

RE-IMAGINING RECENT CONFLICTS AS  
ENVIRONMENTAL CONFLICTS: WHAT ROLE FOR  
INTERNATIONAL LAW?

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ABSTRACT

*There is intractable evidence of a nexus between climate change and environmental degradation and violent conflict. Both are contributing factors. Yet, it is only very recently that the UN Security Council has identified their impact, especially in Africa, without however addressing them in any meaningful way. There is no indication that the Council intends to assist in any other way other than through capacity building measures. The paper provides at least two instances where environmental degradation, man-made in character, has greatly impacted local communities and led to conflict. The first is Darfur, which is treated in this paper as chiefly an environmentally driven conflict, despite the existence of other contributing elements. The second is the situation in the Democratic Republic of the Congo, where poverty, corruption and lack of sound governance have allowed criminal gangs to spoliage the country's natural resources. The paper suggests that the UN Security Council is better placed than any other entity to address the root causes of such conflicts.*

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## I. INTRODUCTION

It is only recently that the international community has come to look at conflict and violent crimes outside the classical prisms of deviance. Anthropology, while largely neglected by lawyers and international criminal tribunals examining such phenomena, has proven a useful tool by which to disentangle myth from reality, as well as explain why entire communities suddenly embrace violence and commit heinous crimes.<sup>1</sup> Political analyses are equally beginning to emerge as significant factors by which to explain communal violence.<sup>2</sup> Recent debates on climate change have allowed lawyers and legislators to appreciate and set out a rudimentary legal framework by

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<sup>1</sup> Ilias Bantekas, *Explaining Mass Atrocity through Culture: The Missing Link for International Criminal Justice?* 40 BERKELEY J. INT’L L. (2022) (forthcoming); John M Conley & William M O’Barr, *Legal Anthropology comes Home: A Brief History of the Ethnographic Study of Law*, 27 LOY. L. REV. 41, 41 (1993); see also Gerhard Anders, *Testifying about Uncivilised Events: Problematic Representations of Africa in the Trial against Charles Taylor*, 24 LEIDEN J. INT’L L. 937, 940 (2011) (explaining how an admission of cannibalism by an accused was taken at face value by the Special Court for Sierra Leone, whereas for anthropologists familiar with West Africa, this was beyond any doubt a metaphor for victory over one’s opponent).

<sup>2</sup> The Special Tribunal for Lebanon further undertook an extensive analysis of Lebanon’s political landscape. See Melia A Bouhabib, *Power and Perception: The Special Tribunal for Lebanon*, 3 BERKELEY J. MIDDLE E. & ISLAMIC L. 173, 174 (2010) (arguing that the Tribunal’s legitimacy in this respect was strongly debated by the various factions in the country).

which to assess certain forms of migration,<sup>3</sup> food safety and governance.<sup>4</sup> Following the Paris Agreement<sup>5</sup> and the Glasgow Summit of 2021<sup>6</sup> the impact of climate change on our natural environment is no longer under contention and we are closer to comprehending conflict in places where such impact devastates traditional lifestyles, the economies, if not the very existence, of entire countries, and forces various groups to compete for scarce natural resources.<sup>7</sup> The measurement of natural disasters is now subject to well-agreed indicators.<sup>8</sup> Such scarcity, which is directly and quintessentially associated with the environment poses severe risks for human existence and human security in the wide sense. The term “environmental security” has been defined as encompassing the availability of environmental services for man and nature<sup>9</sup> and UNEP has set up a dedicated mission to detect and investigate threats to environmental security.<sup>10</sup> When human societies can feed and stay warm from the resources that nature can provide, any conflicts between such

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<sup>3</sup> See JANE MCADAM, *CLIMATE CHANGE, FORCED MIGRATION & INTERNATIONAL LAW* (Oxford University Press, 2012); Sumudu Atapattu, *Climate Change, Human Rights and Forced Migration: Implications for International Law* 26 WIS. INT’L L.J. 607 (2010).

<sup>4</sup> The New Zealand Supreme Court in *Trans-Tasman Resources Ltd v. Taranaki-Whanganui Conservation Board*, held that tikanga-based customary rights and interests constituted ‘existing interests’ when considering ‘any effects on the environment or existing interests of allowing the activity’ under a section in the New Zealand Exclusive Economic Zone (EEZ) Act. *Trans-Tasman Res. Ltd. v. Taranaki-Whanganui Conservation Bd.*, NZSC 127, 176 (2021). The Court further held that tikanga as law must be taken into account as “other applicable law.” *Id.* at 190.

<sup>5</sup> The Agreement’s core concerns encompass national mitigation measures and international cooperation on mitigation, adaptation and transfer of finance and technology. U.N. Framework Convention on Climate Change, Mar. 21, 1995, U.N.T.S. 7. Its key aim is to hold the increase in the global average temperature “well below” the 2 degrees Celsius above pre-industrial levels. See LAVANYA RAJAMANI & DANIEL BODANSKY, *The Paris Rulebook: Balancing International Prescriptiveness with National Discretion*, 68 ICLQ 1023 (2019).

<sup>6</sup> COP26, THE GLASGOW CLIMATE PACT, (UN Climate Change Conference UK, 2021). The COP stressed “the urgency of enhancing ambition and action in relation to mitigation, adaptation and finance in this critical decade to address the gaps in the implementation of the goals of the Paris Agreement.” UN Climate Change Conference, *Glasgow Climate Pact*, ¶ 14, Decision - CP.26 (Dec. 11, 2021).

<sup>7</sup> See generally Gabriel Eckstein, *Water Scarcity, Conflict and Security in a Climate Change World: Challenges and Opportunities for International Law and Policy*, 27 WISC. INT’L L.J. 410, 410 (2009).

<sup>8</sup> UNISDR has developed a Global Risk Model which measures annual average loss (AAL) and probable maximum loss (PML) in respect of earthquakes, cyclones and floods for a period of 250 years. See UNISDR, *Indicators for Measuring the Integration of Disaster Risk Reduction in UN Programming* (2015).

<sup>9</sup> See Ragnhild Nordås & Nils Petter Gleditsch, *Climate Change and Conflict*, 26 POL. GEOGRAPHY 627, 628 (2007).

<sup>10</sup> *Environment Security*, UNEP, (2022), <https://www.unep.org/explore-topics/disasters-conflicts/what-we-do/environment-security> (last visited Nov. 2, 2022).

societies will certainly not be rooted in environmental causes, broadly defined. On the contrary, the depletion of a region's natural resources, as well as the destruction of its natural environment through deforestation or soil degradation inevitably brings about resource scarcity. Resource scarcity in turn leads to conflict between contesting groups because the fundamental tenet in the definition of environmental security will have been removed. Equally, the conflict itself leads to further environmental destruction that makes the availability of environmental services scarcer to even more people. This latter result is usually achieved through large-scale forced migration or internal displacement that puts a demographic and environmental stress on local resources. Once a conflict erupts, this may subsequently feed into the use of environmental modification techniques as a means of warfare,<sup>11</sup> as well as trigger the looting of mineral resources by the warring factions in order to finance the conflict, and the list goes on. Such conflicts are by no means a phenomenon of our era, but have occurred throughout human history.<sup>12</sup> Some scholars even suggest that environmental security is so vital that it is worth waging wars over it.<sup>13</sup>

Although the concept of environmental security has been around for some time, although generally employed to describe the impact of conflicts on the environment,<sup>14</sup> governments had until recently not officially proclaimed the connection between resource scarcity and conflict.<sup>15</sup> Resource scarcity as a result of environmental degradation is not only a potential cause of conflict in the traditional sense encompassing armed violence, it is moreover the direct catalyst for all the evils of under-development; including, among others, malnourishment, high child death rates, population movements and illiteracy. This situation is further compounded by the fact that many

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<sup>11</sup> See e.g., 1977 UN Convention on the Prohibition of Military or Any Other Hostile Use of Environment Modification Techniques, Dec, 10, 1976, 151 U.N.T.S. 1108.

<sup>12</sup> UNEP, *Understanding Environment, Conflict and Cooperation*, UNEP Doc DEW/0571/NA (2004) 6-7 [hereinafter "Understanding Environment, Conflict and Cooperation"]. The authors of the report start as far back as the Peloponnesian war between Athens and Sparta.

<sup>13</sup> Rosaleen Duffy, *Waging a War to Save Biodiversity: The Rise of Militarized Conservation*, 90 INT'L AFF. 819, 820 (2014).

<sup>14</sup> See JEREMY LIND & KATHRYN STURMAN (EDS), SCARCITY & SURFEIT: THE ECOLOGY OF AFRICA'S CONFLICTS 220 (RSA Institute for Security Studies 2002); JON BARNETT, THE MEANING OF ENVIRONMENTAL SECURITY: ECOLOGICAL POLITICS & POLICY IN THE NEW SECURITY ERA 8 (Zed Books, 2001).

<sup>15</sup> See generally LOUIS ANTEN, UNIT COUNTRIES AT RISK OF INSTABILITY: FUTURE RISKS OF INSTABILITY 9 (Clingendael Institute, 2009), in which environmental security was explicitly mentioned as a future source of serious conflict.

African countries can validly be classified as either failed or weak States.<sup>16</sup> Thus, unlike the developed world where the average citizen can generally rely on the State in times of hardship as a matter of social welfare, the average African citizen would never think in those terms.<sup>17</sup> Successive generations of Africans have died of famine, had their mineral resources plundered by authoritarian regimes and moreover faced brutal repression and harsh dictatorships. Thus, a policy of averting and reversing the catastrophic effects of deforestation carried out by exasperated and hungry people needs to be counterbalanced by the provision of an alternative livelihood acceptable to its beneficiaries. It is also imperative that this livelihood be sustainable in the long term.

This probably explains why although the scientific community has specifically demonstrated the direct links between environmental stresses and the potential for conflict, the UN Security Council had until recently chosen, unlike the Secretary-General,<sup>18</sup> to ignore these links in its deliberations regarding peace and security.<sup>19</sup> The furthest the Council had gone was to concede the links between illegal exploitation of natural resources as a factor exacerbating conflict in the Great Lakes region of central Africa.<sup>20</sup> Nonetheless, the Council did not determine the process of illegal mineral

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<sup>16</sup> There is no official definition pertaining to weak States, although the OECD in 2005 launched a “Fragile States” Initiative in partnership with the World Bank’s Low-Income Countries under Stress Program. See OPERATIONS POLICY & COUNTRY SERVICES, LOW-INCOME COUNTRIES UNDER STRESS UPDATE 4 (2005). The OECD States of Fragility Report from 2015 onwards marks a change towards defining dimensions of fragility: violence, justice, institutions, economic foundations and resilience. Organisation for Econ. Co-operation and Dev., States of Fragility 2015: Meeting Post-2015 Ambitions 19 (OECD 2015). Thus, the OECD breaks down the drivers of fragility for each country and reveals different patterns of vulnerability instead of trying to stringently define fragility.

<sup>17</sup> Jeremy Clover, *Human Centred Environmental Security in Africa*, 14 AFRICAN SEC. REV. 103, 103 (2005).

<sup>18</sup> U.N. Secretary-General, *Interim Report of the Secretary-General on the Prevention of Armed Conflict*, ¶ 37, A/58/365-S/2003/888 (Sept. 12, 2003). This was subsequently filtered into the agenda of the Secretary-General’s High-level Panel on Threats, Challenges and Change. U.N. Secretary-General, *A More Secure World: Our Shared Responsibility, Rep. of the High-level Panel on Threats, Challenges and Change*, ¶ 22, U.N. Doc. A/59/565 (Dec. 2, 2004).

<sup>19</sup> Other UN entities, as will be shown elsewhere, have been more forthcoming since the early 2000s. See e.g., Walter Kälin, *Human Rights Council, on its Tenth Session, Promotion and Protection of All Human Rights, Civil, Political, Economic, Social and Cultural Rights, Including the Right to Development, Addendum Protection of Internally Displaced Persons in Situations of Natural Disasters: Rep. of the Representative of the Secretary-General on the Human Rights of Internally Displaced Persons* ¶ 22 Adv. Ed. Version U.N. Doc. A/HRC/10/13 (Feb. 9, 2009); Human Rights Council, *Rep. of the Office of the United Nations High Commissioner for Human Rights on the Relationship Between Climate Change and Human Rights*, ¶ 51, 56, Adv. Ed. Version UN Doc. A/HRC/10/61 (Jan. 15, 2009).

<sup>20</sup> S.C. Res. 1698, ¶5 (July 31, 2006).

exploitation from the point of view of resource scarcity, being concerned instead with the ramifications of Rwandan and other foreign army incursions into the territory of the Democratic Republic of the Congo (DRC) at a time when it was not capable of controlling and defending the entirety of its territory. Equally, the Council was naturally concerned that the DRC was becoming a haven for paramilitaries and foreign corporations eager to get their hands on Congo's mineral wealth and in the process fuel violent conflicts on its territory.<sup>21</sup> The Council's "irritatingly" elaborate references solely to the criminal implications and the narrowly-defined security considerations in respect of the Great Lakes and the Darfur conflicts<sup>22</sup> began to change only recently following the acceleration of the debates on climate change and its impact on mass communal violence.<sup>23</sup> This stance has now changed as will be analysed in a subsequent section, although not necessarily radically so.

The paper will focus on Africa, chiefly because resource-scarcity and environmentally fuelled conflicts since the early 2000s have occurred there, as chiefly acknowledged by the UN Security Council.<sup>24</sup> Moreover, regional politics in Africa have played a significant role in exacerbating environmental harm.<sup>25</sup> There is little prospect that African states, even the most powerful

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<sup>21</sup> This position of the Council was also voiced in previous resolutions, particularly 1291 (Feb. 24, 2000) and 1304 (June, 16 2000), in which it held that illegal mineral exploitation threatened the country's security condition. S.C. Res. 1291, (Feb. 21, 2000); S.C. Res. 1304, (June 16, 2000). It, therefore, moved to act under chapter VII of the UN Charter. U.N. Charter chapter 7.

<sup>22</sup> See S.C. Res. 1861, ¶6 (Jan. 14, 2009) (on Darfur); S.C. Res. 1858 (Dec. 22, 2008) (on Burundi); S.C. Res. 1856, ¶10 (Dec. 22, 2008) (on the DRC); S.C. Res. 1828 (July 31, 2008); S.C. Res. 1804 (Mar. 13, 2008); S.C. Res. 1769 (July 31, 2007) (declining to acknowledge this link even in respect of its annual discussion of the security situation in Africa); See, e.g. S.C. Res. 1809 (April 16, 2008).

<sup>23</sup> See Katherine J. Mach et. al., *Climate as a Risk Factor for Armed Conflict*, 571 NATURE 193, 195 (2019); Kendra Sakaguchi et. al., *Climate Wars? A Systematic Review of Empirical Analyses on the Links Between Climate Change and Violent Conflict*, 19 INT'L STUDIES REV., 622, 640 (2019).

<sup>24</sup> See S.C. Res. 2457, ¶ 18 (Feb. 27, 2019) ("Recognizing the adverse effects of climate change, ecological changes and natural disasters, among other factors, on the stability of a number of AU Member states . . ."); S.C. Res. 2461, ¶ 21 (Mar. 27, 2019) (" . . . [C]onsider the adverse implications of climate change, other ecological changes and natural disasters, among other factors, in their programmes in Somalia . . .").

<sup>25</sup> See particularly the 2004 Dar-es-Salaam Declaration on Peace, Security, Democracy and Development in the Great Lakes Region, which recognised the poignancy of environmental security explicitly. Equally, the Nile Basin Initiative is aimed at replacing the Nile Waters Agreement, May 7, 1929, 93 LNTS 43, which was far too favourable for Egypt because the agreement was of a bilateral nature (UK-Egypt) and which provided Egypt with exclusive property rights over the Nile's waters, save only for the Sudan among all other riparian States. Sudan is bound by the 1929 Agreement on the basis of a subsequent 1959 Agreement with Egypt on Full Utilisation of the Nile's Waters, November 8, 1959, 453 UNTS 6519. As a result, it is

among these, such as Nigeria or Sudan, possess the capacity to change things around.<sup>26</sup> The UN has made some, admittedly feeble, effort to offer capacity building, but at the very least the impact of climate change and natural disasters on human rights is an inextricable part of the Sustainable Development Goals (SDGs).<sup>27</sup> The UN Regional Office for Central Africa (UNOCA), the UN Climate-Security Mechanism, the Economic Community of Central Africa States (ECCAS), and UN Country Teams in Central Africa are collaborating with a view to a better understanding of the relationship between climate change and security in Central Africa and to strengthen the capacity of the sub-region to mitigate these risks.<sup>28</sup> Although land conflicts occur in other parts of the world, these largely concern co-called large grabs and are generally not related to the degradation of the natural environment.<sup>29</sup> The paper will focus on all those forces that bring about resource scarcity, including deforestation and land degradation; the role of population densities and; pollution of the natural environment that leads to food and resource scarcity. Moreover, we shall try to explain the Darfur crisis as a case study of an environmental conflict, as well as examine the threats to security and

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currently unworkable for the nine current riparian countries. The Nile Basin Initiative aims to diffuse tension between the riparian countries through sustainable socio-economic development and equitable utilisation. UNEP 'Africa Assessment: Environmental Conflict and Cooperation in the African Great Lakes Region' (December 2007) 9-11.

<sup>26</sup> This is not mere pessimism. At the AU Assembly in July 2003, African Heads of State endorsed the Maputo Declaration on Agriculture and Food Security in Africa, which among other things requested African countries to commit themselves to the allocation of at least 10% of national budgetary resources to agriculture and rural development policy implementation within five years. Africa Union, MAPUTO DECLARATION ON AGRICULTURE & FOOD SECURITY (2003). This pledge was further iterated a year later by means of the Sirte Declaration on the "Challenges of Implementing Integrated and Sustainable Development in Agriculture and Water in Africa," Assembly of the Afr. Union Decl. 1 (II), SIRTE DECLARATION ON THE CHALLENGES OF IMPLEMENTING INTEGRATED & SUSTAINABLE DEVELOPMENT ON AGRICULTURE & WATER IN AFRICA (Feb. 27, 2004). A high-ranking delegate of the AU reported that the implementation of the Maputo Declaration remains modest and only nineteen countries have provided compliance data. Ilias Bantekas, *Environmental Security in Africa*, in PROTECTING HUMAN SECURITY IN AFRICA 43, 43 (Ademola Abass ed., 2010). Three countries are allocating above 10%, (Niger 20.15%, Ethiopia 13.6% and Chad 11.9%). *Id.* Four countries are allocating between 5 to 10% (Tunisia 8.2%, Zimbabwe 6.2%, Swaziland 5.5%, and Sudan 5.4%) with 12 countries allocating below 5%. *Id.*

<sup>27</sup> See G.A. Res. A/RES/71/313, at 15 (2022). ("SDG 13.1 – Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.").

<sup>28</sup> U.N. Secretary-General, *The situation in Central Africa and the activities of the United Nations Regional Office for Central Africa*, ¶ 29, U.N. Doc S/2020/1154 (December 1, 2020).

<sup>29</sup> See ELYSE MILLS, *LAND GRABBING & HUMAN RIGHTS: THE ROLE OF EU ACTORS ABROAD* (FIAN Int'l for the Hands on the Land for Food Sovereignty All. ed. 2007); Evadné Grant & Onita Das, *Land Grabbing, Sustainable Development and Human Rights*, 4 TRANSNAT'L ENV'T L., 289 (2015).

resource scarcity stemming from Africa's illegal exploitation of mineral resources.

## II. THE SECURITY COUNCIL AND ENVIRONMENTAL SECURITY

It is important to make a clarification from the outset. There is a clear distinction between conflicts driven by environmental degradation, some of which is man-made and conflict caused by climate change.<sup>30</sup> The Council did not seriously address the former when it first emerged and although at times it conflates the two circumstances it generally does distinguish between them. It is not hard to see why the Council had refused to acknowledge the potential for conflict with regard to environmental security, particularly in the context of Africa where it was and continues to be most acute. For one thing, were the Council to officially acknowledge this link it would have to bring the situation under Chapter VII of the UN Charter. This would then require specifically addressing the situation through concrete means. It is one thing identifying the perpetration of war crimes and the breakdown of security within a State and authorising the dispatch of peacekeepers under a broad mandate to use force and it is a different thing altogether identifying the potential for conflict through an impending environmental disaster. In the latter case, the Council cannot simply authorise the dispatch of a military contingent, but must instead seek to put in place measures that can reverse the effects of deforestation and land degradation. The other obvious reason for the Council's consistent pattern in addressing only particular security issues relates to the actual volatile security considerations on the ground. Crimes occur on a daily basis in conflict regions and the UN must ensure that no one enjoys impunity by simply invoking environmental factors as root causes of such conflicts; although in its more recent practice the Council seems to implicitly embrace the likelihood of peacekeeping in more diverse circumstances.<sup>31</sup> At the same time, of course, the Council is careful not to emphasize the root causes of climate change and the role of the industrialized nations that sit at its helm.<sup>32</sup>

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<sup>30</sup> See HUMAN SECURITY AND NATURAL DISASTERS (Christopher Hobson et. al., 2014).

<sup>31</sup> See S.C. Res. 2286 (May 3, 2016), where the UNSC affirmed that one of the roles of the Peacebuilding Commission is to: "promote an integrated, strategic and coherent approach to peacebuilding", noting in the process all forms of security, development and human rights are inextricably linked and mutually reinforcing.

<sup>32</sup> Martin Binder & Monic Heupel, *Contested Legitimacy: The U.N. Security Council and Climate Change*, in CLIMATE CHANGE & THE U.N. SECURITY COUNCIL (2018) 168, 191. They emphasize that ". . . while the Council has the legal authority to authorize the use of force against states whose failure to substantially reduce their CO2 emissions it deems to constitute a threat to peace and security, such a step is still no plausible scenario given that three of the five permanent Council members (P5) – the United States, China and Russia – are among the world's largest emitters".



While acknowledging the practical difficulties inherent in the Council's approach to environmental security, there is now a significant amount of scientific and empirical evidence demonstrating a concrete link between environmental security and conflict.<sup>33</sup> The Council has made some steps to address these links, even if somewhat timidly. The mandate of UN Assistance Mission in Somalia was the first UN field mission to offer capacity on climate security to assess climate-related security risks, with a view to developing appropriate risk management strategies.<sup>34</sup> The Council has designated -or collaborates with- other entities for appraisal purposes. By way of illustration, public-private partnerships have evolved to address and capture emerging data and developments through the work of dedicated field offices and full time analysts. In 2020, the International Peace Research Institute (SIPRI) and the Norwegian Institute of International Affairs (NUPI) set up the Climate-related Peace and Security Risk project, with the aim of assessing climate security and associated risks in countries or regions of interest to the UN Security Council. The reports are meant to serve as early warning mechanisms on the basis of which the Council can decide whether its involvement should be imminent.<sup>35</sup>

It is certainly important that the Council has addressed climate change and environmental degradation as contributing factors to instability and insecurity. In resolution 2408 it "recognized the adverse effects of climate change, ecological changes and natural disasters among other factors on the stability of Somalia, including through drought, desertification, land degradation, and food insecurity, and emphasising the need for adequate risk assessments and risk management strategies by governments and the United Nations relating to these factors".<sup>36</sup> The same phraseology was iterated in respect of the situation in Mali<sup>37</sup> and Darfur, further requesting the Sudanese government and the UN to:

"consider the adverse implications of climate change, other ecological changes and natural disasters, among other factors, in their programmes in Darfur, including by undertaking risk assessments and risk management

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<sup>33</sup> International Crisis Group (ICG), *How Climate Science Can Help Conflict Prevention*, (Apr. 20, 2021), <https://www.crisisgroup.org/global/how-climate-science-can-help-conflict-prevention> (last visited Nov. 2, 2022).

<sup>34</sup> S.C. Res. 2592/2021 ¶ 15 (Aug. 30, 2021).

<sup>35</sup> See STOCKHOLM INT'L PEACE RSCH. INST. (SIPRI) & NORWEGIAN INST. INT'L AFF. (NUPI), CLIMATE PEACE & SEC. FACT SHEET: SOMALIA (Feb. 2021); see also STOCKHOLM INT'L PEACE RSCH. INST. (SIPRI) & NORWEGIAN INST. INT'L AFF. (NUPI), CLIMATE PEACE & SEC. FACT SHEET: MALI (May 2021).

<sup>36</sup> See S.C. Res. 2408 (Mar. 27, 2018); see also, S.C. Res. 2431 (Jul. 30, 2018) in its re-authorization of the AMISOM mission to Somalia.

<sup>37</sup> See S.C. Res. 2423 (June 28, 2018).

strategies relating to these factors and further requests the Secretary-General to provide information of such assessments in mandated reporting as appropriate”.<sup>38</sup>

In respect of its Peace Consolidation initiative in West Africa, the Security Council expressed its concern for “increased tensions between pastoralists and farmers in the region driven by competition for natural resources, rapid population growth, weak governance, pressures related to climate and ecological factors, and the circulation of small arms and light weapons .... [as well as for] the overall humanitarian situation in the region, characterized by...adverse effects of climate change, ecological changes, natural disasters and epidemics, which contribute to high levels of structural, chronic and acute vulnerability in the region and continue to affect populations, and call for significant humanitarian and development action as well as the disbursement of previously pledged funds”.<sup>39</sup> The Council’s emphasis and distinction between ecological harm and climate change has been iterated elsewhere in its assessment of state fragility and insecurity in Africa.<sup>40</sup> It was further highlighted in its resolution 2448 concerning the situation in the Central African Republic, where it recognized “the adverse effects of climate change, ecological changes and natural disasters, among other factors, on the stability of the Central African Region, including through drought, desertification, land degradation, and food insecurity”.<sup>41</sup>

It is clear that the Council’s focus is squarely on Africa. Since 2018 it has consistently addressed climate change and various forms of environmental degradation as significant contributing causes to security, fragility, poverty and instability in several countries in the African continent, chiefly Sudan, Somalia, Mali and the Central African Republic.<sup>42</sup> References to countries outside Africa are infrequent.<sup>43</sup> The Council’s engagement with the issue at hand, while generating some debate within the Council through letters<sup>44</sup> and

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<sup>38</sup> S.C. Res 2429 ¶ 47 (July 17, 2018).

<sup>39</sup> S.C. Pres. Statement 2018/16 (Aug. 10, 2018).

<sup>40</sup> S.C. Pres. Statement 2018/17 (Aug. 10, 2018).

<sup>41</sup> S.C. Res. 2448 (Dec. 13, 2018).

<sup>42</sup> *See, e.g.*, S.C. Res. 2472 (May 31, 2019); S.C. Res. 2480 (June 28, 2019); S.C. Res. 2499 (Nov. 15, 2019); S.C. Res. 2502 (Dec. 19, 2019); S.C. Res. 2520 (May 29, 2020); S.C. Res. 2524 (June 3, 2020); S.C. Res. 2531 (June 29, 2020); S.C. Res. 2540 (Aug. 28, 2020); S.C. Res. 2552 (Nov. 12, 2020); S.C. Res. 2556 (Dec. 18, 2020); S.C. Res. 2567 (Mar. 12, 2021).

<sup>43</sup> *See* S.C. Res. 2561 (Jan. 29, 2021); *see also* S.C. Res. 2576 (May 27, 2021).

<sup>44</sup> *See, e.g.*, Permanent Rep. of Portugal to the U.N., Letter dated Nov. 8, 2011, from the Permanent Rep. of Portugal to the United Nations addressed to the Secretary General, U.N. Doc. S/2011/698 (Nov. 9, 2011); Permanent Rep. of Japan to the U.N., Letter dated Dec. 1, 2017, from the Permanent Rep. of Japan to the United Nations addressed to the Secretary General, U.N. Doc. S/2017/1016 (Dec. 5, 2017); Permanent Rep. of the Plurinational State of Bolivia to the U.N., Letter dated Oct. 9, 2018, from the Permanent Rep. of the Plurinational State of Bolivia

meetings,<sup>45</sup> has not to date produced a concrete response or long-term planning of some sort.

The Council seems content to delegate such planning and early warning to other entities within the UN and beyond. This explains the active engagement of several inter-governmental stakeholders, such as the EU<sup>46</sup> and UNEP, which operates such a system, the so-called Initiative on Environment and Conflict Prevention,<sup>47</sup> which does not, however, directly inform the decision-making centres of the Security Council. In addition, a collaborative initiative between UNEP, UNDP, NATO and the OSCE has emerged, with the aim of identifying environmental threats to global security and thereafter dealing with such threats through diplomatic and similar avenues. This initiative is known as Environmental Security (ENVSEC).<sup>48</sup> The UNEP mechanism accurately forecasted and prevented pastoral conflicts in Somalia and Uganda.<sup>49</sup> Other mechanisms include the Climate Security Mechanism (CSM), set up in 2018 by the UN Department of Political and Peacebuilding Affairs (DPPA), the UN Development Programme (UNDP), and the UN Environment Programme (UNEP) with the aim of gathering information and

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to the United Nations addressed to the Secretary General, U.N. Doc. S/2018/901 (Oct. 11, 2018); Permanent Rep. of the Dominican Republic to the U.N., Letter dated Jan. 2, 2019, from the Permanent Rep. of the Dominican Republic to the United Nations addressed to the Secretary General, U.N. Doc. S/2019/1 (Jan. 3, 2019); Permanent Rep. of the Niger to the U.N., Letter dated Sep. 1, 2020, from the Permanent Rep. of the Niger to the United Nations addressed to the Secretary General, U.N. Doc. S/2020/882 (Sep. 3, 2020); Permanent Rep. of Saint Vincent and the Grenadines to the U.N., Letter dated Oct. 30, 2020, from the Permanent Rep. of Saint Vincent and the Grenadines to the United Nations addressed to the Secretary General, U.N. Doc. S/2020/1064 (Oct. 30, 2020); Permanent Rep. of the United Kingdom of Great Britain and Northern Ireland to the U.N., Letter dated Feb. 17, 2021, from the Permanent Rep. of the United Kingdom of Great Britain and Northern Ireland to the United Nations addressed to the Secretary General, U.N. Doc. S/2021/155 (Feb. 18, 2021).

<sup>45</sup> See e.g. U.N.S.C., 73th Sess., 8372nd mtg., U.N. Doc. S/PV.8372 (Oct. 16, 2018); U.N.S.C., 74th Sess., 8451st mtg., U.N. Doc. S/PV.8451 (Jan. 25, 2019); U.N.S.C., 75th Sess., 8748st mtg., U.N. Doc. S/PV.8748 (July 14, 2020).

<sup>46</sup> The EU has emphasized the connection between Covid-19 and environmental/climatic factors as contributing to violent conflict. See U.N. President of the S.C. to the Secretary-General and the Permanent Representatives of the members of the S.C., Letter dated July 28, 2020, from the President of the S.C. addressed to the Secretary-General and the Permanent Representatives of the members of the S.C., U.N. Doc. S/2020/751, at 37 (July 30, 2020).

<sup>47</sup> U.N.E.P., *Why Do Disasters and Conflicts Matter?*, <https://www.unep.org/explore-topics/disasters-conflicts/why-do-disasters-and-conflicts-matter> (last visited Nov. 10, 2022).

<sup>48</sup> At present, ENVSEC monitors Central Asia and Eastern Europe. See ENVSEC, *Environment and Security Initiative*, OSCE, <https://www.osce.org/oceea/446245> (last visited Nov. 14, 2022); see also Org. for Security and Co-operation in Europe (OSCE), *Madrid Declaration on Environment and Security of 2007*, ¶ 7, OSCE Doc MC.Doc/4/2007 (Nov. 30, 2007).

<sup>49</sup> *Understanding Environment, Conflict and Cooperation*, *supra* note 12, at 44-45.

analysis on the linkages between climate change and security in order to streamline these into the UN's prevention and peacebuilding framework.<sup>50</sup>

### III. THE LINKS BETWEEN POPULATION DENSITY & CONFLICT IN AFRICA

High levels of urbanisation do not necessarily lead to violent conflict, as is well demonstrated by the experiences of Europe in its post-WW II era. Nonetheless, riots and violent demonstrations have been prevalent in those cities in the developed world worse suffering from mass unemployment. There are factors, however, that differentiate the European experience from that of Africa. For one thing, European city dwellers do not rely on an agrarian economy for their livelihood and thus are unlikely to turn to mass farming in order to feed their families. Secondly, the apparatus of the State, as well as relatively wealthier family members or friends, will provide some sort of financial support. Thirdly, the energy needs of such persons will be duly covered by gas, nuclear energy, renewable sources of energy and others, all of which do not place a significant strain on the natural environment. In the African context, demographic stresses are always worrying, because none of the above factors can outweigh reliance on scarce natural resources.

A poignant example of the dangers inherent in imbalanced population densities may be gleaned from the Great Lakes region. The fertile soil of the lands around the Great Lakes have witnessed large influxes of poor internal migrants, some of whom are on the run from neighbouring armed conflicts. Reliable statistics clearly demonstrate that with the exception of Uganda, population density in Rwanda and Burundi is very high. In the Albertine Rift region this amounts to 94.6 people per square kilometre, which is significantly higher than the population density in other parts of sub-Saharan Africa. More worryingly, the population density in lands surrounding protected areas is even higher; 300 per square kilometres in Uganda, as compared to 600 people in certain Rwandan districts.<sup>51</sup> With the exception of Uganda, and to a lesser degree the DRC, the statistics reveal a consistently troublesome pattern in respect of deforestation, land degradation and access to freshwater resources. It is also interesting to note that in the countries that perform better environmentally their Gross Domestic Product (GDP) is significantly higher than that of their struggling counterparts; US\$ 1,206 and US\$ 1,454 in

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<sup>50</sup> See UNEP, *Progress in Strengthening the United Nations' Capacity to Address Climate-Related Security Risks*, (May 2021), which emphasizes that the "interplay between climate change and socioeconomic and political factors creates cascading effects that in some situations can threaten human, national and international security."

<sup>51</sup> ERIC VAN DE GIESSEN, *CHARCOAL IN THE MIST: AN OVERVIEW OF ENVIRONMENTAL SECURITY ISSUES & INITIATIVES IN THE CENTRAL ALBERTINE* 12 (Inst. for Env't Sec. ed., 2008).

Rwanda and Uganda respectively, as compared with US\$ 699 in Burundi.<sup>52</sup> The World Bank has taken into consideration both environmental stress indicators, as well as those indicators related to demographic stress with a view to ascertaining the degree of risk of conflict engendered by these factors. With the exception of Rwanda, which was found to face a very high risk, all other nations are deemed to face a high risk.<sup>53</sup>

The high concentration of populations in the Great Lakes of people with no other skills and income other than farming and artisanal mining has necessarily put a huge strain on the natural environment.<sup>54</sup> Significant deforestation has taken place and all available tracts of land have been made arable, even sloppy hills. The farmers receive no education on sustainable agriculture, nor is there any sensible control on the degree of deforestation. The potential for conflict is twofold. On the one hand, the influx of farm dwellers increases the problem of land scarcity. On the other hand, strong dependence on natural resources has an impact not only on deforestation, but also on the quality of fresh water resources, as well as the mineral wealth of these nations.<sup>55</sup> There will certainly come a time when the lack of arable land or its scarcity among farmers will give way to violent confrontation, at least at the communal level. These are not problems without solutions, however. Land scarcity can be tackled by reference to an equitable and well-managed land reform program. Farmers provided with equal land sizes and tenures and which are moreover trained on sustainable agriculture will be incentivised to care for their land and its surrounding environment. The post-colonial practice of recognising customary land rights proved to be a major hurdle in this direction, although many countries in sub-Saharan African still retain it. In 2005 the Parliament of Rwanda adopted the country's new Land Law that abolished customary tenure, replacing it instead with long leases.<sup>56</sup> This certainly has the potential to bring about social equity and cohesion, but in the present context the application of the Law has been attacked for focusing on privatisation and being subject to inequalities in land access based on historical revisionism.<sup>57</sup>

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<sup>52</sup> *Id.* at 13.

<sup>53</sup> See Sonja Varga et al., Conflict Risk Assessment Report: African Great Lakes 7-9, 25, 36 (2002).

<sup>54</sup> See generally Diana D.M. Babor, *Population-Environment Linkages in International Law* 27 DENV. J. INT'L L. & POL. 205, 205 (2015) (which considers the consequences of a population growth rate which, as one hectare of arable land is simultaneously lost or destroyed, currently results in eight live births every three seconds).

<sup>55</sup> VAN DE GIESSAN, *supra* note 51, at 13-15.

<sup>56</sup> Johan Pottier, *Land Reform for Peace? Rwanda's 2005 Land Law in Context*, 6 J. ALG. CHANGE 509, 511, 521 (2004).

<sup>57</sup> VAN DE GIESSAN, *supra* note 51, at 32.

## IV. THE DARFUR CRISIS AS AN ENVIRONMENTAL CONFLICT

The international community prefers to view the Darfur crisis in the Sudan's southwest territory as an armed conflict between government-backed forces and local populations that was instigated by political and ethnic rivalries. The exacerbation of these rivalries has largely been attributed to the despotic authoritarian rule of President Al-Bashir, who as a result was indicted by the Prosecutor of the International Criminal Court (ICC).<sup>58</sup>

Yet, few commentators, particularly international law scholars, have paid any attention to the environmental causes behind this tragic conflict. The UN's Environment Programme (UNEP) views Sudan's environmental issues as contributing causes of conflict, as opposed to root causes.<sup>59</sup> It lists specifically competition over oil and gas reserves, water and timber, confrontations over the use of agricultural land with particular emphasis on rangeland and rain-fed land in the drier parts of the country, such as Darfur.<sup>60</sup> These are evidently not environmental factors *per se*, but conflicts over the use of the natural environment, or as a result of its depletion or degradation. Under normal circumstances pastoralist groups need not compete for agricultural or grazing land, or for natural resources, such as water, which would either exist in abundance or their enjoyment would otherwise be regulated equitably between contesting groups. In the case of Sudan, the largest country in Africa, two environmental factors have contributed to the scarcity of arable land and hence to a scramble between competing pastoralists; deforestation and desertification, both of which have led to land degradation.<sup>61</sup> While insufficient and highly variable annual precipitation (i.e. rainfalls) brings about climate-based conversion of land types from semi-desert to desert, the degradation of general natural habitats is certainly man-made.<sup>62</sup>

Precipitation records in Darfur have been kept since 1917 and the data clearly shows that a dramatic decrease in rainfall in the region has turned

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<sup>58</sup> See Prosecutor v. Al-Bashir, ICC-02/05-01/09, Warrant of Arrest, (Mar. 4, 2009) (Note that there is nothing in the indictment regarding Al-Bashir's intentional or reckless environmental policy. This should not deter the ICC Prosecutor, however, when formulating more detailed charges to lay some stress on this matter, even if only to underline the seriousness of the matter.

<sup>59</sup> See generally DOUGLAS H. JOHNSON THE ROOT CAUSES OF SUDAN'S CIVIL WARS (Ind. Univ. Press, 2003).

<sup>60</sup> See U.N.E.P., *Sudan Post-Conflict Environmental Assessment*, at 8, U.N.E.P. Doc. DEP/0816/GE (2007) [hereinafter "Sudan Post-Conflict Environmental Assessment"]

<sup>61</sup> Sudan's desertification has in fact been documented as early back as 1953. See EDWARD P. STEBBING, *THE CREEPING DESERT IN THE SUDAN & ELSEWHERE IN AFRICA* 43 (McCorquodale & Co., 1953).

<sup>62</sup> *Sudan Post-Conflict Environmental Assessment*, *supra* note 60, at 8-10.

million of hectares of semi-desert land to desert plains. Instructively, between 1946-1975 whereas the average annual rainfall was 272.36mm in Northern Darfur, between 1976-2005 it had fallen to 178.90mm, which represents a decrease of 34%. Within the same time, Southern Darfur experienced a decrease of 16%, while the decline in Western Darfur was approximately 24%.<sup>63</sup> The climatic forecast for the near future does not, unfortunately, paint a more optimistic picture. Lack of sufficient rainfall has rendered 24% of Sudanese territory into real deserts. This, in turn, has necessarily forced pastoralists to move to greener belts, albeit with the consequence that there was now less land for more people. The absence of proper agricultural management brought about the last cycle in this environmental catastrophe. Farmers cut down millions of hectares of woodlands in order to make way for grazing grounds for their cattle and to otherwise free up land for cultivation. Deforestation in Sudan is currently occurring at a rate of 0.84% per annum and it is estimated that between 1990 and 2005 the country lost 11.6% of its forest cover. In Darfur alone a third of forest cover was lost between 1973 and 2006.<sup>64</sup> The uncontrolled and wholly unsustainable agricultural policy of the Sudan is aptly reflected in respect of its livestock breeding. Numbers have risen from 28.6 million in 1961 to 134.6 million in 2004. It does not take much to realise that this manifold increase in livestock, under particularly arid conditions due to lack of rainfall, resulted in widespread degradation of rangelands that could not subsequently be restored.<sup>65</sup>

Much of this could certainly have been prevented. For example, a big part of the deforestation took place for fuel purposes and in respect of brickmaking, a major source of income in Darfur. Moreover, Darfur's vulnerability to drought was exacerbated by the tendency to maximise livestock sizes, rather than by augmenting quality and by the lack of secure water sources, other than rivers and lakes, which itself led to the depletion of scarce water sources. It is evident that human intervention could have provided alternative energy incentives, as well as alternative cattle production, such that would prevent deforestation. The poor situation in Sudan's dry and arid areas is further compounded by occasional flooding and river erosion.

Localised conflicts are not a recent phenomenon to Sudan. Indeed, between 1930 and 2000 competition for pastoral land among Sudan's pastoralists has been a constant cause of conflict.<sup>66</sup> The new twist in the contemporary Darfur crisis, however, lies in the following factors: a) that desertification has persisted at an alarming rate, thus shrinking available

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<sup>63</sup> *Id.* at 60.

<sup>64</sup> *Id.* at 10-11.

<sup>65</sup> *Id.* at 10.

<sup>66</sup> *Id.* at 81-82.

arable lands; b) dramatic increase in livestock; c) depletion of natural resources, particularly water; d) sharp increase in population growth.<sup>67</sup> The combination of all these combustible elements into a single period of human history was more than enough to ignite a bitter conflict between pastoralist and farmers groups in Darfur competing for space. This is not to say that ethnic rivalries or the intervention of the Sudanese government has not played a role in the ensuing humanitarian catastrophe; in fact, other causes are more significant than the effect of environmental scarcity and it has by now become evident that the Al-Bashir government has flamed the conflict through its support of Arab Darfurians. The situation is currently further exacerbated by the fact that internally displaced persons in Darfur are depleting the forests at the edges of the semi-desert areas and are contributing directly to subsequent desertification that will no doubt intensify the conflict if concrete steps are not taken. Moreover, lack of arable land means food shortage, as is equally the case with freshwater resources. Darfur is, nonetheless, only one of many potential areas in the Sudan facing similar issues. Therein, other issues are also at stake, including the environmental impact of the oil industry,<sup>68</sup> or the charcoal industry in central Sudan, the potential for ivory poaching and the emergence of a timber mafia in south Sudan.<sup>69</sup> These problems are endemic to Africa and Darfur perhaps represents a microcosm of African exigencies and realities.

It is evident that environmental flashpoints for conflict would severely be diminished were the government to institute countrywide sustainable agriculture and introduce natural resource assessment and management particularly in the conflict regions, but also elsewhere in the country.<sup>70</sup> The role for the international community, albeit briefly, is discussed in both the Introduction as well as in the Recommendations section.

#### V. THE THREAT OF DEFORESTATION

There exist two points of view on the state, causes and harms of Africa's deforestation. The first posits that the scale of deforestation in Africa, particularly in respect of the West, is vastly exaggerated. Studies supporting

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<sup>67</sup> See *id.* at 87.

<sup>68</sup> See Gerhart Baum (Special Rapporteur on Situation of Human Rights in Sudan), *Question of the Violation of Human Rights and Fundamental Freedoms in Any Part of the World: Situation of Human Rights in the Sudan*, U.N. Doc. E/CN.4/2002/46 (Jan. 23, 2002) (stating oil exacerbated the conflict, while oil exploration continued to cause widespread displacement).

<sup>69</sup> See *Sudan Post-Conflict Environmental Assessment*, *supra* note 60, at 95.

<sup>70</sup> See generally Abduljabbar Abdalla Fadul, *Natural Resources Management for Sustainable Peace in Darfur*, in CONFERENCE PROCEEDINGS: ENVIRONMENTAL DEGRADATION AS A CAUSE OF CONFLICT IN DARFUR (2004).



this position argue that the relevant data on deforestation concentrate on the degree of woodland cultivated by African farmers, but generally fail to consider the beneficial nature of traditional farming practices that are overall more sustainable than any contemporary methods.<sup>71</sup> Some proponents of this view even claim that the collection of wood fuel in certain parts of Africa for household consumption is not destructive at all. It is explained that the misconception as to Southern Africa's deforestation on account of wood fuel demand is derived from the assumption that all the wood and charcoal used in urban areas come from areas cleared primarily to harvest wood.<sup>72</sup> Although it is probably true that traditional African farming practices were sustainable and eco-friendly, the contemporary situation is much different, principally because of increasing population densities, natural-based desertification and others.

The most popular school of thought suggests that Africa's deforestation is increasing at an alarming rate, and certainly far above that of all other continents. There is a general trend in the relevant literature to associate the level of deforestation with financial plight. Thus, Africa's current deforestation rate is explained by one author on the fact that 48% of its population lives on less than one dollar a day.<sup>73</sup> It is evident that this assumption is based on a never-ending cycle. If one lives in dire poverty he does away with environmental concerns and does not concern himself with sustainable use of limited resources until they are depleted. Poverty is further exacerbated by population density, which places a great deal of stress on already scarce resources. The most interesting observation, however, on the relationship between deforestation and finance, which is particularly worrying for Africa, relates to the so-called environmental Kuznets curve. This essentially stipulates that deforestation is inextricably linked to the degree of a country's economic and industrial development. Up to the point where development is rising, as does the level of income, but is still considered rudimentary, the amount of natural resources needed tends to increase the levels of deforestation. Once a threshold point of development has been attained and people become wealthier, the strain on natural resources decreases as both the people and the market rely less on the exploitation of

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<sup>71</sup> See e.g., JAMES FAIRHEAD & MELISSA LEACH, *REFRAMING DEFORESTATION GLOBAL ANALYSES AND LOCAL REALITIES: STUDIES IN WEST AFRICA* (1998).

<sup>72</sup> E.N. Chidumayo, *Woodfuel and Deforestation in Southern Africa: A Misconceived Association*, 10 RENEWABLE ENERGY FOR DEV. 1 (1997).

<sup>73</sup> Elizabeth Asiedu, *The Determinants of Employment of Affiliates of US Multinational Enterprises in Africa* 22 DEV. POL'Y REV. 371 (2004); see also Brian Chase, *Tropical Forest and Trade Policy: The Legality of Unilateral Attempts to Promote Sustainable Development under the GATT* 14 HASTINGS INT'L & COMPAR. L.R. 349 (1993), who argued as far back as 1993 that poverty is the most serious cause for African deforestation.

natural resources and become far more environmentally friendly.<sup>74</sup> Although I am in agreement with this theory, it should be noted, however, that some commentators have dismissed the reliability of the Kuznets curve not because it is wrong *per se*, but on account of the fact that relevant data are accused of being sparse and of dubious quality.<sup>75</sup>

As Africa is concerned, and if the Kuznets curve theory is assumed to be valid, this is hardly encouraging news. African nations generally struggle to achieve any real degree of development and by so doing raise the standard of living for their citizens. Much of the population of the continent lives under subsistence conditions and as such is destined to decimate its forest lands because these remain their only means of survival. Moreover, the shrinking of the forests necessarily entails the sprawling of regional conflicts over control of land. If the forests are to survive, it is obvious that what is necessary is the raising of the standard of living to such an extent that no one need go to the forest in order to gather wood, or to fall trees so as to make way for new farm or grazing land.<sup>76</sup> To achieve these objectives, however, local governments and the international community must create sustainable and real working opportunities for the poor of Africa and entrench the farmers with viable property rights.

The alarming rates of deforestation<sup>77</sup> will also cause other types of harm. Primary among these is the unfortunate welcoming of desertification, the causes and effects of which have already been explained. Equally, it has now been amply established that tropical deforestation can cause fundamental regional-scale shifts in vegetation structure and diversity on account of the interdependence of tropical habitats. Thus, in studies carried out in the Gabon and DRC researchers found that in undisturbed national parks adjacent to logging forests rainfall decreased in some parks by as much as 15%, while in others there was a slight increase.<sup>78</sup> Another harmful effect is produced by

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<sup>74</sup> See Karen Martinez et. al., *Deforestation and the Environmental Kuznets Curve: A Cross-National Investigation of Intervening Mechanisms* 83 SOC. SCT. Q. 226 (2002).

<sup>75</sup> See *Understanding Environment, Conflict, and Cooperation*, *supra* note 12, at 43.

<sup>76</sup> This is not to say that deforestation is not caused for purely logging purposes; this activity is in fact quite prevalent in Africa. See RA Cline-Cole et. al., *On Fuelwood Consumption, Population Dynamics and Deforestation in Africa* 18 WORLD DEV. 513 (1990) (suggesting that it seems likely that variations arising out of demographic differentials in urban populations, in particular changes in per capita fuelwood consumption resulting from changes in consuming unit size, distort direct links between population growth rates and rates of increase in fuel consumption).

<sup>77</sup> See Alister Doyle, *Africa's Deforestation Twice World Rate Says Atlas*, THOMAS REUTERS (June 10, 2008) <https://www.reuters.com/article/us-africa-environment/africas-deforestation-twice-world-rate-says-atlas-idUSL1064180420080610> (last visited Nov. 2, 2022).

<sup>78</sup> Somnath B. Roy et. al., *Can Logging in Equatorial Africa Affect Adjacent Parks?*, 10 ECOLOGY & SOC'Y 6 (2005).

forcing the wildlife to evacuate its natural reserves in order to migrate elsewhere. This not only has serious ramifications for Africa's fledgling tourist industry, which can help it overcome many of its economic woes, but it also contributes to the change of local habitats whose existence relies on particular animal species. To the extent that deforestation is a direct result of local or international conflicts in sub-Saharan Africa, there is little, or nothing, that can be done to prevent it, apart from various strategies for refugee camps devised by UNHCR. Given the extent to which deforestation is a mass criminal activity tolerated or even promoted by states, combined with the fact that it has a devastating effect on the quality of life globally and is a contributory cause of conflict, some scholars have suggested that it is elevated to an internationally wrongful act.<sup>79</sup>

#### VI. ILLEGAL DEPLETION AND EXPLOITATION OF AFRICA'S MINERAL WEALTH

We have already highlighted the UN Security Council's concern over the depletion of Africa's mineral resources since 2000 by the warring parties.<sup>80</sup> This was followed by a comprehensive Report of the Security Council-appointed Panel of Experts on the Illegal Exploitation of Natural Resources and other Forms of Wealth of the Democratic Republic of the Congo.<sup>81</sup> The Report underlined the direct or indirect implication of 157 corporations, the operations of which fueled the purchase of arms, the perpetration of war crimes and crimes against humanity and the exploitation of Congo's natural resources to the detriment of its people.<sup>82</sup> Moreover, the Prosecutor of the International Criminal Court (ICC), in his Report to the Assembly of States Parties on 8 September 2003, emphasized that "those who direct mining operations, sell diamonds or gold extracted [as a result of resource exploitation and general violence taking place in the Congo], launder the dirty money or provide weapons could also be the authors of the crimes, even if they are based in other countries".<sup>83</sup> The same result was reached by the

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<sup>79</sup> See Justine Bendel, *Bringing Deforestation Before an International Court*, EJILTALK! (Dec. 6, 2019), <https://www.ejiltalk.org/bringing-deforestation-before-an-international-court/> (last visited Nov. 2 2022).

<sup>80</sup> See *supra* text accompanying notes 42 and 44.

<sup>81</sup> U.N. Secretary-General, Letter dated Oct. 23, 2003 from the Secretary-General addressed to then President of the General Assembly, U.N. Doc. S/2003/1027 (Oct. 23, 2003).

<sup>82</sup> See *id.* ¶ 10-13.

<sup>83</sup> Luis Moreno-Ocampo, Prosecutor, Int'l Crim. Ct., Second Assembly of States Parties to the Rome Statute of the Int'l Criminal Court Rep. of the Prosecutor of the ICC (Sept. 8, 2003).

Council in respect of the illegal trade in diamonds in Sierra Leone,<sup>84</sup> which helped finance the war and thus perpetuate the ensuing conflict and the resulting humanitarian disaster in the country. In both cases, the Council took chapter VII action and instituted sanctions and monitoring committees, as subsidiary organs thereof, in order to avert the sale and distribution of illegal minerals throughout the world.<sup>85</sup>

In 2016, the situation seems to have taken a different turn. The ICC Office of the Prosecutor issued a policy paper, which for the first time addressed environmental crimes. Therein, it resolved to ‘cooperate and provide assistance to States, upon request, with respect to conduct which constitutes a serious crime under national law, such as the illegal exploitation of natural resources, arms trafficking, human trafficking, terrorism, financial crimes, land grabbing or the destruction of the environment’.<sup>86</sup> More importantly, the 2016 policy paper recognized that the environmental impact of international crimes can be as important as the crime itself. Such impact will be “assessed in light of, inter alia, the increased vulnerability of victims, the terror subsequently instilled, or the social, economic and environmental damage inflicted on the affected communities”.<sup>87</sup> In this context, prosecution will focus on crimes involving “destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land”.<sup>88</sup>

The plunder of Africa’s mineral wealth is not solely perpetrated by armed groups, as is the case with the DRC; this is simply one of its facets. Resource scarcity has led impoverished people to become artisanal miners in search of minerals that lie close to the surface. In Uganda, for example, it was well documented that many thousands of artisanal workers and their families depended on small-scale mining from the Bulyanhulu gold mine, until this was purchased by a Canadian mining company. Two potential calamities, as

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<sup>84</sup> See S.C. Res. 1306 § A(14) (July 5, 2000), particularly section A, where the Council notes its concern as to the role diamonds play in fuelling the conflict there and in neighbouring countries; see also G.A. Res. A/62/L.16, ¶ 2 (Nov. 21, 2007).

<sup>85</sup> See Rep. of the Panel of Experts on Sierra Leone (2000), transmitted by Letter dated 19 December 2000 from the Chairman of the Security Council Comm. Established Pursuant to Resolution 1132 (1997) Concerning Sierra Leone Addressed to the President of the Security Council, ¶¶ 2–3, U.N. Doc. S/2000/1195 (Dec. 15, 2000). The same resolution imposed a blanket prohibition of import of all rough diamonds from Sierra Leone and moreover mandated a Certificate of Origin. *Id.* On December 1, 2000 the UN General Assembly duly adopted Res. 55/56, through which it developed an international certification scheme for rough diamonds. See G.A. Res. 55/56, ¶ 3 (Dec. 1, 2000). This developed into a partnership with relevant private actors that led to the institution of the Kimberley Process Certification Scheme. *Id.* at ¶ 4.

<sup>86</sup> OFFICE OF THE PROSECUTOR, POLICY PAPER ON CASE SELECTION AND PRIORITIZATION 5 (2016).

<sup>87</sup> *Id.* ¶ 41.

<sup>88</sup> *Id.*

experience has shown, can culminate from artisanal mining and otherwise legal exploitation. Artisanal mining is not only unsustainable because it is essentially uncontrollable, but it is also destructive for adjacent freshwater resources (both submerged and over-ground) as a result of toxic residues that are naturally funneled directly into the water or indirectly through the soil.<sup>89</sup> This not only depletes and pollutes freshwater for potable purposes, but it also decreases the potential for agriculture, ultimately leading to resource scarcity.

While mineral extraction is generally beneficial for the economy of producing nations, this is only so where extraction is sustainable, it is premised on strict environmental assessment criteria, the commission is corruption-free and moreover the country under consideration diversify its economy. In Africa, few, if any, of these preconditions are ever met. In the Bulyanhulu example, mentioned above, a group representing local artisanal miners accused the government of a sell-out to the Canadian company and argued that not only environmental regulation was very lax, but that the company was also implicated in the murder of at least 50 artisanal miners.<sup>90</sup> Such practices are predominant throughout sub-Saharan Africa and they include the pollution of the Niger Delta<sup>91</sup> by hydrocarbon-extracting corporations and others. What I am trying to highlight with these cases is that illegal extraction is only one form of evil on which one should not focus exclusively, or risk losing sight of the problem in its entirety. Corrupt African governments and weak administrations and States fail to apply the full gamut of their environmental and other laws to foreign mining corporations and as a result they themselves destroy their natural environment for existing and future generations in the same manner as illegal mining. In fact, it has been suggested that in some cases war may be less destructive to the environment than peace.<sup>92</sup>

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<sup>89</sup> See Marcello M. Veiga et al., *Mercury Pollution from Artisanal Gold Mining in Block B, El Callao, Bolívar State, Venezuela*, DYNAMICS OF MERCURY POLLUTION ON REGIONAL & GLOBAL SCALES: ATMOSPHERIC PROCESSES, HUMAN EXPOSURE AROUND THE WORLD 423, 421–450 (Nicola Pirrone & Kathryn R. Mahaffey eds., 2005); see also Janis A. Shandro et al., *Reducing Mercury Pollution from Artisanal Gold Mining in Munhena, Mozambique* 17 CLEANER PRODUCTION 525, 530 (2009).

<sup>90</sup> See OFFICE OF THE COMPLIANCE OMBUDSMAN, ASSESSMENT REPORT SUMMARY: COMPLAINT REGARDING MIGA'S GUARANTEE OF THE BULYANHULU GOLD MINE, TANZANIA (2002); see also Ilias Bantekas, *Corporate Social Responsibility in International Law* 22 B.U. L. REV. 309, 343-344, 309 (2004)

<sup>91</sup> See Joonathan Brown, *Niger Delta Bears Brunt After 50 Years of Oil Spills*, INDEPENDENT (Oct. 26, 2006) <http://www.independent.co.uk/news/world/africa/niger-delta-bears-brunt-after-50-years-of-oil-spills-421634.html> (last visited Nov. 2, 2022).

<sup>92</sup> See e.g., Jeffrey A. McNeely, *War and Biodiversity: An Assessment of Impacts*, in THE ENVIRONMENTAL CONSEQUENCES OF WAR (Cambridge University Press, 2000).

Countries that are currently amenable to natural resources, particularly mineral, depletion on account of over-exploitation, without reaping the requisite social and financial benefits, will eventually find themselves in socio-economic peril. On the other hand, as fate may have it, Africa's richness in mineral resources has only made her poorer. There is perhaps reason to believe, based on the experiences of other nations, that following the depletion of natural resources concerned African governments will rely on other factors (such as effective fiscal and investment organization, universal education, infrastructures, etc) to boost their economies.<sup>93</sup>

## VII. CONCLUSION

Africa has already witnessed the first ever displaced persons as a result of an environmental breakdown; mostly from desertification and otherwise resource scarcity. The next step is the emergence of environmental refugees in those extreme cases where people are forced to transcend a national frontier where resource scarcity reaches a critical level. The Darfur crisis and the ensuing conflict is certainly of this nature, although we have stressed that at present the environmental factor is a contributing element to African conflicts and not the root cause. If this scenario were to escalate, however, it is clear that the international community would come before a situation that it never prepared itself to meet.<sup>94</sup> For one thing, Article 1 of the Refugee Convention does not envisage environmental refugees as falling within the category of people fearing persecution and thus entitled to refugee status.<sup>95</sup> It is also doubtful whether the developed world would be willing to accept environmental refugees even under the most acute circumstances for fear of burdening its own limited resources, among other reasons.<sup>96</sup>

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<sup>93</sup> See Ilias Bantekas, *Addressing Unsustainable Sovereign Debt through Parallel System(s) of Transnational Finance*, 37 CONN. J. INT'L L. 72 (2021) who argues that Africa's spiral of debt to the West and its concomitant underdevelopment cannot be addressed by the existing international financial architecture. Rather, it may be worthwhile considering the establishment of a parallel system.

<sup>94</sup> See U.N. President of the S.C., Letter dated Sept. 17, 2020, from the President of the Security Council addressed to the Secretary-General and the Permanent Representatives of the members of the Security Council, U.N. Doc. S/2020/929 (Sept. 17, 2020).

<sup>95</sup> Convention Relating to the Status of Refugees art. 1, 189 UNTS 150.

<sup>96</sup> Dan McDougall, *The World's First Environmental Refugees*, THE ECOLOGIST (Jan. 30, 2009), <https://theecologist.org/2009/jan/30/worlds-first-environmental-refugees>; see also MOLLY CONISBEE & ANDREW SIMMS, ENVIRONMENTAL REFUGEES: THE CASE FOR RECOGNITION (David Nicholson-Lord ed., New Economics Foundation 2003); David Keane, *The Environmental Causes and Consequences of Migration: A Search for the Meaning of "Environmental Refugees"*, 16 GEO. INT'L ENV'T L. REV. 209 (2004) (offering a legal analysis of the environmental refugee); JOHN PODESTA, THE CLIMATE CRISIS, MIGRATION, AND REFUGEES (Brookings ed., 2019).

Where do we go from here? The Security Council must better engage with environmental-related conflicts and threats.<sup>97</sup> Two policy suggestions are generally put forward. The first recommends the introduction of environmental factors into the conflict prevention debate, whereas the second contends in favour of introducing conflict prevention into the environmental debate. The chief protagonists seem to back the former, arguing that the latter may lead to “unnecessary overloading and the securitisation of the environmental discourse”.<sup>98</sup> The UN Security Council, the UN Department for Peacekeeping Operations (DPKO) and all relevant UN agencies (including the Secretariat in its peace-building and conflict mediation role) must place the environmental factor within their conflict outlook agendas, particularly as this pertains to Africa.<sup>99</sup> The African Union should also take a lead role in this respect, rather than sub-regional organisations such as the Intergovernmental Authority on Development (IGAD),<sup>100</sup> all of which have largely proven to be ineffective.<sup>101</sup> It is also necessary that environmental lobby groups exert the widest possible amount of pressure on UN institutions, including the World Bank, to incorporate environmental factors into their long-term and short-term peace and security plans. The factoring of environmental elements need not solely focus on security strategies. For example, where the World Bank is asked to provide a loan to an African nation, the Bank should have in place a mechanism by which to inform the borrowing State of CDM opportunities as well as advise it, if not expressly make it a conditionality, with regard to granting farmers land rights.<sup>102</sup> Even so, the World Bank should avoid its past mistakes that have been based on financial policies that are not human-

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<sup>97</sup> See the discussion above in section 2.

<sup>98</sup> CENTRE FOR SECURITY STUDIES (CSS), *LINKING ENVIRONMENT AND CONFLICT PREVENTION: THE ROLE OF THE UNITED NATIONS* 49 (2008).

<sup>99</sup> *Id.* at 44, suggests that the topic of environment and conflict prevention should be further integrated within existing UN units by being tagged on as a separate issue (but within the overall context of conflict prevention, rather than improperly mainstreaming it).

<sup>100</sup> INTERGOVERNMENTAL AUTH. ON DEV., <https://igad.int/> (last visited Nov. 10, 2022).

<sup>101</sup> In fact, one of the main purposes of IGAD was to contribute to development in the Horn of Africa and reverse the process of desertification in the region. It has failed miserably in this arena, although admittedly it played a significant role in the brokering of the 2002 Machakos Protocol between the governments of Sudan proper and that of South Sudan. In 2002 a Protocol on the Establishment of a Conflict Early Warning and Response Mechanism for IGAD Member States was adopted by the parties to IGAD. See *CONFLICT EARLY WARNING AND RESPONSE MECHANISM, IGAD CONFLICT EARLY WARNING AND RESPONSE MECHANISM*, 10–13 (2021).

<sup>102</sup> See Ilias Bantekas, *The Legal Personality of World Bank Funds under International Law*, 56 *TULSA L. REV.* 101 (2021), arguing that the World Bank has instituted a variety of programmes that can alleviate the effects of climate change and poverty in general without the consent of target states; equally, Ilias Bantekas, *Effective Management of International Aid through Intergovernmental Trust Funds*, 17 *U. LOY CHI INT’L L REV.* 1 (2021), explaining how international aid is nowadays a political tool against oppressive governments.

centered and in respect of which it has received scathing criticism.<sup>103</sup> While the overall goal of poverty alleviation and development cannot be achieved over night, some faster steps are certainly feasible. The acquisition of definite and secure land rights will go a long way towards alleviating some, not all, of the woes of deforestation and land degradation. This has to be followed with serious education programs, given that its absence has been linked with environmental destruction.<sup>104</sup>

As climate change and the Paris Agreement (and subsequent COPs) is no longer marginal but the key global issue challenging the international community, it is time the UN Security Council addresses the threats of climate change and environmental degradation as these relate to human security and conflict.<sup>105</sup> The local conflicts of past times between groups competing for scarce land resources are fast becoming wars between governments and well-armed non-state actors, such as Boko Haram, Daesh and Al-Qaeda.<sup>106</sup> Poverty and corruption have exacerbated the situation and if the Security Council is to successfully address global security it must deal with all the root causes inherent in such conflicts.<sup>107</sup>

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<sup>103</sup> See Ilias Bantekas, *Sociological Concerns Arising from World Bank Projects and their Impact on Sub-Saharan Indigenous Peoples*, 1 INT'L J. L. CONT. 143 (2005), arguing that World Bank indigenous policies viewed indigenous persons as perpetually backward and failed to listen to their demands and aspirations; see also Ilias Bantekas, *Wealth and Growth-based Policies have Augmented Global Poverty and Eroded Human Rights: A Return to Human-Centred Thinking*, 1 INT'L HUM. RTS. L. REV. 30 (2012), explaining that the World Bank has generally failed to take into consideration the social and human cost of its programmes, focusing exclusively on financial growth indicators.

<sup>104</sup> See Ricardo Godoy & Manuel Contreras, *A Comparative Study of Education and Tropical Deforestation among Lowland Bolivian Amerindians: Forest Values, Environmental Externality and School Subsidies*, 49 ECON. DEV. & CULTURE CHANGE 555 (2001).

<sup>105</sup> See Ilias Bantekas, *Natural Resource Revenue Schemes (Trust Funds) in International Law*, 52 NETH. INT'L L. REV. 31 (2005), arguing that intergovernmental trust funds constitute a viable mechanism for security corruption-free dividends from natural resources; see also Ilias Bantekas, *The Emergence of Intergovernmental Trusts in International Law*, 81 BRIT. Y.B. INT'L 224 (2011), explaining how the intergovernmental trust model has enabled international development funding by bypassing the bureaucracies of failed states and corrupt regimes.

<sup>106</sup> Organization for Economic Cooperation & Development (OECD), *Conflict over Resources and Terrorism: Two Facets of Insecurity* (Apr. 2013), <https://www.oecd.org/swac/publications/conflict-over-resources.htm> (last visited 2 Nov 2022).

<sup>107</sup> Permanent Rep. of the Plurinational State of Bolivia to the U.N., Letter dated Oct. 9, 2018, from the Permanent Representative of the Plurinational State of Bolivia to the United Nations addressed to the Secretary-General, U.N. Doc. S/2018/901 (Oct. 11, 2018).