

A Study on the Inter-Relation between Armed Conflict and Natural Resources and its Implications for Conflict Resolution and Peacebuilding

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Abstract

The article investigates the inter-relation between armed conflict and natural resources and its implications for conflict resolution and peacebuilding. The first part discusses and clarifies the nexus between natural resources and armed conflict, arguing that the former have a strong link with the latter only when natural resources have particular natural and geographical characteristics and when a country experiences peculiar political, societal and economic situations. The article shows how this inter-relation is various and diverse, at the point that even scholars who studied it have sometimes disagreed on their researches. The second part analyses the implications for conflict resolution and peacebuilding. Since changing the natural and geographical characteristic of natural resources is almost impossible, the article argues that conflict resolution and peacebuilding policies should be aimed to reduce those political, societal, and economic situations that, if inter-related with the presence of natural resources in a country, can affect armed conflicts. The analysis discusses how the presence of natural resources should be addressed during the resolution of a conflict and should be considered during the post-conflict peacebuilding phase. Finally, it tries to identify how international actors can have an effective role in conflict resolution and peacebuilding when natural resources are at stake.

Keywords: natural resources, armed conflict, conflict resolution, peacebuilding.

Introduction

Extensive literature has explored the link between natural resources and armed conflicts. Nevertheless, scholars have rarely reached a univocal agreement and a common theoretical understanding on this inter-relation. Through an analysis of the literature and the provision of examples, this article aims to investigate the nexus between armed conflicts and natural

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resources, and it discusses the implications of this inter-relation for conflict resolution and peacebuilding.

After an introductory paragraph defining the main concepts of armed conflict, natural resources and post-conflict peacebuilding, the first part of the article explores the link between natural resources and armed conflicts. It firstly argues that natural resources have a strong inter-relation with armed conflicts only when they have particular natural and geographical characteristics of lootability, distance and diffusion. Moreover, the analysis examines how some peculiar political, economic and societal characteristics of a country can also reinforce this inter-relation. The article further investigates this link and considers the role played by some particular natural resources in fuelling or exacerbating an armed conflict.

The second part of the paper focuses on the implications of this inter-relation for conflict resolution and peacebuilding. The article firstly points out how the presence of natural resources might be addressed during the resolution of a conflict; then it suggests how this inter-relation might be considered during the post-conflict peacebuilding phase. The presentation of the post-conflict peacebuilding phase follows the theoretical model of the Peacebuilding Palette, a comprehensive approach to peacebuilding which recognises it as a manifold policy encompassing four different main fields: the provision of security, the establishment of socio-economic foundations, the construction of a political framework and the promotion of reconciliation and justice. Finally, the article indicates which actors can play a role in solving a conflict and building peace when natural resources are at stake.

Essential Definitions

In order to investigate the link between armed conflict and natural resources and its implication for conflict resolution and peacebuilding, it is important to fix beforehand the limits and the framework of the discussion through the definition of the main concepts of armed conflict, natural resources, and peacebuilding.

According to the Uppsala Conflict Data Program (UCDP),¹ an armed conflict is “a contested incompatibility which concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year”.² Since the end of World War II, 232 armed conflicts have been active, and 32 were active in 2006.³

¹ The UCDP is a Program of the Department of Peace and Conflict Research of the Uppsala University which collects data and information on armed conflicts and on a large number of aspects of armed violence since 1946 (<http://www.pcr.uu.se/gpdatabase/search.php>).

² http://www.pcr.uu.se/research/UCDP/data_and_publications/definitions_all.htm.

³ Lotta Harbom and Peter Wallensteen, “Armed conflict 1989-2006”, *Journal of Peace Research* 44, no.5 (2007): pp. 623-634

According to the Organisation for Economic Co-operation and Development (OECD), natural resources are "natural assets (raw materials) occurring in nature that can be used for economic production or consumption".⁴ One way to classify natural resources is based on their renewability. Natural resources can be renewable if after exploitation they "can return to their previous stock levels by natural processes of growth or replenishment",⁵ such as animals, plants, trees, water, grass, solar and wind energy. Conversely, natural resources which cannot be regenerated after exploitation are considered non-renewable, like mineral resources, fossil fuels, oil, coal, copper, diamonds, natural gas, iron, gold, silver, platinum, and rocks.

A second criterion to classify natural resources is based on their exhaustibility, and it refers to whether or not a natural resource can be replenished once used. Exhaustible natural resources are therefore those natural resources such forests, soil, wild animals, minerals, and fossil fuels which are limited in nature and liable to be degraded in quantity and quality by human activities. Inexhaustible natural resources are instead natural resources unlimited in nature, which are continuously replenished and not likely to be exhausted by human activities, such as sunlight, wind, and water.

The term 'post-conflict peacebuilding' was firstly coined and introduced in 1992 by the former United Nations (UN) Secretary General Boutros Boutros-Gali in his report *An Agenda for Peace. Preventive diplomacy, peacemaking and peace-keeping*.⁶ Post-conflict peacebuilding interventions are actions aimed at stabilising peace in the aftermath of a conflict in order to avoid a relapse into conflict. The concept of peacebuilding has been therefore broadened in a concept with a more comprehensive and also preventive meaning, not necessarily related to peacekeeping operations.⁷ This new umbrella concept also entails long term activities such as early warning and response efforts, violence prevention, advocacy work, civilian and military peacekeeping, military intervention, humanitarian assistance, ceasefire agreements, and the establishment of peace zones.

⁴ See OECD, *Glossary of Statistical Terms: Natural Resources*, OECD, available at <http://stats.oecd.org/glossary/detail.asp?ID=1740>.

⁵ See OECD, *Glossary of Statistical Terms: Renewable Natural Resources*, OECD, available at <http://stats.oecd.org/glossary/detail.asp?ID=2290>.

⁶ See *An Agenda for Peace. Preventive diplomacy, peacemaking and peace-keeping*. Report of the Secretary-General pursuant to the statement adopted by the Summit Meeting of the Security Council on 31 January 1992, A/47/277 - S/24111, 17 June 1992, available at: <http://www.un.org/Docs/SG/agpeace.html>.

⁷ See for example Boutros Boutros-Ghali, *Supplement to An Agenda for Peace: Position Paper of the Secretary-General on the Occasion of the Fiftieth Anniversary of the United Nations*, Document A/50/60 - S/1995/1, 3 January 1995 (New York: Department of Public Information, United Nations, 1995), available at: <http://www.un.org/Docs/SG/agsupp.html>, John Paul Lederach, *Building Peace*, (Washington, D.C.: United States Institute of Peace, 1997), Henning Haugerudbraaten, "Peacebuilding: Six dimensions and two concepts", *African Security Review* 7, no.6 (1998): pp. 17-26, and Michelle Maiese, "Peacebuilding", *Beyond Intractability*, Eds. Guy Burgess and Heidi Burgess. Conflict Research Consortium, University of Colorado, Boulder (September 2003), available at: <http://www.beyondintractability.org/essay/peacebuilding/>.

Since the majority of the literature which analysed the link between armed conflicts and natural resources does not differentiate its results according to interstate wars, armed conflicts, civil wars or ethnic conflicts, even this article does not make this distinction. It therefore accepts the definition of armed conflict of the UCDP, and it focuses on the role played by non-renewable, exhaustible natural resources in causing, fuelling, prolonging, and exacerbating those conflicts. When referring to peacebuilding, the article focuses on the narrower understanding of 'post-conflict peacebuilding' activities, as firstly introduced by the UN Secretary General in 1992.

The inter-relation between armed conflict and natural resources

Neither practical evidence nor extensive literature have thus far been able to clarify whether and how natural resources are inter-related with armed conflicts

Indeed, the presence or absence of natural resources in a country seems only slightly inter-related with the onset of an armed conflict. Countries like Norway and Botswana are peaceful states with abundance of natural resources, conversely Sierra Leone or the Democratic Republic of Congo (DRC) are countries rich of natural resources which experienced armed conflicts.⁸ On the other hand, Japan is a peaceful state whose wealth completely relies on foreign natural resources, while Haiti and Uganda are countries deficient in natural resources that experienced armed conflicts.

It could be contended that the examples proposed are incompatible, since the countries aforementioned have different history, location, culture, political organisation, neighbouring states and geographical characteristics. Yet this possible critique contains its counter-argument and reinforces the idea that the link between natural resources and armed conflicts is not clear: it is just because the countries presented are so different that it can be inferred that there is not a global and straightforwardly proven inter-relation between natural resources and armed conflicts.

Similarly, scholarly research has thus far failed to agree on whether armed conflicts in a country are linked to abundance or scarcity of natural resources. If Galtung argued that "wars

⁸ According to the UN, the DRC possesses copper, cobalt, coltan (columbo-tantalite), gold, diamonds and timber (*Report of the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo*, S/2001/357, 12 April 2001, United Nations: <http://www.globalsecurity.org/military/library/report/2001/357e.pdf> and its *Addendum*, S/2001/1072, 13 November, 2001, United Nations, available at: <http://www.globalsecurity.org/military/library/report/2001/1072e.pdf>), yet the country has been judged as "the epitome of a collapsed state, torn by conflicts on many levels - regional, national and local - intertwined and complex" (country page of the DRC in the UCDP website: <http://www.pcr.uu.se/gpdatabase/gpcountry.php?id=38&value=4#>).

are often over resources",⁹ Brock has on the contrary conceded that "it is easy to exaggerate the importance of natural resources as an object of conflict",¹⁰ while scholars like Ross, De Soysa and Le Billon recently seem to privilege a 'new resource pessimism' that considers natural resources as a curse for the state which possesses them.¹¹

The presence (or the absence) of natural resources *per se* has therefore no clear consequences on armed conflicts. As a consequence, other elements need to be added to the research in order to understand this puzzling nexus. The first set of elements refers to the natural and geographic characteristics of the natural resources: lootable, distant and diffuse natural resources have a strong inter-relation with armed conflicts. The second set of elements concerns the political, economic and social characteristics of a country: the link between armed conflicts and natural resources is indeed reinforced when a government does not have a complete control over its natural resources, when the economy of a country is not diversified and when the degree of internal societal opposition in a state is high.

Natural and geographic characteristics of the natural resources

The first set of elements refers to the natural and geographic features which characterise natural resources. Scholars have found that natural resources differ for at least three natural characteristics.

The first is lootability: if a natural resource is lootable it can be easily extracted from the ground or grabbed and sold in the market. Timber, alluvial diamonds,¹² and some drugs like coca or opium poppy are examples of lootable natural resources. The cost to get these natural

⁹ Johan Galtung, *Environment, Development and Military Activity. Towards Alternative Security Doctrines* (Oslo: Norwegian University Press, 1982), p. 99

¹⁰ Lothar Brock, "Peace through Parks: The Environment on the Peace Research Agenda", *Journal of Peace Research* 28, no.4 (1991): p. 410. The quotations of Galtung and Brock are from Nils Petter Gleditsch, "Armed Conflict and The Environment: A Critique of the Literature", *Journal of Peace Research* 35, no.3 (1998): pp. 381-400.

¹¹ Michael L. Ross, "The political economy of the Resource Curse", *World Politics* 51, no.2 (1999): pp. 297-322 explains the so-called Dutch Disease effect, Indra De Soysa, "The Resource Curse: Are Civil Wars Driven by Rapacity or Paucity?", in *Greed and Grievances: Economic Agendas in Civil Wars*, ed. Mats R. Berdal and David M. Malone (Boulder: Lynne Rienner Press, 2000) pp. 113-136 introduces the concept of 'honey pots'. See also Philippe Le Billon, "The political ecology of war: Natural Resources and Armed Conflicts", *Political Geography*, 20 (2001): p. 564.

¹² Alluvial or secondary diamonds are "gemstones created from soil or sediments deposited by a river or other running water" (see Gemology Definitions & Terminology available at http://www.allaboutgemstones.com/glossary_gemology.html). Alluvial diamond deposits are usually located within river terrace gravels that have been transported from their location of origin, usually from kimberlite deposits. Diamondiferous material tends to concentrate in and around 'oxbow lakes', which are created by abandoned river meanders. These dried 'lakes' receive river water during seasonal flooding which transports large amounts of sediment held in suspension (Source: http://www.khulsey.com/jewelry/kh_jewelry_diamond_mining.html). Secondary diamonds are usually easier to find; their deposits can be exploited with artisan tools such as a shovel and a sieve.

resources is low: they can be grabbed and sold in the market legally or illegally even by a private actor, a group of people or a small company. Conversely, oil, bauxite, primary diamonds¹³ or mineral gas are examples of non-lootable natural resources. Being able to use them and to enter in their market implies high costs and, as a result, this kind of natural resources are usually controlled by governments or multinational companies able to afford the investment costs and risks.

The other two characteristics are related to the geographic location of the natural resources. A natural resource can be proximate or distant to the administrative capital of a country: the more proximate it is, the lower the cost of controlling it for the government is. Another geographical characteristic is related to the level of concentration of a natural resource: it can be point, which means concentrated only in one area, or diffuse, that means widely spread. For example, a goldmine is point, while alluvial diamonds in a river are diffuse.

Lootable, distant and diffuse natural resources are usually less easy to control for a government and they could represent a tempting booty for non-state actors or other states.

This framework entails that a country with a high presence of alluvial diamonds should experience numerous wars and conflicts. Statistical data seem to confirm this expectation: countries with secondary diamonds production for example are more prone to experience an outbreak of a civil war, their risk of having a conflict increases by 85%, and their probability of ethnic wars by more than 200%.¹⁴ Angola, Sierra Leone and many other countries can be considered good examples confirming this trend. Conversely Botswana, whose economy highly relies on primary diamonds to the point that the country "produces one-third of the world's gem diamonds by value",¹⁵ experienced peace and prosperity and from 1960 to 2005 increased its GDP per capita more than 100 times.¹⁶

¹³ Primary diamonds are also called kimberlite diamonds; they "occur in underground rock formations and are often mined by large (multinational) companies" (see Päivi Lujala et al., "A Diamond Curse?: Civil War and a Lootable Resource", *Journal of Conflict Resolution* 49, no.4 (2005): p. 543).

¹⁴ See Lujala et al., "A Diamond Curse?: Civil War and a Lootable Resource", p. 549. This study is one of the few studies that differentiate its results according to armed conflicts, civil wars or ethnic conflicts.

¹⁵ Thad Dunning, "Resource Dependence, Economic Performance, and Political Stability", *Journal of Conflict Resolution* 49, no.4 (2005): p. 463.

¹⁶ The GDP per capita is still considered worldwide as an indicator of wealth and a measure of a country's overall economic output and standard of living, despite its imperfections and limitations. See for example the definition of GDP per capita in the BBC website, available at <http://www.bbc.co.uk/dna/h2g2/A813953>. According to the statistical data of the year 2005, the Botswana GDP per capita was ranked 56th in the world. The rank of the GDP per capita by country for the year 1960 is available at the page http://www.nationmaster.com/red/graph/eco_gdp_percap-economy-gdp-per-capita&date=1960, the rank for the year 2005 is available at http://www.nationmaster.com/graph/eco_gdp_percap-economy-gdp-per-capita&date=2005.

Yet Snyder and Bhavnani¹⁷ pointed out that two other African countries, Ghana and Guinea, despite the presence of risk factors such as semi-democracy, political instability, low per capita income and, above all, the presence of alluvial diamonds in their territory, experienced peace during the period 1990-2005. The three general and geographical characteristics of lootability, distance and diffusion are not therefore always sufficient to explain the possible link between natural resources and conflicts: some other elements such as the political, economic and social characteristics of a country could also play a pivotal role in this inter-relation.

Political, economic and social characteristics of a country

A second set of elements reinforcing the nexus between armed conflicts and natural resources concerns the political control of a government over its natural resources, the diversification of a country's economy, and the level of internal societal opposition in a state.

A low level of governmental control over its natural resources can indeed sustain the onset of an armed conflict. Controlling natural resources does not only imply that a country is able to grab them even if they are lootable, distant and diffuse, but it also entails that a government can get the revenues originated by these natural resources. Obtaining these revenues is particularly important for two reasons: firstly, non-state groups cannot exploit the natural resources and earn money instead of the state; secondly, the government can spend the revenues and provide security or social services with the money earned through taxation.

One government's control over the natural resources and the subsequent ability of the state to earn revenues even from lootable natural resources is strictly correlated to the mode these natural resources are extracted. As stressed by Snyder and Bhavnani, when this mode of extraction is mainly industrial "the state can potentially control a large share of the income"¹⁸ in order to govern. If otherwise artisan extraction is the dominant mode in the lootable sector, the state will not probably "control very much of the income generated"¹⁹ by this sector, and these earnings could reinforce rival or private groups instead, increasing the risk of state collapse. For example, the two scholars argued that one of the causes that led to the civil war in Sierra Leone was the change in the extraction mode of alluvial diamonds after the transfer of power from Siaka Stevens to Joseph Momoh in 1985. They also argue that Guinea did not experience conflicts because the non-lootable natural resource of bauxite and alluvial diamonds were extracted industrially, while in Ghana the presence of lootable gold and alluvial diamonds did not cause armed conflicts because gold was extracted industrially.

¹⁷ See Richard Snyder and Ravi Bhavnani, "Diamonds, Bloods, and Taxes: A Revenue-Centered Framework for Explaining Political Order", *Journal of Conflict Resolution* 49, no.4 (2005): pp. 563-597.

¹⁸ Snyder and Bhavnani, "Diamonds, Bloods, and Taxes: A Revenue-Centered Framework for Explaining Political Order", p. 569.

¹⁹ *Ibidem*.

A second element reinforcing the inter-relation between natural resources and armed conflict is the grade of diversification of the economy of a country. The presence of other natural resources or a well diversified economy can make a state more stable and peaceful. Conversely, if the economy of a country is dependent only on one or more lootable natural resources, an uncontrolled exploitation could result in a grave crisis for the state. Snyder and Bhavnani argued that the presence of other natural resources in addition to alluvial diamonds assured peace in Ghana and Guinea during the years 1990-2005.²⁰

The third element which plays a role in the inter-relation between natural resources and armed conflict is the degree of internal opposition in the state. When the degree of societal opposition to state elites is high, the presence of natural resources, together with a low governmental control over them, may allow rival groups such as rebels, contestatory or secessionist movements to obtain them and to try to challenge the power of the state. In this situation, the diversification of the economy may empower and reinforce elites able to militarily threaten the political power of a country. This point is discussed by Dunning in his analysis of the regime of Mobutu in Zaire (today DRC).²¹ Mobutu deliberately decided neither to diversify the economy nor to invest in infrastructure because of the high level of internal opposition in the country. As a consequence of his choice to rely almost exclusively on a nationalised resource sector, to concentrate the productive potential in his allies, and to reduce the national infrastructure, he was able to maintain his power for almost 30 years. His political actions "limited the development of sources of autonomous societal power that could threaten his rule".²² His grip on power had dramatic consequences for the economy of Zaire: "average growth rate of per capita income was negative over the course of Mobutu's rule",²³ and "the country was poorer in 1997 than it was at independence in 1960".²⁴ This example shows how not only the presence of natural resources in a state, but also political decisions and economic and social characteristics of a country have consequences on armed conflicts.

The inter-relation between natural resources and armed conflicts

The incidence of natural resources in a conflict therefore depends on their natural characteristics and on some other political, economic and societal elements that interact and reinforce or weaken this inter-relation. Hence many scholars have tried to study this link in depth, in order to understand which natural resources are more related to armed conflicts, and how the presence of the former can influence the latter. The results of these studies seem to show little

²⁰ *Ibidem*.

²¹ Dunning, "Resource Dependence, Economic Performance, and Political Stability", pp. 451-482.

²² *Ibidem*, p. 472.

²³ *Ibidem*, p. 467.

²⁴ *Ibidem*. This sentence is confirmed by statistical data about the GDP per capita by country in the years 1960 and 1997. For 1960 see the footnote number 16, for 1997 see http://www.nationmaster.com/graph/eco_gdp_percap-economy-gdp-per-capita&date=1997.

agreement among scholars, yet all of this research suggests some commonalities: oil is associated to the onset of conflicts, the presence of lootable resources usually prolongs a conflict, and agricultural commodities do not influence armed conflicts.²⁵

The first commonality identifies oil as a natural resource strongly associated with the onset of conflicts.²⁶ In particular, oil and some other minerals seem to be linked to separatist conflicts, such as the rebellion in the south of Sudan, the struggle over Cabinda in Angola and the secessionist movements in the conflict over the Western Sahara in Morocco. This evidence is also confirmed by some statistical data by Ross, who in his study of thirteen civil wars indicates that the only two separatist conflicts originated by natural resources occurred in Indonesia and Sudan, countries in which natural resources involved were natural gas and oil.²⁷ The possibility to earn the rents available from oil gives therefore a non-state group or a foreign country the financial incentive to initiate conflict, and this incentive appears to be higher when the population is less educated and when the economic value of the natural resource is more difficult to estimate, since "oil wealth has an exaggerated effect on popular political imagination".²⁸

The second commonality indicates that lootable natural resources like drugs and gemstones are correlated with the duration of a conflict. Timber, narcotics and gemstones such alluvial diamonds are not necessarily linked to the onset of a conflict, but they tend to lengthen it, since the control over these lootable natural resources can reinforce and finance non-state movements. Buhaug and Lujala for example found that civil conflicts "tend to last longer in countries with gemstone deposits and in countries with coca cultivation".²⁹ Other studies of Smillie, Lujala, Silberfein and Le Billon analysed the role played by alluvial diamonds in civil wars:

²⁵ For a table summarising the findings of 14 econometric studies on natural resources and conflicts see Michael L. Ross, "What Do We Know About Natural Resources and Civil War?", *Journal of Peace Research* 41, no.3 (2004), p. 339. The regularities stressed below rely on *Ibidem*, pp. 337-356.

²⁶ See for example Mary Kaldor, Terry Lynn Karl and Yahia Said, "Introduction", in *Oil Wars*, ed. by Mary Kaldor, Terry Lynn Karl and Yahia Said (London, Pluto Press, 2007), pp. 1-40. Philippe Le Billon and Fouad El Khatib, "From Free Oil to 'Freedom Oil': Terrorism, War and US Geopolitics in the Persian Gulf", in *The Geopolitics of Resource War. Resource Dependence, Governance and Violence*, ed. Philippe Le Billon (London, New York: Frank Cass, 2005), pp. 109-137 analyse the role played by oil also in the recent 'wars on terror' in Afghanistan and Iraq.

²⁷ Michael L. Ross, "How Do Natural Resources Influence Civil War? Evidence from Thirteen Cases", *International Organization* 58, no.1 (2004): pp. 35-67, available at: <http://www.sscnet.ucla.edu/polisci/faculty/ross/HowDoesNat3.pdf>. For a complete list of secessionist movements linked to mineral resources see Ross, "What Do We Know About Natural Resources and Civil War?", p. 343.

²⁸ Paul Collier and Anke Hoeffler, "The Political Economy of Secession" (23rd December 2002), available at: <http://users.ox.ac.uk/~ball0144/self-det.pdf>.

²⁹ Halvard Buhaug and Päivi Lujala, "Terrain, Resources, and Civil War – Does the Level of Measurement Really Matter?", (Paper Presented at the 45th Annual Convention of the International Studies Association, Montreal, 17–20 March 2004), available at: http://www.allacademic.com//meta/p_mla_apa_research_citation/0/7/2/5/8/pages72580/p72580-1.php.

their outcomes have found that such diamonds can prolong armed conflicts.³⁰ Conflict diamonds, also called 'blood diamonds' or 'war diamonds', have been defined by the UN as "rough diamonds which are used by rebel movements to finance their military activities, including attempts to undermine or overthrow legitimate Governments".³¹ They are small-volume, high-value and highly-portable commodities: their availability, their spatial distribution and the political economy of their market have made them a tempting booty for non-state forces and a good way to finance their struggles once easily grabbed.

The third result of the studies about natural resources and conflicts underlines that the dependence of a country on agricultural commodities does not influence the risk of armed conflicts. There is little evidence that links the incomes obtained from the agricultural sector to the probability of a rebellion, even if most non-state actors operate in poor countries, primarily rural and agricultural.

Yet even these three regularities are not completely accepted by scholars: in counter tendency with these assumptions, Humphreys found for example that "countries dependent on agricultural commodities are at risk, independent of their endowments of oil and diamonds"³² and that diamonds and "natural resource conflicts are more likely to end quickly and are more likely to end with military victory for one side rather than with a negotiated settlement".³³ His conclusions show how scholars have not reached an agreement yet about the links between natural resources and armed conflicts.

Analogously, not all primary commodities³⁴ are associated with the onset of an armed conflict, since the link between a conflict and the presence of non-fuel minerals or agricultural goods is still unclear and scholars are still far from agreeing if primary commodity dependence increases the risk of conflict and it can be a source of finance for non-state groups. Collier and Hoeffler for example indicate that "primary commodity dependence increases the risk of

³⁰ See for example Ian Smillie, "Dirty Diamonds. Armed Conflicts and the Trade in Rough Diamonds" (Programme for International Co-operation and Conflict Resolution, Fafo Report, Oslo: PICCR, FAFO Institute for Applied Social Science, March 2002), Lujala et al., "A Diamond Curse?: Civil War and a Lootable Resource", the analysis of the link between diamonds and conflict in Sierra Leone of Marilyn Silberfein (2005), "The Geopolitics of Conflict and Diamonds in Sierra Leone", in *The Geopolitics of Resource War. Resource Dependence, Governance and Violence*, ed. Philippe Le Billon (London, New York: Frank Cass, 2005), pp. 213-241, and the analysis of the role of oil and diamonds in the conflict of Angola made by Philippe Le Billon, "Angola's Political Economy of War: the Role of Oil and Diamonds, 1975-2000", *African Affairs* 100, no.398 (2001): pp. 55-80.

³¹ *The role of diamonds in fuelling conflict: breaking the link between the illicit transaction of rough diamonds and armed conflict as a contribution to prevention and settlement of conflicts*, A/RES/55/56, 29 January 2001, available at: <http://www.undemocracy.com/A-RES-55-56.pdf>.

³² Macartan Humphreys, "Natural Resources, Conflict, and Conflict Resolution: Uncovering the Mechanisms", *Journal of Conflict Resolution* 49, no.4 (2005): pp. 508-537.

³³ *Ibidem*.

³⁴ Michael L. Ross, "What Do We Know About Natural Resources and Civil War?", p. 338, defines primary commodities as "a category that includes oil, non-fuel minerals, and agricultural goods".

conflict";³⁵ Fearon confutes this model arguing that "the empirical association between primary commodity exports and civil war outbreak is neither strong nor robust, even using Collier and Hoeffler's [...] civil war codings and model specifications".³⁶

The relation between the nature and geography of natural resources and different kinds of armed conflicts

Scholars' research on the inter-relation between natural resources and armed conflict did not only focus on this link, but it also underlined which kind of armed conflicts are more prone to be caused, prolonged, or affected by natural resources and in which way.

Le Billon for example argued that armed conflicts can be different according to the concentration and the geography of the natural resources.³⁷ In his framework, when natural resources are point and proximate, non-state groups that want to challenge the state power could get the control of them only through a *coup d'état* and a change of regime, since these kind of natural resources are by definition easier to control by a government. Conversely, point natural resources distant from the centre of a country could be obtained through secession, as shown by the example of the struggle for phosphates in the region of Western Sahara in Morocco. Furthermore, rebellions or riots will be the way to fight for non-state groups when natural resources are proximate to the centre and diffuse. Finally, the existence of natural resources distant from the centre of the state and diffuse can reinforce warlordism, as the numerous warlords who control part of the opium in Afghanistan demonstrate.

Le Billon's observations are not the only understandings about the inter-relation between natural resources and conflicts. Collier and Hoeffler found a strong correlation between the presence of natural resources and civil wars,³⁸ and they also observed that "the higher is per capita income on an internationally comparable measure, the lower is the risk of civil war",³⁹ due to the effect of high opportunity cost of rebellion.

³⁵ Paul Collier and Anke Hoeffler, "Greed and Grievance in Civil War" (Working Paper CSAE WPS/2002-01. Oxford: Centre for the Study of African Economies, 2002), available at: <http://www.csae.ox.ac.uk/workingpapers/pdfs/2002-01text.pdf>

³⁶ James D. Fearon, "Primary Commodity Exports and Civil War", *Journal of Conflict Resolution* 49, no.4 (2005): p. 503.

³⁷ A table with many examples can be found in Philippe Le Billon, "The political ecology of war: Natural Resources and Armed Conflicts", p. 573.

³⁸ See Paul Collier and Anke Hoeffler, "On Economic Causes of Civil War", *Oxford Economic Papers* 50, no.4 (1998): pp. 563-573, available at: <http://team.univ-paris1.fr/teamperso/sponcet/SciencesPo/Collier%20war%20causes.pdf> and Collier and Hoeffler, "Greed and Grievance in Civil War". For a list of civil wars linked to natural resource wealth during the period 1990-2000, see for example the table 1 of Michael L. Ross, "How Do Natural Resources Influence Civil War? Evidence from Thirteen Cases".

³⁹ See Collier and Hoeffler, (1998), "On Economic Causes of Civil War".

Some scholars such as Lujala, Fearon and Laitin seem therefore to agree on the fact that "higher income level decreases the likelihood of conflict, while larger population size, mountainous terrain, dependence on oil exports, and political instability increase the risk of conflict".⁴⁰ Ross analysed thirteen different civil wars and found a confirmation that lootable natural resources prolong the duration of a conflict, financing non-state groups and allowing them to attract and hire new potential soldiers through short-term material rewards, buy arms, feed, equip and finance the organisation, train the fighters, maintain the insurgency and keep fighting.⁴¹

Small arms and light weapons, for example, have always been bought in exchange of lootable natural resources, such as drugs, diamonds, or timber: both sides of a conflict can obtain arms in exchange of natural resources. A report of Amnesty International, Control Arms, and Oxfam International about small arms and light weapons states for example:

Diamonds in Angola and Sierra Leone; oil in Sudan and Angola; copper in Papua New Guinea; timber in Cambodia and Liberia; coltan, gold, and other minerals in the Democratic Republic of Congo: these natural resources are exploited and traded by governments and local military commanders in exchange for military supplies and personal financial gain.⁴²

Yet Ross' analysis found additional evidence: natural resources' wealth may increase the danger that a foreign state can intervene in a conflict supporting or "on behalf of a nascent movement",⁴³ and both government and non-state groups tend to sell futures booty, which are "future exploitation rights to minerals they hope to capture".⁴⁴

Implications for conflict resolution and peacebuilding

The above framework appears varied and complicated: the inter-relations between natural resources and armed conflicts are numerous and multifaceted, involving not only the natural and geographical characteristics of the natural resources, but also political, economic and societal aspects of a country. Yet, a lack of consideration for these linkages and this complexity in conflict resolution and peacebuilding could seriously undermine the outcomes and the effectiveness of the peace efforts. The sources of income for non-state groups can be various and different and they may not only involve the exploitation of natural resources: scholars

⁴⁰ Lujala et al., "A Diamond Curse?: Civil War and a Lootable Resource", p. 550. Also Fearon and Laitin found similar conclusions in James D. Fearon and David Laitin, "Ethnicity, Insurgency, and Civil War", *American Political Science Review* 97, no.1 (2003), pp. 75-90. As far as the population is concerned, Collier argues instead that "conflict risk does not increase proportionately with population", but it "is increased by population dispersion", see Collier and Hoeffler, "Greed and Grievance in Civil War".

⁴¹ See Ross, "How Do Natural Resources Influence Civil War? Evidence from Thirteen Cases".

⁴² Amnesty International, Control Arms, Oxfam International, *Shattered Lives, the case for tough international arms control*, (AI Index: ACT 30/001/2003, Amnesty International, Oxfam International, 2003), p. 45, report available at: http://www.amnestyusa.org/arms_trade/controlarms_report.html.

⁴³ Ross, "How Do Natural Resources Influence Civil War? Evidence from Thirteen Cases".

⁴⁴ *Ibidem*.

for example still know little about the role of local donations, or of the money obtained from other governments, companies or diasporas. However, since the inter-relation between natural resources and armed conflicts is accepted and proven in particular circumstances, and natural resources are often used to finance the warfare, conflict resolution and peacebuilding should address and tackle this linkage.

In order to seek resolution to a conflict in which natural resources are at stake, the first strategy is therefore trying to cut off this source of money for the non-state actors. Assuming that a non-state group sometimes offers less guarantees of good governance than a national government, effective "policies to eliminate the sale of 'conflict diamonds', to secure oil pipelines, or to reduce demand and supply of narcotics"⁴⁵ are examples of actions that can help to weaken the power of the non-state groups and to try to end the war.

These policies are certainly not always easy and sometimes do not result in smooth and linear progress. In the case of diamonds, for example, efforts to curb the illicit trade of conflict diamonds involved Non-Governmental Organisations (NGO), the diamond industry, politicians, individual governments and the UN have had different results from place to place. If, on the one hand, "UN Security Council embargoes have been the most effective means of alerting importing countries to the problem of conflict diamonds",⁴⁶ on the other hand Smillie also notes that "the current ban on Liberian diamonds has effectively dried up that channel as a means of laundering conflict and illicit goods",⁴⁷ whereas "the various UN Security Council Reports on Angola make dismal reading where the effectiveness of diamond sanctions is concerned".⁴⁸

As part of the conflict resolution process, peace agreements should also address the distribution or re-distribution of wealth generated by natural resources, otherwise they might prove ineffective, cause new grievances or foster greed, failing in this way to prevent new outbursts of violence.⁴⁹ Addressing these aspects is not always easy and many different instances

⁴⁵ Fearon, "Primary Commodity Exports and Civil War", p. 504.

⁴⁶ Smillie, "Dirty Diamonds. Armed Conflicts and the Trade in Rough Diamonds", p. 41.

⁴⁷ *Ibidem*.

⁴⁸ *Ibidem*.

⁴⁹ The debate between scholars in order to understand if non-state rebel groups are driven by greed or grievance firstly originated by Collier and Hoeffler and still creates divisions among scholars. Yet this article voluntarily refused to use these two words in relation to the non-state groups' motivations for two reasons: firstly, the aim of this article is not to establish if non-state groups are driven by greed and/or grievances, but it is to analyse the inter-relation between armed conflicts and natural resources and its implications for conflict resolution and peacebuilding. According to the definition of armed conflict accepted by this article, an armed conflict "concerns government and/or territory", not greed or grievances. Secondly, the article did not use the words greed and grievances referring to the non-state party of an armed conflict, because this use can implicitly assume that states, companies, or individuals are not driven in their actions by greed and grievances, a circumstance often challenged by reality (see for example the report about Sudan oil Christian Aid, *The Scorched Earth: Oil and War in Sudan*, (Christian Aid, 13 March 2001), available at: http://www.reliefweb.int/library/documents/2001/chr_aid-sud14mar1.pdf). Therefore, since a non-state group needs to find finances in order to sustain its struggle, as a state needs them to survive, analysing only the hidden motivations of a non-state group using the words greed and grievances would not be impartial.

related to natural resources distribution or redistribution need to be considered when a peace agreement is discussed and signed. The Comprehensive Peace Agreement⁵⁰ for example is an agreement signed between the Sudan People's Liberation Movement and the Government of Sudan aimed to resolve the "longest running conflict in Africa".⁵¹ A whole chapter of this agreement is devoted to the problem of wealth sharing and establishes the equal distribution of the oil revenues between the north and the south of Sudan.⁵² Despite some criticism and some riots after the death of the leader of the Sudan People's Liberation Movement John Garang,⁵³ the agreement has been respected and, according to the UCDP, "no more fighting at the level of an armed conflict has taken place between the government and the Sudan People's Liberation Movement/Army".⁵⁴

Land distribution is another particularly contentious issue that raises crucial concerns in a peace agreement due to the possible lack of documentation or formal contracts that assure the property rights. After how many years, for example, should the land of the refugees be redistributed? Addressing this and other similar questions has fundamental importance during the conflict resolution phase, overriding them can conversely create problems and cause a country to relapse into war.

If it is important to consider the inter-relation between natural resources and armed conflict in conflict resolution, it is equally essential to deal with the implications of this linkage when a country is rebuilt in the aftermath of a conflict in the peacebuilding phase. Post-conflict peacebuilding interventions are aimed at stabilising peace in the aftermath of a conflict and entail actions "to identify and support structures which will tend to strengthen and solidify peace

as it could imply that non-state groups may have more deprecable motivations (the word 'greed' entails a negative nuance) than a state.

⁵⁰ This agreement, also known as Naivasha Agreement, was signed the 9 January 2005. The text of the Comprehensive Peace Agreement is available at: <http://www.c-r.org/our-work/accord/sudan/key-texts-cpa-contents.php>.

⁵¹ See Chapeau of the Comprehensive Peace Agreement, available at: <http://www.c-r.org/our-work/accord/sudan/key-texts-cpa-chapeau.php>.

⁵² See Charter III, paragraph 5.6: "After the payment to the Oil Revenue Stabilization Account and to the oil producing states/regions, fifty percent (50%) of net oil revenue derived from oil producing wells in Southern Sudan shall be allocated to the Government of Southern Sudan (GOSS) as of the beginning of the Pre-Interim Period and the remaining fifty percent (50%) to the National Government and States in Northern Sudan", available at: <http://www.c-r.org/our-work/accord/sudan/key-texts-cpa-wealth.php>.

⁵³ Among the criticisms, Kevane for example pointed out how the Agreement "appears unfavourable in content and tone to the people of southern Sudan" in Michael Kevane, "Comments on Wealth-Sharing Agreement signed at Naivasha by Government of Sudan and Sudan People's Liberation Movement/Army on January 7, 2004", available at: <http://lsb.scu.edu/~mkevane/comments%20on%20wealth-sharing%20agreement.PDF>. The different dates between the Comprehensive Peace Agreement and the comments of Kevane are due to the fact that the wealth sharing aspect was agreed one year before than the whole Peace Agreement.

⁵⁴ See the Sudan country page in the UCDP available at the website: <http://www.pcr.uu.se/gpdata/gpcountry.php?id=145®ionSelect=1-Northern Africa#>.

in order to avoid a relapse into conflict"⁵⁵ and the prevention of "the recurrence of violence among nations and peoples".⁵⁶ Peacebuilding activities aim to "encourage the development of the conditions, attitudes and behaviour that foster and sustain social and economic development that is peaceful, stable and prosperous".⁵⁷ These activities are usually multifaceted and aimed at targeting all the political, social, judicial and security issues characterising a war-torn society. Peace scholars have therefore developed a multi-dimensional model underlying the wide array of activities and processes a peacebuilding policy entails, their inter-dependence and their interplay. This comprehensive model, known as 'Peacebuilding Palette', has been firstly elaborated in 2004 in the Utstein Report.⁵⁸ The palette recognises peacebuilding as a manifold policy that encompasses four different main fields: the provision of security, the establishment of socio-economic foundations, the construction of a political framework and the promotion of reconciliation and justice.

Addressing the consequences of the inter-relation between natural resources and armed conflicts is important for all the four parts of this comprehensive palette, since this inter-relation is indeed reinforced when a country faces particular political, economic and societal conditions, as shown in this article. Since changing the natural and geographical aspects of the natural resources is almost impossible, the foremost aspect a peacebuilding policy should deal with is working on building a combination of political, economic, and societal conditions that can avoid a conflict being fostered again by natural resources.

As far as the political side of the Palette is concerned, peacebuilding initiatives should allow a state to earn from the revenues deriving from the presence of a natural resource, avoiding these could finance non-state actors instead. As underlined by Snyder and Bhavnani, when lootable natural resources are extracted industrially, non-state groups cannot get them easily, a country is more able to tax them, and the risk of conflict is consequently low. The peacebuilding phase represents the first step to building a new society. Since the revenue opportunity is not static, "rulers may be able to alter it in ways that increase their future income and thus improve their ability to supply peace and order".⁵⁹ Tying natural resources' exploitation and fiscal reforms to political commitments during peace processes and improving the control of

⁵⁵ See *An Agenda for Peace. Preventive diplomacy, peacemaking and peace-keeping*, op. Cit.

⁵⁶ *Ibidem*.

⁵⁷ Dan Smith, "Towards a Strategic Framework for Peacebuilding: Getting Their Act Together. Overview Report of the Joint Utstein Study of Peacebuilding" (Evaluation Report 1/2004, Report commissioned by the Royal Norwegian Ministry of Foreign Affairs for the Joint Utstein Study of Peacebuilding, Norway: Royal Norwegian Ministry of Foreign Affairs, 2004), p. 10, available at: http://www.prio.no/files/file44563_rapport_1.04_webutgave.pdf.

⁵⁸ The model of the peacebuilding palette can be found at: <http://www.international-alert.org/pdfs/palette.pdf>

⁵⁹ Snyder and Bhavnani, "Diamonds, Bloods, and Taxes: A Revenue-Centered Framework for Explaining Political Order", p. 590.

a government on its natural resources not only weakens the force of a non-state opposite group, but it also has positive consequences on the security of a country, on its economy and its society.

Peacebuilding activities in the security field provide, for example, disarmament of combatants: the first step to dismantle the links that guarantee the combatants the finances and the provisions of arms is to deny them access to natural resources. Furthermore, a better political control of the natural resources entails more earnings through taxation and more revenue to spend. If a country invests them in "strengthening the military, providing social welfare, and improving their capacity to earn revenue in the future",⁶⁰ it can reinforce its security sector and lower the degree of societal opposition.

Finally, more security, better social welfare and the provision of future revenues can consequently create a more peaceful society, the ideal condition to foster the construction of a stronger, richer and more diversified economy. "Eating in the bush is better than starving in Monrovia",⁶¹ said a former fighter of the Revolutionary United Front of Sierra Leone: post-conflict peacebuilding activities aimed at building a healthy and safe country are the first step to reinforce and to diversify its economy, enhancing in this way the opportunity costs to join a rebellion.

The role of international actors

As conflict-related problems are different from place to place, there is no magic wand that can make conflict resolution and peacebuilding always effective, particularly when armed conflicts are caused or reinforced by natural resources. International actors have often played a role in the aftermath of a natural resources-driven conflict: domestic and international political institutions, as well as private corporations, NGOs and civil society have sometimes taken part in post-conflict peacebuilding policies, yet their involvement has not always had positive outcomes.

In 2005 for example, Fearon stressed the importance of international monitoring and influence on the management and distribution of weak states' oil revenues. Providing the example of Southern Chad, where the World Bank "attempted to negotiate monitoring and management arrangements as a condition for supporting pipeline development",⁶² he suggested that "for weak states that already export large amounts of oil, the IMF, World Bank, or a new international institution could offer a standardized external monitoring and management service that the state could publicly commit to".⁶³ Events since 2005 have shown how the doubts

⁶⁰ *Ibidem*, p. 588

⁶¹ Quoted in Jeremy M. Weinstein, "Resources and the Information Problem in Rebel Recruitment", *Journal of Conflict Resolution* 49, no.4 (2005): p. 617 and relies on William Reno, "War, Markets, and the Reconfiguration of West Africa's Weak States", *Comparative Politics* 29, no.4 (1997): pp. 493-510.

⁶² Fearon, "Primary Commodity Exports and Civil War", p. 505.

⁶³ *Ibidem*.

and scepticism of some critical experts on the deal between the World Bank and Chad Government were well founded.⁶⁴ The money spurred government corruption rather than fostering development and poverty reduction. In 2008, an unnamed analyst considered the role of the World Bank in the country “almost nil”,⁶⁵ and the international institution had to admit that the Chad Government “failed to comply with the key requirements of this agreement”⁶⁶ and “did not allocate adequate resources critical for poverty reduction”,⁶⁷ ending in this way its pipeline deal.

A different and more positive example, which shows how civil society actors can make a difference, is the Kimberley Process.⁶⁸ This process began in May 2000 with a campaign led by the NGO Global Witness⁶⁹ and the organisation Partnership Africa Canada⁷⁰ aimed at raising awareness of the problem of the conflict diamonds. Following this campaign, the UN General Assembly adopted a resolution supporting the creation of “a simple and workable international certification scheme for rough diamonds”.⁷¹ Negotiations between governments of several countries, the international diamond industry (particularly the main company involved in the trade, De Beers) and civil society organisations led to the creation of a certificate that sets out the requirements controlling the rough diamond production and trade. The certification scheme did not completely curb the illicit trade in rough diamonds and fragile situations in countries affected by conflict diamonds still prevail.⁷² Yet the process has also had some positive outcomes and promising results: countries that have previously suffered from conflicts funded in part by diamond now experience a greater stability,⁷³ the conflicts in Angola and Sierra Leone ended, and no other major conflict has been driven by diamonds since then.

⁶⁴ For more information about the deal see Steven D Krasner, “Sharing sovereignty: New institutions for collapsed and failing states”, *International Security* 29, no.2 (2004): pp. 111-113. For some criticism about the project see for example Daphne Eviatar, “Striking It Poor: Oil as a Curse”, *New York Times*, 7 June 2003, available at: <http://www.nytimes.com/2003/06/07/arts/striking-it-poor-oil-as-a-curse.html?pagewanted=1>.

⁶⁵ Bank Information Center, *President of Chad nullifies World Bank agreement to grab oil money and crack down on opponents*, 6 March 2008, available at: <http://www.bicusa.org/en/Article.3693.aspx>

⁶⁶ Lydia Polgreen, “World Bank Ends Effort to Help Chad Ease Poverty”, *New York Times*, 10 September 2008, available at: <http://www.nytimes.com/2008/09/11/world/africa/11chad.html>.

⁶⁷ *Ibidem*.

⁶⁸ <http://www.kimberleyprocess.com>. For more information about the Kimberley Process and about the efforts to curb the problem of the conflict diamonds see Smillie, “Dirty Diamonds. Armed Conflicts and the Trade in Rough Diamonds”, 39-66.

⁶⁹ <http://www.globalwitness.org/>

⁷⁰ <http://www.pacweb.org/>

⁷¹ See A/RES/55/56, *op. Cit.*

⁷² See for example the report of Global Witness and Partnership Africa Canada, “Loupe Holes. Illicit Diamonds in the Kimberley Process” (Global Witness and Partnership Africa Canada, November 2008): http://www.globalwitness.org/media_library_detail.php/674/en/loupe_holes_illicit_diamonds_in_the_kimberley_proc.

⁷³ http://www.kimberleyprocess.com/faqs/index_en.html.

Conclusion

This article has analysed the inter-relation between armed conflict and natural resources. It has been found that the former can have a strong link with the latter only when natural resources have particular natural and geographical characteristics and when a country experiences peculiar political, societal and economic situations. Furthermore, the article has shown how this inter-relation is various and diverse, to the point that even scholars who studied it have sometimes disagreed on some outcomes of their research. When conflict resolution and post-conflict peacebuilding policies try to restore peace in countries devastated by conflicts fostered by natural resources, they have to deal with this complicated framework. Conflict resolution and post-conflict peacebuilding policies should be aimed at addressing those political, societal, and economic situations that, inter-related with the mere presence of natural resources in a country, can cause or lengthen an armed conflict. According to the theoretical model of the Peacebuilding Palette, peacebuilding is a manifold policy encompassing security, reconciliation, justice, and addressing the socio-economic and political aspects of a society. The fact of considering in this comprehensive model also the implications of the inter-relation between natural resources and armed conflicts could render this policy more difficult, but it is the only way towards peace. Conversely, ignoring the inter-relation between natural resources and armed conflicts can indeed make the difficult outcome of peace almost impossible to achieve. A positive example such as the Kimberley Process has shown that, if the actions of peacemakers and peacebuilders are helped by the theory of scholars and are sustained and addressed by the work of international organisations, NGOs and civil society, even the difficult task of building peace after a natural resources-driven conflict may be achievable.

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