) *Taming the resource curse: Implementing the ICGLR certification mechanism for conflict-prone minerals*. Ontario: Partnership Africa Canada.

⁷⁶ Berna Namata (2011) "Mineral tagging needs more time" *The New Times*, 22 February 2011. <http://allafrica.com/stories/201102220169.html>

⁷⁷ <http://www.icglr.org/spip.php?rubrique6>

⁷⁸ GeSI & EICC join with Tantalum and Tin supply chain representatives and stakeholders on responsible sourcing of minerals from conflict regions. Press release. 7 December 2010.

<http://www.gesi.org/Media/PressReleaseFullstory/tabid/104/smld/503/ArticleID/69/reftab/61/Default.aspx>

⁷⁹ ITRI (2009) *DRC tin supply chain initiative*. St. Albans: International Tin Research Institute. http://www.itri.co.uk/pooled/articles/BF_NEWSART/view.asp?Q=BF_NEWSART_313589

- Global Reporting Initiative – Supply Chain Initiative;⁸¹
- Extractive Industries Transparency Initiative (EITI);⁸² and
- Conflict Free Smelter (CFS) program.⁸³

Although many people live in countries rich in oil, gas and minerals in many there is weak governance which results in continuing poverty, corruption, and conflict. The EITI was created to improve transparency and accountability, including the promotion of a global standard in revenue transparency. EITI has three categories of members:

- Countries (implementing and supporting);
- Companies (including institutional investors); and
- Civil society organisations.

Country members are validated, while companies are required to endorse the EITI Principles and Criteria,⁸⁴ in addition to making a self-assessment.⁸⁵

In 2005, the DRC endorsed the EITI principles and in 2008 it was accepted it as a candidate country member. In December 2010, it was designated as being close to compliant and given until June 2011 to complete remedial actions.⁸⁶

The Global e-Sustainability Initiative (GeSi), an industry lobbying group, funded a report by Flora & Fauna International on Coltan mining in 2003.⁸⁷ This described the state of the industry at that time.

Electronic Industry Citizenship Coalition (EICC) and GeSi have jointly developed the Conflict-Free Smelter (CFS) programme to ensure that the four critical metals – Gold, Tantalum, Tin and Tungsten – are authenticated as coming from legitimate sources that do not add to or pay towards the troubles of Central Africa or other parts of the world.⁸⁸ The CFS programme identifies smelters of firms that can demonstrate – through independent third party assessments – that the raw materials did not originate from sources that contribute to the conflict in the DRC. Five CFS workshops were held with participants in the tantalum and tin supply chains to identify the challenges in responsible sourcing. During 2011, the CFS will be expanded to include tin, tungsten, and gold.

⁸⁰ RJC (2011) *Chain of custody*. London: Responsible Jewellery Council.
<http://www.responsiblejewellery.com/chain-of-custody.html>

⁸¹ GRI (2010) *Supply chain*. Amsterdam: Global Reporting Initiative.
<http://www.globalreporting.org/CurrentPriorities/SupplyChain/>

⁸² EITI (2011) *EITI Rules, 2011 edition including the validation guide*. Amsterdam: Extractive Industries Transparency Initiative. http://eiti.org/files/EITI_Rules_2011.pdf

⁸³ GeSi & EICC (2010) *GeSi and EICC complete first tantalum assessment focused on responsible sourcing of minerals program enables companies to trace origin of minerals*. Austin: Electronic Industry Citizenship Coalition. <http://www.eicc.info/PDF/PR%20Extractives%20Smelter%20Audit%20Launch%20FINAL.pdf>

⁸⁴ <http://eiti.org/eiti/principles>

⁸⁵ <http://eiti.org/supporters/companies>

⁸⁶ <http://eiti.org/DRCongo>

⁸⁷ Karen Hayes & Richard Burge (2003) *Coltan mining in the Democratic Republic of Congo: How tantalum-using industries can commit to the reconstruction of the DRC*. Cambridge: Fauna & Flora International.

⁸⁸ GeSi and EICC complete first Tantalum assessment focused on responsible sourcing of minerals program enables companies to trace origin of minerals. Press release. 10 December 2010.
<http://www.eicc.info/PDF/PR%20Extractives%20Smelter%20Audit%20Launch%20FINAL.pdf>

10. Conclusion

Understanding the trade in coltan requires a combination of geology, mining, chemistry, electronics, economics, law and sociology. Many of the contributions fail in one or more of these, for example, in misrepresenting the uses of niobium and tantalum, in failing to see the significance of the artisanal nature of the initial extraction of coltan and, perhaps most worrying, in failing to see the vital importance of the income from coltan mining to communities otherwise reliant on subsistence agriculture. Coltan has been exploited rather than copper or cobalt because of its high value and because it does not require capital intensive mining techniques – its extraction is almost primitive.

In addition to the measures being taken by the government of the DRC, aimed at suppressing the various militias and the associated illegal trade in ores and metals, the UN Security Council continues to see an essential role for other countries to reduce the opportunities for the sale of the plundered or smuggled ores and the refined metals.

Governments are addressing the political and economic aspects of mineral-funded conflicts through the UN, encouraging more effective governance in countries affected by conflicts, and providing development aid to support alternative livelihoods and support for a wholly legal mining sector.

Analysis, funded by the German government, has established that the composition of the ores is quite complex.⁸⁹ Indeed, each deposit of Tantalum was found to be unique, with distinction possible between locations even in districts and provinces where the ores were apparently similar. Thus, it would be possible to create geo-chemical fingerprints for individual deposits in order to trace the source of any unrefined ores on the market. There remained some work to automate the process and to build up a sufficiently detailed atlas of the deposits. Once the ores are refined it is very difficult to identify the source, except by authenticated documents.

The OECD Guidelines, while not binding on corporations, set out basic obligations of due diligence to ensure that metals used in products do not come from illegal sources that might fund yet more atrocities in the Congo. The OECD maintains an active interest, with regular meetings to discuss implementation of the Guidelines, including individual cases.

Demand for niobium and tantalum ores could be reduced by increasing the level of recycling, though this would be likely to deprive DRC citizens of a valuable source of income. Any concern for the well-being of the impoverished peoples of the war-torn Congo must mean a desire to see the growth of the legitimate trade in these and other metals, in order to support economic development.

The USA has greatly increased reporting obligations on companies and with that brought sanctions for any misleading or false declarations. One concern is whether the information to be published would be sufficient to lead a third party to identify errors or false reporting, indeed to wonder whether such third parties exist. Regulations have to balance the creation of sufficient incentives for the suppression of the illegal trade with the reporting burden placed on corporations.

Further national legislation in developed countries must be the most likely response to the continuing abuses, in order to suppress the flow of funds. The European Union is under

⁸⁹ Frank Melcher, Maria A. Sitnikova, Torsten Graupner, Nicola Martin, Thomas Oberthür, Friedhelm Henjes-Kunst, Eike Gäbler, Axel Gerdes, Helene Brätz, Don W. Davis and Stijn Dewaele (2008) "Fingerprinting of conflict minerals: columbite-tantalite ('coltan') ores" *SGA News* No. 23. 1, 7-14.
<http://e-sga.org/fileadmin/sga/newsletter/news23/SGANews23.pdf>

pressure to match the USA. However, that leaves major gaps in terms of China, Japan and South Korea.

A much more radical approach to mandatory due diligence and reporting would be to give the International Criminal Court (ICC) jurisdiction over legal persons, in addition to natural persons.⁹⁰ In effect this would allow companies to be prosecuted for aiding and abetting war crimes. It would set a fairly high standard for evidence, though even the prospect of being named in such a case would be of concern to manufacturers.

There is something deeply troubling in the role of Rwanda and its President in looting coltan from the DRC while trying to establish itself up as an ICT hub for Africa, bringing at least a small part of the metals back to the Great Lakes region. It points to the severe problems of governance, democracy, corruption and morality.

⁹⁰ Michael A. McGregor (2009) "Ending corporate impunity: how to really curb the pillaging of natural resources" *Case Western Reserve Journal of International Law* 42 469-97.

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Abbreviations

.cd	ccTLD for DRC
.zr	former ccTLD for Zaire, now .cd
ANC	<i>Armée Nationale Congolaise</i>
APR	<i>Armée Patriotique Rwandaise</i>
ccTLD	Country Code Top Level Domain
CFS	Conflict-Free Smelter
DG	Directorate-General
DRC	Democratic Republic of the Congo
EC	European Community
EICC	Electronic Industry Citizenship Coalition
EU	European Union
FARDC	<i>Forces armées de la République démocratique du Congo</i>
FDLR	<i>Forces démocratiques de libération du Rwanda</i>
GeSI	Global e-Sustainability Initiative
ICGLR	International Conference of the Great Lakes Region
ITU	International Telecommunication Union
lb	Pound avoirdupois
LRA	Lord's Resistance Army (LRA);
Nb	Niobium
NCP	National Contact Points
OECD	Organisation for Economic Cooperation and Development
RINR	Regional Initiative against the Illegal Exploitation of Natural Resources
RPA	Rwandan Patriotic Army (RPA)
SAW	Surface Acoustic Wave
SEC	Securities and Exchange Commission (USA)
Ta	Tantalum
TIC	Tantalium-Niobium International Study Center
UN	United Nations
UNSC	United Nations Security Council
UPDF	Uganda People's Defence Forces
USA	United States of America
USD	United States Dollar