

DECOLONISING BORDERWORK: INDIGENOUS KNOWLEDGES, AGENCIES, AND SUSTAINABLE AGRICULTURAL DEVELOPMENT IN UGANDA

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ABSTRACT

Whereas little research has traced the displacement and relocation of Indigenous peoples engaged in subsistence agriculture generally in Africa, even less has examined what happens to Indigenous knowledge when such communities are forced to relocate, particularly with respect to their knowledge about traditional farming practices. Yet, when we consider the cultural capacities, skills, and knowledges brought by Indigenous peoples who are forced to relocate, we can begin to inquire about their untapped potential, and their agency to pursue their own (agricultural) development, and to bolster their own resilience and adaptation strategies to the impacts of environmental change, as active participants and co-creators of borderwork. This article seeks to respond to gaps in decolonial migration and development literature, policy, and practice by asserting the need to consider the role that Indigenous knowledge could play in advancing the sustainable agricultural development, and thus climate-resilience, of Indigenous peoples who are displaced and the societies and areas that they relocate to. Offering a case study of three districts (Isingiro, Ntungamo and Rakai) in the climate-vulnerable, ethnically rich, and migrant and refugee-dense southwestern region of Uganda, this article concludes with a call for re-imagining, and for further research into, the role that displaced Indigenous peoples and communities—their agricultural knowledge, capacities, and ties to the land—could play in expanding the hermeneutic

capacity and usefulness of the notion of borderwork for sustainable development policies and practices.

KEYWORDS: Indigenous peoples, climate-related displacement, Indigenous Knowledges, sustainable development, sustainable agricultural development, Climate-Smart Agriculture, Uganda, agency, relocation, integration.

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INTRODUCTION

Dispossession and displacement have, for centuries, played a leading role in contributing to the historical and on-going struggles for the development, livelihoods, well-being, and resilience to environmental change of Indigenous peoples across the African continent.¹ Indeed, the widespread displacement of Indigenous peoples across Africa during the colonial past and the post-colonial present—particularly for the purposes of natural resource extraction to feed political economic interests or in the name of so-called ‘conservation’ interests²—has pushed a diverse array of Indigenous peoples to “marginal lands and fragile ecosystems which are particularly sensitive to alterations in the physical environment.”³ On-going legacies of dispossession and displacement have thus, in many cases, cast Indigenous peoples on the continent to the margins of exclusionary bordering practices. This has effectively limited the assistance they (are considered eligible to) receive by states *as* displaced persons, notably at a time of burgeoning ecological crisis, where such assistance is increasingly vital for their survival and cultural practice in line with ancient traditions.⁴ Indigenous communities engaged in and reliant upon agriculture as a means of subsistence and as an integral part of their cultures are particularly at risk when displaced as the impacts of climate change intensify. This is, in part, due to the limited opportunities such persons have to employ their traditional knowledges in farming practices within areas where they resettle.⁵ Consequently, the (cultural) survival of displaced Indigenous peoples, including their culturally

¹ UN Permanent Forum on Indigenous Issues (UNPFII), *Permanent Forum on Indigenous Issues: Report on the 12th session (20-31 May 2013)*, E/2013/43 - E/C.19/2013/25, available at: <https://www.refworld.org/docid/51f8e9274.html>.

² See: Sai Englert, “Settlers, Workers, and the Logic of Accumulation by Dispossession,” *Antipode* 52, no. 6 (2020): 1647-1666, <https://doi.org/10.1111/anti.12659>; Romola Adeola and Frans Viljoen, “Climate Change, Development Projects and Internal Displacement in Africa,” *Journal of African Law* 62, no. 3 (2018): 335-350, <https://doi.org/10.1017/S0021855318000219>.

³ UN Human Rights Council (UNHRC), “Report of the Office of the United Nations High Commissioner for Human Rights on the Relationship between Climate Change and Human Rights,” *Annual report of the United Nations High Commissioner for Human Rights and Reports of the Office of the High Commissioner and the Secretary-General (15 January 2009)*, A/HRC/10/61, available at: <https://www.ohchr.org/sites/default/files/Documents/Press/AnalyticalStudy.pdf>.

⁴ See: UN High Commissioner for Refugees, “Minorities and Indigenous Peoples,” UNHCR, The UN Refugee Agency, accessed November 22, 2022. <https://www.unhcr.org/uk/minorities-and-indigenous-peoples.html>; Victoria R. Williams, *Indigenous Peoples: An Encyclopedia of Culture, History, and Threats to Survival [4 volumes]* (Santa Barbara, CA/Denver, CO: ABC-CLIO, 2020).

⁵ Charles Takoyoh Eyong, “Indigenous Knowledge and Sustainable Development in Africa: Case Study on Central Africa,” in *Indigenous Knowledge Systems and Sustainable Development: Relevance for Africa*, eds., Emmanuel K. Boon and Luc Hens (Delhi: Kamla-Raj Enterprises, 2007), 121-139.

and ecologically intertwined Indigenous Knowledge (IK) for safeguarding biodiversity, and for mitigating and adapting to the impacts of environmental change that increasingly threaten to further exacerbate their precarity,⁶ is at stake.

While little research has traced the displacement and relocation of Indigenous peoples engaged in subsistence agriculture generally in Africa, even less has examined what happens to Indigenous knowledge when such communities are forced to relocate, particularly with respect to their knowledge about traditional farming practices. Further, as African states strive to simultaneously advance their sustainable development agendas, build their resilience to the impacts of environmental change, and to cope with large migrant and refugee populations, it appears that they lack clear strategies for the integration, sustainable, and subsistence-economic development of internally displaced persons or refugees in hosting borderlands. The role that displaced and resettled Indigenous peoples and the knowledge they hold could play in such development remains overlooked. However, when we begin to consider the cultural capacities, skills, and knowledges which are brought by Indigenous migrant and refugee communities across states and borders into host states, we can begin to inquire about the untapped potential of such groups, namely with respect to their agency to further their own development as active participants and co-creators of borderwork. Additionally, we can begin to inquire about the capacities of displaced and resettled Indigenous peoples to engage in sustainable agricultural development as a vital feature of adaptation to, and resilience-building against, the impacts of climate change.

This article attempts to provoke theoretical and empirical reflections around the potential usefulness of Indigenous Knowledge held by agriculturally-dependent Indigenous peoples who have been displaced and resettled in Africa. It seeks to respond to gaps in decolonial migration and development literature, policy, and practice by asserting the need to consider the role that IK can play in advancing the sustainable agricultural development, and thus climate-resilience, of Indigenous peoples who are displaced and the societies and areas that they relocate to. While it is widely acknowledged that “migrants often settle in places that are quite different from their place of origin and have to adapt to new social, economic, and natural environments,”⁷ though

⁶ Kyle Whyte, “Settler Colonialism, Ecology, and Environmental Injustice,” *Environment and Society* 9, no. 1 (2018): 125, <https://doi.org/10.3167/ares.2018.090109>.

⁷ Ingrid Nesheim, Shivcharn S. Dhillon, and Kristi Anne Stølen. “What Happens to Traditional Knowledge and Use of Natural Resources When People Migrate?,” *Human Ecology* 34, no. 1 (2006): 100, <https://doi.org/10.1007/s10745-005-9004-y>.

warranted, this logic tends to overlook that “migrants may also bring knowledge and practices that are new to the area of arrival that in turn may lead to development.”⁸ While, to date, finite evidence has documented the success of the use of Indigenous knowledge brought by displaced Indigenous peoples to resettled areas in the field of sustainable agricultural development among others, this article makes the case for further research into the untapped potential of such knowledges within African borderlands hosting resettled migrant and refugee communities. The article asserts that such research can serve as an act of decolonising borderwork, and as a vehicle for promoting the agency of displaced Indigenous populations within migrant and refugee resettlement and sustainable agricultural development policy frameworks.

Moving beyond state-centric notions of borderwork that assume the state as the primary actor that engages in bordering activities, this article employs scholar Chris Rumford’s assertion that borderwork manifests as “the business of citizens, or ordinary people.”⁹ Engaging with the author’s inclusive approach to borderwork, it offers a decolonial inquiry into the Indigenous agricultural knowledges and practices which may be *lost* through the privileging of state-centric borderwork and development agendas. A central theme which guides the inquiry unpacked within this article is that of the colonial and limiting paradox of state-centrality to both notions of borderwork and to that of development agendas. This paradox refers to the presupposition of the state as the central and ‘best-suited’ formation through which borderwork and sustainable development activities ought to be governed. Arguments within this article serve to debunk these dualistic assumptions in order to point to the ways in which the privileging of such state-centrality operates as a manifestation of coloniality that erases, silences, and ignores the agency of Indigenous peoples in borderwork and in guiding their own sustainable development. As such, it seeks to disrupt such colonially-laden state-centrality within borderwork in an effort to move beyond the confines of the state-led governance of bordering, migrant and refugee agricultural livelihoods, particularly of resettled Indigenous peoples, and the possibility of climate-resilient and sustainable development tied to such livelihoods.

This article will analyse the potential usefulness of Climate-Smart Agriculture (CSA) in Uganda in order to unpack its guiding questions. The Ugandan context has been selected as a case

⁸ Ibid.

⁹ Chris Rumford, “Introduction: Citizens and Borderwork in Europe,” *Space and Polity* 12, no. 1 (2008): 3, <https://doi.org/10.1080/13562570801969333>.

study because it is a country that has arguably made significant progress and promise towards the advancement of climate-resilient, sustainable agricultural development through its CSA policies, practices, and programmes designed to deal with “climate-driven agricultural difficulties” in a fairly flexible and locally-engaging manner.¹⁰ It has also been selected because the country is home to large numbers of Indigenous or ethnically diverse groups and is often heralded for hosting a sizable refugee and Internally Displaced Persons (IDP) population—the largest of any African country. The article will briefly unpack the potential usefulness of Uganda’s CSA initiatives for sustainable agricultural development broadly in the country, and particularly for displaced and resettled Indigenous peoples in the country. Of specific significance is the question of whether CSA as a form of sustainable agricultural development holds the capacity to encompass Indigenous traditional knowledges of land use and nurturing agricultural practices which are beneficial to people and planet. In turning to the Ugandan case study, this article will examine the climatic threats faced by Indigenous peoples *as/and* migrants and refugees in the country’s southwestern regions, will point to the traditional usefulness of Indigenous knowledge in the region for engaging in climate-resilient agricultural practices, and will beg questions around the prospective relevance of such knowledges in the case of and during displacement and relocation experienced by local Indigenous communities and the areas where they resettle. The piece will conclude with a call for re-imagining and for further research into the role that displaced Indigenous peoples and communities—their agricultural knowledge, capacities, and ties to the land—can play in expanding the hermeneutic capacity and usefulness of the notion of borderwork for sustainable development policies and practices.

BEYOND A STATE-CENTRIC NOTION OF BORDERWORK

While traditionally thought of as the role of the state, it has now been widely argued that borderwork includes a range of actors, all of whom contribute in one way or another to processes of (re)producing, contesting, demarcating, resisting, and/or bringing into being borders at the level

¹⁰ The term ‘climate-smart agriculture’ is used throughout this article as opposed to agroecology, agroforestry, conservation agriculture, green agriculture, sustainable or regenerative agriculture, as this article focuses predominantly on agricultural practices, and less on food sovereignty and security which are often encompassed within the mentioned alternative forms of sustainable agricultural models. See: Eric D. Raile et al., “Agriculture in Shifting Climates: The Configuration and Ripeness of Problem Understandings in Uganda and Senegal,” *Review of Policy Research* 35, no. 2 (2018): 303, <https://doi.org/10.1111/ropr.12284>.

of everyday life.¹¹ In current border studies scholarship, Étienne Balibar's assertion that the border *is everywhere*¹² is commonly taken as a point of departure for unpacking the nexus between b/ordering, borderwork, and race, gender, difference, in/exclusion, othering and belonging across real and perceived differential identities, experiences and border spaces. Contemporary critical scholars readily investigate how borders "are woven into the fabric of society,"¹³ while simultaneously unveiling manifestations of their individualised embodiment through the creation of new and differential subjectivities, which (re)produce the subordination of some and the privileging of others.

Tying these intricacies together, one of the late Gloria Anzaldúa's cherished contributions to advancing the transcendence of state-centrality to borders and to *doing* borderwork is her analogy of borders as hybrid zones.¹⁴ By this Anzaldúa rewrites the notion of borders as spaces of simultaneous inclusions and exclusions, where ambiguity and agency can be both violently marginalising, and, at the same time, can serve as tools for transcending borders and their constricting binds. The latter offers a decolonial invocation through which mobility can, and often does for Indigenous migrant communities, become something that is "active for migrants... a terrain infused by agency, structured by power and full of contestation."¹⁵ The concepts introduced by the aforementioned scholars beg for a re-imagining of the (potential) roles that Indigenous migrants, refugees and asylum seekers can, and, in effect, *do* play in shaping the meaning of borders and their functions across social spaces, which are not limited to states' claims to territorial jurisdiction,¹⁶ but rather transcend them.

Looking beyond a dichotomous conception of state-sanctioned inclusion and exclusion—beyond bureaucratic and legalistic prescriptions of belonging and unbelonging inscribed by states at borders—serves to provoke an arguably more realistic comprehension of the heterogeneous

¹¹ Reece Jones and Corey Johnson, *Placing the Border in Everyday Life* (Abingdon and New York: Routledge, 2016).

¹² Etienne Balibar, "World Borders, Political Borders," *PMLA* 117, no. 1 (2002): 68-78, <https://doi.org/10.1632/003081202X63519>.

¹³ Corey Johnson et al., "Interventions on Rethinking 'The Border' in Border Studies," *Political Geography* 30, no. 2 (2011), 68, <https://doi.org/10.1016/j.polgeo.2011.01.002>.

¹⁴ Gloria Anzaldúa, *Borderlands/La Frontera: The New Mestiza* (San Fransisco: Aunt Lute, 1987).

¹⁵ Polly Pallister-Wilkins, "Im/mobility and Humanitarian Triage," in *Handbook on Critical Geographies of Migration*, eds., Katharyne Mitchell, Reece Jones, and Jennifer L. Fluri (Cheltenham and Northampton: Edward Elgar Publishing, 2019), 367.

¹⁶ Johnson et al., "Interventions on Rethinking," 67.

ontologies of difference experienced by persons who are displaced. As such, when turning to the marginalised experiences of Indigenous communities who are displaced, it appears essential to expand the scope of contending with borderwork in a manner which welcomes the agencies and capacities of such persons towards shaping their realities and aims for collective, individual, and sustainable development. Particular emphasis ought to also be placed where cultural differences, practices, and traditions are relevant to Indigenous experiences, worldviews, and ties to land. In essence, expanding the notion of borderwork to include Indigenous cultures and knowledges is a decolonial project which can serve to transcend the limitations of colonially imposed cartographies and state-centric bordering and development practices. It is a recognition of borders as “meaning-making and meaning-carrying entities, parts of cultural landscapes which often transcend the physical limits of the state and defy the power of state institutions.”¹⁷ Ultimately, rejecting the notion of displaced Indigenous communities as passive subjects, whether within or across borders, is vital to reconceptualising the notion of borderwork and to dismantling the limits of state-centric approaches to development. As this article will discuss, this re-imagining may also be advantageous for furthering sustainable, agricultural development initiatives which are in line with the realities, capacities, and perhaps most importantly, the agencies of native communities who are displaced or who are otherwise implicated within practices and processes of borderwork.

INTERSECTING BORDERWORK AND SUSTAINABLE DEVELOPMENT: THE CASE OF UGANDA

Uganda presents an interesting context for exploring how and why welcoming Indigenous perspectives and knowledges of land management and sustainable agriculture into considerations of borderwork may serve as a vehicle for inclusive sustainable development. In particular, Uganda provides an interesting context for examining how the inclusion of such knowledges could be largely beneficial to migrant and non-migrant Indigenous communities, to the Ugandan state, and to the planet more largely. The country presents a useful case study for three interdependent and, at times, intersecting reasons.

¹⁷ Hastings Donnan and Thomas M. Wilson, *Borders: Frontiers of Identity, Nation and State* (Oxford: Berg Publishers, 1999; Abingdon and New York: Routledge, 2020), 4. Citations refer to the Routledge edition.

Firstly, Uganda is home to more refugees than any other country on the continent, alongside hosting a large IDP population.¹⁸ The country hosts just under 1.5 million refugees and asylum-seekers, most of whom are from neighbouring South Sudan, the Democratic Republic of Congo (DRC), and Burundi.¹⁹ By the end of 2021, around 26,000 Ugandans were internally displaced within Ugandan borders as a result of disasters and extreme weather related events, and another 1,700 were internally displaced as a result of intercommunal violence at the year's close.²⁰ In addition to hosting large refugee and migrant populations, the Ugandan government is often heralded for its progressive refugee and migration policies, in particular under the 2006 Refugee Act and the 2004 National Policy for Internally Displaced Persons. The country's refugee policy is comprised of three core elements, as noted by Alexander Betts (2021):

First, its regulatory framework: it lets refugees work and choose their place of residence. Second, its assistance model: it allocates plots of land for refugees to cultivate within its rural settlements. Third, its model of refugee–host interaction: it encourages integrated social service provision and market access.²¹

In 1999, the government adopted a Self-Reliance Strategy that remains in place today, offering refugees small plots of arable land through which to settle, engage in subsistence agriculture, and thereby “become productive members of the society.”²² Today, around 50% of refugees have access to land in the country, and around 54% sell the produce they cultivate on their small plots of land.²³ These outcomes appear to demonstrate dual benefits of the self-reliance model for simultaneously enabling resettled refugees to grow crops for subsistence and generate income, contributing to their economic development. In fact, recent studies have found that the access of refugees to a plot of land “positively correlates with better dietary diversity, food security, and calorie intake,” and that as a matter of principle, the land plot allocation system “can

¹⁸ UN High Commissioner for Refugees, “Uganda,” UNHCR. Accessed November 22, 2022. <https://www.unhcr.org/uganda.html>.

¹⁹ Ibid.

²⁰ Internal Displacement Monitoring Centre, “Uganda,” IDMC, May 19, 2022. <https://www.internal-displacement.org/countries/uganda>.

²¹ Alexander Betts, “Uganda: The Right to Work and Freedom of Movement,” in *The Wealth of Refugees: How Displaced People Can Build Economies* (Oxford: Oxford University Press, 2021), 117.

²² UN High Commissioner for Refugees, “Development Assistance for Refugees (DAR) for Uganda Self Reliance Strategy,” *Report on Mission to Uganda, RLSS/DOS Mission Report 03/11, 14-20 September 2003*.

²³ The Republic of Uganda Ministry of Agriculture, Animal Industry and Fisheries, *Climate Smart Agriculture: Community Practice Guide*, Prepared in partnership with Oxfam, CRS, World Vision and Care International, 2021. <https://careclimatechange.org/wp-content/uploads/2021/06/The-Climate-Smart-Agriculture-book-2021.pdf>.

be an effective means to support refugees from agricultural backgrounds... [who tend to] have better [welfare] outcomes if they have access to land.”²⁴

Despite the wins for refugees in Uganda that come with the self-reliance model, there remain a handful of shortcomings. Three are briefly mentioned here. First, “Uganda’s current land allocation model is not working effectively. Due to growing refugee numbers, the quantity and quality of land available to new arrivals is inadequate.”²⁵ Some have even reported that they have had land taken away from them in order to be partitioned off and given to newly arriving displaced persons.²⁶ Second, no policy, to date, aims to provide assistance, training or useful resources and equipment to displaced persons to engage in agricultural cultivation on the plots they are given. In other words, there appears to be a missed opportunity in training and the facilitation of knowledge-sharing around *sustainable* agricultural practices undertaken by refugees and migrants and related human, economic, and sustainable development. And, third, providing displaced persons in Uganda with plots of land has often been made possible because Ugandan authorities take land away from Indigenous Ugandans and place it into the hands of refugee communities.²⁷ It can be argued that this dispossession, therefore, implicates native Ugandans within b/ordering processes and thus, such individuals and communities ought to also be considered within the meaning of borderwork in an effort to centre the ontological realities of Indigenous peoples and their agentic capacities for advancing the (sustainable) development of Ugandan societies.

The second reason why Uganda presents an apposite case study for the investigation offered in this article is related to its high climate vulnerability, dominant reliance on rain-fed subsistence agriculture, and its championed progressive sustainable (agricultural) development policies. In Uganda, the impacts of climate change have started to manifest through “increased frequency of extreme weather events,” including floods and landslides, as well as through droughts—all of which exacerbate local forms of environmental degradation and pose “serious

²⁴ Betts, “Uganda: The Right to Work,” 133.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Felicia Kiblin, “A Struggle for Resources: Refugees and Natives in Uganda,” *University at Buffalo: Global Health Equity* (blog), n.d, <https://www.buffalo.edu/globalhealthequity/global-projects/refugeehealthandwellbeing/uganda/architecture-students-explore-housing-solutions-for-refugees-in-.host.html/content/shared/www/globalhealthequity/research-and-development/refugee-health-and-well-being-uganda/evaluating-solutions/outlining-the-challenges/struggles-of-population--refugees-vs-native-ugandans.detail.html>.

threat[s] to Uganda’s natural resources, social and economic [and sustainable] development.”²⁸ In the southwestern districts (e.g. Isingiro, Ntungamo and Rakai districts) comprising a semi-arid region referred to as the ‘cattle corridor,’ for example, the region is characterised by “relatively low rainfall distribution and settled with sparse smallholder agro-pastoralists engaged in both livestock and crop production.”²⁹ When rain does fall, it is considered to be “unreliable and unevenly distributed,” and drought has been increasing in recent years, significantly affecting the availability of freshwater and the agricultural yields of farmers in the area.³⁰ Further, rising temperatures and aridity levels have contributed to crop, soil and land erosion, crop pests and locust attacks, which, combined with increasing population pressure have contributed to over-cultivation, reduced agricultural productivity, and crop failure in the area,³¹ heightening the food insecurity of its inhabitants.

Such climatic changes are already having an enormous and detrimental impact on Ugandan farmers, particularly on Indigenous groups whose cultures and traditional Indigenous knowledge, livelihoods, food security and lives are wrapped up within intensifying climatic threats. In Uganda, 70% of the population earn a living in the agricultural sector, an industry that accounts for around a quarter of the national GDP.³² Further, 96% of farming households in the country depend directly on rain-fed agriculture³³—a livelihood highly sensitive to the impacts of climate change, temperature extremes, seasonal weather, and precipitation variability. As the adverse experiences of climate change and rising temperatures bring about a lengthy dry season, that in turn affects the agricultural calendar, anecdotal evidence suggests these environmental changes are leading to a “scarcity of forest products, such as fruits and tubers of plants such as potatoes and yam, thereby disturbing their cultural lifestyle and increasing mobility.” These compounding pressures and

²⁸ The Republic of Uganda, *Climate Change: Uganda National Adaptation Programme of Action*, National Planning Authority Document (2007), xiii, <https://unfccc.int/resource/docs/napa/uga01.pdf>.

²⁹ Mfitumukiza David et al., “The Role of Indigenous Knowledge (IK) in Adaptation to Drought by Agropastoral Smallholder Farmers in Uganda,” *Indian Journal of Traditional Knowledge* 19, no. 1 (January 2020): 45, <https://core.ac.uk/download/pdf/298009495.pdf>.

³⁰ Ibid.

³¹ Lea Berrang-Ford et al., “Vulnerability of Indigenous Health to Climate Change: A Case Study of Uganda’s Batwa Pygmies,” *Social Science & Medicine* 75, no. 6 (2012): 1067-1077, <https://doi.org/10.1016/j.socscimed.2012.04.016>.

³² The Republic of Uganda, “Climate Smart Agriculture”, <https://careclimatechange.org/wp-content/uploads/2021/06/The-Climate-Smart-Agriculture-book-2021.pdf>

³³ Care Climate Change & Resilience Platform, “Scaling up Climate Smart Agriculture in Uganda,” CARE International, June 14, 2021. <https://careclimatechange.org/climate-change-agriculture-uganda-resilience/>.

consequential (forced) mobility amongst the Batwa pygmies, traditional forest-dwellers, and original inhabitants of the southwestern Ugandan regions and neighbouring Burundi and Rwanda, have been recently recorded, for example.³⁴ Under such circumstances, “farmers are kept in cyclical poverty, chronic food insecurity, migration to other areas, and in many cases, continued agitation for food aid.”³⁵ The poor adaptive capacity of farmers, including Indigenous farming communities, has, in many cases, left them ill-equipped to cope with environmental stress as it impacts their subsistence and income-generation through agricultural production, resulting in “far-reaching social and economic impacts in the country,” which avail the “need for resilient agricultural practices.”³⁶

In an effort to respond to the country’s high climate vulnerability, increasing crop failure for the majority population dependent on agriculture, and in order to increase the resilience and adaptive capacities of Ugandan communities to the intensifying impacts of climate change, the government has pronounced its commitment to sustainable (agricultural) development as part of broader climate change adaptation strategies in recent decades. Indeed, there is little doubt, at least on paper, that the Ugandan government has demonstrated its commitment to sustainable (agricultural) development. The state is one of few in the world which has fully mainstreamed the Sustainable Development Goals into its national development agendas,³⁷ and which has made great progress in introducing climate-smart agricultural practices that increase “productivity and resilience to the impacts of climate change.”³⁸

The Climate-Smart Agriculture model (CSA),³⁹ employs an integrated approach, in order to ensure that “farmers can contribute to climate change mitigation and at the same time adapt to

³⁴ Ademola Oluborode Jegede, “Indigenous Peoples, Climate Migration and International Human Rights Law in Africa, with Reflections on the Relevance of the Kampala Convention,” In *Research Handbook on Climate Change, Migration and the Law*, eds., Benoît Mayer and François Crépeau (Cheltenham and Northampton: Edward Elgar Publishing, 2017), 172.

³⁵ Mfitumukiza David et al., “The Role of Indigenous Knowledge,” 44.

³⁶ Care Climate Change & Resilience Platform, “Scaling up Climate Smart Agriculture”.

³⁷ The Republic of Uganda, *Voluntary National Review Report on the Implementation of the 2030 Agenda for Sustainable Development*, (Kampala: Office of the Prime Minister of the Republic of Uganda, 2020). https://sustainabledevelopment.un.org/content/documents/26354VNR_2020_Uganda_Report.pdf.

³⁸ Care Climate Change & Resilience Platform, “Scaling up Climate Smart Agriculture”.

³⁹ Also referred to in the Ugandan context as the ‘Climate Smart Sustainable Agriculture’ model (CSSA).

climate change.”⁴⁰ In addition to being cost effective and location specific, CSA provides and encourages an array of practices for farmers such as “appropriate on and off farm water harvesting techniques, soil and water conservation, integrated farming practices for both crops and livestock, compound gardening techniques... sack gardens... micro irrigation practices and planting of adapted crop varieties.”⁴¹ Climate-Smart Agriculture is considered a key element of the state’s response to climate change impacts on the agricultural sector, as established within the 2015 National Climate Change Policy (NCCP) and the Ugandan authorities’ 2016 Nationally Determined Contributions (NDC). As part of their 2015-2025 plan, the Ugandan Ministry of Agriculture, Industry and Fisheries, alongside the Ministry of Water and Environment, have been implementing the *Uganda Climate Smart-Agriculture Country Programme*, with the goals to increase agricultural productivity in a gender-sensitive manner; to increase the resilience of “agricultural landscapes and communities” to climatic impacts and to transform the agricultural sector to be low carbon-intensive; to enhance a foundation through which to scale up CSA; and, to increase partnerships and mobilise resources in furtherance of CSA activities.⁴²

Despite careful stakeholder mapping under the cross-ministerial Ugandan CSA programme, no mention of Indigenous peoples as they are engaged in agricultural techniques and as holders of Indigenous knowledge related to such farming practices is mentioned within the government’s ‘Community of Practice Guide’ on CSA. Nor are such groups and the knowledge they bear regarded within the state’s NCCP or NDCs. At the same time, the government’s 2007 National Adaptation Programme of Action (NAPA) emphasises the “importance of use of indigenous knowledge in natural resource management” and farming, and encourages the development of strategies based on such knowledge as a prospect to “enhance communities to cope with the effects of climate change.”⁴³ Indeed, the NAPA advocates for the “strong need” to promote Indigenous Knowledge-based strategies and to integrate them into farming systems— noting its findings that of the Ugandan farming communities surveyed in order to put together the

⁴⁰ “Climate Smart Sustainable Agriculture - Uganda ,” UN Framework Convention on Climate Change. Accessed November 23, 2022. https://unfccc.int/climate-action/momentum-for-change/activity-database/climate-smart-sustainable-agriculture?gclid=CjwKCAiApvebBhAvEiwAe7mHSEFZY1qHbnzVuvJvg9fa815-UM53VnTMZbAn8F6SoIHRVWiOqRTEPRoCKzQQA_vD_BwE.

⁴¹ Ibid.

⁴² The Republic of Uganda Ministry of Agriculture, Animal Industry and Fisheries, *Climate Smart Agriculture*.

⁴³ The Republic of Uganda, *Climate Change: Uganda National Adaptation Programme of Action*”.

final NAPA, the leading and highest desired intervention (20%) identified was that of Indigenous knowledge documentation and awareness creation.⁴⁴

While these developments are indeed positive, still there is effectively no discussion about the linkage between CSA agendas and sustainable agriculture development within refugee and migrant contexts, especially not when it comes to displaced and resettled Indigenous peoples. The NAPA briefly touches on displacement tied to the impacts of climate change,⁴⁵ and sparsely on refugees from the DRC residing settlements such as Nakivaale and Oruchinga in the southwestern region who ‘encroach’ in Lake Mburo National Park, Bwindi Impenetrable National park and the Toro-Seilike Wildlife Reserve in order to secure resources of their livelihoods assurances and survival, for example, but fails to make a direct connection between Indigenous peoples who are displaced both across borders as refugees and internally as IDPs in part to broader CSA and sustainable (agricultural) development strategies.⁴⁶

Hence, despite great wins for the advancement of CSA and climate-resilient sustainable (agricultural) development demonstrated by the state’s policies and programmatic work, such agendas could be strengthened if they were to be considered in conjunction with the state’s unique policies and self-reliance model towards refugees and migrants. Given the rich ethnic diversity of Indigenous groups in Uganda who are displaced and Indigenous refugees who cross into the country to settle from neighbouring areas, the untapped potential of the IK they bring with them as a tool for advancing CSA and sustainable (agricultural) development policies appears to be a potentially missed opportunity, particularly given the self-reliance model’s encouragement of refugees and migrants to engage in agriculture for subsistence and income generation. This is to say that it is not enough to grant refugee communities, albeit Indigenous communities who have been displaced within Ugandan borders or across those of neighbouring countries, a plot of land from which to cultivate. And while climate-smart agricultural initiatives have attempted to tackle impending threats towards food security, income generation, societal and individual well-being, and development in the face of the climate crisis, these efforts too appear to be limited to whether local communities are willing to engage with them in meaningful ways. Such limitations are often attributed to a dissonance between the understanding of problems among farming communities

⁴⁴ Ibid.

⁴⁵ Ibid., 10, 31-32, 35, 37.

⁴⁶ Ibid., 37, 41, 44, 46.

and the solutions championed through state-driven climate-smart agricultural policies. Shortcomings also stem from non-recognition under international and humanitarian systems, such as those led by bodies of the United Nations, and under regional systems, such as the African Union, to “affirm that climate change is implicating the migration of indigenous peoples.”⁴⁷ They are also a product of non-recognition of several Indigenous groups in Uganda as *Indigenous peoples*, which often bars them from citizenship and related rights and privileges to access government assistance, particularly related to climate change mitigation, adaptation, and sustainable (agricultural) development efforts, notably including in the case that they are displaced and resettled.⁴⁸ Thus, the success of such policies ultimately hinges not only upon the willingness of local populations to buy-into practices laid out under top-down approaches to sustainable agricultural development,⁴⁹ but also to be included and considered within such policies and programmes in the first instance as well as within the realm of opportunities held by farming communities to craft local solutions for themselves, namely utilising their traditional Indigenous knowledges.

INDIGENOUS KNOWLEDGE: ADAPTATION, MITIGATION AND DECOLONIAL EMPOWERMENT IN UGANDA

A perhaps promising and unexplored approach to addressing the current shortcomings of advancing sustainable agricultural initiatives in Uganda lies at the nexus between the agentic capacities of both Indigenous communities who are native to the state and who are resettled there to act as leaders in processes of developmental borderwork. Reverence for and the centering of Indigenous traditional knowledges is an avenue worthy of greater consideration when locating best practices for strengthening sustainable development through an inclusive notion of borderwork.

Indigenous knowledge systems have been developed and employed since pre-colonial times by Indigenous communities in order to “protect natural resources from unsustainable

⁴⁷ Jegede, “Indigenous Peoples,” 180.

⁴⁸ Poshendra Satyal et al., “Uganda's Batwa Community Are Vulnerable to Climate Change, but Aren't Involved in Adaptation Decisions,” *Lacuna Magazine*, February 10, 2021. <https://lacuna.org.uk/environment/ugandas-batwa-community-are-vulnerable-to-climate-change-but-arent-involved-in-adaptation-decisions/>.

⁴⁹ Eric D Raile et al., “Agriculture in Shifting Climates,” 304.

exploitation, thereby averting disasters that may have [otherwise] occurred.”⁵⁰ In effect, these knowledges have served as mitigation and adaptation strategies for centuries, forming respective, systematic bodies of knowledge which have been “acquired by local people through the accumulation of experiences, informal experiments and intimate understanding of the environment in a given culture.”⁵¹ Indigenous knowledge is fundamentally tied to relations to land, environment, and cultivation in a manner which has remained fluid and adaptive across time and space in an effort to ensure that the needs of peoples and of the planet can be sustained in line with the changing availability of resources.⁵²

Despite the fact that “there is a wealth of agricultural [I]ndigenous knowledge... in Uganda, which is useful in livestock keeping, crop management and food processing and storage as well as soil and water management,” these knowledges are becoming increasingly “less visible and irrelevant in some communities because of the adoption of modern methods of farming.”⁵³ Another reason for the erasure of traditional Indigenous knowledge in the Ugandan context over time is due to the privileging of state-driven, top-down approaches to sustainable (agricultural) development and state-centred conceptions of borderwork which limit the agency of Indigenous communities to directly engage in such development practices, often tied to non-recognition of their Indigeneity in the first instance, and the threats they face tied to climate change and related displacement, as mentioned above. Another difficulty for centring IK within sustainable (agricultural) development lies in the fact that most agriculture and natural resource projects in Uganda and in Africa at large operate at national, regional and international levels, “where indigenous knowledge is more difficult to incorporate.”⁵⁴ When sustainable agricultural projects and agendas occur at local levels on smaller scales, Indigenous knowledge can be more readily assessed and utilised.⁵⁵ In such contexts, “phenological knowledge held in the [I]ndigenous

⁵⁰ Diana Akullo et al., “Indigenous Knowledge in Agriculture: A Case Study of the Challenges in Sharing Knowledge of Past Generations in a Globalized Context in Uganda,” In *Programme and Proceedings of the World Library and Information Congress: 73rd IFLA General Conference and Council*, 19-23 August 2007, 2.

⁵¹ *Ibid.*, 3.

⁵² *Ibid.*, 3.

⁵³ Eric Nelson Haumba and Sarah Kaddu, “Documenting and Disseminating Agricultural Indigenous Knowledge for Sustainable Food Security in Uganda,” *University of Dar es Salaam Library Journal* 12, no. 1 (2017): 66, <https://www.ajol.info/index.php/udslj/article/view/164197>.

⁵⁴ Ben Orlove et al., “Indigenous Climate Knowledge in Southern Uganda: The Multiple Components of a Dynamic Regional System,” *Climatic Change* 100, no. 2 (2010): 243, <https://doi.org/10.1007/s10584-009-9586-2>.

⁵⁵ *Ibid.*

communities has a high value”⁵⁶ which ought to be more greatly considered within the quest for sustainable (agricultural) development, particularly in contexts where migrants and refugees of Indigenous backgrounds have resettled in Uganda.

INSIGHTS ON INDIGENOUS KNOWLEDGE AND SUSTAINABLE AGRICULTURAL DEVELOPMENT IN SOUTHWESTERN UGANDA

A (2010) study by Ben Orlove and colleagues traced the usefulness of the Indigenous knowledges of farmers engaged in rain-fed agriculture for subsistence and livelihoods in the ethnically-diverse Rakai and Isingiro and Districts in southwestern Uganda. The area reflects one of the priority districts under the NAPA and is characterised by both high vulnerability to climatic change and high levels of local reliance on agricultural livelihoods, as well as a large migrant and refugee population, given the placement of the Nakivale and Oruchinga refugee settlements in the districts. The districts are located in the Ugandan borderlands, near the Tanzanian border. The study found four major components of the Indigenous knowledge system in the area, including: “(1) longstanding familiarity with the seasonal patterns of precipitation and temperature, (2) a set of local traditional climate indicators, (3) observation of meteorological events, (4) information about the progress of the seasons elsewhere in the region.”⁵⁷ Despite the fact that some farmers reported a loss of confidence “in the reliability of the rains and in their ability to predict them,” the ethnic diversity of the regions presents major significance for the prospective usefulness of Indigenous knowledge in climate-resilient farming techniques in the area.⁵⁸

For example, the districts are home to a majority Bagandan population, followed by Batwa pygmies who inhabit the region’s western lowland rainforests; the Bakonjo peoples who reside in the upper slopes of the Rwenzori Mountains; the Banyankole peoples who rely more on cattle-raising; and, migrant populations such as the Bakiga who originate from now-densely-settled mountains in the area as well as refugees from neighbouring Rwanda and Burundi.⁵⁹ Each group has come to hold a ‘strong sense’ of the climatology of the area, relying on such knowledge and

⁵⁶ Anthony Egeru, “Role of Indigenous Knowledge in Climate Change Adaptation: A Case Study of the Teso Sub-Region, Eastern Uganda,” *Indian Journal of Traditional Knowledge* 11, no. 2 (2012), 217.

⁵⁷ Orlove et al., “Indigenous Climate Knowledge.”

⁵⁸ Orlove et al., “Indigenous Climate Knowledge,” 248.

⁵⁹ Orlove et al., “Indigenous Climate Knowledge.”

indicators such as signs, weather observations, and regional information to make important decisions about which seeds to plant when tied to a landscape of changing seasonal weather and precipitation patterns.⁶⁰ Significantly, the traditional “knowledge of climatology extends beyond the immediate confines of village communities, including neighbouring districts such as those of other language groups, as far as 150 km away.”⁶¹ Thus, this begs the question of whether such knowledge can be useful for communities who are displaced and relocate within the districts.

In response to rising temperatures and aridity levels that have contributed to extended drought periods in recent years (e.g. now lasting between four to six months, compared with two month-long drought periods that had been consisted over the last fifteen years), the diverse communities residing in the area have indigenously responded to the effects of such lengthening droughts. They have done so, for example, by “practicing mulching, undertaking agroforestry and changing... crop planting time to sustain production... practicing crop rotation, [through the] application of organic manure, [the] construction of granaries to store harvests, [and by] digging... trenches in farmlands to control the spread of pests and diseases.”⁶² These techniques, a product of the co-creation of evolving Indigenous knowledge held by various and ethnically diverse groups who are both Indigenous and who have resettled in the area, have played a substantial role in strengthening the resilience and adaptive capacities of such communities. The example of such success in the region begs questions around the usefulness of Indigenous knowledge held by those who have resettled in the area, though this remains an inquiry unexplored by the Ugandan government as it advances CSA and sustainable (agricultural) development agendas and progressive migrant and refugee self-reliance policies.

CONCLUSION

While the interplay between Indigenous knowledge and sustainable agricultural development began appearing in the literature several decades ago,⁶³ less research has examined

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² Ibid.

⁶³ See: David W. Brokensha, Dennis M. Warren, and Oswald Werner, *Indigenous Knowledge Systems and Development* (Lanham: University Press of America, 1980); Jacqueline A. Ashby, “The Social Ecology of Soil Erosion in a Colombian Farming System,” *Rural Sociology* 50, no. 3 (1985): 377-396, <https://www.proquest.com/docview/1290907253?pq-origsite=gscholar&fromopenview=true&imgSeq=1>; Constance

the usefulness of such knowledge in the borderwork of resettled Indigenous migrants and refugees, in Uganda and elsewhere. Yet, evidence from the study carried out by Orlove and colleagues in the Rakai and Isingiro districts of Uganda's southwestern 'cattle corridor', that evidences the far-reaching (150 km) applicability of such knowledge for climate-resilient and adaptive sustainable agricultural practices, provoke the need for further investigation into the useful application of such knowledge in borderlands, refugee and migrant settings, particularly given the engagement of resettled Indigenous and non-Indigenous communities in agriculture for subsistence and income generation.

While the argument here is not that Indigenous knowledge should be the only vehicle through which to enhance the resilience of resettled communities to the impacts of a changing climate, this article suggests that the untapped potential of such knowledge could play a vital role in the sustainable agricultural development of, and farming activities within, borderlands in Uganda. Championing the IK of Ugandan communities and migrants and refugees who resettle in the country, and who engage in agriculture as part of the government's self-reliance model, could offer an apposite starting point for re-imagining approaches to sustainable agricultural development which are bottom-up and that reflect the agencies, ontological realities, and traditional Indigenous knowledges of local communities. Similarly, welcoming and integrating Indigenous knowledges held by resettled communities in Uganda may not only serve to further the receptivity of Indigenous agrarian residing in the state, but could also function as an act of decolonising borderwork by inclusively re-imagining the knowledges, capacities, and agencies of Indigenous migrant communities. Thus, expanding the notion of borderwork to be reflective of the lived experiences, knowledges, and needs of Indigenous communities could be both insightful for and crucial to the project of advancing a sustainable development agenda in Uganda, as well as to bolster the resilience of migrant, refugee, and host communities to the intensifying impacts of climate change. Further research into the untapped potential of Indigenous peoples and the adaptive, climate-resilient traditional knowledge they hold upon displacement and resettlement

M. McCorkle, "Toward a Knowledge of Local Knowledge and its Importance for Agricultural RD&E," *Agriculture and Human Values* 6, no. 3 (1989): 4-12, <https://doi.org/10.1007/BF02217664> ; D. Michael Warren et al, *The Cultural Dimension of Development: Indigenous Knowledge Systems* (London: Intermediate Technology Publications, 1995); David A. Cleveland and Daniela Soleri, "Farmer Knowledge and Scientist Knowledge in Sustainable Agricultural Development: Ontology, Epistemology and Praxis," in *Local Science Vs. Global Science: Approaches to Indigenous Knowledge in International Development*, ed. Paul Sillitoe (New York: Berghahn Books, 2007), 209-230.

into contexts of agricultural self-reliance should be examined. Such research may likely lead to the inclusion of displaced and resettled Indigenous persons within the broader CSA policies, agendas, and programmes of the Ugandan government, which in turn, could bring about greater climate-resilience, enhanced sustainable agricultural development, and could play a key role in shifting away from the colonial paradox of state-centrality to borderwork and such forms of development at a time in which all potential avenues to enhance these projects are becoming increasingly vital.

BIBLIOGRAPHY

- Adeola, Romola, and Frans Viljoen. "Climate Change, Development Projects and Internal Displacement in Africa." *Journal of African Law* 62, no. 3 (2018): 335-350.
<https://doi.org/10.1017/S0021855318000219>.
- Akullo, Diana, Rogers Kanzikwera, Pauline Birungi, Winnie Alum, Lucy Aliguma, and Margaret Barwogeza. "Indigenous Knowledge in Agriculture: A Case Study of the Challenges in Sharing Knowledge of Past Generations in a Globalized Context in Uganda." In *Programme and Proceedings of the World Library and Information Congress: 73rd IFLA General Conference and Council*. 19-23 August, 2007.
- Anzaldúa, Gloria. *Borderlands/La Frontera: The New Mestiza*. San Francisco: Aunt Lute Books, 1987.
- Ashby, Jacqueline A. "The Sociology of Soil Erosion in a Colombian Farming System." *Rural Sociology* 50, no. 3 (1985): 377-376.
<https://www.proquest.com/docview/1290907253?pq-origsite=gscholar&fromopenview=true&imgSeq=1>.
- Balibar, Etienne. "World Borders, Political Borders." *PMLA* 117, no. 1 (2002): 68-78.
<https://doi.org/10.1632/003081202X63519>.
- Berrang-Ford, Lea, Kathryn Dingle, James D. Ford, Celine Lee, Shuaib Lwasa, Didas B. Namanya, Jim Henderson, Alejandro Llanos, Cesar Carcamo, and Victoria Edge. "Vulnerability of Indigenous Health to Climate Change: A Case Study of Uganda's Batwa Pygmies." *Social Science & Medicine* 75, no. 6 (2012): 1067-77.
<https://pubmed.ncbi.nlm.nih.gov/22703884/>.
- Betts, Alexander. "Uganda: The Right to Work and Freedom of Movement." In *The Wealth of Refugees: How Displaced People Can Build Economies*. Oxford: Oxford University Press, 2021.
- Brokensha, David W., Dennis M. Warren, and Oswald Werner. *Indigenous Knowledge Systems and Development*. Lanham: University Press of America, 1980.
- CARE International. "Scaling up Climate Smart Agriculture in Uganda," June 14, 2021.
<https://careclimatechange.org/climate-change-agriculture-uganda-resilience/>.
- Cleveland, David A., and Daniela Soleri, "Farmer Knowledge and Scientist Knowledge in Sustainable Agricultural Development: Ontology, Epistemology and Praxis," in *Local Science Vs. Global Science: Approaches to Indigenous Knowledge in International Development*, edited by Paul Sillitoe, 209-230. New York: Berghahn Books, 2007.
- David Mfitumukiza, Barasa Bernard, Egeru Anthony, Mbogga S. Michael, Wokadala James, Ahabwe Andrew, Kasajja Stephen, Namususwa Zakia, and Nabatta Claire. "The Role of

- Indigenous Knowledge (IK) in Adaptation to Drought by Agropastoral Smallholder Farmers.” *Indian Journal of Traditional Knowledge* 19, no. 1(2020): 44-52.
<https://core.ac.uk/download/pdf/298009495.pdf>.
- Donnan, Hastings, and Thomas M. Wilson. *Borders: Frontiers of Identity, Nation and State*. Oxford: Berg Publishers, 1999. Reprint, Abingdon and New York: Routledge, 2021.
- Egeru, Anthony. “Role of Indigenous Knowledge in Climate Change Adaptation: A Case Study of the Teso Sub-Region, Eastern Uganda.” *Indian Journal of Traditional Knowledge* 11, no. 2 (2012): 217-224.
[https://repository.ruforum.org/system/tdf/Egeru_IJTK%2011%282%29%20217-224.pdf?file=1&type=node&id=35589&force=.](https://repository.ruforum.org/system/tdf/Egeru_IJTK%2011%282%29%20217-224.pdf?file=1&type=node&id=35589&force=)
- Englert, Sai. “Settlers, workers, and the logic of accumulation by dispossession.” *Antipode* 52, no. 6 (2020): 1647-1666. <https://doi.org/10.1111/anti.12659>.
- Eyong, Charles Takoyoh. “Indigenous Knowledge and Sustainable Development in Africa: Case Study on Central Africa.” In *Indigenous Knowledge Systems and Sustainable Development: Relevance for Africa*, edited by Emmanuel K. Boon and Luc Hens, 121-139. Delhi: Kamla-Raj Enterprises, 2007.
- Haumba, Eric Nelson, and Sarah Kaddu. “Documenting and Disseminating Agricultural Indigenous Knowledge for Sustainable Food Security in Uganda.” *University of Dar es Salaam Library Journal* 12, no. 1 (2017): 66-86.
- Internal Displacement Monitoring Centre. “Uganda.” May 19, 2022.
<https://www.internal-displacement.org/countries/uganda>.
- Jegede, Ademola Oluborode. “Indigenous Peoples, Climate Migration and International Human Rights Law in Africa, with Reflections on the Relevance of the Kampala Convention.” In *Research Handbook on Climate Change, Migration and the Law*, edited by Benoît Mayer and François Crépeau, 169-189. Cheltenham and Northampton: Edward Elgar Publishing, 2017.
- Johnson, Corey, Reece Jones, Anssi Paasi, Louise Amoore, Alison Mountz, Mark Salter, and Chris Rumford. “Interventions on Rethinking ‘The Border’ in Border Studies.” *Political Geography* 30, no. 2 (2011): 61-69.
<https://www.sciencedirect.com/science/article/pii/S0962629811000060?via%3Dihub>.
- Jones, Reece, and Corey Johnson. *Placing the Border in Everyday Life*. Abingdon and New York: Routledge, 2016.
- Kiblin, Felicia. “A Struggle for Resources: Refugees and Natives in Uganda.” *Refugee Health and Well-Being Research Hub* (blog). University at Buffalo: Global Health Equity, January 2019. <https://www.buffalo.edu/globalhealthequity/global-projects/refugeehealthandwellbeing/uganda/architecture-students-explore-housing->

solutions-for-refugees-in-.host.html/content/shared/www/globalhealthequity/research-and-development/refugee-health-and-well-being-uganda/evaluating-solutions/outlining-the-challenges/struggles-of-population--refugees-vs-native-ugandans.detail.html.

McCorkle, Constance M. "Toward a Knowledge of Local Knowledge and its Importance for Agricultural RD&E." *Agriculture and Human Values* 6, no. 3 (1989): 4-12. <https://doi.org/10.1007/BF02217664>.

Ministry of Agriculture, Animal Industry and Fisheries, Republic of Uganda. "Climate Smart Agriculture: Community Practice Guide" 2021. <https://careclimatechange.org/wp-content/uploads/2021/06/The-Climate-Smart-Agriculture-book-2021.pdf>.

Nesheim, Ingrid, Shivcharn S. Dhillion, and Kristi Anne Stølen. "What Happens to Traditional Knowledge and Use of Natural Resources When People Migrate?." *Human Ecology* 34, no. 1(2006): 99-131. <https://doi.org/10.1007/s10745-005-9004-y>.

Office of the Prime Minister, The Republic of Uganda. "Voluntary National Review Report on the Implementation of the 2030 Agenda for Sustainable Development." June 2020. https://sustainabledevelopment.un.org/content/documents/26354VNR_2020_Uganda_Report.pdf.

Orlove, Ben, Carla Roncoli, Merit Kabugo, and Abushen Majugu. "Indigenous Climate Knowledge in Southern Uganda: The Multiple Components of a Dynamic Regional System." *Climatic Change* 100, no. 2 (2010): 243-265. <https://doi.org/10.1007/s10584-009-9586-2>.

Pallister-Wilkins, Polly. "Im/mobility and Humanitarian Triage." In *Handbook on Critical Geographies of Migration*, edited by Katharyne Mitchell, Reece Jones, and Jennifer L. Fluri, 372-383. Cheltenham and Northampton: Edward Elgar Publishing, 2019.

Raile, Eric D., Linda M. Young, Jackline Bonabana-Wabbi, Julian Kirinya, Samba Mbaye, Lena Wooldridge, Amber NW Raile, and Lori Ann Post. "Agriculture in Shifting Climates: The Configuration and Ripeness of Problem Understandings in Uganda and Senegal." *Review of Policy Research* 35, no. 2 (2018): 302-325. <https://doi.org/10.1111/ropr.12284>.

Republic of Uganda. "Uganda National Adaptation Programme of Action (NAPA)." *Climate Change: Environment Alert, GEF, UNEP*. (2007). <https://unfccc.int/resource/docs/napa/uga01.pdf>.

Rumford, Chris. "Introduction: Citizens and Borderwork in Europe." *Space and Polity* 12, no. 1 (2008): 1-12. <https://doi.org/10.1080/13562570801969333>.

Satyal, Poshendra, Noelle Kumpel, Keith Hyams and Morten Fibieger Byskov. "Uganda's Batwa Community Are Vulnerable to Climate Change, But Aren't Involved in Adaptation Decisions." *Lacuna Magazine*, February 10, 2021.

<https://lacuna.org.uk/environment/ugandas-batwa-community-are-vulnerable-to-climate-change-but-arent-involved-in-adaptation-decisions/>.

UN High Commissioner for Refugees. "Development Assistance for Refugees (DAR) for Uganda Self Reliance Strategy." *Report on Mission to Uganda. RLSS/DOS Mission Report 03/11, 14-20 September 2003*. <https://www.unhcr.org/sites/default/files/legacy-pdf/41c6a19b4.pdf>.

UN High Commissioner for Refugees. "Minorities and Indigenous Peoples." UNHCR, The UN Refugee Agency. Accessed November 22, 2022. <https://www.unhcr.org/uk/minorities-and-indigenous-peoples.html>.

UN High Commissioner for Refugees. "Uganda." UNHCR. Accessed November 22, 2022. <https://www.unhcr.org/uganda.html>.

UN Human Rights Council. "Report of the Office of the United Nations High Commissioner for Human Rights on the Relationship Between Climate Change and Human Rights." *Annual report of the United Nations High Commissioner for Human Rights and Reports of the Office of the High Commissioner and the Secretary-General (15 January 2009)*, A/HRC/10/61. <https://www.ohchr.org/sites/default/files/Documents/Press/AnalyticalStudy.pdf>.

UN Permanent Forum on Indigenous Issues (UNPFII), *Permanent Forum on Indigenous Issues: Report on the 12th session (20-31 May 2013)*, E/2013/43-E/C.19/2013/25. <https://www.refworld.org/docid/51f8e9274.html>.

United Nations. "Climate Smart Sustainable Agriculture - Uganda." UN Framework Convention on Climate Change. Accessed November 23, 2022. https://unfccc.int/climate-action/momentum-for-change/activity-database/climate-smart-sustainable-agriculture?gclid=CjwKCAiApvebBhAvEiwAe7mHSEFZY1qHbnzVuvJvg9fa815-UM53VnTMZbAn8F6SolHRVWiOqRTEPRoCKzQQA_vD_BwE.

Warren, D. Michael, L. Jan Slikkerveer, David Brokensha, and Wim HJC Dechering. *The Cultural Dimension of Development: Indigenous Knowledge Systems*. London: Intermediate Technology Publications, 1995.

Whyte, Kyle. "Settler Colonialism, Ecology, and Environmental Injustice." *Environment and Society* 9, no. 1 (2018): 125-144. <https://doi.org/10.3167/ares.2018.090109>.

Williams, Victoria R. *Indigenous Peoples: An Encyclopedia of Culture, History, and Threats to Survival [4 volumes]*. Santa Barbara, CA/ Denver, CO: ABC-CLIO, 2020.