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**LAND, NATURAL RESOURCES, AND ENVIRONMENTAL PROTECTION IN THE JUBA
PEACE AGREEMENT**

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Abstract

That competition over degrading land and shrinking natural resources – exacerbated by climate change – has played a role in Sudan’s and Darfur’s conflicts is widely accepted, even though assessments differ as to the extent of such a role. The Juba Peace Agreement (JPA) reflects this reality by devoting considerable space to issues such as land possession, cooperation between herders and farmers, sustainable management of natural resources, and environmental protection. Accordingly, this contribution analyzes the provisions of the JPA that are concerned with land- and environment-related aspects; and it gives a preliminary assessment of their implementation. The contribution concludes that while the JPA shows considerable awareness of the critical role that the protection of the environment and the sound management of natural resources can play in building more peaceful societies, the implementation of the relevant provisions is currently very limited. A bottom-up approach, which genuinely involves all Sudan’s regions and sectors of society, appears indispensable for the effective implementation of the provisions in question and for sustainable peace in Sudan.

Keywords: Juba Peace Agreement, land, natural resources, environment, climate change

Introduction: Environment-related drivers of conflict in Sudan and Darfur

Sudan is prone to a host of environmental stresses and was ranked as the fifth country most vulnerable to climate change globally in 2019.¹ Sudan is subject to generally scarce and highly variable rainfall, which is projected to become even more unpredictable in the future; it has experienced devastating droughts, the frequency of which is increasing, together with that of other extreme weather- and climate-related events such as floods; and it is threatened by rising temperatures and sea levels (USAID 2016). These phenomena have contributed to or interacted with issues such as the overexploitation of and competition over natural resources and land (in a country where agriculture represents approximately 30 percent of the GDP and provides a living to two-thirds of the population: FAO et al. 2015), unclear or unfair land distribution, deforestation, outbreak of diseases, food insecurity, poverty, displacement,

urbanization, and population growth. The interplay of these factors has fueled the conflicts that have scarred post-independence Sudan.

That environmental degradation and competition over increasingly scarce land and water played a prominent role in the outbreak of violence in Darfur in the 2000s in particular has been promoted by a comprehensive study by the United Nations Environment Programme (UNEP) (UNEP 2007). In the same vein, former UN Secretary-General Ban Ki-moon declared that the origins of the conflict in the region could be traced back to “an ecological crisis, arising at least in part from climate change” (Ban 2007). While this understanding of events has been challenged by various political scientists (Butler 2007; Verhoeven 2011), who warn against a de-politicization of the root causes of the conflict, there remains a general consensus that an environment-related dimension underpins past and present tensions.

Heightened competition over land and water between nomadic pastoralists and sedentary farmers at the local level is one of the factors that is most frequently highlighted in this perspective (Bromwich 2008; Maystadt, Calderone and You 2015), together with competition between returnees and new settlers. These local dynamics compound broader ones, including: inadequate or unfair regulation of land ownership and utilization, which has favored foreign investors and the wealthy (Assal 2006) as well as some ethnicities over others (Bromwich 2018, 11); the active support by the central government to mechanized farming and development projects at odds with customary land tenure and traditional social relationships (Abdul-Jalil 2006); and the absence of well-functioning mechanisms of dispute resolution. The political and economic marginalization of Sudan’s peripheries, including with regard to the management of natural resources, has also played an important role in the cyclical flaring up of tensions: this especially applies to control over and benefit-sharing from oil reserves, the Nile River and forestry services (on which see more details *infra*).

Darfur exemplifies these dynamics. As a region heavily reliant on rainfed agriculture and livestock production, Darfur has been severely damaged by several episodes of drought. This has led to livelihood changes, migration movements, and increased competition over shrinking natural resources – all aggravated by significant population growth (UN Sudan 2010). Such unstable environment-induced conditions have been further exacerbated by the superseding of customary means of land attribution by national legislation, the supplanting of traditional leadership with one nominated by the central government, and the weakening of traditional dispute-settlement mechanisms. The interaction of all these factors has resulted in new conflicts or the intractability of old ones (Unruh and Abdul-Jalil 2012), which, in turn, have had negative impacts on the environment: from the direct effects of deliberate attacks on natural resources and related infrastructure (trees, crops, water pumps) to more indirect effects, including the looting of natural resources (e.g., timber) to finance the conflict and the environmental consequences of mass displacement (UNEP 2007).

It is therefore apparent that environmental and land-related issues are inextricably intertwined with legal and politico-institutional ones (Abdul-Jalil 2006; Ayoub 2006; Bromwich 2018). The interconnectedness of these different components, and the related need to address them holistically in

order to ensure lasting peace in Sudan, are reflected in the several provisions devoted to land, natural resources and the environment in the Juba Peace Agreement (JPA). The following sections of this contribution accordingly examine the relevant provisions of the Agreement and put them in context, including by comparing them with the provisions of previous peace agreements in Sudan. A preliminary assessment of their implementation is then given, and the main related obstacles are highlighted, before some concluding remarks.

The Juba Peace Agreement and issues of land

Before analyzing the provisions of the JPA relating to land issues, a succinct contextualization of land tenure in Sudan is appropriate. Before British colonization in the late 1890s, land tenure in Sudan – as in several other African countries – was mainly based on the customary rights of tribes over the territories that they occupied. Such systems would also accommodate grazing rights and access to water for nomadic herders and generally allow flexibility in the face of socio-economic changes and climate adversities (Mohamed 2004; Unruh and Abdul-Jalil 2012). Colonization did not overhaul the traditional land tenure systems in Sudan; rather, it institutionalized and integrated them in the colonial rule and referred to them as “native administration.” However, it did pave the way for land grabbing by the elites and foreign investors, which continued and even increased under post-independence governments that promoted large-scale mechanized farming in the name of Sudan’s agricultural development (Babiker 2009; Manger 2009; Verhoeven 2011). This took place despite Sudan being a water-scarce country and despite the growing desertification caused by both climate change and human-induced degradation (by means of deforestation, overgrazing, and cultivation itself).

The adoption of the Unregistered Land Act in 1970, which brought all lands that had not been privatized – including land customarily owned – under the ownership of the State, favored the dispossession and tenure insecurity of herders and smallholder farmers. It also reduced the role of local chiefs, who had traditionally presided over the allocation of lands and the settlement of related disputes. Other federal legal interventions that did not alleviate the situation include the Investment Encouragement Acts of 1999 and 2013, which have allowed for significant exemptions for investors, the centralization of decisions over the allocation of lands for investment, and the disregard of the views of local communities. On another front, the increasing influence of *shari‘a* also contributed to the curtailment of customary law and institutions, as Islamic law tends to protect the rights of (narrower) families rather than extended communities and is characterized by a different organization of the administrative structure (Dunning 1990; Osman and Cohen 2014).

As a testament to the relevance of land tenure for sustainable peace in the country, the 2005 Comprehensive Peace Agreement (CPA)² and the ensuing Interim National Constitution include provisions on land reforms – albeit rather general in nature. Among the most significant are the provisions which clarify that land tenure and use are subject to the concurrent competence of multiple

levels of government (Ch. III, art. 2.3 of the CPA, and art. 186.1 of the Interim Constitution); the provisions that establish that customary laws and practices regarding land shall be incorporated in statutory laws (arts. 2.5 CPA and 186.3 Constitution); and those that provide for a National Land Commission with both advisory functions towards the government(s) and a dispute-settlement role over land-related claims (arts. 2.6 and 187). Similar provisions can also be found in the 2006 Darfur Peace Agreement (DPA), which further stipulates the establishment of a Darfur Land Commission (art. 163 ff.). As for water access, which has also contributed to raising local tensions, explicit references in the CPA are scarce, as the issue is essentially subsumed under (traditional) land tenure (but the DPA includes a few more references: see, e.g., arts. 149, 158 and 159). As a separate issue, the management of the Nile River and other transboundary waters is referred to as a subject under the national government's exclusive competence (Ch. II, Part V, Schedule A CPA).

In practice, considerable gaps and constraints have affected the implementation of the land-related provisions of the 2005/2006 peace agreements. To begin with, it does not appear that the integration of customs in Sudan's legal system was actively pursued following the signing of the CPA (Babiker 2018, 140). To the contrary, the reference to traditional laws and practices was radically eliminated from the Interim Constitution by the 2015 amendments (which, on the other hand, put greater emphasis on investment and on the discretionary powers of the President of the Republic in this respect). Additionally, the National Land Commission has not been operationalized, while the impact of the Darfur Land Commission – which was created in 2007 and has undertaken important data-gathering and advisory work – remains hampered by technical and financial constraints as well as by the lack of a national commission and of a clear framework for the Darfur Commission's relationships with other federal and State government branches (Mohamed and Egemi 2012; USAID 2013).

The JPA was therefore brokered in a context of considerable uncertainty regarding land tenure – with multiple legal sources (customary law; colonial law; post-colonial constitutional and statutory law; *sharī'a*; peace agreements), overlapping with or contradicting each other; reforms that were never implemented; a general disregard of the best interests of rural communities, and especially of herders; and a lack of robust enforcement mechanisms. Against this backdrop, it is not surprising that the JPA (and particularly the Darfur Agreement, Title 2) devotes considerable attention to issues of land tenure and utilization, which are confirmed as subject to the concurrent powers of the federal government and regional ones (see, with respect to Darfur, Title 2, Ch. 1, art. 31.1.25).

A first aspect addressed by the JPA is that of tensions between farmers and pastoralists. In this respect, the establishment of a National Commission for Herders, Nomads, and Farmers can be found among the “national issues of particularity” included in Title 1 of the JPA (art. 14.5). Furthermore, an entire chapter (Chapter 6) of the Darfur Agreement is devoted to the issue, whose guiding principles are the promotion of community-based land management, the sustainable use of land and water, and the safeguarding of the rights of herders. To achieve these aims, a Commission for the Development of the

Nomads and Herders Sector in Darfur is to be established, endowed with a wide-ranging mandate (arts. 7–8).

The Darfur Agreement (Chapter 7) also deals with the incorporation of customary rights over land and water in the Sudanese legal system: significantly, according to the Agreement, traditional land tenure mechanisms “should be taken into consideration” in the settlement of disputes (art. 4) and shall lead to the amendment of national laws that conflict with such mechanisms (art. 5). Relatedly, it is established that no individual or group may be deprived of their traditional rights over land and water unless consultations are carried out or compensation is provided (art. 6).

Chapter 7 further provides for the creation of a Darfur Lands and Hawakeer Commission (in the JPA, *hawakeer* refers to traditional/tribal land in Darfur) to mediate and adjudicate claims of land restitution by victims of the conflict in the region, both as individuals and as communities (art. 8 ff.; see also Ch. 4, art. 11.6). It is also specified that displaced persons and refugees equally enjoy a right to restitution, “irrespective of their choice to return to their original homes” (Ch. 7, art. 8.6; see also Ch. 4, art. 11.8.2).³

Albeit in less detail, land issues – including ownership, dispute settlement, review of concessions, and access to land and water for herders – are also mentioned in relation to all other “tracks” that make up the JPA; and regional land commissions are to be established both in the Two Areas (i.e., Blue Nile and South Kordofan/Nuba Mountains: Title 3, Ch. 3, art. 84) and Eastern Sudan (Title 4, art. 60).

In summary, the JPA revives several elements of land tenure and management – including concurrent powers, customary rights, and land commissions – that were already present in the 2005 CPA and 2006 DPA but were not implemented. It further regulates in greater detail critical aspects, such as access to land and water for herders and rights of land restitution, and lays the foundations for new institutions (e.g., the national and Darfur commissions on herders and nomads, or the Darfur Lands and Hawakeer Commission) with a view to facilitating the effective implementation of the relevant provisions.

The Juba Peace Agreement and issues of natural resources and environmental protection

Land and water are not the only contested natural resources in Sudan. The sharing of oil revenues, which amounted to more than half of government revenues before the secession of South Sudan (World Bank 2021), was much debated in the lead up to the CPA, as a highly contentious issue between the central government and rebel forces from the South, which is rich in oil. In fact, after the 2011 secession, Sudan lost approximately 75 percent of its oil reserves (African Development Bank Group 2017), and tensions have cyclically resurfaced between South Sudan and Sudan, whose infrastructure the former needs to export its oil. It remains the case that oil reserves in additional regions of Sudan, including Darfur, will likely be increasingly explored in the future. The same applies to natural gas, which is currently only

generated in small quantities as a by-product of oil drilling, but whose reserves are estimated to be considerable in Sudan (UNEP and Republic of Sudan 2020).

At the same time, the extraction of other mineral resources – gold especially – has already been rapidly growing, also as a result of failing oil revenues. While the value of Sudan’s exports of crude oil in 2009 amounted to 80 times that of gold exports, the value of gold exports in 2019 was 2.5 times that of crude oil (Central Bank of Sudan 2009 and 2019; data processed by the author). In 2019, Sudan was the third African country for gold production (US Geological Survey 2021).

Forestry is another area whose associated natural resources are of crucial importance for Sudanese livelihoods and have been a source of contention between the North and the South. In fact, the secession of South Sudan reduced Sudan’s forest cover approximately from 30 to 10 percent of the country’s land (Egemi 2017). Currently, Sudan’s forestry is threatened by both climate change and direct human action – primarily due to large-scale agriculture and urbanization. Some uses of forest resources also contribute to deforestation and forest degradation, such as grazing, logging, and fuelwood (on which a significant part of the population is still relying for energy). On the other hand, the exploitation of forests for tourism, food, medicines, and gum arabic (of which Sudan is the largest producer in the world and whose production is concentrated in the western and southern parts of the country) promotes conservation efforts. Deforestation is prevailing today, the current annual deforestation rate being estimated at above 2 percent, which is one of the highest in the world (Egemi 2017).

Accordingly, the JPA sets out a general framework to deal with the management of the country’s varied natural resources and the distribution of related revenues. The Wealth Sharing Protocol of the Darfur Agreement (Title 2, Ch. 2 of the JPA) recognizes the ownership of the Sudanese *people* over natural resources, as well as special rights for the populations of the regions where the natural resources are found (art. 22). It further provides for the concurrent management of natural resources by the regions/States and the federal government (art. 23), the review of existing contracts for the extraction of natural resources (art. 24.1), public consultation over concessions and compensation (art. 24.3), and the allocation of “40% of the nation’s net revenue from mineral and petroleum resources located in Darfur to the region for a period of ten years” (art. 25.1).⁴

A further guiding principle of the JPA’s approach to natural resources consists in their sustainable utilization, by taking into account the protection of the environment, the health of the population, and the rights of future generations (Title 2, Ch. 2, arts. 9–11 and 23–24). The protection of the environment also features among the “national issues of particularity” (Title 1, art. 14.2); in relation to it, the Sudanese government is to adopt the necessary legal, policy and institutional framework to combat environmental degradation, avert conflict over natural resources, and achieve sustainable development. Furthermore, the environment is considered the object of individual and collective rights, to the extent that compensation is explicitly recognized for environmental damages (see, among others, Title 2, Ch. 4, art. 11.7; and Title 3, Ch. 2, art. 48).⁵

Compared to the 2005 CPA, the JPA shows greater awareness of the variety of Sudan's natural resources by promoting a more comprehensive approach to natural resource management, which is not limited to oil extraction. It further specifies and extends to all natural resources the principles of devolution of natural resource management, public participation, and fair revenue sharing, with a view to fostering the economic development of Sudan's peripheries and national pacification. Also, it puts greater emphasis on environmental protection and the sustainable use of natural resources in order to ensure that these resources are maintained or regenerated.

At any rate, both peace agreements, as well as the 2006 DPA, testify to the increasing awareness by Sudan's leadership of the importance of environmental protection for peacebuilding and socio-economic development. An awareness which, over the years, has led to the ratification of several international environmental treaties and to the adoption of significant pieces of legislation and action plans on issues ranging from climate change to biodiversity loss, from desertification to forest degradation (Mohamed and Egemi 2012; UNEP and Republic of Sudan 2020).

It remains the case that the legal and institutional frameworks for environmental protection and the management of natural resources in Sudan are characterized – much like the frameworks for the tenure and utilization of lands – by the uncoordinated interplay of different systems (customary, colonial, post-colonial statutory) and levels (federal, state, local); that there exists considerable room for improvement as far as public awareness on environmental matters is concerned; and that technical and financial constraints as well as lack of political will and enforcement have further hindered the implementation of any ambitious legislation or policy to date.

State of implementation of the relevant provisions

While the JPA rather comprehensively addresses the land- and environment-related components of Sudan's conflicts, its Achilles heel is the actual implementation of the relevant provisions. Notwithstanding some general progress in national dialogue and international development aid (at least up until the military coup of October 2021), progress which indirectly benefits the provisions on land, natural resources, and environmental protection, most of the provisions in question remain on paper – more than one year after the signing of the Agreement on October 3, 2020. Many of the deadlines set forth therein for the adoption of laws and the establishment of institutions have passed, without any tangible results.

The persistent lack of a functioning National Land Commission, whose creation was already provided for in the 2005 CPA, is hampering the establishment of the regional commissions of the Two Areas and of Eastern Sudan (laid down in the JPA) as well as the effectiveness of the existing Darfur Land Commission.

With specific regard to the promotion of a peaceful coexistence between herders and farmers, which is considered crucial for the stability of Darfur especially but has long been neglected (to the

detriment of pastoralists in particular: Egemi 2012), the whole ad hoc institutional machinery provided for in the JPA is also yet to come into existence – including the National Commission for Herders, Nomads, and Farmers (which was to be established within three months of the signing of the JPA) and the Commission for the Development of the Nomads and Herders Sector in Darfur (to be established within 60 days).

Discussions on the features of the Darfur Lands and Hawakeer Commission, which the JPA entrusts with dispute-settlement functions over land, are also dragging on. A first issue, which does not appear to have been addressed yet, will concern coordination with the existing Darfur Land Commission, which is also tasked with “[a]rbitrating disputes between the willing contending parties over rights to land” (DPA, art. 165.a). On the other hand, it has already been suggested that the future commission will mediate claims and award lands primarily on the basis of traditional norms and methods (Sudan Tribune 2021). As a matter of fact, the incorporation of customs into Sudan’s legal and institutional framework is widely considered a promising means to both empower the country’s peripheries and promote harmonious intercommunal relationships, especially between herders and farmers, whose needs have long been successfully accommodated by customary rules and dispute-settlement mechanisms.

In this respect, the integration of customary norms and methods, which represented a significant (but unfulfilled) component of the 2005 CPA as well, can build on the existing structures of the native administration, which, however, while already reinstated at the end of the 1980s, has never fully regained its original powers and legitimacy (Abdul-Jalil, Mohammed and Yousuf 2007). Furthermore, several additional difficulties remain that potentially hamper a stronger role for the customary system: first and foremost, those associated with attempts at crystallizing inherently evolving and flexible sets of norms and procedures. Also, the wide differences existing among customs from the various territories and communities make it complicated for national institutions to rely on them and might lead to contradictory or unfair results. Should ways be found to preserve the variety and adaptability of customs, further corrective measures would then be needed to ensure that customary norms are compatible with the rest of the national legal framework, including the principle of the separation of powers (as traditional institutions tend to combine executive and judicial functions) and human rights norms. In the latter respect, it has been noted that most customary systems discriminate against women, who are generally denied direct rights over land (UN-Habitat 2020). Ultimately, the restoration of customary laws and institutions will require a careful consideration of the societal, politico-institutional, and legal changes that have taken place in Sudan; as well as genuine consultations with local communities, as the legitimacy of traditional land tenure systems is strictly connected to support at the local level.

As far as the JPA’s provisions related to natural resources are concerned, their implementation is even more difficult to ascertain, owing to their rather general nature. To the author’s knowledge, since the signing of the JPA, no contract regarding the extraction of natural resources has been reviewed, nor has any meaningful consultation process been undertaken regarding old or new concessions.

Information could not be found on oil/mineral revenue sharing between the federal and State levels. Additionally, no specific piece of legislation or national action plan has been rolled out to strengthen environmental protection or compensate for environmental damages. At most, it can be noted that the new Investment Encouragement Act 2021 includes the principle of environmental protection among those relevant for investment projects (art. 5.e) and refers to “environmental conservation and improvement” in relation to the social responsibility of the investor (art. 28.3.a). The provisions in question are not, however, particularly stringent and are not accompanied by sanctions.

Overall, while the COVID-19 pandemic and the dire economic situation of the country can partially explain the minimal progress, a persistent centralist approach to the transition (further exacerbated by the October 2021 coup) and the existence of vested interests in the control of natural resources would appear to be mainly responsible. Admittedly, while protests in Darfur and other Sudan’s peripheries importantly contributed to the fall of Omar al-Bashir, the leadership of the Forces for Freedom and Change remains mainly representative of the elites from the country’s urban centers (Murphy 2021; Tubiana 2022); and, notwithstanding the reforms initiated by the transitional government before the ousting of its civilian component, issues that are of crucial importance for Sudan’s peripheries, including land issues, were not prioritized. This state of affairs has worsened since the military takeover, with its pronounced centralization of security, socio-political and economic policies as well as its repression of popular dissent. It also comes as no surprise that no real steps have been undertaken towards the democratic and local management of natural resources, in a context where, for instance, security agencies and militias in Sudan exercise considerable control over gold extraction and export (Michaelson 2020; Dabanga 2022) – gold currently being the most lucrative natural resource in the country.

In addition to resistance or disregard from certain actors, the fact remains that implementing the land- and environment-related provisions of the JPA is no straightforward task. As has been shown, such provisions are strictly connected with issues of security, revenue sharing, social cohesion, human rights, women’s participation in social and economic life, conditions of internally displaced persons and refugees, and truth and reconciliation processes. Furthermore, the nature and impact of these issues have evolved over twenty years of war plaguing Sudan and Darfur.

Among others, the implementation of the JPA’s provisions concerning displaced people’s rights to land restitution is extremely intricate, especially for a region, such as Darfur, where more than 80 percent of Sudan’s 3 million internally displaced currently live (UN News 2021). Particularly when the newcomers are of a different ethnicity (e.g., Arabs occupying land previously held by African tribes: Olsson 2010), the situation can escalate into violence and further undermine the implementation of the JPA’s provisions. This risk has already materialized on several occasions, in the form of attacks against IDP camps and intercommunal armed confrontations over land ownership, which have recently increased and led to further displacement.⁶ On the other hand, not all IDPs might wish to return to their original lands, in light of persistent insecurity and worsening environmental degradation in rural areas

and easier access to services and job opportunities in urban settings (UN Sudan 2010; Gardner 2020). Other relevant changes that pose potential challenges to the implementation of the JPA include significant demographic shifts in Darfur – namely, considerable population growth (UN Sudan 2010), an ever-young population (ibid.), and an increase in female-headed households (Guha-Sapir and D’Aoust 2010, 5-6, report a deficit in men aged 15-49 in Darfur, to be attributed to both migration movements and excess deaths).

The text of the JPA does not fully reflect all these trends: e.g., new settlers hardly enjoy any protection; no specific reference to urban IDPs is made; and even though it is estimated that nowadays women represent between 80 and 90 percent of the agricultural workforce in Darfur (UNEP and Republic of Sudan 2020, 40), the JPA does not introduce any guarantees with respect to women in agriculture, who are currently discriminated.⁷ Nevertheless, these factors will need to be taken into account in future efforts for the implementation of the Agreement.

Conclusion – and the way forward

Although views differ as to the extent to which contested land tenure, environmental degradation, and climate change effects have fueled Sudan’s political instability and social tensions, the relevance of these factors is hardly denied. The JPA deals with all the main issues related to land, natural resources and the environment that are considered to underpin the country’s multiple conflicts – namely, tensions between herders and farmers, unclear relations between customary and statutory land tenure, lack of effective devolution of powers to the country’s peripheries, insufficient public consultation and participation, a rapidly degrading environment, and shrinking natural resources.

Accordingly, except for a general lack of details (which is to be expected in a wide-ranging peace agreement) and the risks inherent in the creation of multiple new bodies (such as the overlapping of mandates and strains on financial and human resources), the JPA lays a solid foundation for the resolution of the most contentious land- and environment-related issues. It demonstrates considerable awareness of the importance of a healthy environment and well-managed land as a fundamental premise for durable peace and equitable socio-economic development in Sudan, and it thereby offers a helpful blueprint for countries scarred by similar problems.

However, virtually no provision of the JPA relating to land, natural resources and the environment has been given effect to date. In addition to factors generally contributing to the slowing down of the Agreement’s implementation process (a pandemic, an economy in disarray, persistent political instability), this article has identified more specific obstacles that may explain why progress in the land- and environment-related areas of the Agreement has been particularly limited, even before the October 2021 coup. These include a centralist approach to the transition, the existence of vested interests connected to the management of natural resources, and profound changes in Sudanese and Darfuri society and livelihoods.

Overcoming an exclusively top-down approach to the transition, which perpetuates the marginalization of peripheries and ignore the (changing) needs of local communities, appears crucial in moving forward. Experiences from other post-conflict or otherwise volatile contexts have shown that grassroots engagement (Wicaksono and Ganna-Conteh 2021, with reference to Sierra Leone) and/or the involvement of credible traditional institutions (Babatunde 2019, with reference to the Niger Delta region) can contribute to more durable peace and stability. This is in accordance with a consolidating trend in the peacebuilding literature, which highlights the limits of an approach that excessively relies on external intervention and that focuses almost exclusively on the (re-)building of State institutions (de Coning 2016; Beevers 2020, with specific reference to natural resource management; Nyadera and Bingol 2021), to the detriment of society's healing and of local ownership of the peacebuilding process.

It is argued here that, in the context of Sudan, land reforms and changes in the management of natural resources could offer opportunities for sustainable peace, by addressing some of the root causes of the country's conflicts and by promoting dialogue among a wide range of actors. In fact, while civil society representatives, traditional leaders, and local authorities – especially from Sudan's peripheries – have negligibly been involved in the implementation of the JPA to date, their engagement is essential for the fulfilment of the land-related and environmental provisions of the Agreement. Youth, women and IDPs should also be fully involved in the process, due to their direct interest in giving effect to the relevant provisions and their crucial role in the future of Sudan.

Undoubtedly, bottom-up approaches that aim to be genuinely inclusive are resource-intensive – something that is particularly problematic for Sudan after the suspension of international aid following the October 2021 events. Nonetheless, once international funds will be restored (and national resources become more stable), the financing of locally-sanctioned initiatives and reforms on farmer-herder relations, land tenure security, the sustainable management of natural resources, and the protection of the environment could bring considerable added value by simultaneously promoting durable peace and pursuing wider objectives of the international community, such as the fight against climate change or the protection of biodiversity. Risks are inherent in these processes and will need to be paid attention to – including risks that local authorities managing natural resources might be coopted by interest groups, or that customary systems of land tenure might perpetuate discrimination against marginalized groups.

Notwithstanding undeniable difficulties, the fact remains that successive peace agreements in Sudan, whose implementation has focused on power sharing between opposing factions, have clearly failed to solve the structural issues at the root of the country's instability and violence. If the JPA is to have a chance, a paradigm shift is arguably required, and the implementation of the Agreement's land- and environment-related provisions could act as a test ground for such a new approach.

References

Abdul-Jalil, Musa Adam. 2006. "The dynamics of customary land tenure and natural resource management in Darfur." *Land Reform 2*: 8–23.

- Abdul-Jalil, Musa Adam, Mohammed, Adam Azzain and Ahmed Yusuf. 2007. "Native Administration and Local Governance in Darfur: Past and Future." In *War in Darfur and the Search for Peace*, edited by Alexander De Waal. Cambridge, MA: Global Equity Initiative, Harvard University/London: Justice Africa.
- African Development Bank Group. 2017. *Sudan: Country Brief 2017-2019*. Abidjan: African Development Bank Group.
- Assal, Munzoul A.M. 2006. "Sudan: Identity and conflict over natural resources." *Development* 49, no. 3: 101–105.
- Ayoub, Mona. 2006. "Land and conflict in Sudan." *Accord* 18: 14–15.
- Babatunde, Abosede Omowumi. 2019. "Environmental Conflict, Traditional Institutions, and Durable Peace in Niger Delta." *African Conflict & Peacebuilding Review* 9, No. 2: 33-54.
- Babiker, Mohamed A. 2018. "Communal Customary Land Rights in Sudan: The Need for a Comprehensive Reform of Statutory Land Laws." In *Anthropology of Law in Muslim Sudan*, edited by Barbara Casciarri and Mohamed A. Babiker. Leiden: Brill.
- Babiker, Mustafa. 2009. "Historical Overview of Land Policy in Sudan." In *Environment and Conflict in Africa: Reflections on Darfur*, edited by Marcel Leroy. Addis Ababa: University for Peace – Africa Programme.
- Ban, Ki-moon. 2007. "A Climate Culprit in Darfur." *Washington Post*, June 16. <https://www.un.org/sg/en/content/sg/articles/2007-06-16/climate-culprit-darfur> (accessed February 13, 2022).
- Beevers, Michael D. "Natural Resource Reforms in Postwar Liberia and Sierra Leone: Contradictions and Tensions." In *Post-Conflict Institutional Design: Peacebuilding and Democracy in Africa*, edited by Abu Bakarr Bah. London: Bloomsbury Publishing.
- Bromwich, Brendan. 2008. "Environmental degradation and conflict in Darfur: Implications for peace and recovery." *Humanitarian Exchange* 39: 22–29.
- . 2018. "Power, contested institutions and land: Repoliticising analysis of natural resources and conflict in Darfur." *Journal of Eastern African Studies* 12(1): 1–21.
- Butler, Declan. 2007. "Darfur's climate roots challenged." *Nature* 447: 1038.
- Central Bank of Sudan. 2009. *Foreign Trade Statistical Digest: Annual 2009*. Khartoum: Central Bank of Sudan.
- . 2019. *Foreign Trade Statistical Digest: January – December 2019*. Khartoum: Central Bank of Sudan.
- Dabanga. 2022. "Five injured as RSF shoot protesters in gold mining conflict in eastern Sudan." *Dabanga*, March 25. <https://www.dabangasudan.org/en/all-news/article/5-injured-as-rsf-shoot-protesters-in-gold-mining-conflict-in-eastern-sudan> (accessed May 24, 2022).
- de Coning, Cedric. 2016. "From peacebuilding to sustaining peace: Implications of complexity for resilience and sustainability." *Resilience* 4, No. 3: 166-181.

- Dunning, Brian C. 1990. "A Comparative Study of Legal Ideology: African Land Tenure Systems." *Boston College Third World Law Journal* 10: 297–319.
- Egemi, Omer. 2012. *Pastoralist Peoples, Their Institutions and Related Policies*. Boston, MA: Feinstein International Center – Tufts University.
- . 2017. *Sudan National REDD+ Programme (FCPF/Grant). Land Use in Sudan: Study Report*. Khartoum: REDD+ Sudan et al.
- FAO et al. 2015. *National Investment Profile. Water for Agriculture and Energy: Sudan*. Khartoum/Rome: FAO.
- Gardner, Tom. 2020. "Sudan's revolution runs aground in Darfur." *The New Humanitarian*, January 8. <https://www.thenewhumanitarian.org/news-feature/2020/1/8/Darfur-Sudan-Janjaweed-militia-revolution-conflict-IDPs-displacement> (accessed May 24, 2022).
- Guha-Sapir, Debarati, and Olivia D'Aoust. 2010. *Demographic and Health Consequences of Civil Conflict*. Washington, DC: World Bank.
- Manger, Leif. 2009. "Resource Based Conflicts in Western Sudan: Some Reflections on the Role of the State." In *Environment and Conflict in Africa: Reflections on Darfur*, edited by Marcel Leroy. Addis Ababa: University for Peace – Africa Programme.
- Maystadt, Jean-François, Margherita Calderone, and Liangzhi You. 2015. "Local warming and violent conflict in North and South Sudan." *Journal of Economic Geography* 15: 649–671.
- Michaelson, Ruth. 2020. "Militia strike gold to cast a shadow over Sudan's hopes of prosperity." *The Guardian*, February 10. <https://www.theguardian.com/global-development/2020/feb/10/militia-strike-gold-to-cast-a-shadow-over-sudans-hopes-of-prosperity> (accessed May 24, 2022).
- Mohamed, Yagoub Abdalla. 2004. "Land Tenure, Land Use and Conflicts in Darfur." In *Environmental Degradation as a Cause of Conflict in Darfur. Conference Proceedings: Karthoum, December 2004*, edited by University for Peace – Africa Programme. Addis Ababa: University for Peace – Africa Programme.
- Mohamed, Yagoub Abdalla and Omer Egemi. 2012. *Environmental Governance in Sudan: An Expert Review*. Nairobi: UNEP.
- Murphy, Theodore. 2021. *Sudan's Transition in the Balance*. IAI Papers 21 | 38. Rome: IAI.
- Nyadera, Israel Nyaburi and Yilmaz Bingol. 2021. "Human Security: The 2020 Peace Agreement and the Path to Sustainable Peace in South Sudan." *African Conflict & Peacebuilding Review* 11, No. 2: 17-38.
- Olsson, Ola. 2010. "After Janjaweed? Socioeconomic Impacts of the Conflict in Darfur." *The World Bank Economic Review* 24: 386-411.
- Osman, Abdal Monium K. and Marc J. Cohen. 2014. *We No Longer Share the Land: Agricultural Change, Land, and Violence in Darfur*. Oxford: Oxfam International.
- Sudan Tribune. 2021. "Sudan's Land Commission Will Use Traditional Methods in Darfur: Official." *Sudan Tribune*, March 1. <https://sudantribune.com/article67481/> (accessed February 13, 2022).

- Sulieman, Hussein M. 2015. "Grabbing of communal rangelands in Sudan: The case of large-scale mechanized rain-fed agriculture." *Land Use Policy* 47: 439–447.
- Tubiana, Jérôme. 2022. *Darfur after Bashir: Implications for Sudan's Transition and for the Region*. Washington, DC: United States Institute of Peace.
- UNEP. 2007. *Sudan: Post-Conflict Environmental Assessment*. Nairobi: UNEP.
- UNEP and Republic of Sudan. 2020. *Sudan: First State of Environment and Outlook Report 2020*. Higher Council for Environment and Natural Resources. Nairobi: UNEP.
- UN-Habitat. 2020. *Darfur Land Administration Assessment: Analysis and Recommendations*. Nairobi: United Nations Human Settlements Programme.
- UN News. 2021. "Clashes displace thousands in Darfur, where 6.2 million will need assistance next year." December 7, 2021. <https://news.un.org/en/story/2021/12/1107292> (accessed May 24, 2022).
- Unruh, Jon, and Musa Adam Abdul-Jalil. 2012. "Land rights in Darfur: Institutional flexibility, policy and adaptation to environmental change." *Natural Resources Forum* 36: 274–284.
- UN Sudan. 2010. *Beyond Emergency Relief. Longer-term trends and priorities for UN agencies in Darfur*. Khartoum: UN Sudan.
- USAID. 2013. *USAID Country Profile – Property Rights & Resource Governance: Sudan*. Washington, D.C.: USAID.
- . 2016. *Climate Change Risk Profile: Sudan*. Washington, D.C.: USAID.
- US Geological Survey. 2021. *Mineral Commodity Summaries 2021*. Reston, VA: US Geological Survey.
- Verhoeven, Harry. 2011. "Climate Change, Conflict and Development in Sudan: Global Neo-Malthusian Narratives and Local Power Struggles." *Development and Change* 42, no. 3: 679–707.
- Wicaksono, Nicolas and Kenneth Paul Ganna-Conteh. 2021. "Securing A "People's Peace": Lessons from Post-War Sierra Leone and How They Can Be Applied in South Sudan." *African Conflict & Peacebuilding Review* 11, No. 2: 104-120.
- World Bank. 2021. The World Bank in Sudan – Overview. <https://www.worldbank.org/en/country/sudan/overview#1> (accessed February 13, 2022).

Legal references

- Investment Encouragement Act, Republic of the Sudan, 1999.
- National Investment Encouragement Act, Republic of the Sudan, 2013.
- Unregistered Land Act, Republic of the Sudan, 1970.

Short bio

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¹ According to the ND-GAIN Index by the University of Notre Dame, which measures the vulnerability of countries to climate change as well as their readiness to adapt to it. Global rankings are available at <https://gain.nd.edu/our-work/country-index/rankings/> (accessed February 13, 2022).

² The Agreement was concluded between the Sudanese government and the Sudan People's Liberation Movement/Army on January 9, 2005.

³ On the JPA and displaced persons, see the article by Samah in this special issue. See also, on the JPA and reparations (including land restitution), the article by Capone and Totaro in this special issue.

⁴ Provisions on the concurrent management of natural resources and revenue sharing can also be found in relation to the Two Areas (e.g., Title 3, Ch. 2, art. 50; and Ch. 3, art. 16), Eastern Sudan (e.g., Title 4, art. 50 ff.) and the Northern Track (e.g., "General Principles", arts. 15–17; and "Issues of the Northern Track – (Political and Socioeconomic) Issues", arts. 4 and 12), which take into account the peculiar physical, historical, socio-economic, and cultural conditions of those regions.

⁵ On compensation and reparations in the JPA, see the article by Capone and Totaro in this special issue.

⁶ UN Secretary-General, Situation in the Sudan and the activities of the United Nations Integrated Transition Assistance Mission in the Sudan: Report of the Secretary-General, U.N. Doc. S/2021/766 (September 1, 2021); and UN Security Council, Letter dated 24 January 2022 from the Panel of Experts on the Sudan addressed to the President of the Security Council, U.N. Doc. S/2022/48 (January 24, 2022).

⁷ On the other hand, the JPA includes provisions to protect the rights of women in other contexts – particularly as far as representation in political institutions, representation in civil service, and education are concerned – and important pieces of legislation have recently been adopted to improve the conditions of Sudanese women, including the criminalization of female genital mutilation and the abolition of discriminatory public order laws. See, for more detail, the article by Tønnessen and Abbas in this special issue.