Experts’ background report on illegal exploitation and trade in natural resources benefitting organized criminal groups and recommendations on MONUSCO’s role in fostering stability and peace in eastern DR Congo

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Executive Summary

Background

1. This report was elaborated by United Nations Environment Program (UNEP) with input from experts of the Mission des Nations Unies en République Démocratique du Congo (MONUSCO) as well as from the United Nations Office on Drugs and Crime (UNODC), UN Group of Experts (GoE), International Organization for Migration (IOM), United Nations Educational, Scientific and Cultural Organization (UNESCO), Special Envoy of the Secretary-General for the Great Lakes Region (OSESG GLR), Institut Congolais pour la Conservation de la Nature (ICCN), Global Witness, International Peace Information Service (IPIS), Greater Virunga Trans-Border Collaboration; Wildlife Conservation Society; World Wildlife Fund (WWF), Environment and Natural Resources Accounting (ENRA), International Union for Conservation of Nature (IUCN).

2. The report examines the role of transnational environmental crime as one of several key factors fuelling the protracted conflict cycle in eastern Democratic of Congo (DRC). It makes recommendations on how MONUSCO, in its forthcoming down-sizing phase, might wish to endeavour supporting the Government of the Democratic Republic of the Congo (GoDRC) in addressing apparent segments of the Congolese political economy that are linked to transnational environmental crime. The report was reviewed at an experts’ meeting held in Goma, DRC, from 17-18 February 2015.

Key findings

3. The GoDRC, and by extension MONUSCO in its support role to the GoDRC, are no longer dealing predominantly with a political insurgency but are increasingly facing criminal groups with links to transnational organized criminal networks involved in large scale smuggling and laundering operations. In the DRC, where parts of the economy are informal and sometimes illicit, links between politics and illicit economic activities have existed for a long time. After years of weakened state authority in the eastern DRC, and political agendas of several armed groups apparently weakened, increasingly insurgency appears to be predominantly economically motivated. The networks of these criminal groups are well embedded in the DRC and neighbouring countries.

4. According to some estimates, illicit natural resources exploitation in eastern DRC is valued at over USD 1.25 billion per year (USD 722-862 million if excluding diamonds also sourced outside eastern DRC). Of these amounts, an estimated 10-30 per cent (range USD 72-426 million per annum) goes to transnational organized criminal groups.

5. Annual net profits to organized crime is conservatively estimated to derive from: i) gold (USD 40-120 million); ii) timber (USD 16-48 million); iii) charcoal ( USD 12-35
million); iv) 3T minerals (USD 7.5 – 22.6m); v) diamonds sourced mainly from outside the conflict zone (USD 16-48 million); and vi) wildlife, including ivory and fisheries, local taxation schemes, cannabis and other resources (USD 14.3 - 28 million).

6. Around 98 percent of the net profits from illegal natural resource exploitation - particularly gold, charcoal and timber - goes to transnational organized criminal networks operating in and outside DRC.

7. The significance of charcoal as a conflict resource is likely to further expand given increasing demand and a growing regional cooking energy deficit.

8. Armed groups retain only around two percent - equivalent to USD 13.2 million per annum - of the net profits from illegal smuggling. This income represents the basic subsistence cost for at least 8,000 armed fighters per year, and enables defeated or disarmed groups to continuously resurface and destabilize the region.

9. Revenue from illegal natural resources exploitation finances a high number of well over 25 armed groups (up to 49 according to some estimates) continuing to destabilize eastern DRC. While the armed groups have their own proven survival strategies, transnational organized crime networks might try to "divide and rule" armed groups in eastern DRC to prevent any single armed group from achieving a dominant role and potentially interfering with illegal exploitation rackets run by transnational criminal networks.

**Recommendations**

10. Strategically, MONUSCO in its down-sizing phase could endeavour, within the limits of the political context and based on the consent of the GoDRC, to also address organized crime in the DRC as a factor fuelling conflict, thereby depleting the lifeline of armed groups in eastern DRC. Most importantly, this would require strengthening national capacities to tackle illegal natural resource exploitation in the context of MONUSCO’s support to the extension of GoDRC state authority. Related efforts would include targeted support to the Police Nationale Congolaise (PNC), as well as, possibly through the UN Country Team (UNCT), support to the GoDRC to improve border and airspace control, and targeted support to the GoDRC Judiciary.

11. Operationally, the UN’s information and analysis capacities could be further reinforced to additionally address the role of illegal natural resource exploitation in benefitting militarized criminal networks.

12. Hence, to promote long-term stabilization in eastern DRC, this report recommends that MONUSCO, in its downscaling phase:

i) Further develops the Mission’s information and analysis capacity, with a view to undercutting the lifelines of armed groups with links to
transnational criminal networks benefiting from illicit natural resource exploitation in eastern DRC. This does not need to impact on mission size.

ii) In a targeted manner, supports the capacity of the Congolese national police and the justice system to investigate and prosecute environmental crime, including in coordination with bilateral and multilateral donors, all within the limits of the political context, in particular given the forthcoming volatile general elections phase.

iii) Further builds on existing cooperation with national authorities, particularly the Congolese Wildlife Authority (ICCN), to safeguard protected areas and World Heritage Sites from illegal natural resources exploitation and their use as ‘safe havens’ by armed groups.

iv) Strengthens regional cooperation on transnational organized crime through information sharing and joint plans with UNPOL, INTERPOL, UNODC, the International Conference on the Great Lakes Region (ICGLR), Organization for Economic Cooperation and Development (OECD), the OSESG for the Great Lakes Region, the UN Group of Experts on the DRC, and prosecutors.

v) Continues advocating for legal and fiscal reforms to further formalize natural resources exploitation, particularly of artisanal gold mining, artisanal timber logging and charcoal production, in coordination with bilateral and multilateral development partners.

**Mandate Renewal**

13. In order to underline the importance of tackling the illicit side of the International Political Economy in the aspects that affect the DRC, the experts meeting in Goma proposed the following statement for consideration by the UN Security Council during the upcoming review of MONUSCO’s mandate:

“Authorizes MONUSCO to support national and regional efforts to investigate, prosecute and sanction members of armed groups and criminal networks engaged in national and transnational organized crime including, but not limited to, the illicit exploitation and trade in natural resources, such as gold and other minerals, wildlife, charcoal and timber, with special emphasis on addressing sources of conflict and safeguarding protected areas from armed groups, particularly, but not limited to, UNESCO World Heritage Sites."

**I. Background**

**Foundation:**

14. Pursuant to resolution S/RES 2147 of March 2014 requesting the Secretary-General to submit a report on a renewal of the mandate for MONUSCO that takes into account the evolving situation, UNEP decided to prepare a background report on the
role of environmental crime and threat finance in fuelling the cycle of conflict in eastern DRC, and to develop appropriate recommendations to address this predicament, in consultation with MONUSCO and other entities.

15. Previous reports by the UN Group of Experts (GoE) for the DRC to the United Nations Security Council (UNSC) have addressed the illegal exploitation of natural resources in the DRC and the GoE’s mandate was last renewed on 30 January 2014 (S/RES 2136). Furthermore, UNEP, INTERPOL and UNODC have been addressing the role and impacts of illegal natural resource exploitation, organized crime and threat finance in DRC, under their respective mandates.¹

16. On 29 January 2015, the UNSC deliberated on “The situation concerning the Democratic Republic of Congo”, based on resolution 1533 (2004). The Council renewed its sanctions on the DRC to prevent the supply, sale or transfer of arms, training, and financing, to armed groups. Following a briefing on the report of the GoE (S/2015/19), the UNSC adopted resolution S/RES/2198 (2015), which underlines the role of transparent and effective management of natural resources as critical for sustainable peace and security, stressing the respect for the GoDRC’s sovereignty but also its responsibility for effective natural resource management. The resolution includes seven operational paragraphs (OP 20 – 26) under the sub-heading “Natural resources”, and the sanctions regime (OP 5 (g)) includes illicit trade of natural resources, including gold or wildlife/wildlife products as listing criteria.

17. Importantly, resolution 2195 (2014), adopted by the UNSC at its 7351st meeting on 19 December 2014, regarding the role of organized crime for threat finance to terrorism and militant groups, underlines the role of transnational organized crime and smuggling of natural resources.

18. Based on the above, this report will seek to evaluate the extent and nature of both armed groups and of transnational organized criminal groups that are likely to be implicit in transnational organized environmental crime in eastern DRC.

19. Providing an overview of the threat posed by the involvement of militarized and transnational organized criminal groups in DRC and central Africa has required input from the relevant entities of the United Nations system including UNODC, the Analytical Support and Sanctions Monitoring Team, the UN GoE on the DRC, data from UNEP, the Food and Agriculture Organization (FAO) and official country reports from the region.

20. Furthermore, UNEP organized an experts’ meeting on environmental crime in Goma from 17 to 18 February 2015 to help obtain a more complete and up-to-date picture on the evolving situation of organized environmental crime in eastern DRC. A wide range of stakeholders including international organizations, Non-Governmental Organizations (NGOs), Government agencies and independent experts attended the

meeting. The contributions made at this meeting have also informed the preparation of this report.

**Objectives**

21. This background document aims to provide an overview and analysis of information on environmental crime and illegal natural resources exploitation in eastern DRC that appear to be of direct relevance to the success of MONUSCO in further fostering stability and consolidating peace in eastern DRC in a sustainable manner.

22. The report aims to address three major issues:

   i) It provides a summary of illegal exploitation of natural resources - minerals, wildlife, charcoal, timber, fish -, their economic value, smuggling routes and environmental degradation including of UNESCO World Heritage sites, and its linkages to conflict and threat finance to transnational organized criminal groups with links to armed groups operating inside the DRC and implementation of the PSC framework.

   ii) It identifies environmental and criminal information gaps and their implications for the long-term successes of MONUSCO in fulfilling its mandate to stabilize the eastern DRC.

   iii) It recommends actions to MONUSCO – in collaboration with OSESG and PSC Framework signatory countries - to address the evolving situation of environmental transnational crime, in close coordination with and in support of the GoDRC.

23. The above mentioned natural resources are examined because they are the most important in terms of exploitation value and volumes in the conflict zone. Control over land and its central role as the source for natural resources is recognized to also be one of the root causes of the conflict. However, it is not included within the scope of this study in order to focus on marketable resources that are taken out of the country. While the report provides preliminary estimates of the value and volumes of illegal natural resources exploitation and trade and insights on the networks involved, it underscores the need for a more concerted fact-finding and analysis effort. Related aspects, such as further legislation on extraction of natural resources and land use, and even more importantly, enhanced capacity-building to the PNC and the GoDRC Judiciary, should be further explored.

**II. Illegal exploitation of natural resources in the DRC – Gold, 3T and other minerals**

24. Illegal exploitation of natural resources in the DRC is concentrated around minerals, wildlife, charcoal and timber, as well as cannabis. The following sections will provide an overview with a range of estimates of the flows and their economic value based on estimates from the GoE, UNODC, UNEP and INTERPOL.
25. The major minerals mined in the DRC are the 3Ts - cassiterite (tin), wolframite (tungsten), coltan (tantalum) - gold, diamonds, cobalt and copper. Minerals are smuggled across borders to Rwanda, Burundi and Uganda, as well as in other parts of DRC.² Smuggling varies according to the value, weight and volume of the goods. There are trading centers for artisanal miners, which are collected and channeled by the ‘négociants’ to the larger dealers and exporters.

26. Artisanal 3T mining production quantities have declined because of international regulation, lower demand and thus lower prices, and depletion. Certification and due diligence measures have been introduced; most notably a regional certification system by the International Conference on the Great Lakes (ICGLR) the US Dodd Frank Act of 2010 and a voluntary initiative by the tin industry (ITRI). Such measures notably have an effect on external demand for minerals originating from the DRC. However, apart from the lower prices, it is unclear to what extent they have an impact on the ground where mining is done in harsh conditions by 200,000 – 550,000 miners with little knowledge of international legislation.³ At the same time, it is also important to recognize that due diligence sanctions have caused economic hardship and income losses to artisanal miners. Traceability programmes, including the creation of trading centers (Centres de Négoces) with IOM support, have so far been implemented in a few mining zones in North Kivu and South Kivu.

27. Although it is not yet possible to conclusively assess the impact of due diligence guidelines and certification schemes, it is evident that targeted sanctions on the DRC or on specific minerals are not sufficient to stop illegal natural resource exploitation from fuelling the conflict cycle. A more comprehensive approach that addresses the international trade in conflict resources and which is joined-up with other initiatives, including livelihood support programmes for artisanal miners, is necessary. Otherwise, organized criminal actors are able to circumvent legislation, for example by acting through intermediaries, whether relatives or business partners with the right kind of credentials. While some individuals may be barred from participating directly in mining, they are not necessarily prevented, for example, from investing in mining companies.

28. The total production of 3T in the DRC was about 8,379 tons for 2013.⁴ Unofficial numbers from the mining industry suggest a decline in 2014. Some of the decline

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⁴ S/2014/42 para 201; Total 3T Production in DRC 2013 was 8379 Tons (7567 T Tin, 697 T Coltan, 115T Wolframite). It is expected to increase in 2014 to over 12000 T. Source DRC Chamber of Mines 2014 Annual Report.
can be explained by increased smuggling.\textsuperscript{5} Unofficial surveying indicated that the 3T mines are largely located outside armed group presence. Nevertheless, about a quarter of 3T mines experience some level of involvement of armed groups.\textsuperscript{6}

29. The markets for the main minerals are fairly geographically concentrated. Tantalum is largely produced and sold in North Katanga; Rubaya in Masisi territory of North Kivu, and Shabunda, South Kivu. Tin is produced in Katanga; Nyabibwe in Kalehe territory, South Kivu; northern Pangi in Maniema. It is also sold in Mubi, Walikale; Ndjingala, North Kivu; Hombo, Kalehe, South Kivu. Smaller hubs in Punia, Maniema; Shabunda, Walungu; Nzibara, South Kivu, and Lemera, Uvira, South Kivu. Smuggling of tantalum occurs from Rubaya, via Goma, and to Rwanda. It is done by trucks at small border crossings in the area around Goma, specifically Makoro and the ITG cemetery.\textsuperscript{7} In another example, a militia in Shabunda, South Kivu, controls cassiterite.\textsuperscript{8}

30. The exports, as reported by UNEP-INTERPOL in 2010 based on various sources including the GoE on the DRC were 14,694 tons of cassiterite valued at 45 million USD, 1,193 tons of wolframite, valued at 4.27 million USD, and 393 tons of coltan valued at 5.42 million USD.\textsuperscript{9} These exports are around 61–7 per cent of official production estimates.\textsuperscript{10}

31. The official export from artisanal gold mines in the first half of 2014 was 150.58 kg.\textsuperscript{11} The quantities for Jan-Oct 2013 were similar, 180.76 kg.\textsuperscript{12} However the GoE estimates that this represents less than two per cent of the total produced, estimated at ten tons in 2013, at a total value of about USD 391- 418 million, depending on purity.\textsuperscript{13}

32. Gold is by far the most important mineral being mined by artisans in eastern DRC, as four out of five miners are digging for gold. Estimates of the illicit transport of gold from DRC is estimated to range from a low of 3.3 tons to a likely overestimate of up to 40 tons of gold annually.\textsuperscript{14} This is in contrast to official export figures of tens to over a hundred kg of gold per year.\textsuperscript{15} The value of illicit gold exports at the destination has been estimated to be in the range of USD 118 million\textsuperscript{16} to over 1.8

\textsuperscript{5}S/2015/19 para 165
\textsuperscript{6}S/2014/42 para 201
\textsuperscript{7}S/2014/42, para 204.
\textsuperscript{8}S/2015/19, para 158.
\textsuperscript{9}Group of Experts letter to UNSC dated 10 December 2008 concerning DRC, (S/2008/773)
http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/DRC%20S%202008%20773.pdf, para 128.
\textsuperscript{10}S/2008/773, para 128.
\textsuperscript{11}S/2015/19, annex 56
\textsuperscript{12}S/2014/42 annex 62
\textsuperscript{13}S/2014/42 annex 64
\textsuperscript{14}The estimates range from the low 3.3 tons of UNODC 2011, the medium of Group of Experts 10 tons and the high of DRC’s Senate, the latter cited in UNODC 2011, page 66.
\textsuperscript{15}S/2014/42 Annex 62; UNODC 2011, page 66
\textsuperscript{16}Using 2010 price of gold.
billion\textsuperscript{17}, most likely in the lower third of this range.\textsuperscript{18} For the purposes of this report ten tons of gold will be used to estimate the smuggled value. The sale of gold is spread out across eastern DRC. The majority of local mineral markets- 92 per cent- have gold for sale.\textsuperscript{19}

33. Previous estimates have shown that official exports from recipient countries from DRC, mainly Uganda, Burundi and Rwanda are in the range of 61-70\% of actual exports.\textsuperscript{20} In many cases, such as with gold, the discrepancy is much higher. Uganda exported seven tons of gold in 2006, 318 times the official production figure of only 22 kg that year according to UNODC.\textsuperscript{21} Burundi officially exported two tons of gold in 2008, of which at least one ton is suggested to have originated in the DRC. Similarly, Rwanda exported nearly twice its production as well, though only around 38 kg in 2008.\textsuperscript{22}

34. Similar patterns are observed for diamonds. Artisanal production accounts for perhaps 75 per cent of the DRC production. The Kimberley process reportedly accounts for some 30 million carats (60\%) of the diamond production in DRC, so that smuggled diamonds likely account for 20-24 million carats per year.\textsuperscript{23}

\section*{III. \quad Illegal exploitation of wildlife}

35. There is vast and uncontrolled illegal exploitation of wildlife in DRC, mainly for bush meat. While the value of this is high, and it has a major impact on the abundance of biodiversity and wildlife, it has a limited importance as threat finance or as a driver of conflict.

36. At the same time bush meat, often poached in protected areas including UNESCO World Heritage Sites, is an important resource that enables rebel groups to sustain themselves in inaccessible and tactically favourable terrain. Even modest amounts can provide armed groups with protein and a source of cash to maintain themselves while rebuilding through recruitment and re-establishing their information and logistics networks, including support from abroad. The Lord’s Resistance Army (LRA) is an example of this, and so was the late Paul Sadala/Morgan of the militia Mai Mai Morgan, who took refuge in the Okapi Wildlife Reserve. The Forces de Libération du Rwanda (FDLR) and the Allied Defence Forces (ADF) also rely on similar tactics.

37. The vast majority of elephant poaching in Central Arica for ivory takes place far outside normal striking ranges and areas of operation for militant groups. Except for killings of elephants in Garamba National Park, the majority of elephants that have

\textsuperscript{17} Using 2015 price of gold, before expenses.
\textsuperscript{18} For price of gold see S/2014/42, Annex 63
\textsuperscript{20} IPIS Analysis of the interactive map of artisanal mining areas in eastern DR Congo: May 2014 update, page 11.
\textsuperscript{21} S/2008/773, para 128.
\textsuperscript{22} UNODC 2011, page 67
\textsuperscript{23} UNODC 2011, page 16
been killed or are still alive are confined to central and western DRC, Gabon, Tanzania, and southern Africa – way beyond the striking range of these militant groups. In Garamba National Park the confirmed poaching in 2012 was 40 elephants, and in the first nine months of 2013 16 elephants.\textsuperscript{24} In 2014 at least 131 elephants were poached in Garamba.\textsuperscript{25} Hence, while ivory poaching may have played a larger role to some groups, the elephant populations within the provinces of Maniema, North and South Kivu and Orientale are so heavily reduced in numbers that their role as threat finance or strategic control is at best peripheral now. UNEP-INTERPOL has estimated that the scale of income for all militant groups across DRC, CAR and even into Cameroon for ivory is four to twelve million USD per year at most.\textsuperscript{26} In DRC, the majority of elephants have been killed in the past decade.

38. Of the estimated 22,000-25,000 elephants killed in Africa every year by poachers according to UNEP, the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) and IUCN, probably less than 2,500 elephants are killed in the DRC given the distribution of elephant populations and numbers.\textsuperscript{27} Furthermore, the majority of the remaining elephant populations are located in western DRC and Gabon, not in the Kivu region, Maniema or Orientale provinces. Remaining elephant populations are far too low, even in Garamba, to fund any significant militant activity, although illegal killing continues. Indeed, the number of elephants within the striking range of the militants is in the range of hundreds to the low thousands at the highest.\textsuperscript{28} The ivory that is traded is generally shipped west through Kisangani, east through Bunia, and south through Beni and Butembo.\textsuperscript{29} Some ivory has been transported by plane or helicopter including to South Sudan and Uganda.

39. Using estimates from UNEP-INTERPOL, the proportion of elephants killed by non-state armed groups such as militias in, near or within their maximum 500 km striking range, is still low. With a price range of USD 150–400 per kg and ten kg of ivory per elephant on average, the gross value of ivory to criminal armed groups amounts to ca. 2,565–3,065 killed elephants per year or 25.7–30.65 tons of ivory, giving a possible maximum range of ivory as threat finance to all African non-state armed groups of ca. USD four–12.2 million, dependent upon their ability to strike elephant populations at greater distances.\textsuperscript{30} However, most of the militant groups are confined to a smaller zone in eastern DRC, greatly reducing their ability to kill elephants in any areas where the abundance of elephants is higher.

\textsuperscript{24} S/2014/42, para 227
\textsuperscript{26} UNEP-INTERPOL, 2014, The environmental crime crisis. A rapid response assessment. \url{http://www.unep.org/unea/docs/RRAcrimecrisis.pdf} page 8
\textsuperscript{28} S/2014/42 para 226
\textsuperscript{29} S/2014/42 para 236
40. Indeed, less than 100 elephants are killed by non-state armed groups in eastern DRC every year, simply because there are so few elephants left. Using estimates from UNEP-INTERPOL and local sources, with an average of 1.8 tusks per elephant and 5.5 kg per tusk and a local price of USD 70–400 per kg, then the possible maximum income is only 70,000–400,000 USD per year for local non-state armed groups.

41. There are three levels of stakeholders in this trade.

i. Local markets, typically around protected areas, with hunters and handicrafts working ivory products. Ivory prices at this primary level can be as low as USD 70 per kg, as reported for example in Ituri, Orientale.

ii. Intermediate markets in transboundary towns involving small-scale traders. Prices at this level typically are around USD 120-150 per kg of ivory, for example in Kisangani, and in Beni/Butembo.

iii. Transit markets, comprising the main cities in central Africa including Kampala, Juba, Kigali, Burundi, Kinshasa, Lubumbashi and Lusaka. Northeastern DRC towns, Nairobi, Mombasa, and Dar –el- Salaam are also important transit points. In these areas ivory prices are in the range of USD 600-800 per kg.

42. The smuggling routes for wildlife are the following:

i. In the northeast, active routes include:
- Mambasa – Bunia/Beni – Kasindi/Kasenyi – Kampala--
- Garamba/Dungu/Ariwara – Kampala
- Biliueré/Digba – Juba – Darfur

iv. In the east, less active, but still important routes include:
- Goma/Bukavu, DRC to Kigali, Rwanda
- Kalemie, DRC to Kigoma, Tanzania

v. In the west, active routes include:
- Mbandaka/Oshwe to Kinshasa and to China/Thailand
- Mbandaka/Matadi to China

vi. In the south, a low activity route is:
- Kundelungu/Upemba/Malembakulu to Lubumbashi and then to Zambia.

43. In addition to ivory other wildlife including live animals such as African Gray Parrots (listed on CITES Appendix II requiring trade controls) are also trafficked along these routes and often taken to hubs where they are collected for trans-shipment. Hubs of live animals can be found in Kasindi and Bukavu, for example. These routes also overlap to some extent with timber and charcoal routes.

44. Wildlife trafficking has multifaceted effects including tourism decline, loss of biodiversity and a generally even more limited protection of wildlife in the affected areas. Rapid population growth and urbanization is increasing demand for protein leading to illegal and unregulated harvesting of wildlife including fish. Armed groups posturing as protection vigilante against other militias, typically ransom wildlife trafficking. This dynamic also applies to charcoal.
45. While evidently ivory poaching is happening, including by a few dozen LRA fighters and other armed groups, its role in the conflict is peripheral in terms of threat finance. However, the significant decline of elephant and other wildlife populations in the region is having devastating environmental impacts. Large ivory seizures, such as in Uganda, likely represents transits from central parts of DRC or elsewhere, not eastern DRC. It therefore does not represent a significant threat finance compared to other natural resources such as charcoal or gold.

46. The great lakes in DRC have been under heavy fishing pressure for the last three decades. In Lake Edward, for example, at least 30,000 households rely on fishing. About 83 per cent of close to 4,000 fishing boats are illegal. Fish is typically consumed fresh locally, or is preserved by artisanal smoking, salting and sun-drying methods and sold at local and regional markets. The typical price for one average to larger sized fish is 1,000–2,500 DRC Francs, increasing by 20 per cent when transported to Goma. Taxes in the legal fishery villages are typically up to USD 20 per boat per year. The fish is transported to the bigger towns in the area, largely northwest to Butembo/Beni, west and south to Bukavu and Goma. Fish is also exported out of the Virunga National Park.

47. The total fish catch on Lake Edward in 2014 is estimated at about 19,400 tons, at a value of USD 35 million, with an average price of USD 1.8 per kilogram. About 30 per cent of this catch is commercialized and the rest consumed locally.\textsuperscript{31} If one percent of the commercialized illegal fishery income goes to armed groups and 10 – 30 per cent reaches organized crime networks through illegal taxation of transportation or actual fish catch, this amounts to USD 105,000 to militias and about USD one to three million to criminal networks. If roughly the same applies to Lake Albert, Lake Kivu, and Lake Tanganyika the income for armed groups is about USD 420,000, and for criminal networks USD four to twelve million per year from fisheries. Clearly this is an area where there exists a significant information gap, requiring concerted information collection and analysis.

IV. Illicit exploitation and trade in charcoal

48. Charcoal constitutes the primary energy supply for 70-90 per cent of households in the Central African region. With rapid population growth and urbanization, the demand for charcoal continues to grow, and is likely to increase threefold by 2050. In neighbouring Uganda, Rwanda and Burundi, deforestation is well advanced with most of the natural forests having been cleared. Currently, charcoal consumption in these countries is substantially higher than domestic production and supply.

49. The following table provides an overview of charcoal production in the region based on estimates from FAO and official country statistics:

\textsuperscript{31} IUCN Lake Edward in Virung NP – DRC: Quickscan Illegal Fisheries
50. From the above table, it can be deduced that charcoal is being produced and transported cross-border at a much more extensive scale than well-known localized cases, such as the Virunga National Park. However, more concerted information collection and analysis appears required to ascertain charcoal production areas, transport routes and volumes. Investigation by UNEP-INTERPOL have estimated threat finance to non-state armed groups from taxing the charcoal trade in the Trans-Sahara is in the range of 111-289 million USD annually.\(^ {33}\) The official transport across border (i.e. import and export) – is in the range, however, of a half to eight truckloads for these countries.\(^ {34}\)

51. These are severe underestimates, reflecting the vast scale of the illicit transport. Furthermore, even in the short time of this report’s preparation, it was possible to obtain photographic documentation of trucks transporting charcoal in the border regions. Over twelve interviews with rangers in Tanzania, Uganda, Rwanda and Burundi confirmed substantial illicit trade, and mainly from DRC going east to Rwanda, Burundi and Uganda. Only minor traffic of charcoal from Tanzania was reported to these three countries.

52. There is considerable taxing at border points and during transport of charcoal. Investigation by INICA and the United Nations Commission for Africa (UNECA) in 2007 suggested that for a bag of wood charcoal originating from Masisi and sold in Gisenyi, traders pay 32 per cent of the initial purchase price in taxes at the DRC

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\(^ {32}\) FAOSTAT Forestry: Forestry production and trade database
http://faostat3.fao.org/browse/F/*/E; Global Forest Watch
http://www.globalforestwatch.org/countries

http://www.unep.org/unea/docs/RRAcrimecrisis.pdf page 8

border and an additional 18 percent at the Rwandan border for a total of 50 per cent of the initial purchase price.35

53. Several militant groups have in the past relied on taxing of charcoal for income generation, including FDLR, various Mai Mai groups and until recently, ADF also outside their main operating areas. FDLR makes about USD 600,000 per year on taxation of charcoal alone in the Karenga village are, northeast of Goma. The majority of this charcoal was sold in Goma. The National Congress for the Defense of the People, now dissolved, made at least 700,000 USD in one year by controlling the Bunagana border control post to Uganda.36 They made an estimated USD four million annually on charcoal taxation. There is significant deforestation along the FDLR controlled area along highway N2 Beni-Butembo-Goma, and along N2 Mukoloka-Bukavu. Parts of N3 Bukavu-Kisangani are vital income sectors for FDLR. Mai Mai and FDLR presence is strategically located to enable taxation of charcoal traffic bottlenecks, as well as minerals along road corridors.37

54. The largest deforestation in the recent decade in North Kivu, as observed by satellite imagery, has taken place around and north of Butembo. There is significant transport of charcoal – and some timber – across the Mpondwe terminal to Uganda, feeding into the primary north-western charcoal supply route to Kampala. While a large number of charcoal carrying trucks have been observed, there are currently no adequate data records to make reliable estimates. The extent of cross-border charcoal traffic and smuggling routes is an information gap that needs to be addressed.

55. Several thousand artisanal producers of charcoal in North- and South-Kivu, Maniema and Orientale provinces produce charcoal for all the provincial capitals and the larger cities including Goma, Bukavu, Kisangani, Kindu, Beni, Butembo, Bunia and Rutshuru. In addition, they also supply Bujumbura (Burundi), Kigali, Ruhengeri, (Rwanda) and may even reach up to Arua and Kampala, Uganda.

56. Whilst the security dynamics have since changed along the lines suggested in the introduction (which suggests that the trend identified below is increasing), a survey by the Ugandan Ministry of Mineral Development of charcoal inflow to Kampala in 2004 found trucks that were upgraded, indicating investors with funds and sufficient profits were willing to invest in the charcoal transportation infrastructure.36 The study found that charcoal transporting trucks travelling on the main roads from the districts to Kampala accounted for the following supply percentages:

- Luweero 25.3 per cent located immediately northwest of Kampala
- Nakasongola 14.5 per cent located north of Luweero

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35 INICA-UNECA. 2007. Natural resources and trade flows in the great lakes region.
36 S/2008/773 para 35
37 See deforestation maps based on satellite monitoring at www.globalforestwatch.org
• Kiboga 13.6 per cent located west of Luweero
• Mpiigi 10.8 per cent located straight west of Kampala, on Lake Victoria
• Masindi 6.9 per cent located northwest of Luweero, east of the northern tip of Lake Albert.

This suggests that 71 per cent of the charcoal to Kampala arrived from the west and northwest, in 2004.

57. In the 1980s the local triangular trade made Arua (Uganda side) and Ariwara (DRC side) into key smuggling/informal trade hotspots. However, since then Ariwara has become less important as a result of the fragmentation in the supply sources from intensification of the war in that part of the DRC. Consequently, Beni and Butembo have emerged as hot spots for charcoal smuggling and informal activities. When instability increases, the cross border trade has tended to consolidate closer to the borders, rather than relying on larger regional centers further away.

58. Correspondingly, there is charcoal traffic from the entire region north of Bunia, including to Arua and to Sudan. Arua allegedly only receives around two-three trucks every Wednesday, amounting to an annual value of ca. 1,500 tons or around USd 300,000-900,000 – to Arua alone. This trade passes directly through former ADF controlled roads.

59. The character of the trade in charcoal varies according to local circumstances, and ranges from systematic production and logistics for cross border smuggling and to local business opportunity integrated with local livelihoods where the majority of the charcoal is consumed locally. It would require a significant concerted effort in information collection and analysis to determine exactly which type of trade is going on and where, in order to break up organized crime networks without disrupting essential local livelihoods.

60. The following are key charcoal production and transportation routes and deforestation rates for the period 2001-2012 (based on loss of areas with >30 per cent canopy density from satellite based analysis).

• From Mahagi-Arua-towards Isiro and up until the Sudanese border. This 200 km route is an important corridor to the north, which passes territory formerly held by the ADF militia, now controlled by FARDC. Here deforestation has been around 1.7 per cent since 2001 (ca. 1,747 km² deforested)

• The Butembo – Bunia – region – with transport across Mpondwe border post to Uganda. Here deforestation rates have been among the highest in eastern DRC, ca. 3.4 per cent due to charcoal production and some subsequent farming (ca. 1698 km² deforested).

• The Virunga-Butembo-Goma region, which traditionally has seen most attention regarding charcoal. Here deforestation rates are estimated at 1.5 per cent (ca. 563 km² deforested).

• The Bukavu-Shabunda-Kalemi sector – deforestation rate ca. 2.2 per cent (ca. 982 km² deforested)

• The Kindu sector comprising the areas mainly east of Kindu all the way to Shabunda and Kasongo. – deforestation rate ca. 4.3 per cent (ca. 2,392 km² deforested)

Key roads:

• Sake – Rutshuru triangle (North-Kivu, DRC) and the Virunga are important to feed Goma, and they are covered in part by the FDLR militia (Barriere de Munigi and Ruhundu market).

• From Kisangani, Orientale to Bukavu, South Kivu (both DRC) along the N3 highway. There is a lot of charcoal production along this sector.

• Komanda-Bunia-Beni triangle (Ituri, Orientale and North Kivu). Komanda is a major charcoal supply center for Bunia and Beni. In recent years, militias have controlled the charcoal trade in Komanda.

• The Kampene – Kindu – Kalima, (all three Maniema, DRC). Shabunda, in South-Kivu, is also an important area for charcoal production.

• The Kamituga – Mukoloka – Shabunda triangle and the Tumungu-Mukoloka-Mwenga triangle, both in South Kivu, DRC.

• Some charcoal production in Kikagati, Uganda crossing the border from Rwanda and Tanzania, has been confirmed by photo evidence, however it is minor compared to flows from DRC.

61. It is evident, that despite the heavy focus on the Virunga National Park and Goma charcoal market, similar deforestation largely attributable to charcoal production and subsequent farming can be seen in the region east of Arua. Furthermore, while the supply to Goma comes through FDLR controlled areas, the larger flows, apart from those to Kindu and Bujumbura, originating from areas in South Kivu and Maniema, involve even greater deforestation rates and charcoal production. One of the largest areas of intensive deforestation appears to be located north of Butembo, and is an important supply source for Uganda.

62. There is little doubt that unlike gold and diamonds and some minerals shipped by air, the charcoal transporting trucks passing through the abovementioned areas are not only a vital source of income to local militias, but also to those networks who purchase and distribute the charcoal.

63. Based on deforestation estimates the charcoal trade in the region is likely to be substantial. The main deforestation and charcoal production to Goma comes from the Virungas and surrounding areas, but only represents ca. 8 per cent of the
deforestation along the roads in easternmost DRC. This means that the likely overall production of charcoal is vastly underestimated.

64. The countries in the region generally report a maximum extent of import-export in the range of a half to eight truckloads per year. This contradicts findings of the UN Group of Experts and reports from UNEP-INTERPOL regarding a significant trans-border trade in charcoal.

65. In eastern DRC, approximately 61,532 ha of forest have been lost annually since 2001. At national level, it is estimated that an average 210 ha of forest are needed to produce 1,000 tons of charcoal. This suggests that the annual production of charcoal in eastern DRC is at least 293,000 tons of charcoal per year, at a value of USD 58.6-175.8 million. This number is still far too low to explain the apparent great deficit in Uganda, and especially in Rwanda and Burundi, suggesting that 293,000 tons of annual charcoal production may be a significant underestimation.

66. Based on estimates from the charcoal market in Goma, charcoal production could be up to three-fold larger; although Goma may also receive charcoal from Maniema or from Butembo. The possible income to organized crime, typically taxing the trade at 10-30 per cent, is then in the range of USD 11.7-35.1 million. This suggests, as observed also from the mineral trade, that transnational crime is significantly involved in the trade.

V. Illegal exploitation of timber

67. At present there is only one legal timber concession in DRC. The majority of the illegal timber leaving DRC goes to Uganda, with the main market being Nairobi, Kenya. According to available reports up to 800,000 m³ round wood equivalent (RWE) crosses the border at a price of USD 200 per m³. This is thirteen times the amount reported by FAO. Therefore there is considerable uncertainty around these estimates. UNEP-INTERPOL have also confirmed timber smuggling from DRC to Uganda. In Ituri and the ‘Grand Nord’ of North Kivu the trade is structured, including pre-financing from Uganda. Logging hot spots in DRC include:

- West and north of Beni, North Kivu, DRC. Beni is a key junction town west of and between Lake Edward and Lake Albert. Transportation goes southwest to the Kasindi/Bwera crossing just north of Lake Edward.

- Planks and timber crosses from Beni, North Kivu, to Komanda, Mambasa and Nai-Nai in Ituri/Orientale, DRC. Logging hotspots are found along the way. The area is severely deforested, particularly the southern part.

- Between Bukavu, South-Kivu and Kisangani, Orientale, via Lubutu, Maniema, which is heavily deforested.

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• Virunga National Park

• The Semliki area and the Semliki River, where timber is sent along the river and picked up downstream as it crosses the border. Even firewood passes over to Uganda, and also west inland because of deforestation. About 1,000 ton of firewood is sold to Uganda per month, crossing at the Karamanga/Nobili border.

68. The following border crossings have depots from which the timber is taken across the border from eastern DRC to Kampala and Nairobi:
   i. Kasindi/Bwera: 70 per cent of the timber trade
   ii. Mahagi: 20 per cent of the timber trade
   iii. Goma: 10 per cent of the timber trade

   Most of this timber is likely to be precious hardwood, as species are normally not checked at the border.

69. Timber is transported into Rwanda from DRC, despite lack of official figures on imports from DRC. According to locals this happens at official border crossings at Goma (DRC) / Gisenyi (Rwanda), at the north end of Lake Kivu and at Bukavu (DRC) at the south end of Lake Kivu. In addition there are unofficial crossings over Lake Kivu to Kibuye (Rwanda) and across the Ruzizi River (which flows from Lake Kivu to Lake Tanganyika) to Rwanda. Timber is also transported into Burundi at the Kavimvira (South Kivu, DRC) / Gatumba (Bujumbura Rural, Burundi) official border crossing. Informal crossings are taking place to the north where crossing the river is not checked, or across Lake Tanganyika.

70. The official taxation of timber is practically non-existent, with the exception of the Kasindi border where marginal fees are charged. The reason is that under Congolese law, taxes have been set for logs but for sawn timber products. The profits for organized crime are in the actual trade, and illegal taxation in areas occupied by armed groups. In addition, it is possible that the cross border passage is unofficially taxed as part of the structured pre-financing, which happens off the record. The trade is worth between USD 160 million. If 10-30 per cent of the timber trade’s worth goes to organized crime, and 1 per cent to armed groups, they will make USD 16-48 million and 1.6 million respectively.

VI. Environmental impacts of the illegal exploitation and UNESCO World Heritage Sites

71. Four out of five UNESCO World Heritage Sites in DRC are located in the conflict zone in the eastern DRC. These are Virunga National Park; Kahuzi-Biega National Park; Okapi Wildlife Reserve and Garamba National Park. All these parks have armed groups present and to varying degrees illegal exploitation of natural resources is taking place. All five UNESCO World Heritage Sites have been on the danger list since the mid-to-late 1990s and remain so to this day.
72. The primary environmental impact of illegal exploitation of natural resources in eastern DRC include the extensive unregulated bush meat trade, habitat destruction particularly for charcoal production and to a lesser extent from illegal logging and mining, and associated pollution.\textsuperscript{41}

73. Two distinct populations of the critically endangered mountain gorillas are present in the region (\textit{Gorilla beringei beringei}); one in the Virunga - Volcanoes Conservation Area shared by DRC, Rwanda and Uganda, and one mostly in Bwindi Impenetrable National Park, Uganda and which is contiguous to the Sarambwe Gorilla Special Reserve in the DRC. The habitats of these gorillas are heavily exposed to deforestation from burning of charcoal. Militants have targeted gorillas as retribution because rangers have interfered in the illicit charcoal trade. Over 200 rangers have been killed by militants due to this interference in threat finance to militants.

74. Increasing deforestation, not just in the Virunga National Park, but also to a greater extent outside the conflict zone (see charcoal) to the southwest, west and especially up in northern and northeastern DRC is a major threat to biodiversity and wildlife.

75. In addition, the extensive bush meat trade which feeds mining camps, logging camps as well as the rising population is a major and serious threat to wildlife, although its role for threat finance is negligible.

76. There is little doubt that the unstable security situation prevents proper management of natural resources, but it is also important to note that in spite of the poor security situation, the programmes to protect wildlife and especially the gorillas in the UNESCO World Heritage Sites and surrounding parks represents an important conservation success story.

77. There is evidence that political and economic interests encourage the surrounding population to establish themselves inside the park, so that part of it can be declassified and exploited commercially (logging, oil extraction, etc.)\textsuperscript{42}

\textbf{VII. Smuggling routes and modi operandi}

78. Smuggling of any type of products by traffickers takes place in local border crossing areas along a large number of parallel and crisscrossing routes, using every possible means of transportation from walking to luxury SUVs. Some smuggling by producers or dealers may take place in any form or location. The Uganda-DRC border in

\textsuperscript{41}UNEP. 2011. DR Congo. Post-conflict environmental assessment. \newline\texttt{http://postconflict.unep.ch/publications/UNEP_DRC_PCEA_EN.pdf}

\textsuperscript{42}Global Witness: ‘Drillers in the mist’: How secret payments and a climate of violence helped UK firm open African national park to oil. \newline\texttt{http://www.globalwitness.org/sites/default/files/library/drillers_in_the_mist.pdf}
northwest Uganda is estimated to have 300 smuggling routes, often referred to as *panya* routes, and only six official border points.43

79. Gold and diamonds are primarily smuggled by air, typically by helicopter or fixed-wing small aircraft to a landing strip, then by low-level flying to air strips in one of the three countries. Often companies may have affiliates in both countries or a *comptoir* simply ships it with a courier onboard an airplane, so the products reach the companies or recipient courier and become laundered by mixing them with legitimate or legal production. This is very similar to common practices in environmental crime modus operandi, as reported by UNEP and INTERPOL for illegal fisheries, timber smuggling and charcoal smuggling. Diamonds rarely exit DRC by road across border crossings, with the exception of small scale artisanal producers. Accumulated significant or regular amounts are most likely to go by air due to risk, trust and exposure of courier.

80. With a gold production of anywhere from three to 40 tons, a lower estimate of four tons per year, unregistered small fixed-wing flights would leave DRC several times per week to Uganda, Rwanda and Burundi. The likely distribution of shipments would involve a maximum of ten comptoirs or companies in addition to small-scale smugglers. For each comptoir, a smuggling annually of 400 kg of gold would likely be distributed across individual transport sorties of 1-5 kg gold per shipment. They would rarely be over 20 kg. This method would reduce the risks of storage in a high-risk zone and reduce exposure risk during transport to a minimum.

81. Most likely the majority of such high-value smuggling would go to a very limited number of locations and groups based in or operating through the neighboring countries. The same likely applies to diamonds in order to reduce the risk of couriers with land transport, although land transport will occasionally occur for both gold and diamonds. This means that control of airstrips and airspace is imperative to prevent gold smuggling in the region. Aircraft are fast and discreet, and is a footprint free means of crossing borders.

82. Currently DRC has 239 registered airstrips, where only 18 operate with customs, mainly in cities. There are 83 airstrips registered as private and not open to the public. The districts of Maniema, Orientale, North- and South-Kivu provinces have a particularly high abundance of shorter airstrips. Given the quantities of gold shipped, the poor quality of roads, abundance of vehicle check points and rebel groups; all high value items like gold, diamonds, local arms and ammunition in the region are most likely transported by small aircraft, either directly to the main individual recipients in Uganda, Rwanda and Burundi, or via other small air strips easily circumventing possible monitoring efforts in larger border towns. Indeed, in 2007 DRC’s authorities tried to reduce the number of small aircraft flights by imposing stricter safety standards on Antonov aircraft. While potentially impacting

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some smuggling of minerals, this has not reduced the gold smuggling which can be done by sending a ‘parcel of value’, which authorities are not allowed to open.44

83. North- and South Kivu have 17 large and 70-100 small gold mines. There are 728 gold mines in Ituri, Province orientale. The gold trading takes place in many of these mines openly from the extraction point onwards. The gold is usually transited through the following smuggling hot spots:

- Bukavu, South Kivu, DRC smuggled from mines in South Kivu and Maniema provinces.
- Butembo and Beni, North Kivu, smuggled from mines in North Kivu, Maniema, and Orientale provinces. Gold traders operate openly in Butembo, and both FDLR and ADF militias have trade networks here. ADF also has a network in Beni. The gold is typically traded in Kampala.
- Bunia, Orientale, smuggled from Ituri, mainly Irumu (209 gold mines), Mambasa (343 gold mines), and Djugu (230 gold mines) territories. The gold is typically traded in Kampala.
- Ariwara, Orientale, smuggled from Ituri, Aru territory, and Haut-Uélé districts. Nearby Arua is also a smuggling hotspot. Ariwara has been a smuggling hotspot since Ugandan refugees arrived in 1979 following the war with Tanzania.
- Kisangani, Orientale, smuggled from throughout Orientale and from Wallisale in North Kivu.

84. These smuggling routes include overland crossings through all the border points. They are confined to a limited number due to topography, except in the far north towards Arua. In addition, over the last decade, transport of charcoal in particular has increased through northern DRC to Uganda and South Sudan. Charcoal is even being shipped through Uganda and southwards to Kampala, Kasese, and Mbarara and into Rwanda to Ruhondo and Kigali, as well as over the lakes by boat. Coltan is also being shipped by boat, such as from Yungu beach in Yakutumba controlled territory in collaboration with FDLR to Kigoma and Burundi.

85. Major border points have previously been fully controlled by militant groups to tax especially the charcoal trade, such as at Rutshuru.45 Significant smuggling also takes place across the lakes by boat to and from DRC. Some militants have even focused strategically upon taking control of coastlines and small ports in DRC to facilitate transport outside of the border points.

86. Given a combined estimated volume of the 3T minerals smuggled as 5 per cent (400 tons) of production (8,379 tons)46 and that most smaller aircraft (such as Beechcraft 1900D; Short 330; Let L-410 Turbolet; CASA C-212 Aviocar; Dornier DO-228; and especially DHC-6 Twin Otter, Cessna 208 Caravan and Antonov An-28) will carry 2-3

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45 S/2008/773 para 113
46 Total value 3T exports 2013 (Sn 66.95 Mio USD, Ta 20.03 Mio USD, W 124 K USD) [http://www.mines-rcd.cd/fr/documents/statistiquesminieres2013.pdf]
tons maximum payloads, most of these minerals, except possibly wolframite, would have to be shipped near daily by plane or weekly by road, given a truckload of ca. ten tons, but from multiple locations. This corresponds well with reports of militia groups taxing truckloads along roads and where they control border crossings. The scale, volume and weight of these minerals means that the risk of attack and seizure is much lower, as they are not as easily re-sold on the free market, as is the case for gold or diamonds.

87. The official export from artisanal gold mines in the first half of 2014 was 150.58 kg. The quantities for Jan-Oct 2013 were similar, 180.76 kg. However the GoE estimates that this represents less than 2 per cent of the total produced, estimated at ten tons in 2013, at a total value of about USD 391- 418 million, depending on purity. The gold is smuggled out to UAE, Lebanon, India and other Asian countries through neighbouring transit countries, typically through these main cities:

- Kigoma, Tanzania, by boat across Lake Tanganyika. From there to Dar es Salaam, and onwards to Dubai. The gold is blended into official exports, and documents are provided.
- Kampala, Uganda since 1997. From Uganda the GoE estimate a very small number of actors smuggled about 6,761 kg of gold out, at a value of USD 271 million. They were the same actors that were the largest legitimate exporters prior to the UNSC export ban.
- Bujumbura, Burundi, and onwards to Dubai. All but 2 kg out of 2,537kg were officially exported to Dubai. This is believed to be a mixture of legal and illegal gold.

VIII. Economic value of illegal exploitation

88. It is impractical to quantify the extent of the illegal exploitation in exact numbers. Taxing at a rate of 10-30 per cent of commercial value is typical along the road network for charcoal, whereas for minerals it is at a lower rate. There is a critical need for increased accuracy on the illegal incomes to organised crime and to rebels benefitting from illegal exploitation. It is not possible to verify the extent of illegal natural resource exploitation in exact numbers. Taxation of minerals generally takes place closer to the exploitation site, rather than during transportation as precious metals are often flown out by small fixed wing aircraft or even helicopters. For this reason, higher value resources are taxed in a more sophisticated manner, and involve money laundering. Estimates of income to rebel groups from individual resources are therefore based on expert judgment compiled from a variety of sources including, but not limited to, the UN Group of Expert reports, UNEP-INTERPOL reports, MONUSCO maps on rebel presence r and other sources.

89. 3Ts: For cassiterite, wolframite and coltan, the export amounts are an estimated USD 22.4 million, 716,000 and 50 million respectively, for a combined weight of

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47 S/2015/19, annex 56
48 S/2014/42 annex 62
49 S/2014/42 annex 64
50 S/2014/42 para 188
90. **Charcoal**: For charcoal the equivalent amount is around USD 23.4m – 70.3m million locally (see para 43). The value of the charcoal trade in DRC is close to one billion USD annually, mainly to the major cities. Over 100,000 tons of charcoal is shipped to Kinshasa down river every year from northern DRC, with a value of USD 20-60 million per year. Most of the research on charcoal trade has focused on charcoal trade in the Virunga National Park and around Goma, valued at ca. USD 30 million a year. However, the really large-scale development in deforestation, chiefly related to charcoal production, has taken place north of the Virunga National Park and around the town of Butembo. Further north, rapid deforestation has taken place not just around Isiro (population 180,000 or 1/5 of Goma), but more importantly in low population density areas west of the Ugandan border town of Arua, where there is significant charcoal and timber smuggling, including to South Sudan.

91. Indeed, one of the largest increases in deforestation has happened inside the DRC, next to the two main routes of charcoal in western and northern Uganda supplying the Kampala region.

92. **Gold**: The economic value in 2015 of an estimated smuggling of ten tons of gold at the point of sale is USD 180 - 450 million. This suggests a possible net income of USd 40 - 120 million per year to organized crime, companies or comptoirs involved in gold smuggling. About 1 per cent of the total value, USD 4 million goes to militant groups who are known to conduct looting in villages including for food.

93. **Diamonds**: For diamonds, an annual export of 20-24 million carats a year amounted in 2014 to an estimated 458 million USD. However, most diamond mines are located in central Congo. There are a few mines in north-eastern Maniema Province, and in Walikale, North Kivu. The diamond mines are generally either without overt militia presence, or they are under the control of the government forces. The diamond resources available to militias are thus limited to raids with limited temporary control. It is unlikely that militias are able to control more than one tenth of one percent of the diamond trade, which equates to an estimated USD 0.5 million. Nonetheless, large scale smuggling of diamonds may take place above eastern DRC in small aircraft, rather than through it on the ground. It likely involves organized crime, and less so militias.

94. **Ivory**: For ivory, UNEP-INTERPOL estimate the possible net income in the central African and Trans-Sahara region to be in the range of USD 4-12.2 million; of which only a small fraction likely goes to militants in DRC. However, this does not account for the possible larger scale involvement of transnational organized criminal groups operating from Uganda, Burundi or Uganda, or other countries into Kenya, Tanzania, Zambia, Mozambique, Zimbabwe, Namibia, South Africa, Angola, and Botswana. Tanzania, Botswana and Zimbabwe account for well over half of the elephant population on the continent.
95. Hence, based on the lowest estimates of the value of illegally extracted and smuggled natural resources from eastern DRC the number, standard, equipment and behaviour of the armed militant groups indicate that their share of illegal natural resource exploitation may be critical to their operations and presence. The scale of the profits to armed groups, however, is insignificant in comparison to that going to transnational organized criminal networks outside eastern DRC. This is also in line with what was concluded by UNODC in 2011.51

**IX. Involvement of organized crime and threat finance with armed groups in DRC**

96. Although M23 appears not to have made income on mining, other armed groups have, such as Nduma Defense of Congo (NDC), the Front de Résistance Patriotique de l’Ituri (FRPI), Mai Mai Morgan and Mai Mai Raia Motumboki. The relationship between militias and mineral resources is complex. The following typology can broadly be observed:

- **Militias as security providers:** other actors control the mining operation and the militia is essentially used and potentially paid to keep other militias away. However, they are not the ultimate beneficiaries of the mining.

- **Militias stealing minerals:** unable to facilitate mining production, the militia steals what they can as a short-term activity.

- **Militias as producers:** effectively controls the mineral supply chain from extraction to sales to local or regional buyers

97. Currently, there are an estimated 25-49 armed groups active in eastern DRC, consisting of between only a few dozens to at least 1,200. The total number of armed combatants is likely to be in the range of 7,000. The groups generally have sub-standard equipment, despite an abundant supply of older weapons. Ammunition is a major expense. According to some estimates, with a yearly average cost of around USD 1,500 per combatant (despite major income discrepancies between commanders and rank-and-file fighters), USD 13.2 million would equip around 8,900 fighters. The number of fighters fluctuates depending on their availability and changes in the funding stream.

98. The total sum of this provides an expected possible net profit of at least USD 136 – 391 million from illegal exploitation and trafficking in natural resources to transnational organized criminal groups outside the DRC. If all the profits to transnational crime reached armed groups it would be possible to sustain up to 91,000 – 261,000 well equipped fighters at a cost of USD 1,500 per fighter per year. However, the choice appears to be a limited combined force of 6,500-15,000 fighters divided into many small groups. These groups are generally kept at a low standard and receive limited payment.

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51 UNODC 2011
99. For over two decades, the number of small, competing or collaborating, but independent, militant groups in eastern DRC has been high. This has contributed to preventing the emergence of a dominant group taking full control of the illegal exploitation of natural resources at any particular time. This in turn has helped external influence over the large-scale smuggling operations. The precise links between armed groups and organized crime networks both domestic and transnational in the region, and potentially wider, needs to be further investigated. Further exposing these links will help clarify one of the key driving factors of the entrenched conflict. The behaviour of most of the armed groups increasingly points towards interest in financial gains rather than a long-term political agenda. It can be assumed that the latter would in most cases lead to collaboration and centralization among the groups rather than the current fragmentation.

100. The distribution of armed groups in eastern DRC reveals a strategic presence in relation to trafficking corridors along roads, lake shores, border points or airports to the borders of Uganda, Rwanda and Burundi (see Annex 1, map).

101. Overall, the militant groups in eastern DRC increasingly do not appear to have intrinsic political ambitions any more. The wide and complex network of collaboration and animosities between these militant groups effectively creates a situation of instability. This in turn facilitates continuous illegal extraction and smuggling of natural resources out of eastern DRC (see Annex 2 and 3, incl. maps).

**Forces démocratiques de libération du Rwanda (FDLR)**

102. The government leadership escaping Rwanda following the genocide in 1994 formed the FDLR. They include the former army of President Juvenal Habyarimana and the Interahamwe militia. The group has spent around 20 years in hiding, operating in eastern DRC. The estimated 1,500 (according to the UN GoE)- 4,000 (according to Rwanda) strong FDLR militia raises funds from looting, gold mining and illegal taxation, as well as agricultural and charcoal production. FDLR also receives direct funding from the Rwandan diaspora in Europe. In addition, the FDLR also regularly collects money from Rwandan refugees in South Kivu. However, the militia suffers from low morale. They complain about the state of their weapons and uniforms, and they are ordered to loot to survive. This indicates that they do not retain any significant amount of the mineral or charcoal wealth that they collect, tax and/or loot. Instead, this suggests that the FDLR is a group that is used instrumentally rather than a group that controls large resources for its own enrichment.

103. FDLR’s gold mining is done in Kasugho in collaboration with Mai-Mai Lafontaine. The gold is traded in the thriving trading center of Butembo, North-Kivu, and then taken to Kampala, Uganda. FDLR has also mined gold at Birara/Bukavu, South Kivu, and collected taxes from mines at Miki and Kitopo, South Kivu. FDLR has sufficient mines under control causing the NDC/Mai Mai Sheka to clash with them for control. Nevertheless, studies show that FDLR only controls some 2.4 per cent of artisanal mines in the Kivus.
104. The FDLR splinter group, Ralliement pour l’unité et la démocratie (RUD) funds itself in the same way by looting, taxation, kidnap for ransom and gold mining.

105. The FDLR collaborates with certain Mai Mai groups in the exploration and trade of gold. There is complex and extensive collaboration amongst the armed groups (see appendix 3 for more details). Communication between the southern branch of FDLR in the Jakarta sector of South Kivu, and the northern branch in the Apollo sector of North Kivu is done by satellite phone.

M23

106. The M23 was a robust but short-lived Congolese insurgent militia that emerged in April 2012. The Congolese army with MONUSCO support defeated them, and their 1,500 strong members surrendered in November 2013. The fighters were typically not paid and had to loot money and goods to survive. M23 was not significantly involved in the mineral trade. Funding was typically from taxation of households, transport sector and commercial businesses. Some of this taxation was very lucrative by central African standards. Vehicle checkpoints charged the equivalent of several hundred dollars from trucks, depending on the cargo. Some of this profit was curtailed by competing militias also taxing, which brought down the traffic volume. The household tax was typically in the range of 1 USD per household, generating USD 3,000 per month. Although the group was defeated they reportedly continue to recruit inside Rwanda.52

Nduma Defense of Congo (NDC) a.k.a. Mai Mai Sheka

107. Mining businessman Sheka Ntabo Ntaberi in Walikale Territory formed NDC in 2009. According to some estimates, the group is assessed to number about 150-180 men only. NDC is allied with Raia Mutomboki, and opposes the FDLR. They were allied to M23 until March 2013. NDC are funded by controlling and taxing mines, including Montjolie and Irameso, in a fairly inaccessible part of Walikale territory. Sheka appears motivated to control more and more mines. He is in competition with FDLR for mines, and attacked FDLR in Fatua, South Lubero, North Kivu, in April 2014. In fact, a main combat motivation for NDC/Mai Mai Sheka is to defeat FDLR. NDC has largely evicted FDLR from Walikale. Repeated clashes between the groups have taken place in Pinga, South Kivu, where FDLR has lost control of mines.53

Allied Democratic Forces (ADF)

108. ADF is a group composed of largely Ugandan Muslims, and some Congolese. The group was strong in 2013, numbering about 1,200 – 1,500 fighters according to some estimates, and another 400-1,000 women and children. At that time they attacked locals, humanitarian workers and MONUSCO. This was followed

52 S/2014/42 paras 32-35
53 S/2014/42 paras 43-45
by decapitations of locals. Their stated aim is the overthrow of the Uganda government and replacing it with an Islamist regime.\textsuperscript{54} The group suffered heavy battlefield defeats in 2014 and is hiding in the bush with most of their leadership intact. This means that their area of control has shrunk from about 420 km\textsuperscript{2} in 2014, to nearly nothing. Two sub-units are hiding. The Jamil Mukulu group is believed to be in the bush in North Kivu, between Beni and Butembo. The other group is the Seka Baluku group, who are believed to hide in the Beni-Oicha-Eringeti axis. Their logistical support and recruitment network is likely to be intact, which makes it possible for them to recover as they have done before. The splintered group is estimated at about 200 members now with a maximum of 60-70 fighters. A number of the remaining members are leaders who do not typically fight. The UN Group of Experts for DRC concluded in 2015 that there are no links between ADF and foreign terrorist groups, including Al Qaeda, Boko Haram and Al Shabaab. For the latter case, this analysis is based on consultations with the UN GoE for Somalia and Eritrea who arrived at the same conclusion.\textsuperscript{55}

Kata Katanga

109. Kata Katanga is a loosely structured secessionist group based in Katanga Province. The group has been active since 2011 and is commanded by Kyungu Mutanga, a.k.a. Gédéon. In 2013, Kata Katanga launched small attacks on Lubumbashi, the provincial capital, and organized a strike on several strategic locations in Kinshasa. They have also carried out extremely violent rural attacks in Manono, Mitwaba, Moba, and Pweto territories. Kata Katanga has a sub-unit, CORAK, which has a military and political wing.\textsuperscript{56}

Forces de resistance patriotiques en Ituri (FRPI)

110. FPRI is a group which controls a part of Irumu territory in Ituri, Province orientale that includes gold mines and an oil exploration area near southern Lake Albert and the Semliki River. According to some estimates, they are about 300-500 strong, although they were weakened by a FARDC operation against them in August 2013. FPRI are funded by collecting illegal taxes, artisanal gold mining and looting.\textsuperscript{57}

Mai Mai Morgan

111. Mai Mai Morgan, led by Paul Sadala a.k.a. Morgan, operate in Province orientale Province. They have poached elephants in Okapi Fauna Reserve, but shifted to gold mines during 2013. They have attacked the Mutshatsha, Kulungu, and Lubumbashi gold mines. Funding has typically come from stealing gold, pillaging of food and other goods, and taking hostages for ransom.\textsuperscript{58} Mai Mai Morgan was killed in April 2014.

Mai Mai Raia Mutomboki

\textsuperscript{54} S/2014/42 paras 71, 73, 74, 81  
\textsuperscript{55} S/2015/19 paras 4, 7, 9-11, 14, 15  
\textsuperscript{56} S/2014/42 paras 47, 48, 50, 55  
\textsuperscript{57} S/2014/42 paras 58, 60  
\textsuperscript{58} S/2014/42 paras 64, 65
112. Mai Mai Raia Mutomboki was established in 2005 as a loose network of groups formed in Shabunda territory of South-Kivu to oppose FDLR. Although they were allied to M23, their stated aim is to rid the Kivus of Rwandophones.\textsuperscript{59}

X. Funding sources for armed groups

113. Armed groups gain incomes through the taxing of local populations or by road taxes on minerals, timber or charcoal. Some funding comes from kidnapping for ransom or from diasporas, although this is less typical.

114. **Household taxing:** The M23’s finance chief stated they were able to tax USD 3,000 per month in the area they controlled. In August 2013, this area was about 1,500 km\(^2\). They charged about USD 1 per household per month.\textsuperscript{60} Based on these figures, the average militia income is estimated at USD 24 per year per square kilometer for household taxes. For North-Kivu, taking all militias into account, if they are able to tax between one third (low) to two thirds (high) of households, they could collect between USD 0.5 million (low) to USD one million (high). In South-Kivu, there is less militia control overall. If militias control one-quarter of the population in the province they can generate USD 390,000 (low) or if they control half, USD 780,000 per year.

115. **Vehicle Check Points:** M23 were at one point able to tax trucks USD 400-1200 depending on the cargo. Although this may seem high, a charcoal truck carrying ten tons has a cargo worth USD 2,000-6,000. Round wood would be worth more but is also less common. Such trucks could generate USD 200-1200 per passing. In the case of M23, they were reported to control five check points (Kitoboko, Nyongera, Nyamabongo, Kbati, and the Bunagana border crossing), which would be highly lucrative.\textsuperscript{61} If six to twelve trucks passed through any of these five check points every day and were taxed an average USD 400 per passing, revenue generated would be USD 876,000 – 1.7 million per year. This amounts to an average of USD 580-1,160 per km\(^2\) per year. As a comparison, prior to the M23’s taking control of Bunagana the Congolese Customs Authority collected USD 7.8 million per year from trucks only coming from Uganda.\textsuperscript{62}

116. It should be noted, however, that these figures applied only within the M23 controlled area. They were artificially high given the inclusion of a major border post. Large areas of territory have no particularly valuable transportation going through it. If, more realistically, the rates are put at USD 58-116 per km\(^2\) per year, the income from vehicle control points of North - and South Kivu militia controlled areas would be around 4.2 – 8.4m.

117. **Business taxes:** M23 also collected business taxes. If militias generally charged businesses four times that of households, and there is one business to every 20

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\textsuperscript{59} S/2014/42 paras 68, 69.
\textsuperscript{60} S/2014/42 para 35
\textsuperscript{61} S/2014/42 para 33
\textsuperscript{62} S/2014/42 para 34
household, they would make about USD 95,000 – 190,000 in North Kivu, and USD 78,000 – 156,000 in South Kivu.

118. **Control and taxing of mines:** It is estimated that 57 per cent of mines in eastern DRC have an armed group presence. The most important financing intervention is illegal taxation, which happens at 36 per cent of mines. Raia Mutomboki are present at 9 per cent of the mines. Other important armed group actors include, NDC/Mai Mai Sheka, FDLR and Mai Mai Yakutumba. All armed groups either receive payment to protect the mines or levy taxes. However, 6.5 per cent of the armed groups are also involved in buying minerals, and 3.7 per cent are involved in the extraction work.63

<table>
<thead>
<tr>
<th>Table 2. Value of official mineral exports from DRC in 2014</th>
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</thead>
<tbody>
<tr>
<td><strong>DRC official exports</strong></td>
</tr>
<tr>
<td>Total of exports (minerals 88%)</td>
</tr>
<tr>
<td>Copper</td>
</tr>
<tr>
<td>Cobalt</td>
</tr>
<tr>
<td>Crude petroleum</td>
</tr>
<tr>
<td>Diamond 4%</td>
</tr>
<tr>
<td>Tin &lt; 1%</td>
</tr>
<tr>
<td>Tantalum</td>
</tr>
<tr>
<td>Tungsten</td>
</tr>
<tr>
<td>Gold officially (200kg)</td>
</tr>
<tr>
<td>Gold smuggled (9,800kg)</td>
</tr>
</tbody>
</table>

119. This analysis suggests that the GoDRC, and by extension MONUSCO, is not any more primarily confronted by smaller groups of politically motivated rebels using the looting of natural resources as a means to achieve their political goals through armed conflict. Rather, the GoDRC and MONUSCO are increasingly faced with a large-scale smuggling operation by transnational organized crime involving the funding or support of armed groups in eastern DRC to continue facilitating the illegal exploitation through destabilization and local control.

120. Armed groups in eastern DRC are in control of about 50 per cent of the over 1000 mineral mines in eastern DRC. These are primarily 3Ts and gold, and less so diamonds and cobalt. The majority of diamonds mined in DRC comes from 20 territories in the central provinces Kasai-Oriental and Kasai-Occidental. Copper and cobalt is mined largely in the south. The combined value of gold, 3Ts, diamonds, minerals, timber and charcoal that is extracted from eastern DRC is likely to be between USD 1.2 – 1.3 billion annually (USD 722-862 million if excluding diamonds also sourced outside eastern DRC). Of this, an estimated USD 77-426 million constitutes income to highly networked transnational organized crime. About up to 1 per cent of this income covers the running costs for the various militias with a value at USD 13.2 million per year. The militias serve as enforcers and local

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63 IPIS Analysis of the interactive map of artisanal mining areas in eastern DR Congo: May 2014 update
vigilantes, and in varying degrees as stabilizers or destabilizers, depending on the evolving need in a given area. They are typically poorly paid and equipped, even where benefitting from external support.

Table 3. Estimate of the value of natural resources smuggled from eastern DRC

<table>
<thead>
<tr>
<th>Resource</th>
<th>Total value of export (USD)</th>
<th>Value of smuggled resource in USD (UNODC, 2011)</th>
<th>Income to organized crime (10-30% of value)</th>
<th>Income to militias (0.1% - 2% depending on resource)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diamonds</td>
<td>458m in 2014 (est)</td>
<td>21m</td>
<td>46 - 137.4m</td>
<td>0.5m</td>
</tr>
<tr>
<td>Gold</td>
<td>383-409m - 10 tons (purity variation)</td>
<td>120m</td>
<td>40 - 120 m</td>
<td>4m</td>
</tr>
<tr>
<td>3T Minerals</td>
<td>Tin 58.13m (7,184 tons) Tantalum 17.1m (612 tons) Tungsten 166,400 (127 tons) Total value: 75.4m in 2013</td>
<td>Cassiterite (tin) 29m 4m tantalum 38k tungsten. Total 33.4m</td>
<td>Total 7.5 – 22.6m</td>
<td>0.8m</td>
</tr>
<tr>
<td>Charcoal</td>
<td>&gt;293,000 tons produced and or passing through militia controlled area (incl border) USD 58-175 m</td>
<td>30m (Goma only)</td>
<td>11.7-35.1m</td>
<td>4.6m</td>
</tr>
<tr>
<td>Timber</td>
<td>160m</td>
<td>30 million.</td>
<td>16-48m</td>
<td>1.6m</td>
</tr>
<tr>
<td>Wildlife</td>
<td>-</td>
<td>3 million (ivory)</td>
<td>70k - 400k</td>
<td>23k</td>
</tr>
<tr>
<td>Fish</td>
<td>40m</td>
<td>-</td>
<td>4 - 12m</td>
<td>0.4m</td>
</tr>
<tr>
<td>Cannabis</td>
<td>-</td>
<td>5 million (200 tons)</td>
<td>5m</td>
<td>500k</td>
</tr>
<tr>
<td>Business taxes</td>
<td>-</td>
<td>-</td>
<td>173k – 351k</td>
<td>17k – 35k</td>
</tr>
<tr>
<td>Household taxes</td>
<td>-</td>
<td>-</td>
<td>0.9 – 1.8m</td>
<td>90k – 180k</td>
</tr>
<tr>
<td>Vehicle CPs</td>
<td>-</td>
<td>-</td>
<td>4.2 – 8.4m</td>
<td>420k – 840k</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td><strong>1.18 - 1.32 billion</strong> (722-862 million if excluding diamonds mainly sourced outside eastern DRC)</td>
<td><strong>242.4 million</strong></td>
<td><strong>147m 426m</strong></td>
<td><strong>13.4m</strong></td>
</tr>
</tbody>
</table>

64 The estimates of income to rebel groups on individual resources are based on expert judgment compiled relying on a variety of sources including, but not limited to, Group of expert reports, UNEP-INTERPOL reports, MONUSCO maps of rebel abundance and other sources. An organized crime income of 10-30% is common on natural resources (column 4). The income for militias (column 5) is derived as 10% of income from organized crime or 1% of total value. That number is reduced by 1/3 for diamonds, remains for 3T gold, fish and timber, and is doubled for charcoal. This is judged by the relative control of militias in the areas where the resources are extracted or pass through in smuggling. The UNODC numbers are used for comparison reference. The value for charcoal is put at USD 200 – 600 per ton.

65 1/10 of 1% of total value of trade.

66 1% of averaged total value of trade (i.e. USD 396m)

67 1% of total value of trade

68 10-30% of averaged estimate of total trade (i.e. USD 117m)

69 4% of averaged estimate of total trade (i.e. USD 117m)

70 10-20% of averaged estimate of total trade (i.e. 240m)

71 1% of estimate of total trade

72 See para 28

73 10% of averaged value to organized crime

74 1% of value of trade.
121. Most militia fighters have old firearms, poor uniforms and virtually lack basic equipment, resulting in frequent looting including for food. While senior command elements may earn significant sums, the number of armed combatant suggests that militant groups gain up to 1 per cent of the value of illegally extracted resources. In exceptional cases, this may reach perhaps up to 10 per cent, amounting to probably around USD 13.4 million per year. This could finance an estimated 8,900 militant fighters in the region, especially when taking into account additional revenue acquired from smaller taxes extorted around mines and primarily road taxes that provide direct incomes for lower rank fighters.

122. The minimum estimate of income to transnational organized crime is probably in the range of 10-30 per cent of the value of smuggled natural resources. The UNODC calculates this income to be as high as 50 per cent of smuggled value, in the order of USD 61-197 million, and a high estimate of 50 per cent profit of total export value amounting to USD 488 million. Hence, most of the 99 per cent of the net profit generated from smuggling of natural resources in eastern DRC goes outside the conflict zone; mainly to other parts of DRC, and to organized criminal groups, individuals or companies operating in Uganda, Rwanda, and Burundi.

123. The majority of the mineral contraband is transported by air, avoiding taxation from rebels or government, or by land such as charcoal.

XI. Analysis of the information management and mandate of MONUSCO

124. There appears to be need for more accurate information on the illegal incomes to organized crime benefitting from illegal exploitation of natural resources. More precise information on the values and volumes of illicit natural resources extraction, source areas and links between transnational criminal networks and armed groups, how to best protect communities in the region from forced labour and retaliations by armed groups or unsought impacts on livelihoods appears imperative for further fostering stability.

125. Further information on the modi operandi of those engaging in illegal natural resource extraction, transport, taxation and on income streams to armed groups and organized crime appears important to MONUSCO’s efforts to effectively neutralize armed groups and effectively prevent their resurgence. This appears essential for further building upon the achievements made by MONUSCO over the recent years prior to the Mission’s eventual exit.

126. Intervention on transnational organized crime in eastern DRC seem to require renewed efforts of MONUSCO to establish effective communication channels with INTERPOL and UNODC, within their respective mandates, as well as to relevant GoDRC entities, including the National Central Bureaus. MONUSCO’s law promotion entity should consider providing targeted support to the GoDRc Judiciary for the latter to prosecute actors engaging in the illegal exploitation of resources in the DRC.
XII. Conclusions

127. The scale of natural resources smuggling as documented by sources from UNODC, UNEP, INTERPOL, and the UN GoE for DRC, has important implications for peace and stability in the region. Based on this study’s findings, four key conclusions may be drawn.

a. First, the protracted conflict cycle and insecurity in eastern DRC appears increasingly dominated by economic interests rather than predominantly political motivations. The sheer scale of the smuggling and the fact that armed groups receive only a small fraction of these profits suggests that large-scale transnational organized criminal networks play a role in keeping armed groups active. This could be deliberately done to create an environment of insecurity to continue facilitating the illegal extraction and smuggling of natural resources from eastern DRC.

b. Second, less than 2 per cent of the net profits from smuggling natural resources out of the DRC are required to fund all the armed groups operating in eastern DRC, according to some estimates. The strategic presence of militant groups on primary smuggling routes and their ability to control and in part tax, but more importantly to facilitate the continuous flow of natural resources to groups outside eastern DRC, significantly contributes to the prevailing instability.

c. Third, it is possible that transnational criminal groups promote the co-existence of a large number of armed groups to prevent any individual group from becoming too powerful and thus challenge the large-scale smuggling activities.

d. Fourth, disarming armed groups individually will not prevent their reappearance. This is particularly the case as the income generated from continuous large-scale natural resource smuggling goes to transnational organized criminal networks located for the most part outside the DRC and therefore beyond the GoDRC’s reach and MONUSCO’s mandate. It is therefore important that the GoDRC, and in its support MONUSCO, in addition to disarming the armed groups, endeavours to address the link between armed groups in eastern DRC and transnational organized crime to the extent this link plays out on DRC territory.

Mandate Renewal

128. Based on these findings, the expert meeting proposed the following statement for consideration by the UN Security Council during the upcoming review of MONUSCO’s mandate:
Authorizes MONUSCO to support national and regional efforts to investigate, prosecute and sanction members of armed groups and criminal networks engaged in national and transnational organized crime including, but not limited to, the illicit exploitation and trade in natural resources, such as gold and other minerals, wildlife, charcoal and timber, with special emphasis on addressing sources of conflict and safeguarding protected areas from armed groups, particularly, but not limited to, UNESCO World Heritage Sites."

XIII. Recommendations for MONUSCO and the UN system

129. MONUSCO to establish a Task Force (TF) including all the sections that potentially could assist the GoDRC in addressing organized crime and corruption benefitting armed groups (UNPOL, JMAC, Force, Political Affairs, Justice Support Section, Human Rights, among others). This TF could provide strategic guidance and Mission internal coordination on the matter of any MONUSCO endeavours regarding organized crime in the DRC and liaise with other relevant UN bodies and, most importantly, liaise with national authorities with a view to supporting any efforts of the GoDRC to tackle organized crime.

130. Strengthen the information gathering and processing capacity of MONUSCO regarding the implications of transnational organized crime benefitting the armed groups and its implications for the Mission's objectives. Integrate the information thereby obtained.

131. Further enhance support to the PNC, through UNPOL and by coordinating bilateral and multilateral assistance, including by providing targeted support to any PNC efforts to tackle organized crime in the DRC, if so requested by the GoDRC.

132. Strengthen the Justice and Corrections section to provide targeted support to the national judiciary to prosecute Congolese actors engaging in transnational organized crime benefitting armed groups, if such support is requested by the GoDRC.

133. Further strengthen the Mission's liaison with national interlocutors, in particular Government authorities, on the matter of organized crime, given that MONUSCO is deployed in support of the Government and operates within the perimeters established by the latter.

134. Seek to more effectively support national authorities in enforcing the rule of law to safeguard protected areas used by armed groups, particularly, but not limited to, UNESCO World heritage sites.

135. Strengthen cooperation, including on information and operational support, as appropriate, to the ICCN, to prevent the use and exploitation of protected areas by organized criminal groups with links to armed groups.

136. Regional cooperation on tackling environmental transnational crime should be strengthened through the OSE GLR, as well as other peacekeeping missions and UN entities, etc.
137. Further support the continuous formalization of the trade in natural resources, by advocating for legal and fiscal reforms, including on excessive and illegal taxation.

Recommendations for the GoDRC

138. Further strengthen the capacity of the PNC and the judicial sector to effectively address transnational organized environmental crime, including by securing support from UNODC and INTERPOL and in cooperation with MONUSCO during its downsizing phase.
Annex 1: Distribution of ca. 30 non-state armed groups in eastern DRC

Source: Norwegian Center for Global Analysis, 2015; UNODC, 2015; Christopher Waylen, 2016; MONUSCO.
Annex 2: Smuggling by transnational organized crime from eastern DRC to criminal groups, companies or individuals in Uganda, Rwanda and Burundi
Annex 3: Non-state armed groups in DRC

Armed groups' relationships where + in green indicates alliance and – in red indicates opposition. This information was current in late 2014, and may be subject to substantial changes in the fluid situation.

<table>
<thead>
<tr>
<th>Group</th>
<th>Relationships</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDLR</td>
<td>+ Mai Mai Lafontaine/UPCP/FPC</td>
<td>+/- APCLS, Patriotic Alliance for a Free and Sovereign Congo (splitter from Mai Mai PARECO) (may ally or clash depending on tactical interests)</td>
</tr>
<tr>
<td></td>
<td>+/- ADF</td>
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<tr>
<td></td>
<td>+/- FNL (strained relations)</td>
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<tr>
<td></td>
<td>+ Nyatura</td>
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<tr>
<td></td>
<td>- NDC / Mai Mai Sheka</td>
<td></td>
</tr>
<tr>
<td>NDC-R</td>
<td>+/- MM Cheka (Strained relations—compete over resources. FDLR common enemy)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ Raia Mutomboki</td>
<td></td>
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<tr>
<td>Mai Mai Cheka</td>
<td>+ Raia Mutomboki</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- FDLR</td>
<td></td>
</tr>
<tr>
<td>Raia Mutomboki</td>
<td>+ NDC –R</td>
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<tr>
<td></td>
<td>+ MM Cheka</td>
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<tr>
<td></td>
<td>+ M23 (until Nov 2013)</td>
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<td></td>
<td>- FDLR</td>
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<td></td>
<td>- FARDC</td>
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<td>Kata Katanga</td>
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<td>- FARDC</td>
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<td>FRPI</td>
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<td></td>
<td>- FARDC</td>
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<td>- FDLR</td>
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<td></td>
<td>+ Raia Mutomboki</td>
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<td>ACPLS</td>
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<td>+ MAC</td>
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<td>+ Nyatura</td>
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<tr>
<td></td>
<td>+/- FDLR/FOCA (strained relations)</td>
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<tr>
<td></td>
<td>- NDC / Mai Mai Sheka</td>
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<tr>
<td></td>
<td>- FARDC</td>
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<tr>
<td>Mai Mai Yakutumba</td>
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<td></td>
<td>+ FNL</td>
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<tr>
<td></td>
<td>+ FDLR (strong anti-Tutsi)</td>
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<tr>
<td>Mai Mai Kifuafua</td>
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<tr>
<td></td>
<td>- FARDC (partially integrated)</td>
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<tr>
<td>Mai Mai Simba</td>
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<td></td>
<td>+ Mai Mai Manu</td>
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<td></td>
<td>+ Raia Mutomboki</td>
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<td></td>
<td>+ NDC-R</td>
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</table>
+/- MM Sheka (depending on tactical interests)

<table>
<thead>
<tr>
<th>ADF</th>
<th>- FARDC</th>
</tr>
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</table>
| Nyatura | -/+ APCLS  
|        | + FDLR  
|        | + FARDC (partial integration in 2012) |