

CAPTURING THE GAINS

economic and social upgrading

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Capturing the Gains brings together an international research network to examine economic and social upgrading in business communities across the developing world.

The programme explores the connections between business competitiveness and social prosperity with attention to firm innovation, trade expansion, labour standards and decent work.

Its research allows policy-makers and business leaders to better understand the relationship between business growth and poverty reduction in the global South.

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Blood on your mobile phone? Capturing the gains for artisanal miners, poor workers and women

Dev Nathan and Sandip Sarkar

Abstract

Most people today are familiar with the term 'blood diamond'; but many more of us buy mobile phones and how many know the term 'blood mobiles'? Our research will explore the complex network of global mobile phone production. In this briefing note, we trace the key actors in the deadly coltan chain at the root of the global telecoms production network.

Keywords

coltan, value chain governance, conflict minerals

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Symbol of the 21st century stained by coltan

Capturing the Gains research into the global production of mobile phones traces the connections between armed factions, poverty and violence in the Democratic Republic of the Congo and mobile phone users worldwide. The critical link is **coltan**, or columbite tantalite. It is the raw material for tantalum, an essential mineral in the manufacture of mobile phones, computers and other electronic equipment.

More than 30 percent of the world's supply of coltan is mined in the eastern part of the Democratic Republic of Congo (DRC) and the Great Lakes region,¹ much of it by tens of thousands of artisanal miners. In the Congo, the mining and marketing of coltan (as well as gold, tin and other minerals) are controlled by both government-backed and private military-commercial complexes. These involve traders, financiers and armed soldiers.²

Actors in the coltan chain

Miners

In the Congo, coltan mining is carried out in some 200 mines, largely by small artisanal miners, often farmers turned diggers.³ The miners earn from \$1 and \$5 per day, which is less than ten percent of the local value of the coltan they mine.⁴ Miners' wages,

although low, are important to the local economy. 'Coltan fever' has rapidly dollarised many relatively remote rural areas,⁵ fuelling secondary and informal activities – prostitution, brewing and petty commerce of all types.

Armed factions

The demand for coltan fuels a deadly conflict between armies of central African governments and private militias.⁶ Of the 13 major mines, 12 are controlled by armed groups, including units of the Congolese army – FADC (Armed Forces of the Democratic Republic of Congo), the FDLR (Democratic Forces for the Liberation of Rwanda – a Rwandan militia led by organisers of the 1994 Rwandan genocide), and their opponents – CNDP (National Congress for the Defense of the People), linked to the Rwandan regime. Small armed groups or militias, known as the *mai mai*, control small-scale artisanal mining.

Together the armed units and *mai mai* impose direct taxes and extort money or minerals at the check-points they control. The FADC abuse their power, by turning potential state revenue into personal income. In the absence of a strong state, these armed units exercise control in the areas where they extract rents at different points in the coltan chain.

There is little difference, other than in scale, between the state and non-state

Notes

1. United States Geological Survey, 2010: 173.
2. Raeymaeker, 2002.
3. The following account of coltan mining in the Congo draws on the UN Security Council (2008); Raeymaeker (2002); International Peace Information Service (2002); Jackson (2002); Ma (2009); Pendergrast and Lezhnev (2009); Prunier (2009); and Lemarchand (2009).
4. Pendergrast and Lezhnev, 2009: 2.
5. Jackson, 2002: 528.
6. Committee of Experts formed by the UN Security Council (2008).





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armed units. ‘Those who are not killed by the soldiers of the former army are killed by those of the new army. It is always the innocent ones who are the victims’.⁷ According to Amnesty International, ‘under the pretext of fighting their opponents, all parties to the conflict are killing, looting, and extorting on a massive scale and subjecting the entire population to terror and misery’.⁸ Rape is such a common instrument of control that the eastern region of the Congo has been labelled the ‘rape capital of the world’.⁹

Traders and agents – from mine to trading house

Some armed units are financed by traders, with the chain of financial advances going back to European and other commercial houses and coltan processors.¹⁰ Traders use this finance to provide advances to the miners, putting them into a state of bondage. Many are child labourers, some as young as eight. Miners sell coltan and other minerals to merchants, who then transport the minerals to the trading houses or exporters. There are about 200 trading houses, in the towns of Goma and Bukavu. Although they are supposed to be registered with the Congolese government, most are not.

Exporters

The trading houses, in turn, sell to the exporters or *comptoirs*, who

are registered with the Congolese government (17 in Bukavu and 24 in Goma). Exporters finance the trading houses, and most are given advances by international traders from Belgium, Malaysia, Kazakhstan and other countries.

Although neighbouring countries, such as Rwanda, Uganda and Burundi, also have small deposits of coltan,¹¹ the bulk of their exports come from the Congo, via the various armed units. Rwanda is a preferred exit point, which avoids the higher export tax from DRC. Even so, rents of up to \$20 million per month are said to have sustained the Rwandan army.¹²

Major international processors

Three international corporations refine 80 percent of the ore: the US Cabot Corporation; German H. C. Stark; and the Chinese Ningxia Corporation. Both Cabot and Stark have announced that they will not use DRC coltan.¹³ Ningxia continues to do so.¹⁴ China is now the primary consumer of DRC’s coltan, accounting for 80 percent of its exports in 2008, with some DRC coltan found in materials processed in Kazakhstan.

Traceability has not yet been established, and materials are mixed together at different stages along the supply chain. It is likely that coltan from the Congo enters into raw materials processed by the US, Germany and others.

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7. A woman from Gisenyi cited in Prunier, 2009: 174.
8. Amnesty International, 2000, quoted in Jackson, 2002: 527.
9. UN Special Rapporteur on Sexual Violence in Conflict. Wallstrom, 2010.
10. IPIS, 2002.
11. In Rwanda and other countries, coltan from the Congo is mixed with local coltan and then sold together to be transported to the processors.
12. Ma, 2009: 2.
13. This was in response to the UN Security Resolution (2008) in conflict minerals from DRC (UN Security Council, 2008). Coltan from DRC could easily, and often does, end up being exported from neighbouring countries. Cabot announced that it would not accept material containing coltan from Congo (Brazzaville), DRC, Zambia, Burundi, or Rwanda (Cabot, 2008).
14. International Trade Centre, 2010.

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Mobile phone manufacturers

Coltan's final destination is the major manufacturers of capacitors: Kemet and Vishay in the US, AVX in the UK, NEC in Japan and Samsung in South Korea. These capacitors are then integrated into circuit boards by electronics manufacturers, such as Sony, Toshiba, Samsung, HP, and the major chip manufacturers, such as Intel and AMD. The circuit boards and computer chips end up in the mobile phones manufactured by Nokia, Siemens, Motorola, Samsung and others.

Failure of governance

The UN's conflict minerals policy requires that the source of all materials is revealed and that minerals should not be procured from conflict areas. However, when coltan ore is brought to the buyer-transporters and trading houses, its source is not identified. All that is asked is whether it came from a conflict area. 'The comptoirs (exporters) ask us if we buy minerals from the FDLR, but it's easy to lie and get around that. They don't check' (Thomas, trader, Bukavu).¹⁵

In 2008 the UN blacklisted some exporters from FDLR and armed militias for dealing in conflict coltan.¹⁶ But the absence of enforcement enables minerals from conflict zones to enter

the supply chain. When coltan is smuggled across the Congolese border into Uganda, Rwanda and Burundi, no questions are asked about its source. Indeed, the Rwandan state, through the military and the Department of Congo Affairs, is directly involved in the coltan trade. The Rwandan government initiated a programme to certify the origin of Rwanda's own mineral production. Its impact on the mixing of Congolese with Rwandan coltan remains to be seen, especially since other neighbouring countries have no such certification programme.

Refiners form the crucial link in the coltan supply chain. Four major refiners are in the US, Germany, China and Kazakhstan. Refineries are the key point where governance could be effectively strengthened, since once the ore is refined and turned into dust or wire, there is no way of tracing the source. Hence, the circuit board, chip and mobile phone manufacturers have no means of tracing the supply chain of their components. According to Steve Jobs, CEO of Apple: 'We require all of our suppliers to certify in writing that they use conflict free [sic 'free'] materials. But honestly there is no way for them to be sure. Until someone invents a way to chemically trace minerals from the source mine, it's a very difficult problem.'¹⁷

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15. From Prendergast and Lezhnev, 2009.

16. UN Security Council, 2008.

17. Email from Steve Jobs to Derick Rhodes, reported in the New York Times, 24 July 2010.





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Industry-led governance measures

Two major global corporate initiatives require next-tier suppliers (i.e. those supplying the final product) to implement industry codes:

- Electronic Industry Citizenship Coalition (EICC), which includes 40 global electronic companies (but raw materials sourcing is excluded from the EICC Code of Conduct).¹⁸
- Global e-Sustainability Initiative (GeSI), which covers total supply chain governance and includes the leading Information and Communication Technology (ICT) companies.

GeSI recognises civil society campaigns, such as MakeITFair, which have highlighted ‘social, environmental and humanitarian issues associated with the extraction of certain metals used in the production of ICT equipment’, particularly in the DRC.¹⁹

The EICC and GeSI use ‘mineral tagging’ or ‘finger printing’ in auditing coltan to trace the source. The audit process, even if well-implemented, would only certify that the coltan is not sourced from DRC or other conflict-ridden mines. Yet traceability does not address the working conditions and livelihoods of poor miners living in the conflict zones, whose meagre livelihoods are dependent on coltan. Artisanal miners are exploited by state and

private militias and the complex web of intermediaries. Merely establishing traceability will not release them from bondage relations with traders and other intermediaries. On the contrary, it would quickly impoverish tens of thousands of miners’ families, as small, artisanal miners in conflict-zones are cut out and tracked, and supply of coltan switches to the bigger mines

Social upgrading, or the concern for the livelihoods of artisanal miners in the Congo, requires governance initiatives that complement corporate initiatives to clean up the value chain and protect artisanal production. The political economy of conflict in the Great Lakes Region is complex. A fair system of micro-finance could be linked to the ‘bag and tag’ facilitation centres where coltan sources are made explicit. But the local militia and financial intermediaries would be unlikely to allow this without extracting a share at their check-posts.

From corporations to the state

Governance of the coltan value chain is not just a matter for private corporations. The state, together with civil society and international organizations, needs to engage in supply chain governance. But to do this the state must have legitimacy, especially in the eyes of its citizens. The need to overcome this fundamental

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18. <http://www.eicc.info/PDF/EICC%20Code%20of%20Conduct%20English.pdf> (accessed 24 July 2010).
19. ‘The Supply Chain Initiative’: <http://www.gesi.org/Initiatives/SupplyChain/tabid/75/Default.aspx> (accessed 24 July 2010).

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institutional failure is at the root of the so-called 'resource curse' of mineral-rich countries.

The recent US Financial Services Reform Bill (the Reid-Dodd Bill) requires all US corporations to disclose how they ensure that their products do not contain conflict minerals. This adds to

the pressures to clean up the coltan value chain. Such measures should supplement local measures to build power-sharing, multi-ethnic coalitions working to free the artisanal miners and others in the conflict zones from the grip of the various state and non-state military-commercial complexes.

Policy points

- Improving livelihoods of artisanal miners depends on state, civil society and corporate actors working together to clean up the value chain.
- Action is needed at local level to support artisanal miners through local facilitation centres and finance.
- Good governance is key – this requires the establishment of a credible state responsible to its citizens, including the artisanal miners.

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