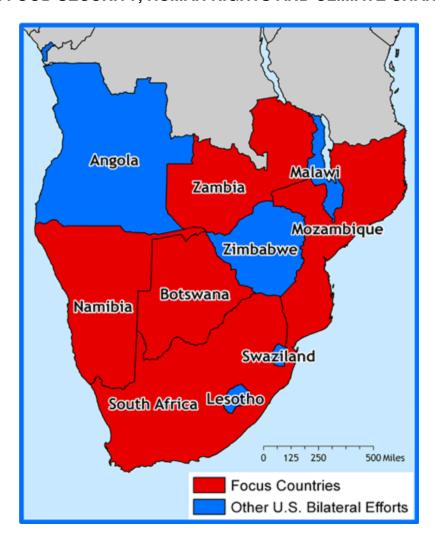
PROTECTION OF CBNRM IN SOUTHERN AFRICA: A REVIEW OF NATIONAL CONSTITUTIONS AND RELEVANT LEGISLATION ON FOOD SECURITY, HUMAN RIGHTS AND CLIMATE CHANGE



Executive Summary

Community-based natural resource management (CBNRM) is a bottom-up conservation approach that has been in practice in Southern Africa over the last three decades. 1 It was first steered in Zimbabwe as the Operation WINDFALL (Wildlife Industries New Development for All) and later as Communal Areas Management Programme for Indigenous Resources.2 It is now a widely accepted conservation tool in most of the Southern Africa countries and the rest of the world. CBNRM is based on the philosophy of core management and empowerment of local communities by granting them rights to manage and commercially benefit from the natural resources found within their locality.4 Basic principles of CBNRM strongly emphasise active community involvement and participation in decision-making at all governance levels of resource management.⁵ A fundamental objective of CBNRM is to achieve sustainable conservation of wildlife by conferring rights and powers to local rural communities in managing resources found in their areas. The rationale is that local communities are likely to be better managers of the resources since their livelihoods almost entirely depend on the resources.

The relevance of CBNRM to achieve that goal is well represented in a number of international environmental and human rights instruments on sustainable use of natural resources. The need for sustainable use is stressed in other relevant provisions of existing key environmental instruments: Convention on the Conservation of Migratory Species of Wild Animals (CMS)⁶ and CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)7; the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa)8, the United Nations Framework Convention on Climate Change⁹ and the Paris Agreement thereunder¹⁰ – and the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the "Ramsar Convention"), 11 the United Nations Convention of the Law of the Sea, 12 and the 2030 Agenda for Sustainable Development. 13 At the regional level in Africa, a fundamental

¹ C Fabricius, E Koch, S Turner & H Magome (Eds.) Rights resources and rural development: Community-based natural resource management in Southern Africa (London: Routledge, 2013)

² L Bond et al Community-based natural resource management manual (WWF 2016).

³ R Cooney et al 'From poachers to protectors: Engaging local communities in solutions to illegal wildlife trade' (2017) 10(3) Conservation Letters 367–374

⁴ J Anderson & S Mehta A global assessment of community based natural resource management, addressing the critical challenges of the rural sector (USAID 2013)

⁵ M Lenao & J Saarinen 'Political ecology of community-based natural resources management' in S Nepal & J Saarinen (eds.) Political ecology and tourism (London: Routledge, 2016) 115-120).

⁶ Convention on the Conservation of Migratory Species of Wild Animals UNTS Volume Number: 1651, preamble ⁷ Convention on international trade in endangered species of wild fauna and flora UNTC Volume Number 14537

⁸ United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or

Desertification, Particularly in Africa United Nations, Treaty Series, vol. 1954, p. 3, article 19(1)(c)

⁹ United Nations Framework Convention on Climate Change (UNFCCC) (1992) ILM 851; Art 3(4)& 5

¹⁰ Paris Agreement under the United Nations Framework Convention on Climate Change, adopted 30 Nov. - 11 Dec. 2015 at the 21st Sess., Conference of the Parties, fccc/cp/2015/L.9/Rev.1 (Paris Agreement 2015). Preamble & art 6 generally.

11 Convention on wetlands of international importance especially as waterfowl habitat UNTS Volume Number 14583,

art 3(1) on the wise use of wetlands

¹² Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397, art 119(1)(a) on the need for States to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield ¹³ United Nations General Assembly Transforming our World: the 2030 Agenda for Sustainable

objective of the African Convention on the Conservation of Nature and Natural Resources is to foster the conservation and sustainable use of natural resources. ¹⁴ Also, sustainable use is a key component of the Aspiration 1 dealing with inclusive growth and sustainable development under the African Union Agenda 2063. ¹⁵ It is also linked to the right of indigenous and local populations and communities to subsistence. The right to subsistence can be defined as the right to those material provisions needed for one's self-preservation, i.e., those material provisions required for enjoying a minimal physical and physiological well-being. Water, food, air, shelter, and access to basic medical provisions and energy sources are normally taken to be its main focuses. ¹⁶

Lack of adequate access to the objects of subsistence is a major problem and constitutes a recurrent threat for millions of human beings worldwide. Lack of subsistence makes it hard, if not impossible, to pursue any other interest as human beings. ¹⁷ Article 25 of the Universal Declaration of Human Rights includes the right to subsistence in affirming that "[e]veryone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control" ¹⁸ Article 1(2) of the International Covenant on Civil and Political Rights (ICCPR) equally provides:

All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence

No doubt, most of the people who share habitats with endangered species exist at very basic subsistence levels. Allowing these people to derive economic benefits from wildlife will not only improve their livelihood but will provide incentives for conservation.¹⁹

However, food insecurity remains a general public health concern especially in sub-Sahara Africa.²⁰ The condition of food insecurity occurs when people face constraints in the physical and economic access to safe, sufficient, and nutritious food to meet their dietary needs or food preferences for a productive, healthy, and active life.²¹ In the UN General Comment No 12 on the right to food, the Committee on Economic and Social Cultural Rights (CESCR), while urging states to take urgent steps, affirms that the human right to adequate food is necessary for the enjoyment of all rights and applies to

Development, A/res/70/1, adopted by the General Assembly on 25 Sep. 2015

¹⁴ Revised African Convention on the Conservation of Nature and Natural Resources. Share: Date of Adoption: March 07, 2017

¹⁵ Agenda 2063 Final Edition, April 2015 The Africa We Want Para 18

¹⁶ H Shue *Basic rights: Subsistence, affluence and American foreign policy* (2ND ed.). Princeton University Press: Princeton, 23;

¹⁷ J Nickel *Making sense of human rights*, 2nd ed., (MA.: Blackwell Publishing, 2007) 138–42.

¹⁸ United Nations. Universal declaration of human rights (UDHR). (1948).

¹⁹Y Baskin "There's a new wildlife policy in Kenya: Use it or lose it (1994) *Science* 265

²⁰ BY Kabalo et al 'Performance of an adapted household food insecurity access scale in measuring seasonality in household food insecurity in rural Ethiopia: a cohort analysis' (2019) 5(1) *BMC Nutrition* 1–10.

²¹ World Food Summit Rome Declaration on World Food Security and World Food Summit Plan of Action (1996)

everyone.²² This means that local populations, indigenous communities and peasants notwithstanding gender or geography constituting the CBRNM are entitled to the right to food. The CESCR considers that the core content of the right to adequate food implies:

The availability of food in a quantity and quality sufficient to satisfy the dietary needs of individuals, free from adverse substances, and acceptable within a given culture; The accessibility of such food in ways that are sustainable and that do not interfere with the enjoyment of other human rights.²³

Climate change and food security have several interrelated risks and uncertainties for societies and ecologies. Hipportantly, the CESCR notes that the 'adequacy' of food may be challenged by climatic conditions. A development that confirms the intricate linkage of food security to climate change, an emerging major contributor to the declining diversity. In the most comprehensive assessment of the state of nature ever undertaken, the Intergovernmental Science -Policy Platform on Biodiversity and Ecosystem Services (IPBES) identifies climate change as the third most important risk factor contributing to the loss of biodiversity. Climate change challenges biodiversity and food security that are central to the sustenance of the CBNRM approach, yet, the contribution of the approach in terms of adaptation and mitigation to address the challenges needs to be well understood. Also, the role of existing law and policy in aiding or undermining the CBNRM approach to cope with the new challenges of food security and climate change requires proper articulation.

This review focuses on CBRNM in eleven (11) countries in Southern Africa, namely, Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe. and Tanzania. The purpose is to profile issues relating to human rights, food security and climate change which they face and assess the available legal framework which aids or undermines protection. For each of the eleven countries, the review sets out (1) a brief description of the country and CBRMN; (2) Threat to food security and human rights (3) Peculiar threat of climate change to sustainable use (4) Potential contribution of sustainable use to climate adaptation and mitigation (5) Legal and Policy environment.

This document reveals that there are commonalities in terms of experiences of the CBNRM on food security and climate change. There are provisions in existing legislation including the Constitutions and other environmental and wildlife related instruments that can aid the CBNRM approach in the eleven countries under review. These provisions in some of the national constitutions include civil and political rights provisions such as the right to life, right to assembly and right to association as well as the general principles of human rights such as non-discrimination and equality. In some of the constitutions there are progressive provisions in relation to socio-economic rights and other generation of

²² CESCR General Comment No. 12: The Right to Adequate Food (Art. 11) Adopted at the Twentieth Session of the Committee on Economic, Social and Cultural Rights, on 12 May 1999 (E/C.12/1999/5) para 1

²³ CESCR General Comment No. 12 (n 22) para 8

²⁴ Mavuso, M.S., Manyatsi, A.B. & Vilane, B.R. (2015). Climate change impacts and coping Strategies at Malindza, a rural semi-arid area in Swaziland. American Journal of Agriculture and Forestry, 3:86-92.

²⁵ CESCR General Comment No. 12 (n 22) para 7

²⁶ Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services- 2019 1

rights such as the right to health, the right to healthy environment, and the right to property. General environmental and wildlife legislation also focus on principles of participation, access to benefit sharing, compensation, consultation which are very important to the CBNRM approach. The shortcomings of law and policy, however, remain in addressing exclusionary approach of states to conservation, past and contemporary imbalances in access to resources and capital; unsustainable resource use, adverse consequence of climate change and response measures on right to food; lack of adequate recognition of CBNRM as partners in addressing the intricate connection of food security and climate change.

In all, both optimism and challenges exist in the law and policy related to the CBNRM in the context of climate change and right to food. Therefore, all actors in the space, in particular CBNRM advocates and activists operating in the 11 South African countries under review, need to be equipped with appropriate information, approaches and legal response necessary to cope with the emerging concerns around food insecurity, climate change and their implications for human rights.

ANGOLA



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Angola is surrounded by the Democratic Republic of the Congo, Zambia, Namibia and Atlantic. Angola is rich with mineral and agricultural resources. The strength of this country is vested on mining, and it is rich in oil deposits. After Nigeria, Angola is the second largest crude oil manufacturer in Africa. The arable land of this country offers agricultural resources, with coffee being the most significant for export purposes.²⁷

The CBNRM is still at infancy in Angola, and there is very little specific legislation to support them.²⁸ A prominent example is Combat Wildlife Crime Project (CWCP) activities in Angola, which focused on nine communities in Luengue-Luiana National Park, selected because of their proximity to key wildlife corridors and poaching hotspots associated with the transboundary Kwando and Cubango-Okavango Rivers. The CWCP activities include community awareness, stewardship and collaboration among communities, park authorities and other law enforcement agencies in Angola. It also promotes cross-border activities including transboundary community natural forums (with Namibia and Zambia) and information sharing on poaching and trafficking.²⁹ Communities in Angola have traditionally made wide-ranging use of natural resources as a essential part of their livelihoods. While they use comparatively small areas for agriculture, natural resources are often collected over a large area. Sobas (traditional leaders) are responsible for managing the community land in their areas, including setting rules regarding communal

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²⁷ AO Ayebade Culture and Customs of Angola, Greenwood Press 2007

²⁸ J Oglethorpe et al *Communities and Biodiversity in Angola: Analysis of the legal and institutional framework for community-based approaches to conservation and natural resource management (WWF 2018).*

²⁹ ' USAID' www.usaid.gov/namibia/our-work

land and its resources, adjudicating land disputes, and allocating lands to individuals or households who may not have land access. 30

2. FOOD SECURITY & HUMAN RIGHTS

Hunger has been an enormous problem in Angola. CBNRM approach depends on the hunting of small animals, gathering of bushfood such as honey, exchanging meat from hunting, as source of food. In a few areas, there is evidence of a greater abundance of game meat obtained by hunting contributed in greater measure to food intake. People in communities hunt animals and eat agricultural food that are in protected areas, and this affects the sustainable use of wildlife.³¹ Forests and rivers provide a range of livelihood resources including fish, bushmeat, honey, clay, roots and tubers, edible insects, medicinal plants, building materials, thatching grass, firewood, wood for charcoal-making, and salt.³² Forest fire are a concern to many poor rural households continue to be very dependent on natural resources for their livelihoods.³³ Also, in many parts of the country the traditional pattern of community natural resource use is disrupted. Communities in Angola experience episodes of conflict between people and wildlife. The Elephant (African Loxodonta) is the most frequently cited species in the conflicts between humans and animals in Angola. Other species such as hippos (Hippopotamus amphibius) crocodiles (Crocodlilus niloticus), seals (Arctocephalus pusillus), leopard (Panthera pardus) and wild boar (Potamochoerus porcus) form part of the list of animals that create conflict all over the country.³⁴ Also, the approach of government towards the land rights of local communities remains a concern. According to Amnesty International, there the state has failed to comply with legislation on rural communal lands in Gambos which forbids the government from selling to third parties' communal lands unless it is for the benefit of the community.³⁵ Evidence shows lack of consultation with local communities on a number of issues including the provision of alternative grazing land.³⁶

The foregoing signifies that while for members of the CBRNM, dependence on natural resources including wildlife is crucial to the realization of food security and the fulfilment of other rights as envisaged in the UN General Comment on the right to food, there are challenges. The access to food of communities in Angola remains at risk contrary to the position of international human rights law on the right to food of those communities.

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

³⁰ A Cain *Women's Tenure Rights and Land Reform in Angola*, paper presented at the 2019 World Bank Conference on Land and Poverty (The World Bank - Washington DC, March 25-29, 2019).

³¹ Boko et al., 2007: Africa. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

³² J Oglethorpe, V Russo, J Neto and A Costa 'Communities and Biodiversity in Angola: Analysis of the legal and institutional framework for community based approaches to conservation and natural resource management' 2018 ³³ www.lutheranworld.org/program/lwf-angola

³⁴ As above

³⁵ Amnesty International 'The end of cattle paradise: How land diversion for ranches eroded food security in the Gambos, Angola' https://www.amnesty.org/en/wp-content/uploads/2021/05/AFR1210202019ENGLISH.pdf
³⁶ IM Borges 'The role of State regulation and businesses towards sustainable development: the case of Angola' (University of Oslo 2016)

In Angola, climate change poses adverse consequences that are of relevance to the CBNRM. Angola experiences changes in the intensity and frequency of rainfall, variations in temperature and relative air humidity, temperature increase in some regions or decrease in others, prolonged droughts, intense floods, overall erratic climate variability and forest fires.³⁷ Miombo woodland is projected to be highly vulnerable to climate change, especially considering its swiftly growing human population, and projected decline in rainfall.³⁸Many species are projected to be at risk of local extinction by the 2080s, and wildlife may be fundamentally limited for future conservation.³⁹ To illustrate, the savanna elephant's greatest climate vulnerability is its need for large amounts of fresh water, uncertain climatic condition will place additional pressures on water resources for the elephant and general natural systems and species. 40 Already, climatic shocks such as droughts and floods have also become more frequent and are projected to intensify. Desertification is advancing, particularly in the Namib and Kalahari deserts in southern Angola which threaten ecosystems and biodiversity as well as vulnerable communities and indigenous people, who depend on natural resources and agriculture for their livelihoods and food security.41

Poverty is also exacerbating adverse consequence of climate change on wildlife as villagers move from subsistence to selling the wildlife meat in markets for profit in Angola.42The change in wind patterns (from northerly to southerly) has caused a slight increase in the coastal upsurge and a swing in the Angola-Benguela Front, with consequences for the distribution and availability of several fish species. This development has negative consequence in Namibe Province, where fishers rely almost entirely on fishing for their livelihoods.⁴³

4. SUSTAINABLE USE AS CLIMATE ADAPTATION & MITIGATION

There are examples on how sustainable use of wildlife can contribute to climate solutions through conservation.⁴⁴ In Angola, for instance, fires are major threat to wildlife because they degrade or eliminate their habitat. By working with other stakeholders on conservation projects CBNRM help in addressing the situation.⁴⁵ The CBNRM may contribute to improve the management of national parks. A project which seeks to promote TransFrontier Conservation Areas (TFCAs), in southern Angola and strengthen the resilience of local communities and ecosystems to climate change is under

³⁷ Angola's National Adaptation Programme of Action (NAPA) (Ministry of Environment 2011)

³⁸ Oglethorpe (n 31).

³⁹ As above.

⁴¹ 'Strengthening Climate Resilience and Biodiversity Management in Angola's Conservation Areas' https://www.conservation.org/docs/default-source/gef-documents/angola-child-project-forgwp.pdf?sfvrsn=b4bf6798_2 42 'Angola Protects Wildlife, Turns to Ecotourism to Diversify Economy'https://www.unep.org/news-and-

stories/story/angola-protects-wildlife-turns-ecotourism-diversify-economy

⁴³ KL Cochrane et al 'Application of a general methodology to understand vulnerability and adaptability of the fisheries for small pelagic species in the Benguela countries: Angola, Namibia and South Africa' (2020) 42(4) African Journal of Marine Science 473-493

⁴⁴ R Callum O'Leary Bethan and JP Hawkins 'Climate change mitigation and nature conservation both require higher protected area targets' (2020) Phil. Trans. R. Soc. B375.

⁴⁵ Republic of Angola Government of Angola 5th National Report on Biodiversity in Angola 2007-2012

consideration for implementation. Linked to the Global Wildlife Program (GWP), it will focus its interventions on the Angolan component of two large-scale. TFCAs, namely: Luengue-Luiana National Park in the Kavango-Zambezi (KAZA) TFCA; and Iona National Park in the Iona-Skeleton Coast TFCA. The TFCAs are both cross-border areas – KAZA spans Angola, Zambia, Zimbabwe, Namibia, and Botswana, while Iona-Skeleton Coast covers area in both Angola and Namibia. Expected outcomes of the projects are to: strengthen climate resilience and biodiversity management in Angola's conservation areas; strengthen the resilience of local communities to climate change in targeted TFCAs; increase implementation of biodiversity-compatible adaptation practices (encompassing the eco-village approach) in the Angolan portions of targeted TFCAs; and decrease the vulnerability of local communities to climate change and reduce degradation of ecosystems.⁴⁶

5. LEGAL AND POLICY ENVIRONMENT

5.1 Constitution of Angola, 2010

Section 39 of confers the right to a clean environment and the duty to defend and preserve it on the state. It further imposes a duty on the state to provide measures to protect the environment and to maintain the ecological balance and ensure radical development and use of all natural resources. Section 14 on Private property and free initiative calls upon the state to respect and protect the private property of individuals and corporate bodies and free economic and entrepreneurial initiatives exercised within the terms of the Constitution and the law while section 15 allows for transfer of land to corporate bodies and individuals but allows for expropriation of land for public use provided compensation is given. Section 13 allows for the application of international law while sections 22 and 23 deal with the principles of nondiscrimination and equality respectively. Section 39 and 40 guarantee environmental rights and the right to freedom of expression and information. Section 47 guarantees freedom to meet and demonstrate.

The foregoing provisions are of significance to CBNRM right to environment, property, equality an nondiscrimination in Angola, in particular, where issues related to wildlife are involved. Also, the application of international law in Angola offers a legal basis to apply international environmental law principles on sustainable use of wildlife to the approach of CBNRM in Angola. There are however bases to argue that government may hide under the guise of constitutional provisions dealing with expropriation of land and limitation of rights to undermine the positives in those provisions. A mix of this trend is seen in other legislation related to the CBNRM in Angola.

5.2 General Environmental Law, Law no. 5/98

In its foreword, the law recognizes the responsibility of the society and the environmental implications of human development. It also notes the responsibility of the state to ensure environmental policies that promote the renewal and sustainable use of natural

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⁴⁶ CI-GEF Project Agency Project Document 'Strengthen Management and Climate Change Resilience in Angola's Conservation Areas for Sustainable Development Republic of Angola/South-Western Africa region' https://www.conservation.org/docs/default-source/gef-documents/angola-ci_gef_prodoc_20210520--clean.pdf?sfvrsn=230f8743 0

resources. This guarantees a sustainable increase of citizens quality of life. Section 3 states that citizens have the right to live in an environment that is healthy and to benefit from the use of the natural resources. It further provides that the wellbeing of all people, protection and conservation of the environment and use of natural resources shall be given utmost respect. Article 4 and 8 provides for the principles that must be observed, this includes the right and obligation for all citizens to control the implementation of the environmental policy.

5.3 Forest Regulation, Decree No 171/18

It recognizes community forests and provides for the management of community forests by communities located adjacent to those forests. It allows local community to have free

5.4 Land Law (No 9/04)

This instrument defines rural community land as land that is occupied by people in rural community for the purpose of shelter, activities and customary practices. It permits such lands to be used for customary purposes including farming, access to water and pasture. This law covers activities only outside conservation areas., a development that shows the limitation of this law in terms of its benefits to the CBNRM.

5.5 Natural Biodiversity Strategy and Action Plan (Resolution 42/06)

The Strategy and Action Plan recognises the role of communities in management of biodiversity and acknowledges that rural communities depend on natural resources. It provides the need to strengthen the role of communities in sustainable use of biodiversity and to ensure inclusion of community members in decision making. The main objective of the strategy is to promote measures for conservation and sustainable life of biodiversity and equal sharing of resources to benefit all people.

5.6 National Environmental Quality Programme (Decree 158/20)

The Programme aims at protecting national resources and quality of life for all citizens. It seeks to implement policies to ensure environmental quality and reduce impacts on the environment. The programme appears to be largely ecocentric which may undermine the interest of local populations.

5.7 Law on Territorial Planning and Urban Affairs

The law promotes development of municipal and inter-municipal areas. It offers the public access to information and enables rural communities to participate in the planning procedure. It also provides for protection and conservation of water resources and forests and other natural resources in a way that is compatible with the potential uses by the population.

5.8 National Policy on Forests, Wildlife and Conservation Areas (Resolution No 1/10)

It acknowledges the role of community members in the management of natural resources and recognizes that it is essential for the inclusion of community in natural resources management and strategies to reduce poverty The policy aspires to ensure that communities have access to natural resources as it is their right to benefit from the use of natural resources in order to improve their living conditions and ensure sustainable use and conservation of resources.

While many of these instruments are relevant indirectly, the legal and policy environment in Angola does not have a carefully set out regulations to attend specifically to the right to food of CBNRM communities in the context of climate change, incentivise their participation in climate adaptation and mitigation.

BOTSWANA



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Botswana is surrounded north by Namibia, east by Zimbabwe, and to the south by the Republic of South Africa. It covers more than 570 000 square kilometers. The environment is mostly arid and 84% of the country is Kalahari sand, supporting thornbush savanna vegetation. The ancestors of the modern Tswana tribes migrated into area of modern-day Batswana in the eighteenth century from the south-east and closely related to the Basotho of modern-day Lesotho.⁴⁷ The economic growth of Botswana was primarily based on the mineral sector of copper-nickel and diamond more than agriculture.⁴⁸ The Okavango Delta, the world's largest inland delta, is located in the northwest of the country and is branded by vast areas of open water and wetlands and an abundance of wildlife. North-central parts of the country are dominated by the Makgadikgadi Pans, a huge salt pan.⁴⁹ Central and West areas of the country are dominated by the Kalahari Desert and grassland and sandy soils; this area is best suited for livestock, as opposed to agriculture. Eastern areas have more fertile soils and grasslands with annual rainfall exceeding 400 millimeters (mm).⁵⁰

CBNRM began as a pilot effort to involve rural communities living adjacent to national parks and game reserves in the mid-1990s.⁵¹ They exist in form of trust by Community based organisations (CBOs) created to implement activities within the frame of the

⁴⁷ D Acemoglu, S Johnson & JA. Robinson 'An African Success Story: Bostwana' Working Paper 2001

⁴⁸ JC Leith Why Bostwana Prospered, (McGill-Queen's University Press 2005)

⁴⁹ Ministry of Environment, Wildlife and Tourism 'Third National Communication to the United Nations Framework Convention on Climate Change'2019

https://unfccc.int/sites/default/files/resource/BOTSWANA%20THIRD%20NATIONAL%20COMUNICATION %20FINAL%20.pdf

⁵⁰ CIMA Research Foundation 'Disaster Risk Profile – Botswana' 2018. UNISDR https://www.unisdr.org/we/inform/publications/63281

⁵¹ N Rozemeijera and C van der Jagt 'Community Based Natural Resources Management (CBNRM) in Botswana: How community-based is community-based natural resource management in Botswana (Occasional paper series). Gaborone: IUCN/SNV CBNRM Support Programme'

CBNRM program.⁵² Community trusts engage in tourism projects based on natural resources around them. For instance, in northern Botswana where there is an abundance of wildlife resources, most trusts engage in tourism related activities, such as sub-leasing their concessions to safari companies, managing cultural tourism and photographic wildlife tourism, and marketing baskets and other nature based handicrafts.53Trusts are formed by the groups of people living in the same area and sharing common interests in order to benefit from natural resources around them.⁵⁴ Membership of community trusts generally includes residents of more than 5 years in the concerned village(s).⁵⁵ CBNRM is carried out in demarcated land use zones known as wildlife management areas (WMAs). WMAs are further sub-divided into controlled hunting areas (CHAs). CHAs are then leased to CBOs by government for CBNRM activities. CHAs are used for various types of CBNRM activities, including consumptive and non-consumptive tourism. While CBNRM activities are carried out by various CBOs in CHAs located in different parts of the country. 56 The Botswana Government imposed a ban on safari hunting as of January 2014. Consequently, all the communities involved in consumptive tourism are expected to convert to non-consumptive forms of tourism development, such as photographic safaris.⁵⁷

2. FOOD SECURITY & HUMAN RIGHTS

The access to natural vegetal resources has extremely decreased due to relocation and land dispossession. Increasing population is contributing to lack of natural resources in local settlements and cattle posts, and this increases food insecurity. The hunting ban in 2014 is reportedly contributing to increasing incidents of poaching in Northern Botswana which is contributing to the decline of wild animals in protected areas. While government initially indicated that subsistence hunter would be allowed to continue to operate, in practice the ban was applied to all categories of hunters, including subsistence hunters. The Khoi and San were arrested and jailed for alleged contravention of wildlife laws, and victims of coercive conservation. Furthermore, whereas in the past the community trusts in community-controlled wildlife management areas received lease fees, meat, medicines, and other goods and services from safari companies with which they had joint venture agreements, after the introduction of the ban, these benefits have decreased

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⁵² Department of Wildlife and National Parks (DWNP). 'Joint venture guidelines.' (Gaborone: Department of Wildlife and National Park 1999)

JE Mbaiwa 'Community-Based Natural Resource Management in Botswana' in R. van der Duim et al. (eds.),
 Institutional Arrangements for Conservation, Development and Tourism in Eastern and Southern Africa,
 DWNP (n 49)

⁵⁵ Rozemeijer & (n 51)

⁵⁶ JE Mbaiwa. "Botswana's community based natural resource management status report for 2011/12 (Gaborone: Kalahari Conservation Society, 2012)

⁵⁷ I Blackie 'The impact of wildlife hunting prohibition on the rural livelihoods of local communities in Ngamiland and Chobe District Areas' (2019) 5(1) *Botswana, Cogent Social Sciences* 1

⁵⁸ DF Marone 'How strong is Africa's last elephant stronghold?' June 13 2019

https://www.nationalgeographic.com/animals/article/elephants-poached-in-botswana

⁵⁹ IWGIA Indigenous Peoples Rights in Southern Africa (IWGIA, 2004)

⁶⁰ RK Hitchcock 'The Impacts of Conservation and Militarization on Indigenous Peoples A Southern African' (2019) Human Nature 1

⁶¹ T Gujadhur 'Joint Venture Options for Communities and Safari Operators in Botswana' CBNRM Support Programme Occasional Paper 6 2001

substantially. This development has a number of negative implications for the rights of local populations including the right to food, the right to property, and the right to land. It also touches on the dignity of human persons, and in breach of principles such as nondiscrimination and equality in the national legislation and international human rights law.

Mosetlhanyane and others v. Attorney General of Botswana,62 is important litigation which reflects the continuous struggle of indigenous communities for protection of rights in the context of radical conservation approaches of state in Botswana. The case followed on an earlier decision in Sesana and Others v Attorney-General, 63 in which the Court found the relocation of the Basarwa community off the CKGR unconstitutional. In Mosetlhanyane, the Court went further and found that because the Basarwa were lawful occupiers of the CKGR, they have a right to utilize existing boreholes and drill new ones for water for domestic uses. Without this ability, the right to occupy the land would essentially be meaningless. In addition, the Court held that under section 7(1) of the Constitution of Botswana, guaranteeing the right not to be subject to inhumane or degrading treatment, the Governments actions constituted a violation of the Applicants fundamental rights. The Court referred to the UN General Comment 15 on the right to water and the UN General Assembly resolution on the right to safe and clean drinking water to affirm both that water is a human right and linked to the rights to health and life.64 Further the Court noted that States have particular obligations to prevent encroachment and pollution on indigenous people's lands and to provide resources for indigenous groups to design, deliver and control their access to water. The Court importantly pointed out State obligations in relation to indigenous groups, and in doing so, integrate socioeconomic rights framework into domestic jurisprudence. The decision reflects broader protections of indigenous peoples on land marked as game preserves. It is adjudged as a response to a new and sophisticated method adopted by the owners of private property to "block the original peoples' claim on the territory [...] under the cover of the law and even invoking purposes as pure as the conservation of the environment."65

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

Climate change is a global concern affecting Botswana's environment resulting in the country's water scarcity and land degradation disturbing health and food production.⁶⁶ There have been prevalent changes in vegetation, and rangeland cover, species types, composition and distribution due to this climate change challenge. The most vulnerable sectors are identified as agriculture/livestock, woodlands/forests, water and health.⁶⁷ In addition, The Okavango Delta is a popular wetland tourist destination that would be adversely affected by climate change. 68 Droughts will affect pastures and wildlife which

⁶² Mosetlhanyane and others v. Attorney General of Botswana, Civil Appeal No. CACLB-074-10Jan 27 2011

⁶³ Sesana and Others v Attorney-General (2006) AHRLR 183 (BwHC 2006),

⁶⁴ UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant), 20 January 2003, E/C.12/2002/11

65 See also the Inter-American Court of Human Rights, in Xákmok Kásek Indigenous Community v. Paraguay (2010),

⁶⁶ World Bank Group Climate Risk Country Profile: Botswana (World Bank Group 2021)

⁶⁸ WL Hambira 'Screening for climate change vulnerability in Botswana's tourism sector in the bid to explore suitable adaptation measures and policy implications: A case study of the Okavango Delta' (2011)4(1) International Journal of Tourism Policy 51-65

may lead to drastic wildlife decline.⁶⁹ Hence activities such as game drives would be affected.⁷⁰ Reduced precipitation would also affect activities such as boat riding and bird watching. Increased malaria prevalence was also anticipated if there would be more precipitation.⁷¹ Climate change impacts are expected to increase over the years and decades to come, which will constitute a threat to development. Climate change poses a threat to the CBNRM because it destroys the biodiversity resources and ecosystem of the wildlife on which communities rely for sustenance.

4. SUSTAINABLE USE AS CLIMATE ADAPTATION & MITIGATION

The growth of tourism in Botswana offers prospects for conservation in that it provides economic incentives for conservation. For instance, Winterbach et al found that areas used for high-paying/low-volume tourism had significantly higher mean wildlife biomass and diversity. They also found that the economic viability of low-paying tourism may not be met in zones with intermediate to high tourism potential. Much of the Northern Conservation Zone was found to have low tourism potential, which does not necessarily equate with a low conservation value. 72 General awareness of the adverse consequences of climate change on wildlife is also useful in mitigating the consequence. This is particularly the case in Botswana and the broader geography of Southern Africa where wildlife in its natural environment dominates the sector.⁷³ In view of climate change the Government of Botswana has adopted a policy of economic diversification, which is reflected in the National Development Plan.74 There is a strong emphasis on the sustainable use of renewable resources such as veld products and wildlife. There is an increasing emphasis on the conservation and sustainable use of these resources with a strong geographic focus on the Okavango Delta. 75 Prudent stewardship is promoted in a number of sectors related to wildlife tourism. For example, the water sector has developed a water policy which promotes, among other things, water-loss reductions, water recycling, rainwater harvesting, water pricing and water restrictions.⁷⁶ The energy sector promotes mitigation measures that have greenhouse gas abatement effects such as: use of energy-efficiency bulbs, service sector and industry energy-efficient buildings, and renewable energy.⁷⁷

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⁶⁹ As above

⁷⁰ WB Climate Change Knowledge Portal (CCKP, 2021). Botswana Water Sector Dashboard. URL: https://climatedata.worldbank.org/ CRMePortal/web/water/land-use-/-watershed-management?country=BWA&period=2080-2099

⁷¹WL Hambira & J Saarinen 'Policy-makers' perceptions of the tourism–climate change nexus: Policy needs and constraints in Botswana' (2015) 32 (3) *Development Southern Africa* 350-362,

⁷² HE Winterbach, CW Winterbach and MJ Somers 'Landscape suitability in Botswana for the conservation of its six large African carnivores' (2104) 9(6) *PLoS One* :e100202. https://doi.org/10.1371/journal.pone.010020

⁷³ P Urich, Y Li & S Masike 'Climate Change, Biodiversity, and Tipping Points in Botswana' in N Oguge, D Ayal, L Adeleke and I da Silva (eds) African Handbook of Climate Change Adaptation (Springer, Cham. 2021) 161

⁷⁴ Botswana: National Development Plan (NDP) 11, Volume 1 / April 2017 – March 2023

⁷⁵ A Jones Tourism in Botswana: tourist destinations in Botswana – wildlife (2017)

⁷⁶ MEWT (Ministry of Environment, Wildlife and Tourism), 2011. Second national communication to the United Nations convention on climate change. MEWT, Gaborone.

5. LEGAL AND POLICY ENVIRONMENT

5.1 Constitution of Botswana, 1966 with Amendments through 2016

Socio-economic rights are generally not guaranteed under the Botswana Constitution. The right to a clean environment (a so called third generation right) is absent from the Constitution of Botswana. However, Botswana's commitment to the sustainable management of natural resources is supported by various policies and legislation as well as by Vision 2036. One of the four 'Pillars' of Vision 2036 is 'Sustainable Environment', which states that: "By 2036 sustainable and optimal use of natural resources will have transformed our economy and uplifted our people's livelihoods. This pillar includes the ecosystem functions and services, sustainable utilization of natural resources, water security, energy security, sustainable land use and management, sustainable human settlements, climate resilience and disaster risk reduction and pollution and waste."78 Section 8 offers protection from deprivation of property except on certain grounds including country planning, community development and economic development. Section 15 deals with nondiscrimination and guarantees equality regardless of skin color, origin political party, gender, creed or belief and race. Freedom of association and assembly is guaranteed under section 13. Based on section 16, rights guaranteed under sections 5-15 of the Constitution can be limited by law. Generally, socio-economic rights are not guaranteed in the Botswana Constitution.

The provisions are relevant to the CBNRM in terms of their formation, functioning, non-discrimination and equality before the law. The limitation of rights is always a challenge which the Court may deal with on case by case. Also, the fact that socio-economic rights are not guaranteed may be remedied by a pro-active court. An example of jurisprudence on that approach is seen in *Mosetlhanyane and others v. Attorney General of Botswana*, and *Sesana and Others v Attorney-General*.

5.2 Wildlife Conservation and National Parks Act (Chapter 38:01)

The Act sets out a framework on the management of wildlife and National Park and gives effect to international conventions that the country is signatory to. Section 5 declares areas as national parks for the preservation of wild animals, vegetation, any other historical or heritage objects for the benefit and advancement of the people of Botswana. The Act also provides regulations in respect of private owned wildlife conservation areas and parks. In particular, the Act gives effect to CITES and any other international convention for the protection of fauna and flora to which Botswana is, from time to time, a party. It provides for the establishment, control and management of national parks and game reserves, and for matters incidental thereto or connected therewith.

5.3 Wildlife Conservation and National Parks (Hunting and Licensing) Regulations (section 92) (10 August 2001)

⁷⁸ Presidential Task Group, 2016. http://www.gov.bw/en/Ministries--Authorities/Ministries/Ministry-of-LocalGovernment-MLG1/News/VISION-2036-Prosperity-for-all-/

⁷⁹ Mosetlhanyane and others v. Attorney General of Botswana, Civil Appeal No. CACLB-074-10Jan 27 2011

⁸⁰ Sesana and Others v Attorney-General (2006) AHRLR 183 (BwHC 2006),

The key highlights of this instrument include sections 12 and 14. According to section 12 (1), a landholder may require any other person, other than a wildlife officer on official duty, found on such land and whom is reasonably believed by the landholder to be hunting or capturing animals or conducting commercial tours on that land, to produce a licence, permit, or authority authorising that person to be on such land, or to produce valid identification. Also, section 12(2) provides that a person who, in defiance of the request made under subregulation (1) refuses or fails to produce any such licence, permit, authority, or valid identification shall be guilty of an offence. Section 14(1) of the regulations deals with permit granted by Director. It provides that an application for a permit to capture or kill a game animal, in the form set out in the Seventeenth Schedule, shall be made only where the capture or killing is intended to be-(a) for education and scientific purposes, and protection of life or property; (b) in the interests of the conservation, management, control or utilisation of wildlife, or breeding, farming or domestication of any animal. The provisions are only useful to local communities with the status of landholders. It has not helped to prevent displacement of communities whose sustenance has traditionally depended on wildlife.

5.5 Wildlife Conservation and National Parks (Cheetahs) (Killing Suspension) Order (section 90) (22 April 2005)

The purpose of this order is to exclude the killing of cheetahs from the list of animals that a landholder may kill under section 46 of the Act. According to the Order, section 46 (1) of the Act which permits the owner or occupier of land, or any agent of such owner or occupier to kill any animal which caused, is causing or threatens to cause damage to any livestock, crops, water installation or fence on such land shall not apply in respect of a cheetah.

5.6 Forest Act (Chapter 38:03)

The Act is focused on the management of and conservation of forest resources in the country. It also gives a recognition and a declaration of the Convention on International Trade in Endangered Species of Wild Fauna and Flora as binding in relation to trading in any species of flora to which the Convention applies. Section 5 confers the right to the local Authority to make an application for the establishment of a forest reserve in any of its land.

5.7 Wildlife Policy, 2013

The policy recognises the wildlife resource as asset that requires conservation and sustainable utilisation and management. It also recognises wildlife as fundamental in the development and growth of the economy, thus the policy promotes non-dependency on non-renewable resources. The policy establishes institutional, regulatory and participatory framework for the wildlife conservation and use. It aspires to ensure adequate management of natural resources.

LESOTHO



1. COUNTRY BRIEF DESCRIPTION & CBNRM

The Kingdom of Lesotho is surrounded by the territory of the Republic of South Africa, with an area of 11 716 square miles, and a population of more than one million. It is populated by about 2.2 million people, with two-thirds living in rural areas. It is a landlocked southern African country located on a plateau (ranging between 1400m to 3480m above sea level) and characterized by high mountains which make up 60% of the country. Lesotho lies between 28 and 31 degrees south thus placing it in the subtropical high-pressure belt, but it experiences weather associated with both this zone and the westerly low-pressure belt. The country suffers from periodic drought, accompanied by soil erosion. Mohair and wool are only stable exports. Lesotho is rich in wildlife and has more species of birds than mammals. There are about 339 bird species compared to 60 mammalian species Mammals include lions, leopards, zebra, Cape hyrax, the Cape porcupine, antelopes such as the Klipspringer and the common eland, birds such as the Egyptian goose and the Springwater sprite, a type of damselfly.

⁸¹ Ministry of Health [Lesotho] and ICF International. *Lesotho Demographic and Health Survey 2014.* (Ministry of Health and ICF International; Maseru, Lesotho: 2016)

Lesotho Meteorological Services [Online]. 2021. Available: http://lesmet.org.ls/home/open/Climate-ofLesotho
 FK Lutgens & EJ Tarbuck *The Atmosphere: An Introduction to Meteorology* (Pearson, Cape Town, South Africa. 2013) 199

⁸⁴ BM Khaketla Lesotho, 1970: An African Coup under the Microscope (University of California Press1972)

⁸⁵ https://a-z-animals.com/animals/location/africa/lesotho/

Development of Park in Lesotho started in 1970 with Sehlaba Thebe National Park, spreading over 6475 hectares. Thereafter, the Lesotho Highlands Development Authority (LHDA) developed three other parks, namely Masitise Nature Reserve, Bokong Nature Reserve (BNR) and Ts'ehlanyane National Park. Three new protected areas and seven community nature reserves are being nurtured by the Conserving Mountain Biodiversity Project, while promoting alternative livelihoods and small-scale enterprises in local communities that have given out their land to conservation activities. ⁸⁶ With these added, the area under conservation doubled. On the whole, the protected area remains less than 0.5% of Lesotho total land surface, which is about 30350km². ⁸⁷ Protected areas (PAs) namely Bokong Nature Reserve (BNR) and Tšehlanyane National Park (TNP) are within the Grassland Biome of southern Africa, which is the second largest biome after the Savanna Biome. ⁸⁸ The PAs have been established under the auspices of the Lesotho Highlands Development Authority (LHDA). The BNR covers an area of about 1 970 ha and is endowed with wetlands that provide water to the Katse Dam, which in turn supplies water to Gauteng Province in South Africa. ⁸⁹

In Lesotho, there are various community-based institutions for management of natural resources. These community conservation forum, grazing associations, herders' institutions, farmers' organizations, burial societies, non-governmental organizations and women's groups. There is range management area (RMA), set aside by a chief where enhanced livestock production practices take place. The RMAs are managed by grazing associations (GAs), organized groups of user's residents within the area, who operate with the advice an agricultural extension officer. Major objectives for setting up RMAs are to improve and sustain rangeland productivity, to improve livestock quality, and to increase the incomes of rural livestock producers. Grazing associations are established are registered under the Societies' Act. The Act allows the associations to hold property, acquire and enforce rights and obligations, this against the backdrop of tradition and culture of land being a communal asset. Grazing associations, lease/own grazing rights within areas normally allocated for cattle post grazing areas.

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⁸⁶ GEF/UNDP 'Preventing land degradation: Sustaining Livelihoods–Experiences from GEF-UNDP Projects' (Global Environment Fund & United Nations Development Programme 2002) http://www.unep.org/unep/envpolimp/techcoop/8htm 7

⁸⁷ Lesotho Highlands Development Authority Conservation development and management plan for Bokong Nature Reserve. Maseru: Lesotho Highlands Water Project (1998)

⁸⁸ L Mucina. & MC Rutherford (eds.) *The vegetation of South Africa, Lesotho and Swaziland (*South African Biodiversity Institute, Pretoria 2006)

⁸⁹ Lesotho Highlands Development Authority (LHDA) (n 87) 604

⁹⁰ L Seleteng-Kose, K Kobisi, R PoolStanvliet & K Mohapi 'A rapid biodiversity assessment of Lesotho's first proposed Biosphere Reserve: a case study of Bokong Nature Reserve and Tšehlanyane National Park' (2021) 51(2) Bothalia

⁹¹ Oliver Chapeyama 'Rangeland Management in Lesotho Report on Assessment of Needs for Reintroduction of Grazing Fees' A thesis submitted in accordance with the requirements for the Doctor of Philosophy in the Department of Sociology of the Faculty of Humanities at the University of the Free State Bloemfontein, Republic of South Africa (2004).

⁹² Societies' Act No.20 of 1966

⁹³ As above

⁹⁴ S Matela and NNtlale 'Empowering Communities to manage natural resources: Where does the power lie? The case of Lesotho' in S Shackelton and B Campbell (eds) *Empowering Communities to Manage Natural Resources: Case Studies from Southern Africa* (2000) 26-45

2. FOOD SECURITY & HUMAN RIGHTS

About 60–70% of the Lesotho population is severely food-insecure. ⁹⁵ In rural areas, the majority of individuals are dependent on agriculture for survival, which proves challenging as less than 10% of the country's total area is suitable for growing crops. Land availability is further influenced by urbanization and environmental factors, such as an erratic climate, soil erosion, and climate change. ⁹⁶ Thus, the number of landless households is steadily increasing. ⁹⁷ In coping with food insecurity, some of the available options to people in different districts because of varying economic endowments that include livestock, craft grasses and vicinity to urban areas. ⁹⁸ Earlier studies in Lesotho reported that, in addition to farming, sharing makes a significant contribution to the livelihoods of people in Lesotho. ⁹⁹ Various forms of sharing include payment of tribute by community leaders to. the Chief, who is then required to support community members in times of hardship. Members of the community may furthermore informally share resources with each other during times of hardship or help each other farm. ¹⁰⁰

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

Lesotho is ranked 122 out of 182 countries in terms of vulnerability to climate change and readiness to improve resilience. ¹⁰¹ In 2019, Lesotho was ranked the 67th most vulnerable country and 46th least ready country to improve resilience to climate change. ¹⁰² With the Lesotho rural population being dependent on rainfed and undiversified subsistence agriculture, however, farming is declining at a steady rate. ¹⁰³ Climate change projections for the area paint a bleak picture for Lesotho agriculture, with the staple crops of maize, wheat, and sorghum at risk, thus affecting the area's food security. ¹⁰⁴ The country's climate is affected by the two ocean currents that converge on the tip of southern Africa: the warm Agulhas Current of the Indian Ocean and the cold Benguela Current of the Atlantic Ocean. ¹⁰⁵ Winter precipitation is in the form of snow and summer months experience humidity, rain, cloudy conditions, thunder, and hailstorms with strong winds. ¹⁰⁶

⁹⁵ African Food Security Urban Network (AFSUN) 'The state of poverty and food insecurity in Maseru Lesotho' (2015) Lesotho. Urban Food Security Series 1–56

⁹⁶ D Olowu 'Gendered Aspects of Food Security in Lesotho: Implications for an Integrative Rights-Based Approach' (2013) 11 *Gend. Behav.*

⁹⁷ V Thebe & MF Rakotje 'Land Strategies and Livelihood Dynamics in Peri-urban Communities: Challenges to Land and Agricultural Policy in Lesotho'(2013) 72 *Afr. Stud.* 399–415

⁹⁸ MM Mphale *HIV/AIDS* and *Food Insecurity in Lesotho* (Department of Geography Faculty of Science. National University of Lesotho)

⁹⁹ SD Turner 'Livelihoods and sharing: Trends in a Lesotho village 1976–2004' (2005) 22 *Programme Land Agrarian. Studies*:1–80.

¹⁰⁰ CM Walsh et al 'The Impact of a Household Food Garden Intervention on Food Security in Lesotho' (2020) 17(22) *Int J Environ Res Public Health* :8625..

¹⁰¹ L Malephane 'AD524: Climate change – A little-known reality in Lesotho' 14 Jun 2022 Lesotho

¹⁰² Climate Risk Profile - Lesotho

¹⁰³ Southern African Climate Finance Partnership Lesotho Country Diagnostic May 2017 https://southsouthnorth.org/wp-content/uploads/2018/09/Lesotho-Country-Diagnostic.pdf

¹⁰⁴ https://reliefweb.int/report/lesotho/what-extent-does-climate-change-affect-food-insecurity-what-we-found-lesotho#:~:text=To%20what%20extent%20does%20climate%20change%20affect%20food%20insecurity%3F%20What%20we%20found%20in%20Lesotho

¹⁰⁵ Lesotho Meteorological Services 2017. *Lesotho's National Climate Change Policy* (Lesotho: Ministry of Energy and Meteorology 2017)1

¹⁰⁶ Lesotho Meteorological Services, 2021

Lesotho has already experienced increased frequency in erratic precipitation patterns as well as extreme weather events that can overwhelm vulnerable communities, such as storms, flooding, and droughts, 107 which will increase in frequency and duration. 108 Also, the competition for the limited arable land in the Lesotho highland puts pressure on the natural resources and exacerbates environmental degradation, biodiversity loss, and habitat transformation. 109 This will likely result in adverse environmental impacts biodiversity including wildlife. 110

Another natural resource at risk due to climate change is freshwater sources. The Maloti Mountain range in Lesotho gives rise to the Orange Senqu River which wildlife, such as aquatic, wetland habitats, and grassland habitats, and other purposes including natural irrigation, water filtration, and fertile land for agriculture. The river is further used for economic activities in Lesotho and South Africa including hydroelectric power generation, mining, and industry. Climate change puts this at further risk due to increased torrential rains which further exacerbates soil erosion, which then further affects wetland degradation and results in compounded negative effects for the freshwater resource. Basotho derive their medicines from wild plants and animals of the range as they utilise more than 60 and more than 20 species of plants and animals, respectively to treat and cure various ailments.

4. SUSTAINABLE USE AS CLIMATE ADAPTATION & MITIGATION

An example of innovative climate change adaptation project, undertaken in the Lesotho highlands, seeks to enhance the resilience of communities in the face of climate change. The highlands' already experience high levels of poverty, vulnerability of livelihoods, and the deterioration of economically, socially and environmentally important wetlands and rangelands. Considering this, coupled with the increasing impacts of climate change, there is a need for a change in trajectory. The Lesotho Climate Change Adaptation Project (LCCAP) was started by an external party that worked to foster a more sustainable relationship between communities and their natural environment. The aim was to increase livelihood and ecosystem resilience to climate change, which was brought about through structured experimentation and observation over an eight-year period. The LCCAP is an Institute of Natural Resources initiative funded through a USAID grant, that

¹⁰⁷Lesotho Meteorological Services 2017 (n 105) 2

¹⁰⁸ Institute of Natural Resources *Climate Change Adaptation in the Lesotho Highlands: Close-Out Report. Institute of Natural Resources* (NPC, Scottsville, Pietermaritzburg, South Africa 2018)

¹⁰⁹ As above

¹¹⁰ Climate Risk Profile 3

¹¹¹ MK Mahlakeng 'Lesotho Action Plan for the Orange–Senqu River Basin; The Orange–Senqu River Basin' (2020) 24(1) *World Affairs: The Journal of International Issues* 142-166

¹¹² As above

¹¹³ L Silici & P Ndabe T Friedrich & A Kassam 'Harnessing sustainability, resilience and productivity through conservation agriculture: the case of Likoti in Lesotho' (2011) *International Journal of Agricultural Sustainability*. 137-144.

¹¹⁴ As above

¹¹⁵ n 113

¹¹⁶ K Mayer 'Exploring Community & Ecosystem-based Adaptation through Resilience Theory: Referencing a Lesotho Case', A Thesis presented in fulfilment of the requirements for the degree Master of Philosophy in Environmental Management, in the Faculty of Economic Management Sciences (School of Public Leadership) Stellenbosch University 2022

took place in the Lesotho Highlands between 2010 and 2018, implementing practices with the aim of enhancing resilience to the impacts of climate change on biodiversity. To address this vulnerability the project team produced alternate livelihood strategies, through livelihood improvement and diversification of livelihood. Livelihood diversification was promoted through the demonstration of initiatives and training of locals in select livelihood supporting activities. A sizable portion of income generation from these communities comes from selling raw wool and mohair sheared from their sheep and goats. Value-adding to this income-generating activity, to maximise earnings on the raw materials, is achieved through spinning and weaving. Communities undertook wool and mohair spinning training, alongside business and financial management training, and were given spinning wheels, brushes, and dye equipment.

5. LEGAL AND POLICY ENVIRONMENT

5.1 The Constitution of Lesotho, 1993

The Constitution of Lesotho recognises the need to adopt policies aimed at advancing the natural and cultural environment of Lesotho. 122 It provides as follows:

Lesotho shall adopt policies designed to protect and enhance the natural and cultural environment of Lesotho for the benefit of both present and future generations and shall endeavour to assure to all citizens a sound and safe environment adequate for their health and well-being. 123

Section 26 of the constitution provides that policies shall be adopted to promote equality and justice for all citizens and further undertook to establish measures that promote equal opportunities for disadvantaged groups in society to enable then to participate fully in all spheres of the public. Social economic duties of the State are under the fundamental directive principles of the State. However, relevant provisions to the CBNRM approach include section 8 on freedom from inhuman treatment section 15 on freedom of assembly, section 17 on the freedom from arbitrary seizure of property, section 18 on freedom from discrimination and section 18 on equality before the law.

5.2 Land Act 2010 (Act No. 8 of 2010)

The Act provides for the regulation of land in Lesotho and establishes land rights. It provides for the allocation of land in rural areas and other land related matters and provides for dispute resolution procedures. It also declares that all the land is vested in

¹¹⁷ USAID Southern Africa '2014. June Environmental Program Highlights' USAID/SA, Pretoria, South Africa. 3; Institute of Natural Resources (n 108) 4

¹¹⁸ Institute of Natural Resources (n 108) 5

¹¹⁹ As above

¹²⁰ ORASECOM (Orange–Senqu River Commission) '2014. Rehabilitating rangelands for healthy headwaters: Steps Basotho Communities are taking to reverse land degradation at the source of the Orange–Senqu River' (ORASECOM, Pretoria, South Africa 2014) 7

¹²¹ Institute of Natural Resources (n 108) 22

¹²² Constitution of the Lesotho, with Amendments 1993 s 36.

¹²³Constitution of the Kingdom of Lesotho (n 122) s 37.

the Basotho Nation and under the custody of the King, therefore no one shall own the land unless as stipulated under the Act.

5.3 Environment Act, 2008

The Act provides for the environmental protection, management, conservation and sustainable use of natural resources. Section 3(2) provides for principles of environmental management which includes the assurance of environmental rights to all people and to utilise and conserve the environment and natural resources for the benefit of all people and the growth of the country. It also promotes participation of the public in advancement of policies, plans and process for the management of the environment. Section 4 guarantees everyone the right to a clean and healthy environment and imposes a duty to safeguard and enhance the environment. Section 28 (1)(vi) establishes minimum water quality for wildlife. Section 60(2) provides that a local authority has obligation to encourage communities to self-sustain by engaging in measures that promote reforestation. Section 63(5) provides that the traditional use of forests which are indispensable to the local community shall be carried out in accordance with the principle of development. Section 72(1) confers on the minister the power to declare an area as protected for purposes including preservation and conservation of indigenous wildlife.

MALAWI



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Malawi is a landlocked country in southeastern Africa. Endowed with spectacular highlands and extensive lakes, it occupies a narrow, curving strip of land along the East African Rift Valley. Lake Nyasa, known in Malawi as Lake Malawi, accounts for more than one-fifth of the country's total area. The lake's southern end falls within Lake Malawi National Park – sheltering diverse wildlife from colorful fish to baboons – and its clear waters are popular for diving and boating. The population is highly rural, agricultural production is predominately subsistence; and due to having a single rainfall season and limited irrigation, the country experienced food shortage.

During the pre-colonial period access to, and control of natural resources was either regulated by traditional laws or unregulated, in which case open access regimes prevailed. According to literature, before colonialism, traditional leaders were the

^{124 &#}x27;Malawi' https://www.britannica.com/place/Malawi

¹²⁵ As above

¹²⁶ L Nicholas and H Lucia 'Constraints to Growth in Malawi 2009'. World Bank Policy Research Working Paper No. 5097

¹²⁷ I Nhantumbo, G Monela, and G Kowero 'Land policies in Mozambique and Tanzania: implications for forestry development' in G Kowero, B. Campbell, and U Sumaila (eds.) *Policies and Governance Structures in Woodlands of Southern Africa* (CIFOR, Bogor, Indonesia 2003).

custodians of natural resources. Every resource in the village land was looked after by the traditional leaders. ¹²⁸ With the advent of colonialism 1964, however, there was a process of exclusion and alienation of the local people from their natural resources such as forests, land, water, wildlife, and fisheries, ¹²⁹especially in public protected areas (PAs) such as forest reserves, national parks, wildlife reserves, and lakes.

Subsequently, the continued degradation of natural resources caused the government to rethink its position regarding the participation of various stakeholders, especially communities, in natural resource management. Malawi embarked on policy reforms and a democratization process in the 1990s which shifted focus on community participation in natural resource management with the aim of promoting sustainable management of natural resources, social justice and improved well-being for local communities, and strong partnerships between local communities and the government. Social differentiation (by sex, age, livelihood, socio-economic status, ethnicity, religion, etc.) are, however, shaping the relevance of CBNRM in Malawi. For instance, in the forest sector, age was negatively correlated with income, and men were wealthier participants who had larger income gains than women and low-income groups because of discrimination and endowment differences. This shows discrimination on age and gender. Section 132

2. FOOD SECURITY & HUMAN RIGHTS

The food security situation in Malawi is beginning to deteriorate in 2022 as characterized by a decrease in the proportion of households having acceptable food consumption. According to an IPC Chronic Food Insecurity Report, approximately 5.4 million people in Malawi living in rural and secondary urban centres face moderate or severe chronic food insecurity due to abject poverty and recurrent shocks, among other drivers. An estimated 4.4 million people face mild food insecurity, whilst approximately 6.9 million people face No/Minimal chronic food insecurity. Evidence of chronic food insecurity is visible in Malawi, where over 70% of the population of about 19.1 million people is living below the international poverty line of \$1.90/day. This is driven by abject poverty, recurrent shocks, poor policies and implementation as well as reliance on weak livelihood strategies. ¹³⁴ In Malawi, food security is characteristically seen as equal to adequate production of maize,

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¹²⁸ N Moyo and F. Epulani 'Examples of CBNRM best practices in Malawi' (COMPASS Document 32. COMPASS Project, Blantyre, Malawi 2002)

¹²⁹ A Anton ' Decentralization and forestry. A review of progress, challenges and opportunities for CBNRM in the forestry sector 'Occasional Paper No. 8., COMPASS II Project, Blantyre, Malawi 2005.

¹³⁰ J Lowore and J. Wilson 'Grass-roots advocacy for CBNRM policy reform: the institutional mechanisms, sectoral issues and key agenda items'. COMPASS Document 14. COMPASS Project, Blantyre, Malawi 2002

¹³¹ USAID 'Community Based Natural Resource Management: Stocktaking Assessment' 2010

 ¹³² LC Zulu 'Neoliberalization, decentralization and community-based natural resources management in Malawi: The first sixteen years and looking ahead' (2012) 12 Progress in Development Studies 193–212
 133 OCHA Services '11

¹³⁴ IPC Malawi: Chronic Food Insecurity Situation 2022 - 2026 https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1155612/?iso3=MWI

the country's staple accounting for more than 60% of total food production, ¹³⁵ but surveys have also included wild foods. Adults harvest for consumption wild foods including game mammals. ¹³⁶ This suggests that wildlife and forest dependence are essential component of food security in Malawi. Also, fish in Malawi are significant contributors to both global biodiversity and local food security. Fish provide an estimated 28% of the country's animal protein supply and are critical for nutrition and food security. Malawi has about 4% of the world's fish species and 14% of all known freshwater fish species. Lake Malawi alone is home to about 800 fish species, 95% of which are endemic. ¹³⁷ However, poor management of fish populations are resulting in rising prices, declining catches, and decreasing food security. ¹³⁸ Also, the clearing of land for subsistence and cash crop agriculture is a major driver of deforestation, with Malawi having one of the highest deforestation rates in sub-Saharan Africa, approximately 2.5% p.a. ¹³⁹ Deforestation has reduced the richness and abundance of wild fruit trees in southern Malawi. ¹⁴⁰

The foregoing indicates that in addition to agricultural products, communities in Malawi depends on nature based to meet basic food needs and the sustenance of these products are crucial to the realization of their human rights.

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

The country experienced natural hazards during the 2021/2022 growing season which caused poor production. For instance, the late onset of planting rains, prolonged dry spells, the occurrence of tropical storms and cyclones, early cessation of rains, and fall army-worm influxes negatively affected agriculture production. Additionally, limited access to farm inputs due to increased prices also affected crop production. Subsequently, maize production has decreased by 19 percent compared to the previous growing season. The National Adaptation Plan of Action identifies a number of adverse climatic hazards that Malawi has experienced over the last several decades. The most serious have been dry spells, seasonal droughts, intense rainfall, riverine floods and flush floods. Some of these, especially droughts and floods, have increased in frequency, intensity and magnitude over the last two decades, and have adversely impacted on food and water security, water quality, energy and the sustainable livelihoods of rural

¹³⁵ O Ecker and M Qaim 'Analysing Nutritional Impacts Of Policies: An Empirical Study for Malawi' International Food Policy Research Institute, Lilongwe 2010)

¹³⁶ M Vaughan 'Book review: a history of food and everyday life in Malawi, 1860–2004' (2007) 33. *Journal of Southern African Studies* 209–211.

¹³⁷ USAID The Importance of Wild Fisheries For Local Food Security: Malawi (2015)

¹³⁸ As above

¹³⁹ M Fisher, M Chaudhury and B McCusker 'Do Forests Help Rural Households Adapt to Climate Variability? Evidence from Southern Malawi' (2010) 38 World *Development* 1241–1250.

¹⁴⁰ MF Maliro and MB Kwapata 'Impact of Deforestation on Diversity of Wild and Semi-Wild Edible Fruit Tree Species in Southern Malawi' (2002) 14 *Discovery & Innovation* 98–105.

¹⁴¹ OCHA Services

¹⁴² As above

^{143 &#}x27;Forests Rangelands and Climate Change Adaptation in Malawi' https://www.fao.org/forestry/38069-073886f44b766b8982dec68ac4c3a784a.pdf

communities.¹⁴⁴ Droughts have resulted in poor crop yields or total crop failure, leading to serious food shortages, hunger and malnutrition. Flooding has also severely disrupted food production in several districts of the country. The most vulnerable groups are rural communities, especially women, children, female headed households and the elderly.¹⁴⁵ Drought has also impacted on the wildlife sector, in particular, the animal reproduction systems and migratory habits.¹⁴⁶ Vulnerability studies reveal potential declines in nyala (Tragelaphus) and zebra (Equiferus) in Lengwe and Nyika national parks.¹⁴⁷ In Malawi, Fisher *et al.* report that forest dependent communities made up to five times greater use of forest resources, including wild foods, during climate related shocks, such as droughts. Of the foods consumed only during famine periods, 25% are wild foods, which may contribute to wildlife and forest depletion.¹⁴⁸

4. SUSTAINABLE USE AS CLIMATE ADAPTATION & MITIGATION

The Malawi National Adaptation Plan (NAP) process was officially launched on September 2, 2014, and later in 2016 a NAP stocktaking exercise, which produced a baseline upon which the NAP process will be built was conducted. Activities involving local communities to boost adaptation to climate change includes irrigation to combat water scarcity and drought, development of technologies such as earth dams to promote rain harvesting, and encouragement of climate SMART agriculture. Forest based activities aimed at climate mitigation include the promotion of tree planting for carbon sequestration and other ecosystem services with focus on the improvement of livelihoods for participating farmers through payments made as compensation for area planted, care for the trees and the purchase of seedlings from farmers. Examples of such projects are found in Nyika National Park and Mkuwazi Forest Reserve in the Northern part of Malawi. Also, alternative energy projects include the plantation of Jatropha project where farmers are organized to plant jatropha plants and buy the seed from them.

5. LEGAL AND POLICY ENVIRONMENT

5.1 Constitution of Malawi, 1994 with Amendments through 2017

Section 13 provides that the state shall adopt and implement policies and laws aimed at achieving nutrition and promote good health and self-sufficiency. It also encourages responsible environmental management to prevent environmental harm and ensure a healthy environment for all people while section 16 guarantees the right to life for

¹⁴⁴ As above

¹⁴⁵ n 143

¹⁴⁶ As above

¹⁴⁷ RK Dixon, J Smith and S Guill 'Life on the edge: Vulnerability and Adaptation of African Ecosystem to Global Climate Change' (2003) 8 *Mitigation and Adaptation Strategies for Global Change* 93–113.

¹⁴⁸ H Maseko et al 'Children and Wild Foods in the Context of Deforestation in Rural Malawi' (2017) 45 *Human Ecology* 795–807.

¹⁴⁹ NAP 'Global Network Malawi Gears Up to Adapt to Climate Change' https://napglobalnetwork.org/2019/09/malawi-gears-up-for-its-climate-change-adaptation/

¹⁵⁰ FAO 'Forests, Rangelands and Climate Change Adaptation in Malawi" https://www.fao.org/forestry/38069-073886f44b766b8982dec68ac4c3a784a.pdf

¹⁵¹ MK Joshua et al 'Climate change in semi-arid Malawi: Perceptions, adaptation strategies and water governance' (2016) 8(3). *Jamba*. 255.

¹⁵² FAO (n 150)

¹⁵³ As above

everyone save for the execution of the death sentence imposed by a competent court on a person in respect of a criminal offence under the laws of Malawi of which the person is convicted. Section 19 (1) relates to the dignity of human person and personal freedoms while section 20(1) affirms the prohibition of discrimination of persons in any form and the equality of all persons before the law, notwithstanding of race, colour, sex, language, religion, political or other opinion, national, ethnic or social origin, disability, property, birth or other status or condition. Section 28 (1) provides for the right of every person to acquire property alone or in association with others and forbids arbitrary deprivation of property except on certain lawful grounds. In terms of section 38, every person is guaranteed the right to assemble and demonstrate with others peacefully and unarmed. The Constitution has more unique provisions which are relevant to the CBNRM such as section 30 on the Right to development. In terms of section 30 (1) all persons and peoples have a right to development and therefore to the enjoyment of economic, social, cultural and political development. Also, section 37 guarantees access to information to everyone while section 26 provides for the right of every person shall have the right to use the language and to participate in the cultural life of his or her choice.

The significance of the provisions dealing with development and culture is that it relates to the core agitations of the communities which often deploy the CBNRM approach. Hence, the provisions are useful in advancing and protecting their concerns around development and culture.

5.2 Customary Land Act, 2016

Customary land shall consist of— (a) land within the boundaries of a Traditional Land Management Area other than Government or reserved land; (b) land designated as customary land under the Land Act, 2016; (c) land, the boundaries of which have been demarcated as customary land under any written law or administrative procedure in force at any time before this Act came into operation whether that demarcation has been formally approved or published in the gazette; and (d) land, the boundaries of which have been agreed upon by a land committee claiming jurisdiction over that land. The Commissioner shall issue a certificate of customary land in the name of a Traditional Authority, in the prescribed form, for every Traditional Land Management Area. The Act provides for administration of customary land in a Traditional Land Management Areas and the division of such areas.

Part III concerns transfer of any customary land in a Traditional Land Management Area to Government or reservation of land for public interest. Part IV empowers the Minister to declare any customary land in a land Traditional Land Management Area to be hazardous land, i.e. land the development of which is likely to pose danger to life or to lead to the degradation of, or environmental destruction on, that or contiguous land. Hazardous land may be compulsorily acquired by the Minister for protection purposes. A customary estate shall be allocated by a land committee to citizens of Malawi or juridical persons, but the majority of its members or shareholders must be citizens of Malawi. A customary estate shall be - (a) of indefinite duration; (b) inheritable, and transmissible by will; (c) subject to any conditions set out in this Act. The Act sets out the procedure of grant of customary estate and provides with respect to surrender or abandonment of estates. Any person who is aggrieved by a determination of a land committee may, within

thirty days of the publication of the adjudication record and demarcation map, appeal to a customary land tribunal established for each Traditional Land Management Area under this Act. A person who is aggrieved by a decision of a customary land tribunal may appeal to a district land tribunal established under this Act. An appeal from a district land tribunal shall lie to the Central Land Board established under this Act.

5.3 Environment Management Act (EMA), 1998

This Act concerns the conservation and management of the environment in Malawi and prescribes environmental standards. It also concerns the conservation and management of biological (genetic) resources. The Act consists of 119 sections divided into 17 Parts, covering main areas of environmental concern as follows: Preliminary (I); General principles (II); the Environment Protection Authority (III); Other Institutional Arrangements for Environmental Management (IV); Environmental Planning (V); Environmental and Social Impact Assessment, Audits and Monitoring (VI); Environmental Standards (VII); Management Of The Environment and Natural Resources (VIII); Pollution control (IX); Biological and Genetic Resources (X); Environmental Protection Orders and Environmental Easements (XI); Inspection, analysis and records (XII); Financial Provisions (XIII); Environmental Fund (XIV); Offences (XV); Dispute Settlement (XVI); Miscellaneous provisions (XVII).

Part II defines for all persons environmental obligations and the right to a clean and healthy environment. Part III establishes the Malawi Environment Protection Authority ("Authority") and defines its functions and powers. It shall be the principal agency for the protection and management of the environment and sustainable utilization of natural resources. For purposes of management of the environment under this oversight Act, the Authority shall oversee the following institutions and authorities- (a) lead agencies; (b) advisory committees; (c) District Environment Sub-Committees, and (d) Local Environment and Natural Resources Committee. The Authority may in the performance of its functions under this Act delegate any of those functions to a lead agency, relevant advisory committee or any other public officer under this Act; the functions when so delegated and performed shall be deemed always to have been performed by the Authority. Functions of these authorities are defined.

The Authority shall prepare and publish a National Environment Action Plan under Part V. This Plan shall take into account District Environment Action Plans (made pursuant to this Act) be approved by Cabinet.

The Minister may, on the recommendation of the Authority, specify, by notice published in the Gazette, the type and size of a project which shall not be implemented unless an Environmental and Social Impact Assessment is carried out. The Authority shall, in consultation with such lead agency as it may consider appropriate, carry out or cause to be carried out periodic environmental audits of any project for purposes of enforcing the provisions of this Act and carry out, in consultation with the lead agency environmental monitoring.

The Authority may in liaison with relevant lead agencies, prescribe different environmental quality standards to apply in different areas of Malawi with respect to different segments

of the environment and the Authority may from time to time vary the standards. Rules for the establishment of standards for air, water, effluent, soil, radiation and nuisance are included. The Authority shall also, in liaison with relevant lead agencies, issue guidelines and prescribe measures for the use and management of rivers and lakes and guidelines and prescribe measures for the recognition and protection of traditional and indigenous interests and rights of local communities customarily resident within or around a lake basin, wetland or river basin or forest and shall provide with respect to the protection of river banks and lake shores (Part VIII). Provision is also made in this Part for the protection of wetlands, natural heritage sites and mountainous areas, (hazardous) waste management and control and management of factors affecting climate change

5.4 Fisheries Conservation Management Act, 1997

This Act provides rules relative to the conservation and management of the fisheries of Malawi. There shall be appointed an officer to be designated as the Director of Fisheries who shall be responsible for the conservation of fish stocks; the assessment of fish stocks and the collection of statistics, the development and management of fisheries; the monitoring, control and surveillance of fishing operations, the regulation and control of fishing operations, including aquaculture and operations ancillary thereto, etc. The same article also designates fisheries protection officers. There is hereby established a board to be known as the Fisheries Advisory Board. The Board shall advise the Minister generally on the development, administration, conservation and management of the fisheries of Malawi and shall in particular consider and advise on fisheries management plans and reviews of the plans prepared by the Director prior to the submission of such plans or reviewed plans to the Minister. The purpose of this Part III is to provide for local community participation in conservation and management of fisheries in Malawi. For proper management of fisheries, the Director may enter into a fisheries management agreement with any local fisheries management authority providing for: a) management plan; and b) assistance to be provided by the Department of Fisheries. Part IV makes provision for registration of local registrable fishing vessels. "Local fishing vessel" is defined in section 2. Part V concerns fishing by foreign fishing vessels. No foreign fishing vessels shall be used for commercial fishing in the fishing waters unless the owner or charterer thereof is authorized to fish by a licence granted under Part VI of this Act. Section 13 provides for notification of fish on board by foreign fishing vessels entering fishing waters. Part VI concerns granting of fishing licences to foreign vessels, stowage of gear, and transshipment and export of fish. Part VII makes provision in respect of special fishing. Part VIII concerns aquaculture. There is hereby established a fund to be known as the Fisheries Fund (sect. 22). The remaining provision of the Act deal with enforcement (Part X), prohibitions and offences (XI), court proceedings, administrative proceedings and penalties (XII), international cooperation in fisheries (XIII), and miscellaneous matters (XIV). (63 sections)

5.5 Council of National Herbarium and Botanic Gardens of Malawi Act

This Act provides for the development and management of herbarium and botanic matters. Section 15 states that the Council for National Herbarium and Botanic Gardens of Malawi shall establish a center responsible for assemblage, growth and classification of plants, and further, develop the botanic garden. The public shall have access to

herbarium and any land in control of the Council for the purposes of learning and enjoyment of the resources collected.

5.6 Water Resources Act, 2013

The objectives of the Act are - (a) to promote the rational management and use of the water resources of Malawi through - (i) the progressive introduction and application of appropriate standards and techniques for the investigation, use, control, protection, management and administration of water resources; (ii) the regulation of all public and private activities which may influence the quality, quantity, distribution, use or management of water resources; (iii) the coordination, allocation and delegation of responsibilities among Ministers and public authorities for the investigation, use, control, protection, management or administration of water resources; (b) to allow for the orderly development and use of water resources for all purposes including domestic use, the watering of stock, irrigation and agriculture, industrial, commercial and mining uses, the generation of hydroelectric or geothermal energy, navigation, fishing, preservation of flora and fauna and recreation in ways which minimize harmful effects to the environment; and (c) to control pollution and to promote the safe storage, treatment, discharge and disposal of waste and effluents which may pollute water or otherwise harm the environment and human health.

MOZAMBIQUE



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Mozambique is a south-east African country with a long coastline bordering the Indian Ocean. Its neighbours are the United Republic of Tanzania, Malawi, Zambia, Zimbabwe, South Africa and Eswatini. 154

In Mozambique CBNRM are embodied by the Tchuma Tchato (Our Wealth) initiatives which was influenced by the Zimbabwe CAMPFIRE Programme and the ADMADE programme in Zambia. The first experiences came from the Tchuma Chato project in west-central Mozambique and the Chipanje Chetu project in Niassa Province in the far

¹⁵⁴ M Newitt A Short History of Mozambique (Oxford University Press 2017)

¹⁵⁵ E Filimão & L Namantha 'Tchuma Tchato: an evolving experience of community-based natural resource management in Mozambique' https://www.fao.org/3/x7760b/X7760B19.pdf

northern part of the country. 156 Tchuma Tchato originated in the early 1990s and it was aimed at resolving conflict between people in the community and a safari operator who was given a government hunting enterprise on communal. 157 The government did not give the community any land or resource rights but gained a share in proceeds from the hunting. The implementation of Tchuma Tchato influenced later CBNRM policy development and provided several lessons for policy planners. Perceptions of the positive impacts of CBNRM initiatives elsewhere in southern Africa, particularly neighbouring Zimbabwe's CAMPFIRE programme, were critical to the emergence of CBNRM in Mozambique. 158 CBNRM was perceived as a pragmatic approach for providing local people with environmentally sound and economically sustainable alternatives to destructive land use; a strategy to promote forest and wildlife conservation; and a form of local democratic governance. 159 CBNRM was formally recognized by the government through provisions of protection of community rights to land and natural resources, in the Land Law (1997) and in the Forestry and Wildlife Law (1999).CBNRM has been incorporated into the national Forestry and Wildlife Policy of 1999 as a specific strategy. In terms of the Forestry and Wildlife Law the private sector, communities or community members are also able to exploit forestry resources by obtaining a license or a concession in forests designated "productive" or "multiple use". 160

2. FOOD SECURITY & HUMAN RIGHTS

The prevalence of food insecurity in Mozambique is alarming, despite progress made during the 2010s.¹⁶¹ In the past, there were episodes of food riots in Mozambique.¹⁶² For the current period (November 2021 to March 2022), which coincides with the lean season, approximately 1.9 million people are estimated to be in high levels of acute food insecurity in the urban and rural areas of Mozambique that were analysed and are in need of humanitarian assistance. Of these, 71% (1.32 million people) are in the four provinces of Cabo Delgado, Niassa, Nampula and Zambézia, where many of the country's Internally Displaced Persons (IDPs) are concentrated. One district of Tete (Changara), one of

¹⁵⁶ S Anstey 'Governance, natural resources and complex adaptive systems: A CBNRM study of communities and resources in northern Mozambique', in V. Dzingirai & C. Breen (eds) *Confronting the Crisis in Community Conservation: Case Studies from Southern Africa* (University of KwaZulu-Natal, South Africa 2005)

¹⁵⁷ H Suich 'Evaluating the Household Level Outcomes of Community Based Natural Resource Management: the Tchuma Tchato Project and Kwandu Conservancy' (2013) 18(4) *Ecology and Society* 1

¹⁵⁸ B Jones, T Lidimba, and G Espada 'Co-management Governance and Legal Frameworks for Community Conservation Areas in Mozambique' (SPEED+)https://www.biofund.org.mz/wp-content/uploads/2021/02/1612705992-SPEED+020-R20-Final%20draft%20SPEED+%20Co-management%20governance%20and%20legal%20framework%20FINAL%20english.pdf

¹⁵⁹A Salomão and F Matose 'Towards Community-based Forest Management of Miombo Woodlands in Mozambique', Centre for International Forestry Research, Bogor, Indonesia 2007 www.cifor.cgiar.org/miombo/docs/CBNRMMozambique1207.pdf

¹⁶⁰ J Schafer 'The State and Community-based Natural Resource Management: The Case of the Moribane Forest Reserve, Mozambique' (2002) 28(2) *Journal of Southern African Studies* 401-420

¹⁶¹ C Matavel *et al.* 'Understanding the drivers of food security among agriculture-based households in Gurué District, Central Mozambique' (2022) 11 *Agric & Food Secur* 7

¹⁶² Food riots: "Predictable crisis, unprepared governments" - UN expert Food riots: ""Predictable crisis" 07 September 2010 https://www.ohchr.org/en/press-releases/2010/09/food-riots-predictable-crisis-unprepared-governments-un-expert

Manica (Tambara) and three of Gaza (Chibuto, Mabalane and Guijá) are classified in the IPC report as experiencing food crisis.¹⁶³

The main causes of food insecurity in the current period include the armed conflict in Cabo Delgado province – which the government estimated displaced nearly 820,000 people – shortage of rainfall or irregular rains in parts of Nampula, Tete, Manica, Gaza, Inhambane and Maputo provinces. In this period, the following districts are considered to be receiving significant food aid according to IPC criteria: Mueda, Montepuez, Pemba City, Ibo, Ancuabe and Metuge. Historically, a number of projects linked to CBNRM model aids food security in Mozambique. For instance, the focus of the Tchuma Tchato project was to ensure community participation in resource management while getting tangible benefits from resources utilization. The main resource is wildlife from trophy hunting but also to some extent fisheries from taxation of artisanal fishing and tourism accommodation. In national analyses Macossa in Manica Province is always classified as a vulnerable district where 80% of the territory of the district has been handed over to "hunting concessions".

The Niassa Special Reserve (NSR) in northern Mozambique is one of Africa's largest, wildest landscapes. It harbors the largest intact miombo woodland and some of Mozambique's most significant population of lions, elephants, leopards, and wild dogs. The NSR is also home to 40,000 people, who depend on its natural resources for their livelihoods. ¹⁶⁷The NSR is under significant threat from ivory poachers, illegal loggers. miners and fishers as well as violent extremist criminal networks. With USAID support. since 2015, the NSR has greatly expanded anti-poaching and surveillance efforts. 168 A 20-year co-management agreement between the National Administration for Conservation Areas (ANAC) and the Wildlife Conservation Society (WCS) was signed in 2020, establishing a management committee that includes communities and wildlifemanagement concession operators. 169 The developments have effects on food security of communities around the reserve. Some communities including the Mangalane community receives an annual hunting quota for subsistence use. This was done through the understanding of the extent of poverty and household food insecurity worsened by periodic droughts that undermine subsistence farming. 170 Hence, studies show that there is a need to develop a national food policy that is sustainable and people-centred. 171

¹⁶³ IPC 'Mozambique: Food Security Snapshot | November 2021 - September 2022'

https://reliefweb.int/report/mozambique/mozambique-food-security-snapshot-november-2021-september-2022#:~:text=For%20the%20current%20period%20(November,in%20need%20of%20humanitarian%20assistance.

¹⁶⁴ European Commission 'Mozambique: Acute Food Insecurity Situation' November 2021 - March 2022

¹⁶⁵ Jones, Lidimba and Espad (n158) 51

^{166 &#}x27;Mozambique Food Security Issues' PAPERhttps://cdn.odi.org/media/documents/5617.pdf

¹⁶⁷ USAID 'Environmental Security and Resilience in Northern Mozambique (USAID ECOSMART-2)'

https://www.usaid.gov/mozambique/documents/usaid-environmental-security-and-resilience-northern-mozambique-usaid-ecosmart

¹⁶⁸ As above

¹⁶⁹ Protecting wildlife by linking communities in Mozambique Current initiative Published October 2018 https://www.peoplenotpoaching.org/protecting-wildlife-linking-communities-mozambique

¹⁷¹ "Mozambique Needs an Inclusive and Sustainable Food Policy", OMR

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

It was reported that one of the challenges which faced the implementation of the Tchuma Tchato project is climate change. 172 The climatically driven increase in fire frequency and intensity was projected to reduce aboveground woody biomass and the mean tree size in the Miombo woodland in Mozambique. 173 Authors also predicted that the future warming and CO₂ increase will significantly affect woody plants in the Miombo woodland, and lead to future fire. 174 The agriculture sector in Mozambique, being largely driven by smallholder farmers, is the primary livelihood basis for 80% of the population and contributes to the overall national economy with approximately 31.5% of the Gross Domestic Product (GDP).¹⁷⁵ The majority of sectors, particularly agriculture, food security, and water resources, are strongly impacted by variations in temperature and precipitation. These variations are causing socio-economic impacts in Mozambique and are likely to be an additional challenge for the country to achieve various sustainable development goals and other national targets. 176 Flooding, heavy rains, and droughts can contribute to losses in crop yields which may exacerbate the high chronic malnutrition level (44 percent) in Mozambique. Sea level rise also poses a threat to food production as it can lead to saline intrusion of agricultural lands along the coast. 177 Drought is also the critical climate factor affecting livestock production in Mozambique, as 90% of the cattle reared in the country is found in the arid and semi-arid zones of the provinces of Tete. Gaza. Inhambane and Maputo which have annual rainfall of less than 600mm. 178 As most wildlife species, which are water dependent, have emigrated and thus access to wildlife to supplement household incomes has also been affected. 179 Also, Mozambique has been hit by cyclones, Tropical Cyclone Idai and Cyclone Kenneth. Combined, the two cyclones led to loss of lives and wildlife. 180 In particular, the areas affected by the cyclones are significant for ecological and biodiversity considering their varied and threatened ecosystems and habitats. These include: the Zambezi River Delta and the system of wetlands and floodplains which shield 67% of total river discharge in Mozambique;

programmes/climate_change/publications/WorkingPaper6Mozambique.pdf

^{21/03/2022} https://360 mozambique.com/development/mozambique-needs-an-inclusive-and-sustainable-food-policy-omr/

¹⁷² OMR (n 171) 141

¹⁷³ MS Saito et al 'Fire regimes and variability in aboveground woody biomass in miombo woodland' (2014) 119. *Journal of Geophysical Research: Biogeosciences* 1014–1029.

¹⁷⁴ A Kapuka & T Hlásny 'Climate change impacts on ecosystems and adaptation options in nine countries in southern Africa: What do we know?' (2021) *ESA Open Access Journal*

¹⁷⁵ R Hunter et al *Problems and Solutions for Climate Change Resilience and Adaptation in Mozambique: State of Adaptation Knowledge, Policies and Practices to support Conservation Agriculture* (Universidade Eduardo Mondlane: Maputo, Mozambique, 2011)

¹⁷⁶ AF Mavume et al 'Analysis of Climate Change Projections for Mozambique under the Representative Concentration Pathways' (2021) 12(5) *Atmosphere* 588

¹⁷⁷ 'USAID Climate Change Adaptation in Mozambique'

https://www.climatelinks.org/sites/default/files/asset/document/mozambique_adaptation_fact_sheet_feb2012.pdf

178 'Climate Learning for African Agriculture' Working Paper No.6 Climate Learning for African Agriculture: The Case of Mozambique Verona Parkinson https://www.nri.org/images/documents/development-

¹⁷⁹ AU Guenh 'Towards Understanding the Impact of Community-Based Natural Resource Management on Household Livelihoods: A Case Study of the Combomune Community Project' Mozambique, University of KwaZulu-Natal 2010)

¹⁸⁰ IFRC 'Displacement in a Changing Climate: Localized humanitarian action at the forefront of the climate crisis' (2021) v.

Miombo woodlands and forests, which form part of the largest dryland forest ecosystem in the world.¹⁸¹

4. SUSTAINABLE USE OF WILDLIFE AS CLIMATE ADAPTATION & MITIGATION

Adaptive conservation strategies were proposed to halt the anticipated decline in range suitability for the African Wild Dog in Mozambique. 182 The strategies include enhancing protected areas and connectivity, reducing or removing existing stressors, and in some cases, relocation and ex situ conservation measure. 183 Practices in the CBNRM project among the Combomune community show that grazing areas are interchangeable according to the season and rainfall pattern within and between seasons for adaptive purpose. Members of community are involved in fire management, a program using controlled fires as a management tool in managing natural forests. Unplanned fires are destructive to forest and living organisms. 184 Other examples on adaptation includes conservation agriculture involving (i) minimum tillage; ii) maintenance of soil surface cover; and iii) intercropping in Mozambique. 185 Engaging with existing governmental agencies, such as the National Administration for Conservation Areas and the Wildlife Conservation Society, as well as with nongovernmental organizations in Mozambique, such as the Niassa Carnivore Project, allow for the development of strategies to work with hunting groups to target only mature individuals and reduced the number of immature lions harvested. 186

5. LEGAL AND POLICY ENVIRONMENT

5.1 Constitution of Mozambique, 2004

Section 35 of the Constitution affirms the principle of universality of rights by which all citizens are equal before the law, and they shall enjoy the same rights and be subject to the same duties, regardless of colour, race, sex, ethnic origin, place of birth, religion, level of education, social position, the marital status of their parents, their profession or their political preference. Section 36 establishes the principle of equality between men and women in all spheres of political, economic, social and cultural life. The right to life is guaranteed under section 40. In terms of section 45, everyone with the duty to protect and conserve the environment, while section 81 provides for the right to engage in popular action, either individually or in group. The right embodies a number of actions including the right to advocate for judicial prosecutions of offences against environmental

Society 25.

¹⁸¹ 'Mozambique Cyclone Idai Post Disaster Needs Assessment' https://www.ilo.org/wcmsp5/groups/public/---ed emp/documents/publication/wcms 704473.pdf152

¹⁸²M Jones, LD Bertola and O Razgour 'Predicting the effect of interspecific competition on habitat suitability for the endangered African wild dog under future climate and land cover changes' (2016) 27 *Hystrix*1–8.

¹⁸³ J McDonald et al 'Rethinking legal objectives for climate-adaptive conservation' (2016) 21(2) *Ecology and*

AU Guenha 'Towards Understanding the Impact of Community-Based Natural Resource Management on Household Livelihoods: A Case Study of the Combomune Community Project, Mozambique' Submitted in partial fulfillment of the requirements for the degree of Master of Agriculture University of Kwazulu Natal 2010
 UNDP 'Problems and Solutions for Climate Change Resilience and Adaptation in Mozambique' 2017

¹⁸⁶ CM Begg et al. 'Effective Implementation of Age Restrictions Increases Selectivity of Sport Hunting of the African Lion' (2018) 55 *Journal of Applied Ecology* 144-145

conservation and cultural heritage. Chapter 5 of the Constitution generally deals with socio and cultural rights duties. In particular, section 82 guarantees the right of ownership of property but permits expropriation on the grounds of public necessity, utility, or interest. The right to health and housing are guaranteed under sections 89 and 91 respectively. Section 91(2) confers on the state the responsibility for 'funding and supporting the initiatives of the local communities, the local authorities and the people, in order to promote private and co-operative construction as well the accessibility of home ownership'. Section 90 when read with section 117 provides a right to live in an environment that is balanced and further imposes everyone with a duty defend and protect the environment. It further poses an obligation to the local authority and the state to establish polices aimed at environmental conservation and protection and promotion of sustainable use of natural resources. However, section 98 on state property and public domain provides that 'natural resources in the soil and the subsoil, in inland waters, in the territorial sea, on the continental shelf and in the exclusive economic zone shall be the property of the State' It further defines the resources as including nature conservation zones.

While the provisions dealing with environment and conservation and suitable use of natural resources are quite unique in that they reinforce the CBRNM approach towards sustainability, section 98 is worrying as it clearly undermines the right of local communities to ownership of the resources. It may be used in undermining their access to benefit from those resources

5.2 Act No. 20/97 approving the Environment Act

The act sets out requirements to acquire the right to exploit the environment and the impact assessment conditions for avoiding environmental disasters. Section 4 provides for environmental principle in which it notes that environmental management is essential for the realisation of the peoples' right to a healthy environment. These principles include recognition of contribution of local communities in the conservation and preservation of natural resources and the environment and the participation of citizens as an fundamental element for the implementation of the National programme on Environmental management. Section 7 provides for the establishment of a local authority responsible for the implementation of the Act at a local level. Section 8 imposes a duty on the state to promote public participation in the implementation of environmental management policies and programmes.

5.3 Law No. 16/2014 on Protection, Conservation and Sustainable Use of Biodiversity

The aim of the Act is to advance and sustain the economic, cultural and scientific importance of forest and wildlife resources of the Country. Section 2 of the law empowers the state to administer conservation in a participative way, by establishing appropriate mechanisms for the participation of public, private and community entities. The Gorongosa National Park, Limpopo National Park, Maputo Reserve, Marine Partial Reserve of Ponta de D'ouro and Niassa Reserve are examples of Conservation Areas managed through Public and Private Partnerships (PPPs). NGOs are also encouraged to manage Conservation Areas. One of the biggest additions in this law was the inclusion of

Community Conservation Areas (CCA), which resonate with the colonial 'indigenous reserves' classification; these were lands to be managed by the indigenous people through their customary laws. Contrary to colonial indigenous reserves, now, legally speaking, communities own the rights to make use of conservation areas with a legal protection to secure land and can decide what exploration activities they want or not in these areas in cooperation with public and private actors (PPCPs). Additionally, the law opens room for the communities to lease or sublease their lands. Section 31 provides for local community to participate in local resource management councils for the purposes of protection, conservation and sustainable use of forest and wildlife resources

5.4 The Forests and Wildlife Strategy and Development Policy, 1997

The main objectives of the policy are biodiversity conservation, conservation of fragile ecosystems and combating poverty. The main principles for its implementation are generation of economics and social benefits of current and future generations, involvement of people dependent on resources in the planning and sustainable use of such resources and conservation of the resource base, including biological diversity.

5.5 The Environmental Policy, 1995

The Policy is the overarching document on environmental management and its overall objective is to improve the health and quality of life and promote sustainable social and economic development through sound management and use of natural resources and the environment. The Policy lays down the principles for its implementation which include the principle of sustainable utilization or resources, the polluter pays principle, public participation, benefits to local communities and recognition of traditional knowledge in the management of the environment. This policy calls broadly for the need of protecting the environment and for responsibility to compensate for environmental damages but does not directly address wildlife crime.

5.6 The Conservation Policy and Implementation Strategy, 2009

The Strategy focuses specifically on conservation areas. The main objective of this policy is to create a conducive environment for the protection of wildlife and their habitats through sound management of the national system of protected areas, which includes the protected areas network, institutional setup and protected areas financing mechanisms. The development of the CPIS was guided by the principles of ecological patrimony, sovereignty, participation of citizens in the management and benefits, environmental responsibility and international cooperation.

NAMIBIA



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Namibia is located in the south-western part of Africa and has an area of 824292 km². It shares its borders with Angola in the north (1376 km), Zambia in the northeast (233 km), Botswana in the east (1360 km), South Africa in the southeast and south (855 km) and the Atlantic Coast in the west (1572 km). Namibia's very sparse population density is explained by its harsh climate and above all by its extreme dryness. The country has two deserts- the Namib in the west and the Kalahari in the east- and median annual rainfall in the extreme south and west is below 50mm. Namibia history has thus been characterized by cycles of drought, and agricultural has only been possible in more fertile northern

¹⁸⁷ 'Nambia Geography' https://www.info-namibia.com/info/namibias-geography

areas. This climatic condition has affected the current settlement pattern, most densely populated areas in the north, which has been home to large communities.¹⁸⁸

CBNRM is essentially a grassroots programme in Namibia. With Independence in 1990 and a commitment to democratic government, changes in wildlife policy and legislation took place which gave communal residents the same rights and conditional ownership over wildlife as commercial farmers ¹⁸⁹These rights are given to communal area residents who form a conservancy. In order to form a conservancy, a community needs to define its membership, its physical boundaries, elect a representative committee, agree on a plan for the equitable distribution of benefits and adopt a legally recognised constitution. ¹⁹⁰ Once a conservancy is registered by government it receives conditional ownership over huntable game (kudu, springbok, oryx, warthog, buffalo and bushpig), and use rights over other species through a permit system. ¹⁹¹ A communal area conservancy can register as a hunting farm in order to gain rights to trophy hunting and the legislation gives a conservancy right to tourism activities on its land. Namibia has the strongest policy and legal framework in southern Africa that devolves authority over wildlife and tourism directly to community-level institutions. ¹⁹²

2. FOOD SECURITY & HUMAN RIGHTS

The CBNRM Programme has uplifted many rural communities, but only a limited number of San have benefited from it. San enjoys limited access to hunt and gather with certain restrictions, but only a part of their diet is obtained through these subsistence strategies. For example, when records were taken for 17 months for one village in the Nyae Nyae Conservancy, 19% of subsistence income in calories was obtained from hunting, 9% from gathering, 1% from gardening, 34% from store bought foods (purchased with pension money, income from sale of crafts, or wages), and 37% from government rations. Despite the very limited access to land, the San Study found that bushfood remains a significant contributor to the San household diet, albeit to varying degrees. Gathering such food is seen as both a cultural practice and a way of supplementing

¹⁸⁸ M Wallace & J Kinhan *A History of Namibia: from the Beginning to 1990* (Oxford University Press 2011)

¹⁸⁹Ministry of Environment and Tourism of the Republic of Namibia 'Promotion of community-based tourism' Windhoek, Namibia: Eva Schiffer Namibia 1995

¹⁹⁰ BTB Jones 'Community management of natural resources in Namibia' http://the-

eis.com/elibrary/sites/default/files/downloads/literature/Community%20management%20of%20natural%20resources %20in%20Namibia Eng.pdf

¹⁹¹ BTB Jonesa and AW Mosimane 'Empowering Communities to manage natural resources: Where does the new power lie? Case Studies from Namibia' (CIFOR 2000)

¹⁹² J Grobler 'It pays, but does it stay? Hunting in Namibia's community conservation system' Mongabay Series: Indigenous Peoples and Conservation 2019.

¹⁹³ J Anaya Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya The situation of indigenous peoples in Namibia 2013

¹⁹⁴ 'The Status of Food Security and Nutrition of San Communities in Southern Africa' https://www.researchgate.net/profile/Ute-

Dieckmann/publication/343628289_The_Status_of_Food_Security_and_Nutrition_of_San_Communities_in_Southern_Africa/links/5f350444299bf13404be866e/The-Status-of-Food-Security-and-Nutrition-of-San-Communities-in-Southern-Africa.pdf 13

¹⁹⁵ U Dieckmann et al (eds.) *Scraping the Pot: San in Namibia Two Decades After Independence* (Land Environment and Development Project of the Legal Assistance Centre and Desert Research Foundation of Namibia, Windhoek Namibia 2014)

insufficient and irregular food supplies.¹⁹⁶ However, most San groups now have very limited access to bushfood, as most of them live in settlements and on resettlement farms on commercial land, in urban areas, in areas adjacent to small-scale farms, or on communal land where land is shared with cattle farmers from other ethnic groups and where access to land can be further impeded by the erection of illegal fences. ¹⁹⁷

Generally, conservation and the wellbeing and options of communities associated with CBRNM have been positively impacted by the approach. For instance, Lion populations in Namibia have recovered where communities established communal conservancies. Scientists attribute Namibia's successes to clearly defined user rights over wildlife, the involvement of local communities in wildlife management decisions, and the fact that all earnings from wildlife on communal lands accrue to the local communities. They estimate that lions hunted on conservancies in Namibia generate considerable income for the participating communities. Participating conservancies worked with tourist operators—who employed members from the local communities—to provide opportunities for wildlife viewing and hunting. 99 A good case study is seen below:

Namibia and International Trophy Hunting

Observers consider Namibia to be a model for regulating trophy hunting while promoting species conservation. In Namibia, conservative quotas for hunting individual animals are set to promote the conservation and sustainability of the populations. Further, Namibia closely monitors hunts and maintains an accurate database on hunted trophies. Some contend that Namibia's use of conservancies has promoted cooperation among hunting outfits and local communities; community conservancies cover over 12 million hectares in Namibia and extend the conservation benefits of national parks and wildlife corridors. Some observers have noted that community conservancies have benefited communities, reduced poaching, and, in some cases, led to the partial recovery of some wildlife populations. For example, the zebra (*Equus zembra hartmannae*) population has increased from levels lower than 1,000 specimens in 1980 to more than 27,000 specimens in the mid-1990s due to management efforts by conservancies. In Namibia, trophy-hunting revenues contributed to the economic viability of 77 communal conservancies. Trophy hunting provided economic benefits to the communities more quickly than tourism activities (trophy hunting provided benefits within three years of being implemented, whereas tourism provided benefits after six years).

Another example is found among the Khwe (San) community from Bwabwata National Park in Namibia, who through their resident CBNRM called Kyaramacan Association receives and disburses yearly profits of over I million Namibian dollars funds from trophy

¹⁹⁶ As above

¹⁹⁷ As above

¹⁹⁸ F Nelson, PA Lindsey and G Balme 'Trophy Hunting and Lion Conservation: A Question of Governance?' (2013) 47(4) *Oryx*, 501-509;

¹⁹⁹ R Naidoo et al. 'Complementary benefits of tourism and hunting to communal conservancies in Namibia' (2016) 30 *Conservation Biology* 628–38

²⁰⁰ R Barnett & C Patterson 'Sport Hunting in the Southern African Development Community (SADC) Region: An Overview' TRAFFIC East/Southern Africa: Johannesburg, South Africa, 2006

and tourism concessions to improve their livelihood. Due to land dispossession, however, San communities have lost their food security; they have become economically dependent on other ethnic groups and government food aid, they have experienced a loss of dignity, disruption of their social fabric, and degradation of their environment by intruders with large cattle herds; and, in sum, they remain a marginalized population.²⁰¹ San who live and work on commercial farms have no rights to such land at all, and although there is no freehold title over communal land anywhere in Namibia, San working for communal farmers generally have no secure user rights over this land either. Therefore. San whose farm employment ceases have no land to call their own, and usually end up in informal settlements in towns in the vicinity, or with family on resettlement projects (many of which are already overpopulated).202 Most of the San in urban areas have no tenure security and are living in informal settlements where residents (San and other) are regularly threatened with eviction. The Special Rapporteur on the Rights of Indigenous Peoples commented in this regard noting that 'San typically face significant economic and social marginalization, competing for limited lands and resources with majority and dominant groups, and have a high level of dependency on the dominant tribes or Government for basic services and food'. 203

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

Climate change has become a chronic challenge that is slowly changing the very nature of its landscape and threatening the way of life of local communities. This is primarily for two reasons. First, Namibia has been experiencing increasingly erratic climate variability, 204 which has demonstrated trends of hotter temperatures and diminishing precipitation in what was already the driest country in sub-Saharan Africa. 205 Second, as with much of the rest of the African continent, over 60 per cent of Namibians rely on the land considerably for their livelihoods. Therefore, climate variations not only trigger acute disasters but also recurrently limit people's ability to feed themselves or access water. 206

For instance, recurring droughts have made the keeping of livestock more challenging and hampered the traditional way of life of the Himba in the Kunene region.²⁰⁷ Episodes of droughts also affect adversely wildlife. This confluence of rivers attracts tourism, as both the lodge and the campsites overlook this area and, during the dry season, when water runs short elsewhere, elephants, giraffes, oryx, kudu and other wildlife can usually be seen for the pleasure of tourists and the benefit of locals. Owing to the drought, however, the tourism operators are often unsure where the local elephant population is,

²⁰¹ Report of the African Commission's Working Group of Experts on Indigenous Populations/Communities (2005) (Working Group Report), adopted by the African Commission at its 28th ordinary session 93

²⁰² As above

²⁰³ Anaya (n 193)

²⁰⁴ CA Terton 'A Review of Current and Planned Adaptation Action in Namibia [Internet]. International Development Research Centre, Ottawa, Canada and UK Aid, London, United Kingdom. London; 2016. (CARIAA Working Paper).
²⁰⁵ K Tjitemisa 'President declares state of emergency over drought. New Era' https://neweralive.na/posts/president-declares-state-of-emergency-over-drought

²⁰⁶ As above

²⁰⁷ S Lendelvo et al 'Towards the Reduction of Vulnerabilities and Risks of Climate Change in the Community-Based Tourism, Namibia' (2018) 2 *Intech Open* 64.

as they do not know where there is water available nearby for wildlife.²⁰⁸ This has become a major part of the ongoing struggle in Namibia, as riverbeds are key to life there. It is where communities can get much of their water, where wildlife spends much time, where farmers water livestock, and an important – and at times treacherous – component of transportation in the country. This is further corroborated by a UN Food and Agriculture Organisation report that shows that, as of the first quarter of 2020,²⁰⁹ 'over 59,000 livestock have died due to the ongoing drought situation in Namibia, disrupting the livelihoods of those dependent on livestock and related farming enterprises.²¹⁰ In all, climate change affects tourism and associated livelihood in Namibia.²¹¹

4. SUSTAINABLE USE OF WILDLIFE AS CLIMATE ADAPTATION & MITIGATION

The flora and fauna of Namibia have all adapted over thousands of years to the harsh landscape in Namibia and as a result much of the country has developed around the realities of water scarcity at the best of times. CBNRM program is helping populations adapt to meet these challenges. To encourage conservation in the face of protracted droughts and water insecurity. CBNRM, promoted the development of local institutional governance capacities that have enabled communities to diversify the use of incomes derived from tourism, investing in other activities including shops, restaurants, food takeaways, cultural museums, and the sale of a plethora of artisanal products and crafts. CBNRM and ecotourism activities have not replaced farming but have simply supplemented it as the two are designed to work synergistically and to complement one another.²¹² Revenues from these joint ventures were used to build and maintain even more tourist facilities, and train and pay game guards (also hired from the communal group) who monitor wildlife and human activities on the conservancies. These endeavors have been extremely successful.:²¹³ In these ways while CBNRM was not created strictly to help with climate change mitigation and adaptation. ²¹⁴ it aids adaptation by reducing the economic vulnerability of communities to climate change. Wildlife populations also rebounded: for example, Namibia's elephant population increased from 7,500 to 20,000.215

5. LEGAL AND POLICY FRAMEWORK

²⁰⁸ A Heffernan 'Accounting for Climate Change in Community Based Natural Resource Management: Reflections on Wildlife Conservation in Namibia' (2022) *Journal of Southern African Studies* https://www.tandfonline.com/doi/full/10.1080/03057070.2022.2065803

²⁰⁹ FAO 'FAO Kick Starts the "Emergency Livelihood Support to Drought-Affected Communities in Namibia" Project', FAO Namibia Newsletter (2020) 2

²¹⁰ Heffernan (n 208)

²¹¹C Keja-Kaereho & BR Tjizu 'Climate change and global warming in Namibia: Environmental disasters vs. human life and the economy' (2019) 5 *Management and Economics Research Journal* 1

²¹² A Hefferman 'Natural Resource Management as Climate Adaptation Community-Based Natural Resource Management and Global Climate Change in Namibia 'Apr 8 2020 https://www.e-ir.info/pdf/82690

NACSO (Namibian Association of CBNRM Support Organisations) The state of community conservation in
 Namibia—A review of communal conservancies, community forests and other CBNRM initiatives (Windhoek: NACSO 2015).http://www.nacso.org.na/sites/default/files/2014-15_SoCC-Report.pdf
 Hefferman 2020 (n 212)

²¹⁵ N Störmer et al 'Investigating the effects of community-based conservation on attitudes towards wildlife in Namibia'(2019) 233 *Biological Conservation* 193–200.

5.1 The Namibian Constitution, 1990 with Amendments through 2010

There are civil and political rights provisions in the Namibian Constitution dealing with right to life (section 6), respect for human dignity (section 8(1), and equality and freedom from discrimination notwithstanding a person's sex, race, colour, ethnic origin, religion, creed or social or economic status (section 10). It is important that these provisions nonderogable as it does provide for non-violability of human dignity and prohibits courts from imposing a sentence of death on any person. These provisions are useful in strengthening local populations often involved in CBNRM in their resistance and struggle against exclusion and suppression of State. Section 19 guarantees that every person shall be entitled to enjoy, practice, profess, maintain and promote any culture, language, tradition or religion subject to the terms of the Constitution and the condition that the protected rights do not impinge upon the rights of others or the national interest. This provision looks promising to protect populations who are distinct in their culture Section 16 provides for the protection of property and confers on anyone the right to access and acquire property and further gives such people the right to control over their property. It further provides for compensation in instances where the state expropriates a property belonging to another. Section 95 (I) provides an obligation to state to develop policies that promotes maintenance of ecosystems and utilisation of natural resources in a sustainable way for the benefit of all peoples of Namibia. Section 16 read with section 95(1) are indeed significant in that they give communities the right not only to acquire land and any other property that is necessary for the implementation of the CBNRN approach, but also to sustainably maintain and use natural resources. This is strengthened by section 100 which provides that limitation of a constitutional right should not negate its essence nor aim at a particular person or be vague in nature.

However, the enjoyment of the rights related to property and sustainable use of natural resources by communities may clash with section 100 of the Constitution which affirms that the State enjoins the status of sovereign ownership of natural resources, land, water and natural resources below and above the surface of the land and in the continental shelf and within the territorial waters and the exclusive economic zone of Namibia shall belong to the State if they are not otherwise lawfully owned.

5.2 Nature Conservation Ordinance, 1975

The Act makes provision for the conservation and management of wildlife and regulates fishing in inland waters. The text consists of 91 sections divided into 7 Chapters and completed by 9 Schedules. The Chapters are the following: Preliminary (I); Game Parks and Nature Reserves (II); Wild animals (III); problem animals (IV); Fish in inland waters (V); Indigenous plants (VI); general (VII). The Nature Conservation Board shall be continued under section 3. The Cabinet may appoint Nature Conservators under section 79. Section 21 sets out the powers of the Executive Committee of the Board in relation to hunting, seasons, etc. The executive Committee may define boundaries of lagoons under section 65 included in Chapter V. Other provisions of Chapter V concern the keeping of fish (section 66), angling (sections 67 to 69), use of explosives, etc (section 70), and offences (section 71)

5.3 Nature Conservation Amendment Act, 1996

The Nature Conservation Amendment Act, 1996 (Act 5 of 1996) amends the Nature Conservation Ordinance so that residents of communal areas can gain the same rights over wildlife and tourism as commercial farmers. Instead of fencing and the size of the farm as conditions for gaining ownership over huntable game and the right to use other species, the Nature Conservation Amendment Act sets the formation of a conservancy as the condition upon which ownership and use rights over game are given to communal area residents. The Act puts into effect the MET's policy on Wildlife Management, Utilisation and Tourism on Communal land. According to the Act any group of persons residing on communal land may apply to the Minister of Environment and Tourism to have the area they inhabit or part of that area declared a conservancy. The Minister will declare a conservancy in the Government Gazette if: (i) the community applying has elected a representative committee and supplied the names of the committee members (ii)the community has agreed upon a legal constitution, which provides for the sustainable management and utilisation of game in the conservancy (iii) the conservancy committee has the ability to manage funds (iv) the conservancy committee has an approved method for the equitable distribution to members of the community of benefits derived from the consumptive and non-consumptive use of game in the conservancy.(v) the community has defined the boundaries of the geographic area of the conservancy (vi)the area concerned is not subject to any lease or is not a proclaimed game reserve or nature reserve.

Once a conservancy has been declared in the Government Gazette the Act gives the conservancy committee, on behalf of the community in the conservancy, "rights and duties" with regard to the consumptive and non-consumptive use and sustainable management of game "in order to enable the members of such community to derive benefits from such use and management" .The Act then confers on a conservancy committee the same rights, privileges, duties and obligations that the Nature Conservation Ordinance confers on a commercial farmer. The Act makes it clear that provisions in the Ordinance concerning fencing and the size of the land will not apply to a conservancy. The rights over wildlife conferred on a conservancy committee are for the ownership (and therefore use for own purposes) of huntable game (oryx, springbok, kudu, warthog, buffalo and bushpig), the capture and sale of game, hunting and culling, and the right to apply for permits for the use of protected and specially protected game. If a conservancy applies to become designated as a 'hunting farm', trophy hunting (including of protected and specially protected game) can take place on the conservancy.

The Nature Conservation Ordinance does not specifically deal with tourism. However, the Nature Conservation Amendment Act of 1996 gives conservancies rights over non-consumptive utilisation of game. The definition of non-consumptive utilisation contained in the Act includes use for "recreational, educational, cultural, or aesthetic purposes". Conservancies thus acquire rights over non-consumptive uses normally associated with tourism. This is intended, as far as possible within the powers of the Nature Conservation Ordinance, to give conservancies a concessionary right over commercial tourism activities within the conservancy.

The Nature Conservation Amendment Act, 1996, also makes provision for communal area residents who do not form conservancies to benefit indirectly from wildlife, through

the formation of Wildlife Councils. A Wildlife Council is established by the Minister after consulting with a local community or communities on communal land. The area covered by a Wildlife Council may not include any conservancy, any land subject to a lease or any proclaimed game park or nature reserve. A Wildlife Council will gain the same rights, and obligations concerning consumptive and non-consumptive use of wildlife as a conservancy.

Nature Conservation Amendment Act, 1996 (No. 5 of 1996) amends various sections of the principal Act and inserts a new section (24A) on conservancies amend Wildlife Councils. A group of persons residing on communal land may apply to the Minister to declare their land a conservancy. The group of persons shall constitute a conservancy committee and comply with all requirements set out in section 24A. The Minister may, after consultation with a community residing on communal land, establish a Wildlife Council for that area. Such area shall not include any conservancy, any land subject to lease, or any proclaimed game park or nature reserve.

5.4 Environmental Management Act, 2007

The Act is set out to promote the sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment; to establish the Sustainable Development Advisory Council; to provide for the appointment of the Environmental Commissioner and environmental officers; to provide for a process of assessment and control of activities which may have significant effects on the environment; and to provide for incidental matters .The Act focuses on the protection of the environment and provides measures for the realisation of sustainable development in the Country. Section 3 sets out principles of environmental management which includes encouragement of community participation in natural resource management and benefit sharing from the use of the resources. It further provides for promotion of equitable access to natural resources and means must be put in place to ensure sustainability of environmental management systems.

5.5 Controlled Wildlife Products and Trade Act, 2008 and Revised National Strategy on Wildlife Protection and Law Enforcement

The Act aims to give effect to the Convention on International Trade in Endangered Species of Wild Fauna and Flora by providing regulations and mechanisms for implementing the Convention. The policy on wildlife protection and law enforcement aims to provide policy directives and framework to targeted at achieving protection and conservation of wildlife. It further aspires to provide strategies and programmes focused on wildlife protection and law enforcement. The objectives of the policy are to ensure protection of wildlife, especially threatened species and to promote law enforcement and provide capacity for wildlife protection and conservation. To initiate community based natural resource management for advancement of wildlife protection. section 5 of the policy provides environmental protection principles in which principle 4 acknowledges the

need for cooperation and support of local communities in order to protect wildlife resources efficiently.

5.6 Access to Biological and Genetic Resources and Associated Traditional Knowledge Act 2, 2017

The Act does not only regulate genetic resources, it applies to biological resources and the protection of the rights of local populations over such resources. It defines 'biological resources', to include organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity; while its provision on 'bioprospecting' largely captures exploratory activities of commercial value. It defines "associated traditional knowledge" as "the accumulated individual or collective knowledge, practices, innovations or technologies associated with biological and genetic resources which is created or developed over generations by local communities, vital for conservation, sustainable utilisation of biological and genetic resources and of socioeconomic value'.

5.7 Policy on Wildlife, Management, Utilisation and Tourism in Communal Areas

The objectives of the policy are as follows: A To establish ... an economically based system for the management and utilisation of wildlife and other renewable living resources on communal land so that rural communities can: i) participate on a partnership basis with this (MET) and other Ministries in the management of, and benefits from, natural resources; ii) benefit from rural development based on wildlife, tourism and other natural resource management; iii) improve the conservation of natural resources by wise and sustainable resource management and the protection of biodiversity. B. To redress the past discriminatory policies and practices which gave substantial rights over wildlife to commercial farmers, but which ignored communal farmers. C. To amend the Nature Conservation Ordinance (4 of 1975) so that the same principles that govern rights to wildlife utilisation on commercial land are extended to communal land. D. To allow rural communities on state land to undertake tourism ventures, and to enter into co-operative agreements with commercial tourism organisations to develop tourism activities on state land.

5.8 Policy on the establishment of Conservancies, 1992

The main objective of this policy is to establish conservancies on communal and commercial land. This is targeted at farmers and communities for the purposes of promoting sustainable natural resource management on their land

5.9 Amendment of Regulations Relating to Nature Conservation, 1996

In order to give more precise definition to certain issues relating to the formation of conservancies and Wildlife Councils, the MET introduced new Regulations to accompany the Nature Conservation Amendment Act, 1996. The new regulations require a

conservancy committee to provide a register containing the names, identification numbers and addresses of the members of the community to be represented by the committee. The new regulations also specify certain issues which must be covered by the Conservancy Constitution: (i) the objectives of the conservancy, including the sustainable management and utilisation of game within the conservancy in accordance with a game management and utilisation plan, and the equitable distribution of the benefits derived therefrom (ii) the procedure for election and removal of members of the conservancy committee (iii) the powers and responsibilities of the conservancy committee, including powers to enter into agreements relating to consumptive and nonconsumptive use of game (iv) provisions relating to the holding of meetings of the committee, annual and ordinary meetings of the conservancy and the recording of proceedings of these meetings (v) the criteria and procedure for being recognised as a member of the conservancy, provided that no-one may be excluded on the grounds of ethnicity or gender (vi) the rights and obligations of members of the conservancy (vii) the procedure for members of the conservancy to decide on the policy to be followed by the conservancy committee in the equitable distribution of benefits (viii) provision for the management of the conservancy's finances, including the appointment of a suitably qualified person to act as treasurer, the keeping of proper accounts, and the opening of a bank account in the name of the conservancy (ix) a procedure for dispute resolution (x) a procedure for the amendment of the constitution (xi) any other issues the conservancy may wish to include in its constitution The regulations also provide more detail about the establishment of Wildlife Councils. In order to form a Wildlife Council, the Minister must hold a meeting to inform the community concerned and to consult the community about the functions and objectives of the proposed Wildlife Council. In order to hold such a meeting, the Minister must give notice of the meeting at the Office of the Regional Council, and in one newspaper circulating in the area in question. The Minister may establish a Wildlife Council if he or she is satisfied that the community, together with a Wildlife Council, has the ability to manage and utilise in a sustainable manner the game in the area covered by the council. Wildlife Councils will be composed of: a) the governor of the region in which the Wildlife Council has been established, or the governor's nominee b) two staff members in the Ministry of Environment and Tourism designated by the Minister c) five other members appointed by the Minister, of whom one shall be nominated by the traditional authority for the area in which the wildlife council has been established, and of whom four shall be persons nominated by members of the community for which the council has been established. The regulations also provide for regular meetings of the council, and the procedure at these meetings. The regulations state that the Minister will determine how moneys received by a Wildlife Council will be spent, and that no funds of the council, except for operational costs, may be expended or distributed without the Minister's approval

5.10 Promotion of Community Based Tourism Policy

The MET policy on the promotion of community based tourism was approved in 1995. It provides a framework for ensuring that local communities have access to opportunities in tourism development and are able to share in the benefits of tourism activities that take place on their land. The policy recognises that where tourism is linked to wildlife and wild landscapes, the benefits to local communities can provide important incentives for

conservation of these resources. The policy recognises that in the past, local communities have had little control over tourism activities on their land and little access to direct benefits from tourism. In order to redress this a programme of action included in the policy document states that MET will give recognised communal area conservancies the concessionary rights to lodge development within the conservancy boundaries.

SOUTH AFRICA



1. COUNTRY BRIEF DESCRIPTION & CBNRM

The Republic of South Africa occupies the southernmost part of the African continent. Covering a land area of over 470 000 square miles. It has a coastline of 2,954 kilometers (1,836 miles), with the cold Atlantic Ocean on the west coast and the Indian Ocean on

the east coast.²¹⁶ With its arable lands,²¹⁷ its major cities,²¹⁸ its ports,²¹⁹ industries,²²⁰ and developed communication systems,²²¹ South Africa is also the economic hub and powerhouse of southern Africa.²²² South Africa was the last African country to be freed from minority white domination and there was introduction of multiracial democracy on April 27, 1994.²²³ There is a diverse ethnic group namely Zulu, Xhosa, Ndebele, Swati, Sotho, Pedi, Tswana, Tsonga, Venda and Whites.²²⁴

CBNRM is traceable to a new era of park management which began when South Africa became a democracy in 1994. Earlier, apartheid laws prevented rural communities from accessing areas where they could collect firewood, medicinal plants and graze their livestock. However, the land restitution process saw black people claiming ownership of land, which falls within protected areas. Successful land claims presented new economic opportunities for the claimants who had been moved away from their land. The shift affected the approaches towards conservation and development in South Africa, which led to various people and parks type projects and other forms of CBNRM programmes.²²⁵

Following broader democratic changes, the board of South Africa's parastatal for protected areas – South African National Parks ('SANParks') – created a 'Social Ecology' Department in order to improve community relations for promoting conservation and development. Community Forums were set up so staff could engage residents' concerns over wildlife incursions, livelihood priorities and environmental problems. ²²⁶ The prospect of fulfilling these efforts proved difficult, however, with initiatives falling beyond the parastatal's legal jurisdiction and financial budget, prompting policy shifts and downsizing. Community 'development' became 'facilitating'. ²²⁷ Soon the department's financial insecurity led it to outsource services and facilities to private businesses, particularly tourism companies. With livelihood support and education failing to generate immediate returns, the park's new policies and DEAT's (Department of Economic Development, Environment and Tourism) poverty relief funding, supported private sector investment at Kruger and the Great Limpopo Transfrontier Park (GLTP). ²²⁸ Although criticised as forging the neoliberal turn in CBNRM for both projects, foreign donors also saw value in

²¹⁶ Nations Encyclopedia 'South Africa' https://www.nationsencyclopedia.com/economies/Africa/South-Africa.html

²¹⁸ S Galal 'Largest cities in South Africa' 2021 https://www.statista.com/statistics/1127496/largest-cities-in-south-africa/

²¹⁹ S Sinha '7 Major Ports of South Africa' 2021, *Marine Insight*, https://www.marineinsight.com/know-more/ports-of-south-africa/

²²⁰ 'SA's key economic sectors' https://brandsouthafrica.com/economic-sectors-agricultural

²²¹ South African Government 'Communications' https://www.gov.za/about-sa/communications

²²² P Hans et al 'Agricultural Land Redistribution: Toward Greater Consensus' (2009)

²²³ South Africa History Online 'Freedom Day: 27 April' https://www.sahistory.org.za/article/freedom-day-27-april ²²⁴ 'Statistica 'Distribution of languages spoken by individuals inside and outside of households in South Africa' 2018 https://www.statista.com/statistics/1114302/distribution-of-languages-spoken-inside-and-outside-of-households-insouth-africa/

²²⁵ Department Forestry Fisheries and Environment 'South African history of conservation' https://www.dffe.gov.za/projectsprogrammes/peopleparks/southafrican conservationhistory

²²⁶ K Moore and L Masuku van Damme 'The Evolution of Peoples and Parks Relationships. Kruger National Park, Pretoria, South Africa' (2002) 69

²²⁷ Moore & Masuku van Damme (n 226) 70

²²⁸ S Turner & S. Meer 'Conservation by the people in South Africa: Findings from the TRANSFORM monitoring and evaluation' Research Report no. 7 (1999).

using commercial ventures to strengthen the unit's conservation and development agenda²²⁹. The GTZ funded project 'TRANSFORM', for example, aimed to support sustainable resource use and income generating opportunities with the Makuleke people of northern Limpopo.²³⁰

2. FOOD SECURITY & HUMAN RIGHTS

According to the General Household Survey 2022, the percentage of households that had limited access to food increased from 17,8% in 2019 to 20,6% in 2020. Simultaneously, the percentage of persons with more limited access to food increased from 19,5% in 2019 to 22,8% in 2020.²³¹ The situation of the ‡Khomani in the Southern Kalahari and the !Xun and Khwe in Platfontein near Kimberley, described in detail below, will show that, by and large, both communities are highly food insecure. It needs to be seen if the policy and its implementation will assist them to become less food insecure. Though improved food assistance networks might decrease their food insecurity, they might increase the dependency by the two communities and not address the underlying issues of their food insecurity and malnutrition.²³² In the subsequent paragraphs, the two cases will be dealt with separately, because the historical and present context as well as the living conditions differ a lot.²³³

Since colonisation of Southern Africa commenced in 1652, the San people of South Africa have experienced colonial violence, ethnocide and dispossession. By the beginning of the 20th century the remaining San in South Africa were to be found in the drought-prone areas of the Northern Cape. 234 The San, who are nowadays known as ‡Khomani, are the descendants of the various Bushmen groups that inhabited the southern Kalahari during the 1900s. 235 In 1931, the Kalahari Gemsbok National Park (KGNP) was established on land which had been used by different San groups, Coloured and White populations. San who were employed in the park were given a small income, basic commodities including clothing and were allowed to hunt and gather in the Park. Those not employed were driven out and forced to become cheap farm labourers. The successful ‡Khomani land claim was celebrated as a great San victory in Southern Africa. 236 However, as Puckett has noted, "the cultural revival, socioeconomic development, and political empowerment that many believed would be part of the ‡Khomani land-claim victory have yet to materialize in full" (Puckett 2018). 237 The Special Rapporteur on the Rights of Indigenous Peoples,

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²²⁹ C Fabricius 'A Social Ecology Policy for South African National Parks. DANCED and SANParks' (Rhodes University 2001)

²³⁰W Dressler & B Buscher 'Market triumphalism and the CBNRM 'crises at the South African section of the Great Limpopo Transfrontier' (2007) xxx–xxx

²³¹Statistical Release 'P0318 General Household Survey' (2020) 52

U Dieckmann 'The Status of Food Security and Nutrition of San Communities in Southern Africa' (2019) 39
 Dieckmann (n 232) 38

²³⁴ S Robins, E Madzudzo and M Brenzinger 'Assessment of the Status of the San in South Africa,

Angola, Zambia and Zimbabwe' (Legal Assistance Centre, Windhoek 2001)
²³⁵ J Grant 'Rural development in practice? The experience of the ‡Khomani Bushmen in the

Northern Cape, South Africa' PhD Thesis, University of Edinburgh. 2011
²³⁶ L Jansen 'South Africa' in P Jacquelin-Andersen (ed.) *Indigenous World* (IWGIA, Copenhage 2018) 521–526.

²³⁷ F Puckett 'The Space to Be Themselves' : Confronting the Mismatch Between South Africa's

Rudolpho Stavenhagen stated in 2005, after his visit to South Africa, that the ‡Khomani were probably among the poorest and most marginalized indigenous communities in the country and that their situation required priority attention.²³⁸ What gets evident from the studies is that the granting of land rights did not significantly improve the livelihoods and food security of the ‡Khomani for more than a decade at least and sustainable success is still to be achieved.²³⁹

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

Studies on climate change and livestock show worrying results given that farmers experiencing water challenges may reach their adaptive limits in livestock if climate change remains severe. ²⁴⁰ Earlier predictions show that a +2. 50 C to +50 C temperature increase over the current levels is likely to wipe out cattle or beef farms and shrink drastically sheep farms in Southern Africa region. Climate change has projected impacts on the yield of various agricultural crops and on the productivity of rangeland. ²⁴¹

In South Africa, climate change has exposed more species of wildlife into extinction, up to 66 per cent of the 179 species on Kruger National Park will be lost due to climate change. It is predicted that between 15-35 per cent of species in their sample would be at risk of extinction. Thomas et al. predict that between 15-35 per cent of species in their sample would be at risk of extinction.²⁴² The South African National Biodiversity Agency further predicted and warned that this phenomenon could kill of 59% of mammals, 40% of birds, 70% of butterflies, 80% of other invertebrates and 45% of reptiles. This statistic is alarming and extremely worrying. For the Kruger National Park, it means change will come too fast for many species to adapt. 243 South African animals depend on the savannah biome which makes up almost half of the country's land surface area. Desertification has affected these natural habitats of an array of animals, forcing them to move to other areas. Wild dogs will be affected by rising temperatures; the hunting abilities of cheetahs and lions may also be impacted. The impacts of climate change in South Africa place savannah biomes at high risk of desertification which will have adverse consequences on wildlife.²⁴⁴ At Northern Cape, report shows that withered vegetation and parched ground are a serious concern for the wildlife sector where species of tourism attraction are being lost due to drought.²⁴⁵ Also, it has been mentioned that the Kruger

Land Reform Laws and Traditional San Social Organization among the ?Khomani' in F Puckett. & K Ikeya (eds.) *Research and activism among the Kalahari San today: Ideals, challenges, and Debates (* National Museum of Ethnology, Osaka 2018) 283–342.

²³⁸ R Stavenhagen 'Human rights and indigenous issues Report of the Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people', Rodolfo Stavenhagen Addendum Mission to South Africa (2005)

²³⁹ Dierkman (n 232) 40

²⁴⁰ As above

²⁴¹ H Winkler & G Midgley 'Economic impacts of climate change in South Africa: a preliminary analysis of unmitigated damage costs' (Southern Waters Ecological Research & Consulting and Energy & Development Research Centre 2002).

²⁴² CD Thomas et al 'Extinction risk from climate change'. (2004) 427 Nature 145–148

²⁴³ Wild Life College 'Climate Predictions' https://wildlifecollege.org.za/climate-predictions/

²⁴⁴ T Johnson-Dollie 'Setting sights on South African animals: climate change and wildlife'

https://www.bushwise.co.za/blog/setting-sights-on-south-african-animals-climate-change-and-wildlife/

²⁴⁵ O Ngcuka & T Heiberg 'Years of drought threaten South Africa's wildlife industry' https://www.reuters.com/article/us-climate-change-safrica-wildlife-idUSKBN1Z50WY

National Park will be adversely impacted by climate change.²⁴⁶ This development will affect sustainable use of these resources by communities involved in the CBNRM approach.

4. SUSTAINABLE USE OF WILDLIFE AS CLIMATE ADAPTATION & MITIGATION

Farmers who are vulnerable to climate change have undertaken various adjustments to able to adapt for example small- and large-scale farmers have moved production from one form of cropping to more drought resistant varieties or shifted from cattle or beef Communities are being advised to integrate livestock with wildlife or by having mixed production to sheep farming in dry areas or goats and chickens in wet areas.²⁴⁷ species of livestock or generally changing land use from livestock to wildlife use as a way of adapting to climate change.²⁴⁸ To reduce the environmental, social and economic vulnerability to the increased incidence of wildfires associated with climate change effects, a biome-scale change in the fire management approach from reactive fire-fighting to proactive integrated fire management (IFM), including managing the ecosystem through conrolled burns is under consideration.²⁴⁹ Also, the removal of fences to create corridors or expand wildlife areas is crucial.²⁵⁰ Larger wildlife areas that expand suitable habitat for the 'big five' and other wide-ranging species (such as African wild dogs, Lycaon pictus) may enhance tourism attractiveness and improve profitability of ecotourism.²⁵¹ Amalgamation of contiguous wildlife enterprises to allow larger patches of continuous habitat for wild animals is also useful. 252

In terms of climate mitigation, *Bioenergy and Carbon Capture with Storage (BECCS)* involves the growing or collection and the processing of biomass for conversion to heat, electricity or liquid or gas fuels, capturing the resulting carbon, and storing it underground or in long-lasting products.²⁵³ While the e implementation of BECCS in South Africa is uncertain despite its potential, ²⁵⁴ because it will require conversion of substantial area of land which have been wrongly classified as abandoned and marginal, ²⁵⁵ Grain sorghum and soya beans have been recommended as the feedstocks for the manufacture of

²⁴⁶ 'Kruger Park Stands to be Devastated by Climate Change' https://www.krugerpark.co.za/krugerpark-times-5-7-kruger-devastated-by-climate-change-24943.html

²⁴⁷ J Otieno & E Muchapondwa 'Agriculture and adaptation to climate change: The Role of wildlife ranching in South Africa' (2016) ERSA working paper 579

²⁴⁸ As above

²⁴⁹ 'UNDP Reducing Disaster Risks from Wildfire Hazards Associated with Climate Change in South Africa'https://www.adaptation-undp.org/projects/sccf-south-africa

²⁵⁰AC Blackmore 'Climate change and the ownership of game: A concern for fenced wildlife areas' (2020) 62(1) *Koedoe* a1594.

²⁵¹PA Lindsey et al 'Wildlife viewing preferences of visitors to protected areas in South Africa: Implications for the role of ecotourism in conservation' (2007) 6(1) *Journal of Ecotourism* 19–33.

²⁵² HI Melville, RS Hetem, WM Strauss 'ls climate change a concern for the ownership of game within fenced wildlife areas?' (2021) 63(1) *Koedoe* a1673.

²⁵³WCG Burns *The Paris Agreement and Climate Geoengineering Governance: The Need for a Human Rights-Based Component* 111, Centre for International Governance Innovation Papers 1 (2016) 16-17.

²⁵⁴ AO Jegede 'The Role of Human Rights in Implementing CDR Geoengineering Options in South Africa' in W Burns, D, Dana & SJ Nicholson (eds) *Climate Geoengineering: Science, Law and Governance*. AESS Interdisciplinary Environmental Studies and Sciences Series. Springer, 2021 Cham.

²⁵⁵ P Smith et al., Biophysical and Economic Limits to Negative CO₂ Emissions (2016) 6 Nature Climate Change 42.

bioethanol and biodiesel respectively.²⁵⁶ The two crops, in particular sorghum, gained favor because it is a drought-resistant and non-water intensive crop. While major concerns around its mass cultivation remain: water limitations, land degradation and the effects of large-scale production on food security and employment creation,²⁵⁷ BCCS as a climate mitigation can be empowering with the participation of communities involved in CBNRM in South Africa.

5. LEGAL AND POLICY ENVIRONMENT

5.1 The South African Constitution, 1996

Chapter 2 (the Bill of Rights) states that no person may be unfairly discriminated against. that people have the right to equality, and that everyone has the right to have their dignity respected and protected (sections 9 and 10). The right to life is guaranteed under section Every person has the right to a healthy and well-conserved 11 of the Constitution. environment. Section 24(a) provides for everyone the right to an environment that is not harmful to a person's health and well-being. Property rights are guaranteed under section 25 while section 32 guarantees the right to access to information. The lack of information relating to climate change and its negative consequences are a major obstacle in CBNRM. Section 38 allows for public interest-based litigation, signifying those actions can be initiated by anyone to enhance sustainable resource use in South Africa. The constitution also guarantees social-economic rights such as the right to adequate housing (section 26). In particular section 26(3) provides that no one may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances and that no legislation may permit arbitrary evictions. Section 27 deals with the rights to health care, food, water and social security. These are quite comprehensive socio-economic rights considering that they are often at the heart of the plight of local communities.

Section 31 can afford local and rural communities forbids the denial of the right of persons belonging to a cultural, religious or linguistic community, with other members of that community. They are allowed to enjoy their culture, practise their religion and use their language; and (h) to form, join and maintain rural, religious and linguistic associations and other organs of civil society. The right to access to information is guaranteed under section 37.

5.2 National Environmental Management Act 107, 1998 (NEMA)

Section 2(4) of the NEMA articulates a number of environmental management principles, which "apply throughout the Republic to the actions of all organs of State that may significantly affect the environment" (section 2(1)). Principles that could support indigenous and customary communities having a greater degree of control over their territories, areas, and natural resources include the following: (1) Sustainable

²⁵⁶ Department of Energy 'The Draft Position Paper on the South African Biofuels Regulatory Framework', No. 37232 (15 January 2014) 19.

²⁵⁷W Jonker et al. 'Implications of Biofuel Production in the Western Cape Province, South Africa: A System Dynamics Modelling Approach' (2017) 28(1) Journal of Energy in Southern Africa 1.

development requires that "the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied" (section 2(4)(a)(iii)). (11) Equitable access to environmental resources, benefits and services required to meet basic human needs and ensure human wellbeing must be pursued (section 2(4)(d)). (iii) The participation of all interested and affected parties in environmental governance must be promoted (section 2(4)(f)). (iv) Decisions must take into account the interests, needs, and values of all interested and affected parties, including recognising all forms of knowledge, including traditional and ordinary knowledge (section 2(4)(g))

5.3 the Restitution of Land Rights Act 22, 1994 (RLRA)

The Act was passed following the provision for the restitution of rights in land under the so-called "interim Constitution" of 1993. The RLRA established a Commission on Restitution of Land Rights as a body tasked to review applications for the restitution of rights in land, investigate the merits of such applications, and mediate and settle any disputes arising with a view to the expeditious finalisation of claims. The Richtersveld community's successful land claim under the RLRA is illustrative of the potential of this legislation to support indigenous communities in the self-determination of their resources. However, the Act's processes and criteria also appear to be used strategically to stall certain communities from controlling or benefiting from natural resources on their ancestral lands: In February 2014 the RLRA was amended by the Restitution of Land Rights Amendment Act 15 of 2014, an enactment that reopens the land claim process, allowing persons who failed to lodge claims before the previous cut-off date the opportunity to do so until 30 June 2019.

5.4 Interim Protection of Informal Land Rights Act 31, 1996 (IPILRA).

The IPILRA would have become permanent upon the entry into force of the Communal Land Rights Act 11 of 2004 (CLARA), which, amongst other objectives, provided for the democratic administration of communal land. The CLARA, however, was declared unconstitutional in the case of *Tongoane v Minister of Agriculture and Land Affairs* 2010 (6) SA 214 (CC), on the basis that the Bill was incorrectly tagged as a section 75 rather than a section 76 Bill. The CLARA had, however, been trenchantly criticised for failing to deal with the socio-political complexities of customary tenure, possibly rendering the tenure of some even more insecure than before.

5.5 The National Environmental Management: Biodiversity Act 10, 2004 (NEMBA)

The Act gives effect to the Convention on Biological Diversity's provisions on access and benefit sharing, in line with the NEMA principle of equitable access. Chapter 6 of this Act regulates bioprospecting of "indigenous biological resources". For purposes of the Act generally, "indigenous biological resources" is defined to mean any living or dead animal, plant, or other organism of an indigenous species, as well as any derivative or genetic material of such animal, plant or organism (section 1, NEMBA). For purposes of NEMBA's provisions on bioprospecting, access, and benefit sharing, the definition is broadened to

include indigenous biological resources gathered from the wild, or bred or cultivated in captivity; any "fertile version" of any indigenous species of any animal, plant, or organism (including cultivars, strains, hybrids, etc); exotic animals, plants, or other organisms to the extent that they have been altered by genetic material or a chemical compound found in any indigenous species (section 80(2), NEMBA). "Bioprospecting" is in turn defined as "any research on, or development or application of, indigenous biological resources for commercial or industrial exploitation" (section 1, NEMA). It specifically includes the bioprospector's search for, collection or gathering of indigenous biological resources, and the making of extractions of such resources for research, development, or application, as well as the use of information regarding any traditional uses of indigenous biological resources by "indigenous communities" and research on (as well as the application, development, or modification of) such uses for commercial or industrial exploitation

5.6. The National Water Act 36, 1998

It governs the protection, conservation, use, management, control, and development of the nation's water resources. This legislation was revolutionary in moving freshwater governance away from the riparian principle as a basis for the allocation of water resources, to an administrative system driven by the constitutional imperatives of ensuring equitable access to water resources and the protection of water resources to meet the basic needs of present and future generations. Sustainability and equity are thus identified as the central guiding principles of the Act. As is the case with mineral resources, the NWA essentially nationalises water resources, placing them in the public trusteeship of the national government, with the Minister of Water Affairs responsible for ensuring that water is used equitably and beneficially in the public interest while promoting environmental values (section 3, NWA). No natural or juristic person, including customary communities, therefore has any form of title or tenure over freshwater resources. In order to use freshwater resources it is necessary to fall within or have one of four different types of authorisation, namely a "Schedule 1" water use, an existing lawful water use, water use under a general authorisation, or a water use licence. Any entitlement to use water under any other law (which presumably includes customary law) falls away and is replaced by water use under these other forms of authorisation (section 4, NWA). Schedule 1 uses include many water uses that may have been governed by customary rules, such as the taking of water for reasonable domestic use in that person's household from any water resource to which that person has lawful access, or the taking of water on land owned or occupied by such persons for small, subsistence gardening or the watering of animals on that land (provided that they graze within the grazing capacity of the land).

5.7 The Marine Living Resources Act 18, 1998 (MLRA)

It regulates the subsistence and commercial fishing industry in South Africa. The Act has been amended once since its entry into force, and a new amendment is currently being considered (Marine Living Resources Amendment Bill, published as GN 434 Government Gazette 36413 of 25 April 2013). Like other transformation legislation, the MLRA articulates multiple, potentially conflicting objectives. At present the objectives include conserving marine living resources for present and future generations; protecting marine ecosystems as a whole; applying the precautionary approach to the management of marine ecosystems; preserving marine biodiversity; and preventing marine pollution; at

the same time as ensuring the "optimal" utilisation of marine living resources and the use of marine living resources to achieve economic growth, human resource development, employment creation, and the need to restructure the fishing industry (section 2, MLRA).

5.8 The Communal Property Associations Act 28, 1996

It allows recipients in land reform processes to jointly own land through Communal Property Associations (CPAs). But a ministerial memorandum has since halted the transfer of title deeds to CPAs in respect of land won through restitution and redistribution, ostensibly to pander to the sensitivities of traditional leaders who wish to maintain control over communally owned land.

5.9 National Environmental Management: Protected Areas Act 57, 2003

According to section 17 of NEMPAA, the purposes of the declaration of areas as protected areas include, amongst other things: Protecting ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes in a system of protected areas; (i) Preserving the ecological integrity of and biodiversity in those areas; (ii) Protecting areas representative of all ecosystems, habitats, and species naturally occurring in South Africa, but in particular, protecting South Africa's threatened or rare species, and protecting areas that are vulnerable or ecologically sensitive; (iii) Assisting in ensuring the sustained supply of environmental goods and services; (iv) Providing for the sustainable use of natural and biological resources; (v) Creating or augmenting destinations for nature-based tourism; (vi) Rehabilitating and restoring degraded ecosystems and promoting the recovery of endangered and vulnerable species; and (vii) Managing the interrelationship between natural environmental biodiversity, human settlement, and economic development. Consolidating prior protected areas laws, the NEMPAA recognises various types of protected areas, including: special nature reserves, national parks, nature reserves (including wilderness areas), World Heritage Sites, marine protected areas, specially protected forest areas, and mountain catchment areas (section 9, NEMPAA). It also provides for the declaration of protected environments to serve as a buffer zone for the protection of a special nature reserve, national park, World Heritage Site, or nature reserve, amongst other objectives (section 28(2), NEMPAA).

5.10 National Heritage Resources Act 25, 1999 (NHRA).

The national heritage comprises those resources which are of cultural significance or other special value for the present community or for future generations. These may include landscapes and natural features of cultural significance (section 3, NHRA). The NHRA provides for a three-tier system of heritage resources management: (i) National level functions, which are the responsibility of the South African Heritage Resources Agency; (ii) Provincial level functions, which are the responsibility of provincial heritage resources authorities; and (iii) Local level functions, which are the responsibility of local authorities (section 8, NHRA)

5.11 World Heritage Convention Act 49, 1999 (WHCA)

Tthe participation of all interested and affected parties in the governance of natural and cultural heritage must be promoted, and all people must have the opportunity to develop the understanding, skills, and capacity necessary for achieving equitable 35 ad effective participation (section 4(d), (e), WHCA). World Heritage Sites are managed by an Authority, which may be an existing organ of state, or a new authority appointed by the Minister responsible for Environmental Affairs. In theory, there is nothing to prevent a member of an indigenous people or local community being appointed as the Authority, as long as they are able to channel their authority through a juristic person. Representation of directly affected adjacent communities and affected adjacent tribal authorities on the boards of World Heritage Site Authorities is also specifically allowed (section 14, WHCA). One of South Africa's World Heritage Sites, the Richtersveld Cultural and Botanical Landscape, is managed by the local Nama community through the Richtersveld Community Conservancy (RCC). The idea for the site began as a concept paper in 1998, and the world heritage application process emerged together with the support of a number of international and local heritage agencies (specifically the Norwegian Agency for Development Cooperation and the Northern Cape Department of Arts and Culture). Planning for the protected area took place in terms of a broader Integrated Development Planning process for the region. A number of management plans were formulated, and in 2004 a management committee was elected. The RCC benefited from the support of the Department of Environmental Affairs and Tourism, which donated R6 million to the RCC to develop infrastructure and accommodation at the site in 2005. Research on the Nama community's involvement in the Richtersveld Community Conservancy, as regards free. prior and informed consent; full and effective participation; benefit-sharing; capacitybuilding; and respect for cultural and spiritual values, does not appear to have been conducted.

5.12 The Bioprospecting, Access and Benefit-Sharing Regulations (BABS Regulations)

These regulations provide for the further regulation of the permit system established in Chapter 7 of the NEMBA, insofar as it relates to bioprospecting, and sets out the criteria and requirements for concluding benefit-sharing and material transfer agreements. The BABS Regulations (Bioprospecting, Access and Benefit Sharing Regulations) further regulate the permit system, outlining the criteria and requirements for 43 benefit-sharing and material transfer agreements. These regulations provide that permits will be issued only to juristic persons registered in South Africa, natural persons insofar as they are South African citizens or have permanent residency. However, juristic or natural persons who do not meet these criteria may apply jointly with juristic or natural persons who do meet the criteria. In other words, foreign individuals, companies, and institutions cannot apply for a permit on their own; they must be affiliated with a South African citizen or institution. Applications for permits must be accompanied by signed benefit-sharing and material transfer agreements. These agreements must be approved by the Minister before a permit is issued. If the applicant was unable to secure these agreements, a request for the intervention of the Minister for the purposes of negotiating such agreements may be submitted. Model benefit-sharing and material transfer agreements have been included in the BABS Regulations with the purpose of assisting bioprospectors to conclude such agreements with communities and/or other stakeholders.

These model agreements set out the type of information required, as well as the level of detail that needs to be included in the agreements.

5.13 The National Environmental Management: Integrated Coastal Management Act (no. 24, 2008)

NEMICM applies to the coastal zone of South Africa and seeks to (a) determine the coastal zone of the Republic; (b) provide for the coordinated and integrated management of the coastal zone; (c) preserve, protect, extend, and enhance the status of coastal public property as being held in trust by the State on behalf of all South Africans, including future generations; (d) secure equitable access to the opportunities and benefits of coastal public property; and (e) give effect to the Republic's obligations in terms of international law regarding coastal management and the marine environment. The Act makes provision for the declaration of special management areas (section 23, NEMICM), where a special management area may be declared only if the area's environmental, cultural, or socio-economic conditions require measures to more effectively promote sustainable livelihoods for local communities.

5.14 The National Forestry Act 84, 1998 (NFA)

The NFA is intended to (a) promote the sustainable management and development of forests for the benefit of all; (b) create the conditions necessary to restructure forestry in State forests; (c) provide special measures for the protection of certain forests and trees; (d) promote the sustainable use of forests for environmental, economic, educational, recreational, cultural, health, and spiritual purposes; (e) promote community forestry; and (f) promote greater participation in all aspects of forestry and the forest products industry by persons disadvantaged by unfair discrimination. Part 3 of the NFA provides for communities wishing to engage in community forestry, allowing for community or individual forestry agreements with government, setting out the requirements and procedures to do this, and making provision for assistance, financial or otherwise, for such communities and individuals. Moreover, in the 1996 White Paper on Sustainable Forest Development, the Department of Water Affairs and Forestry aimed to redress past inequities and improve living conditions suffered by the rural poor by promoting sustainable forest development, underscoring participatory policy development and decision-making. To this end, the department has adopted a participatory forest management strategy that includes benefit-sharing and development projects, and a restitution programme to facilitate community ownership of forests

5.15 the Patents Act (no. 57, 1978)

This law has been amended to provide additional protection to traditional-knowledge holders with regards to knowledge associated with indigenous biological resources. The Patents Amendment Act 20 of 2005, which took effect in December 2007, is linked to the NEMBA in that it recognises traditional knowledge associated with indigenous biological resources as contemplated in the NEMBA, and requires patent applicants to disclose the origins of indigenous biological resources, whether or not traditional knowledge for their

use was obtained, and by whom. However, since the enactment of the Patents Amendment Act, there has been much debate among intellectual property lawyers and traditional knowledge experts over the appropriateness of using conventional intellectual property rights to protect traditional knowledge. South Africa is currently reviewing its intellectual property legislation, and has called for public comment and submissions for consideration

5.16 The Mineral and Petroleum Resources Development Act 28, 2002 (MPRDA)

The law entered into force in May 2004 and governs the prospecting for and mining of minerals and petroleum products in South Africa. The MPRDA is transformational legislation (Agri SA 2011) that places minerals at the centre of South Africa's developmental path. One of the most significant changes the MPRDA introduced was to institute the State as "custodian" of the nation's mineral resources, which are identified as the "common heritage of all the people of South Africa". Although the State is not the owner of mineral resources, in the view of many, the reform amounted to a nationalisation of mineral resources, coupled with an administrative system for the allocation of extractive rights (either "prospecting" or "mining"). Although the institution of the State as "custodian" of the nation's mineral resources was integral to the legislation's economic and social objectives, it has also had the effect of undercutting any claims on the part of communities living under customary law to minerals located on their lands. The first amendment of the MPRDA, Amendment Act 49 of 2008, (mostly) entered into force in June 2013, and another amending Act is currently being discussed in Parliament. The amendments do not alter the basic scheme set out in the existing MPRDA as regards the ownership of minerals. However, the definition of community has been tinkered with, as has the way in which communities are positioned in terms of the legislation's objectives. Amendment Act 49 of 2008, together with the NEMA Amendment Act 62 of 2008 have also repositioned evaluation of the environmental impacts of prospecting and mining under the jurisdiction of the NEMAadministered by the Department of Health; and the Consumer Protection Act 68 of 2008, administered by the Department of Trade and Industry.

5.17 Traditional and KhoiSan Leadership Act, 2019 (No. 3, 2019)

This Act makes provision with respect to traditional and Khoi-San communities in South Africa. It sets out the procedure and criteria for the recognition of traditional communities and leaders. A kingship or queenship, principal traditional community, traditional community, headmanship, headwomanship and Khoi-San community must transform and adapt customary law and customs relevant to the application of this Act so as to comply with the relevant principles contained in the Bill of Rights in the Constitution, in particular by— (a) preventing unfair discrimination; (b) promoting equality; and (c) seeking to progressively advance gender representation in the succession to traditional and Khoi-San leadership positions. The Act establishes the Commission on Khoi-San Matters. The Commission must investigate and make recommendations to the Minister on the recognition of Khoi-San communities and leaders

SWAZILAND



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Eswatini, officially Kingdom of Eswatini, Swati Umbuso weSwatini, previously called Kingdom of Swaziland, landlocked country in the eastern flank of South Africa, where it adjoins Mozambique. It extends about 110 miles (175 km) from north to south and about 80 miles (130 km) from west to east at its largest dimensions. The country is known for its game reserves, the Mlawula Nature Reserve and the Hlane Royal National Park with diverse wildlife including lions, hippos and elephants. Swaziland has a population of 1.4 million people (est. 2015), national capitals are Mbabane, and Lobamba. They are predominantly Nguni in language and culture, but there are also a mixer of Sotho and Tsonga people. They are predominantly Nguni in language and culture, but there are also a mixer of Sotho and Tsonga people.

Swaziland is participating in the regional Transfrontier Conservation and Resource Area (TFCA) and is working with neighbouring countries to declare and operationalize four trans-frontier parks – the Lubombo Conservancy-Goba TFCA, the Lubombo Nsubane-Pongola TFCA, Usuthu-Tembe-Futi TFCA and the Songimvelo-Malolotja TFCA. The TFCAs offer opportunities for community involvement and private sector participation which is critical in their design and implementation of initiatives.²⁶¹ The eastern Lubombo region in Swaziland has been identified as a Key Biodiversity Area in the Maputaland-Pondoland-Albany Hotspot. The threatened savanna ecosystems host high levels of biodiversity and endemism, including several species of cycad. The region has extensive tourism potential, with its beautiful mountain landscapes and big game viewing. The Lubombo area of Swaziland forms part of the Lubombo Transfrontier Conservation Area linking Swaziland, Mozambique and South Africa.²⁶² Currently, only 3.7% of the country is protected although this figure rises to 11.3% when considering areas that are not yet proclaimed but under conservation management and within TFCAs. The target is that by 2020 at least 11.5% of the total land area must be protected and at least 10% of each of country's major habitats/ecosystems must be under some protection.²⁶³Evidence of CBRNM also exists in forest management.²⁶⁴

2. FOOD SECURITY & HUMAN RIGHTS

Weather-related shocks, high disease incidents and socio-economic shocks compounded by poor GDP growth have continually driven the food security landscape in Eswatini. Over 183, 000 people (16% of the population) are estimated to be under the situation labelled by IPC as crisis while 14,000 are under IPC Phase tagged Emergency. During the projected period (October 2022 – March 2023), the number of people in IPC Phase 3 (Crisis) or above is expected to increase by an estimated 6%. This includes more than doubling the populations in IPC Phase 4 (Emergency) and an increase in the areas classified in IPC Phase (Crisis) to seven in the projection period. Lubombo Plateau has

²⁵⁸ 'Eswatini' https://www.britannica.com/place/Eswatini

²⁵⁹ 'Swaziland' https://www.nationsonline.org/oneworld/swaziland.htm

²⁶⁰ AR Booth 'Swaziland: Tradition and Change in a Southern African Kingdom'.

²⁶¹ 'Action Plan for Implementing the Convention on Biological Diversity's Programme of Work on Protected Areas https://www.cbd.int/doc/world/ws/ws-nbsap-powpa-en.pdf

²⁶² 'Case study: Eco-business planning Lubombo region, Swaziland' https://www.cepf.net/sites/default/files/15-2015_10_02-communityconservation-casestudy3-lubombo.pdf²⁶³ As above

²⁶⁴ SS Singwane 'Community Action in the Management of Community Forests in Swaziland: The case of Ngcayini and Ezikhotheni chiefdoms' (University of KwaZulu Natal, 2018).

the highest percentage of the population above IPC Phase 3 (Crisis) in both the current and projection periods with 30% and 35% respectively.²⁶⁵

Swazi VAC indicated that the poverty level is high in the rural areas of Swaziland, especially the Lubombo region, affecting food security negatively. ²⁶⁶ The USAID defined a lean season as the period where food is scarce while there is a high demand for food, with a consequent increase in food prices. ²⁶⁷ When the food prices spike, food insecurity increases significantly as the majority of vulnerable households find it difficult to afford food ²⁶⁸ Climate change effects have resulted in a change of livelihood for people living in the rural areas of Swaziland, especially the Lubombo region. Many households have since discontinued farming and are dependent on social interventions. During the 2018/2019 cropping season, the Lubombo farmers cultivated only 10% of their arable land, whereas 40% of the arable land had not been cultivated over the past ten years due to shortage of rain. ²⁶⁹ Households have resolved to stop farming because they waste a lot of money in farming inputs and do not get yields. ²⁷⁰ These have negative implications for the right to food in Swaziland.

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

Climate change is a major threat to biodiversity in Eswatini. It is predicted to cause reduced precipitation, sporadic rainfall patterns, increased temperatures, and increased drought frequencies. ²⁷¹According to Swaziland's State of Environment Report there is a decline in and extinction of wild animal species and populations and indigenous plant species. Approximately 25% of each of the terrestrial ecosystems has been lost to some form of other land use. A total of 4,280 km2 of biodiversity-rich ecosystems has been converted to industrial timber plantations, sugarcane plantations and urban areas. Aquatic water systems are under threat from agricultural development as wetlands are drained for development or are negatively affected by changes within their catchment. Also, overexploitation of plant genetic resources from wetlands and terrestrial habitat

²⁶⁵ 'Eswatini: IPC Acute Food Insecurity Analysis': June 2022 - March 2023

²⁶⁶ Swazi VAC (Swaziland Vulnerability Assessment Committee) 'Swaziland Annual Vulnerability Assessment & Analysis Report' (Kingdom of Swaziland 2017)

http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/2_Swazi%20VAC%

²⁰Annual%202017%20Report_Final.pdf

²⁶⁷ USAID (United States Agency for International Development). (2018). Food assistance fact sheet Swaziland

²⁶⁸ MW Cooper et al 'Text mining the food security literature reveals substantial spatial bias and thematic broadening over time' (2020) 26 *Global Food Security* 100392

²⁶⁹ WFP (World Food Programme). (2020). WFP Eswatini country brief.

https://docs.wfp.org/api/documents/WFP-0000118570/download

²⁷⁰ VC Mondlane 'Understanding the food insecurity of vulnerable households residing in Kalanga , Swaziland Submitted in fulfilment of the requirements in respect of the master's degree Master of Science majoring in Consumer Science in the Department of Consumer Science in the Faculty of Natural and Agricultural Sciences at the University of the Free State August 2020

²⁷¹ SA Sarkodie et al (Energy-climate-economy-population nexus: an empirical analysis in Kenya, Senegal, and Eswatini'(2020) 12(15) Sustainability 6202

poses a challenge to natural plant regeneration. These factors have resulted in diminishing resources and reducing the resilience of ecosystems.²⁷²

The main pressures on Swaziland's biodiversity include conversion of natural habitats to other land uses; invasion of habitats by alien species (with the country's protected areas not spared); rapid expansion of settlements and urbanization, including into biodiversity-rich areas; wild fires destroying ecosystems and altering habitats; climate change; overgrazing and the unsustainable use of natural resources.²⁷³ In addition to the ever-increasing poverty, particularly in the rural areas, population growth is resulting in the rapid degradation of Swaziland's biodiversity in a vicious cycle of declining availability. Illegal and uncontrolled hunting has resulted in the extermination of most Swaziland's vertebrates.²⁷⁴

The biodiversity of Eswatini is under direct threat, largely because of current anthropogenic factors such as land use change, animal resource exploitation and potential effects, wildfire associated with climate change. ²⁷⁵ The main anthropogenic land uses are agriculture (29.3%) and human settlements (13.6%). The largest section of agricultural land is subsistence farming and covers 15.9% of the proportional land cover of Eswatini, followed by forest plantations (8.2%) and sugarcane plantations (5.2%). These land uses typically utilise grassland and savannah habitat and have reduced natural habitat by ~34% and ~7% respectively. 276 The monoculture plantations have been reported to reduce floral and faunal biodiversity while natural forest habitat is also affected by subsistence farming in communities as tree cover has been reduced drastically.²⁷⁷. Communities have also had a substantial effect on animal resource exploitation.²⁷⁸ Based on survey data, about 20% of communities surrounding Hlane Royal National Park indicated that they are willing to engage in the poaching of priority species such as rhino.²⁷⁹ Although formal hunting permits are administered annually by Big Game Parks, illegal hunting is prevalent across Eswatini with antelope species being the main target.²⁸⁰ Wildlife is affected by these practices and consequently the lifestyle of communities depending on them for survival.

4. SUSTAINABLE USE OF WILDLIFE AS CLIMATE ADAPTATION & MITIGATION

A range of adaptive approaches are being followed to cope with climate change in Eswatini. A shift from traditional thatch roofing to modern roofing has been taken up as

²⁷² 'Eswatini - Main Details'https://www.cbd.int/countries/profile/?country=sz

²⁷³ As above

²⁷⁴ As above

²⁷⁵ KM Bailey et al 'Climate-driven adaptation, household capital, and nutritional outcomes among farmers in Eswatini.'(2019) 16(21) *International journal of environmental research and public health* 4063

²⁷⁶ A Manyatsi & S Singwane.'Land governance in Eswatini. Paper prepared for presentation at the 2019 Land Governance in Southern Africa Symposium" (Swaziland 2019)

²⁷⁷ WM Dlamini 'Analysis of deforestation patterns and drivers in Swaziland using efficient Bayesian multivariate classifiers' (2016) 2(4) *Modelling Earth Systems and Environment* 1-14 ²⁷⁸ EEA 2020

²⁷⁹ HS Mamba, TO Randhir, TK Fuller' Community attitudes and perceptions concerning rhinoceros poaching and conservation: A case study in Eswatini' (2020) 50(1) *African Journal of Wildlife Research* 1-7.

²⁸⁰ EEA

an adaptation action to address lightning and wildfire hazards and to preserve the ecosystem. ²⁸¹ To cope with droughts, some households through the support of NGOs, are diverting to small business or change farming practices as a measure of adaptation. In many cases, the new ventures include selling crafts and or chickens, supported by financial capital provided by organizations that intervened in anticipation of climatic changes. ²⁸² This shows that climate change is influencing behavior across scales. ²⁸³

Forests are ecological important in terms of increasing the carbon stock to curb climate change. Forests are very important in protecting water catchments especially through reducing the rate of evaporation and soil erosion. At Ezikhotheni and Ngcayini, community forests are being protected, a development that does not only serve as a climate mitigation measure but also important in the protection of catchments for the rivers traversing these areas. At Ezikhotheni, the catchments are for Ngwedze, Mhlakela, Mdakane and Magcabhakazi rivers. At Ngcayini, the catchments are for Lobanda, Mhlambanyoni, Bhudlweni and Mkhosana rivers. The waters are being used also for irrigation. Bhudlweni and Mkhosana rivers.

5. LEGAL AND POLCIY ENVIRONMENT

5.1 Constitution of Swaziland, 2005

The provisions of the Constitution related to the right to life (section 15), protection from inhuman and degrading treatment (section 18) are useful to the communities involved in the CBNRM as their activities may pitch them against state interests. Hence, it is useful in their resistance and struggle to hold that a person shall not be deprived of life intentionally save in the execution of the sentence of a court in respect of a criminal offence under the law of Swaziland of which that person has been convicted. Also, section 18(1) is necessary as it declares that the dignity of every person is inviolable. The interests around CBNRM related to land and natural resources can be generally guaranteed under section 19 (1) which allows a person to own property either alone or in association with others. The enjoyment of that right is, however, limited by certain conditions including public use. Section 20 deals with equality before the law in all spheres of political, economic, social and cultural life and forbids discrimination on the grounds of gender, race, colour, ethnic origin, tribe, birth, creed or religion, or social or economic standing, political opinion, age or disability. As an entity that should be recognized under the law, section 25 (1) is handy in that it guarantees protection of freedom of assembly and association. Whereas the Constitution does not guarantee socio-economic rights,

²⁸¹ 'Government of Eswatini The Kingdom of Eswatini Initial Adaptation Communication to the United Nations Framework Convention on Climate Change (UNFCCC)' (2021) 14

²⁸² S Di Falco 'Agricultural Adaptation to Člimate Change in Africa: Food Security in a Changing Environment' (2019) 41 *Narnia* 83–106.

²⁸³ KM Bailey et al 'Climate-Driven Adaptation, Household Capital, and Nutritional Outcomes among Farmers in Eswatini' (2019) 16(21) *Int J Environ Res Public Health*. 4063.

²⁸⁴SS Singwane 'Community Action in the management of community forests in Swaziland: The case of Ngcayini and Ezikhotheni chiefdoms, University of Kwazulu-Natal (2018).
²⁸⁵ As above

economic objectives are part of the Directive Principles of State Policy and Duties of the Citizen.

5.2 Swaziland National Biodiversity Strategy and Action Plan

The objective of this policy is conservation of biodiversity, sustainable use of biodiversity and fair and equal sharing of benefits from the use of the country's biodiversity. It does so by protecting certain areas and modifying exiting protected areas, more especially to ensure conservation of threatened and endemic species. It aims to capacitate institutions and human resources to support community based natural resource management.

5.3 National Environment Policy

The policy is focused on the promotion of environmental management, conservation and protection to attain sustainable development. This resulted in the drafting of Swaziland Environment Action Plan which is aimed at identifying and resolving environmental problems. It suggests mechanisms of ensuring environmental protection and sustainability of natural resources.

5.4 Comprehensive Agricultural Sectors Policy

It focuses on the contribution of the agricultural sector to the socio-economic development of the country. It provides guidance on measures necessary to enhance sustainable agricultural development and improve the standard of living of peoples of Swaziland. Its objectives include promoting sustainable use and management of land water resources

5.5 The Environmental Management Act

The Environment Management Act (EMA) is the country's overarching law on the environment, and it serves as the national framework for environmental protection and management including that of wildlife. However, the provisions that deal more specifically with the protection and regulation of wildlife are found in older sectoral laws.

5.6 The National Trust Commission Act (NTCA), 1872

The Act establishes the "Swaziland National Trust Commission" (SNTC) In term of section 6 (1) of the Act, the functions of the SNTC include the general supervision and control of the Swaziland National Centre and other declared institutions, national parks, nature reserves, monuments, relics and antique. Section 15 stipulates for Objects of parks and reserve as (a) to promote and conserve indigenous animal and plant life and to eliminate nonindigenous animal and plant life within the area of a park or reserve; (b) to collect together and restore to the park or reserve a representative selection of the animals and plants which are indigenous or are reasonably considered to have been indigenous to the area; (c) to protect and preserve or to restore objects of geological, archaeological, historical, ethnological and other scientific interest in the park or reserve; (d) to promote and protect the natural ecology and environment of the park or reserve; (e) to provide facilities for scientific study and education; (f) to promote public appreciation of the social, economic and moral value of nature conservation; (g) without conflicting with the foregoing objects, to provide enjoyment to visitors to the park or reserve. Section

16 deals with the functions and powers of the Commission in respect of parks and reserves.

5.7The Swazi Administration Order (SAO) and the Safeguarding of Swazi Areas Act

An Act to make provision for the protection of the rights of the Swazi people to areas set apart under the Concessions Partition Act for the sole and exclusive use and occupation. In terms of the Act, no person other than a Swazi shall, without the written permission of the Ngwenyama, (a) use or occupy any portion of a Swazi area or allow any cattle or sheep to graze upon any Swazi area or burn grass, or (b) hunt any game. Any person who contravenes said provisions shall be guilty of an offence and liable on conviction to a fine and in default of payment thereof to imprisonment according to the provisions of section 5 of the Act.

5.8The Game Act

The Game Act as amended by the Game Amendment Act was promulgated as a Proclamation in 1953 and gained the legal status of an Act of Parliament after the country's independence in 1968. The Act serves as the regulatory framework for controlling the illegal wildlife trade and spells out the types of conduct that are prohibited. It provides for the establishment of Sanctuaries as protected areas. It also regulates hunting by providing for the hunting seasons, game which may be hunted and licences for hunting. The Act provides for schedules of protected species and categories of their protection. They are classified as specially protected game, royal game and common game.

5.9 The Wild Birds Protection Act (WBPA), 1914

The purpose of the Act is to prohibit with certain exceptions the sale and exportation of the plumage and skins of wild birds and to provide for the protection of birds. It provides for the modalities for sale and export of plumage including the regulatory procedures. It also provides for capture and sale of wildlife birds, conveyance of wild birds and confinement of wild birds. The WBPA also has provisions on offences and penalties for activities relating to wild birds. The WBPA is not very relevant in Swaziland today and is no longer enforced even though it was never expressly repealed. The provisions on wild birds are now ably secured under the Game Act which provides for all wild species.

5.10The Private Forests Act (PFA), 1951

This Act was enacted to provide for the better regulation and protection of private forests in Swaziland. The Act defines forest produce in private forest to include game, birds, fish, skins, horns, ivory when found or removed from a private forest. This Act goes ahead to define offences and penalties in respect to private forests and produce from private forests.

5.11The Flora Protection Act (FPA), 2000

This is to provide for the more effective protection of flora. This Act protects wildlife by specifically protecting endemic and indigenous flora as well as creating flora reserves and botanic gardens. The Act provides for offences and penalties against flora and spells out the regulatory procedures related to flora. The FPA provides categories of protected species of flora. These are endangered flora, vulnerable flora and rare flora.

TANZANIA



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Tanzania is located east of Africa's Great Lakes north of Mozambique and south of Kenya, it has a coastline at the Indian Ocean in east. The nation is bordered by six other African countries: Burundi, the Democratic Republic of the Congo, Malawi, Rwanda, Uganda, and Zambia. Formed out of the merger between Tanganyika and Zanzibar, Tanzania shares maritime borders with the Comoros and the Seychelles. It has shorelines at three of the Great Lakes: Lake Victoria, Lake Tanganyika and Lake Nyassa (Lake Malawi). The country occupies an area of 945,087 km², Tanzania is the largest and most diverse country in east Africa. ²⁸⁶ Tanzania's location is closer to the equator which gives the country a tropical climate whose rainfall and temperature characteristics are mainly influenced by elevation and local wind patterns. Two official languages of Tanzania are English and Swahili. ²⁸⁷

CBNRM was first introduced in Tanzania in 1987/88 in the wildlife sector and soon spread to other sectors including forestry, water, rangelands and fisheries. In Tanzania, CBNRM models include the Community Conservation and Outreach services (CCS) under Tanzania National Parks Authority (TANAPA); the Community Based Conservation (CBC) later Wildlife Management Areas (WMAs) approach under the Wildlife Division (WD); the participatory forest management (PFM) approaches which is categorized into Joint Forest Management (JFM) and Community Based Forest Management (CBFM) models; fisheries co-management approaches such as Beach Management Units (BMUs), among others. However, the scale and degree to which these models delegate powers over resource management and decision making to communities differs considerably. In general, CBNRM has rapidly expanded in numbers and geographic

²⁸⁶ 'Tanzania'https://www.nationsonline.org/oneworld/tanzania.htm

²⁸⁷ KM Otiso 'Culture and Customs of Tanzania' Greenwood 2013

²⁸⁸ A N Songorwa 'Community-Based Wildlife Management in Tanzania: The Policy Environment ' (2004) 75 *Tanzania Journal of Forestry and Nature Conservation* V 1-16

²⁸⁹ Fabricius et al (229).

²⁹⁰ As above

coverage over the last 20 years.²⁹¹ Tanzania Natural Resource Forum (TNRF) helps disseminate information on CBNRM success stories, share experiences and promote a greater understanding of the actions and enabling environment on CBNRM that can lead to improved social, economic and environmental benefits.²⁹² These include, among others, the wildlife management initiatives around protected areas in northern Tanzania., marine protected areas in Mafia and Zanzibar, and community forestry management initiatives in Western and northern Tanzania.²⁹³

2. FOOD SECURITY & HUMAN RIGHTS

Traditional hunting offers a substantial role into the community by providing food security through direct consumption in Tanzania. This group includes the pastoralists, some of the most politically disempowered and economically marginalized societies. In reaction to climate, economic and social pressures, many pastoralists have shifted to more sedentary livelihoods and lifestyle.²⁹⁴Pastoralism, a predominant livelihood strategy in the Ngorongoro Conservation Area (NCA), derives more than half of household income from livestock and livestock products.²⁹⁵ However, this system raises concerns over food security because it is restricted to marginal lands where climate change is having its highest impacts.²⁹⁶ Pastoral systems are themselves diverse; depending on the degree of mobility, gender, ethnic group, wealth, engagement in non-livestock-based activities, and bio-climatic conditions.²⁹⁷ Their adaptive capacity depends on the suite of environmental, social, economic, and political entitlements communities can mobilize to meet the needs for maintaining the system.²⁹⁸ However, the restrictions on human activities to avoid damage to the NCA have increased the vulnerability of household food insecurity.²⁹⁹ More than three-quarters of the households worried about food inaccessibility while 98.3% of the households were not able to eat the kind of food they preferred³⁰⁰ The dispossessed lose not only their land and rights to resources and revenue streams from it. They also lose their human rights in terms of justice, personal security, and not being subjected to inhumane punishment.³⁰¹

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

²⁹¹ Nelson (n 198)

²⁹² Tanzania Natural Resources Forum Community Based Natural Resource Forumhttps://www.tnrf.org/en/cbnrm

²⁹³ Task Order No. 12 Contract No. PCE-I-00-96-00002-00; Community Based Conservation Experience in Tanzania: An Assessment of Lessons Learned; prepared by: International Resources Group, Ltd.

²⁹⁴ As above

²⁹⁵ 'Pastoralism in the New Millennium.' FAO Animal Production and Health Paper 150

²⁹⁶ MW Næss 'Climate change, risk management and the end of nomadic pastoralism'(2013) 20(2) *Int J Sustain Dev.* 123–33; PJ Blackwell 'East Africa's pastoralist emergency: is climate change the straw that breaks the camel's back? '(2010) 31 (8) *Third World Q.* 1321–38

²⁹⁷ K Muhammad et al 'Socio-political and ecological stresses on traditional pastoral systems: a review'(2019) 29(10) *J Geogr Sci.* 1758–70

²⁹⁸ MJ Goldman & F Riosmena 'Adaptive capacity in Tanzanian Maasailand: changing strategies to cope with drought in fragmented landscapes' (2013) 23(3) *Glob Environ Change* 588–97

²⁹⁹ KA Galvin 'Transitions: pastoralists living with change' (2009) 38 Annu Rev Anthropol. 185–98

³⁰⁰ JG. Safari et al 'Food insecurity in pastoral communities of Ngorongoro conservation area' (2022) 11 *Agriculture & Food Security* 36

³⁰¹ P Rose & LJ Kicheler 'Designed for accumulation by dispossession: An analysis of Tanzania's Wildlife Management Area through the case of Burunge' (2021) *A Journal of the Society for Conservation Biology 1*

Constituting the wildlife profile of Tanzania is a wide variety of species of primates, antelopes, fish, reptiles, amphibians, invertebrates and plants, several of which are endemic. The co-occurring processes of increased climate variability and sedentarization among pastoralists in Tanzania have dramatic impacts on communities' economic prosperity, health status, and nutritional outcome. Findings suggest that increasing climate variability, especially the increased frequency of droughts, is a strong driver of sedentarization in East African pastoralist communities. Pastoralists, including those in Tanzania, are uniquely vulnerable to increased climate variability due to their dependence on weather conditions, which shape both the grazing land and water sources which provide the natural capital to sustain their livelihood.

Within the context of this changing environment, there is continued political and social pressure for pastoralists to partake in increasingly sedentary livelihoods practices, transitioning from the practice of transhumance to settled farming. Much of the land that is used for pasture is considered part of the general land category and is under the control of the government, not under the control of local communities, who then has the power to determine how this natural resource is allocated and utilized. 306 Not immune from international pressures and globalization, the Tanzanian government is receiving increased requests from multi-national corporations to access historic rangelands for their own cultivation and livestock raising, often labeled as "land grabs" .307 Thus, Tanzania's approximately 1.5 million pastoralists who are responsible for nearly all of the country's 21 million cattle are potentially disenfranchised and increasingly unable to practice the mobility that has historically sustained them. 308 Increased climate variability and sedentarization of Tanzanian pastoralists will impact livelihood outcomes, and access to food. 309 Changes in their livelihood across the lens of the sustainable livelihoods framework, namely the livelihood assets elements, comprised human, natural, financial, physical, and social capital. 310 Climate change will also cause a decline in environmental services like water and biodiversity. It will trigger loss of some species; displacement and forced migration of ecosystems and potentially adjust seasons and migratory roots of birds and animals.311

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³⁰² As above

³⁰³ C Ripkey et al 'Increased climate variability and sedentarization in Tanzania: Health and nutrition implications on pastoral communities of Mvomero and Handeni districts, Tanzania'(2021) 29 *Global Food Security* 100516,

³⁰⁴ KA Galvin 'Transitions: pastoralists living with change' (2009) 38(1) *Annu. Rev. Anthropol.* 185-198

³⁰⁵ Central Intelligence Agency 'The World Factbook: Tanzania' (2018), February 1 https://www.cia.gov/library/publications/resources/the-world-factbook/geos/tz.html

³⁰⁶ T Beal et al *'Country Profiles: Tanzania. Sustainable Intensification Innovation Lab'* (2015) https://gfc.ucdavis.edu/profiles/rst/tza.html

³⁰⁷ J Lind, D Okenwa I and Scoones 'The Politics of Land, Resources & Investment in Eastern Africa's Pastoral Drylands', in J Lind, D Okenwa, and I Scoones (eds) *Land Investment & Politics: Reconfiguring Eastern Africa's Pastoral Drylands* (Suffolk 2020).

³⁰⁸ International Work Group for Indigenous Affairs 'Tanzanian Pastoralists Threatened: Evictions, Human Rights Violations and Loss of Livelihoods' (IWGIA 2020)

³⁰⁹ T Wheeler & JV von Braun 'Climate change impacts on global food security' (2013) 341 *Science*' 508-513 ³¹⁰ As above

³¹¹ C Shemsanga et al 'The Cost of Climate Change in Tanzania: Impacts and Adaptations' (2010) 6(3) *Journal of American Science* 182W

4. SUSTAINABLE USE OF WILDLIFE AS CLIMATE ADAPTATION & MITIGATION

Strengthening communal tenure security in pastoral rangelands is vital, but will require an approach that reflects the flexibility, mobility, and multi-level nature of pastoral systems. 312 Some have suggested that in pastoral rangelands where climatic variability is high, where herders feel a recurring need to access distant resources, and the rangeland landscapes are large and very open, what is required is an approach "that is participatory but not necessarily 'community-based', at least not as that term is normally understood". 313

In response to drought and uncertain climate, it has been suggested that a third category of pastures: drought fallback areas. Having drought fallback pastures in good condition can be critical for coping with a highly variable climate. Also, some pastoralists move completely out of livestock and into sedentary agriculture and/or wage-based livelihoods; others move to a mix of farming/herding practices, such as agro-pastoralism. Communities are being advised to diversify to other sustainable economic activities rather than relying on livestock only while climatic conditions are not favourable for this economic activity. 316

The involvement of Tanzania in the REDD+ activities dates back to 2009 when it started its formulation of a national framework to guide the development of a REDD+ Strategy. The process is financially supported by the UN-REDD programme (USD 4.3 million) and the Royal Norwegian Government (USD 80 million). If effectively implemented the REDD+ project can empower the forest dependent communities to contribute to efforts aimed at addressing climate change while they also benefit from the services.

5. LEGAL AND POLICY ENVIRONMENT

5.1 Constitution of the United Republic of Tanzania, 1977

There are a range of provisions in the Constitution of Tanzania that are significant for the protection of the CBNRM. The right to equality under section 12(1) guarantees that all human beings are born free and are all equal while section 12(2) affirms that every person is entitled to recognition and respect for his dignity. The right to life under section 14 is to be enjoyed in accordance with law, while section 20(1) allows everyone to assemble, associate and cooperate with other persons freely and peaceably. For that purpose,

³¹² W Lance et al 'The Challenges of Community-Based Natural Resource Management in Pastoral Rangelands' (2021) 34(9) *Society & Natural Resources* 1213-1231

³¹³IN Nganga, and LW Robinson *Community-based rangeland management in II'Ngwesi group ranch, Laikipia, Kenya.* ILRI project report. Nairobi: International Livestock Research Institute (2018)
³¹⁴ As above

³¹⁵ A Galiè et al 'Women's empowerment, food security and nutrition of pastoral communities in Tanzania'(2019) 23 Global Food Security 125-134

³¹⁶ N Kitasho JM Abdallah & R Zakayo 'Tanzania Adaptive capacity to climate change of pastoralists in Kilosa District' (2020) 89(1) *Tanzania Journal of Forestry and Nature Conservation* 25-46

³¹⁷ Tanzania REDD readiness progress fact sheet (March, 2012) (Tanzania Fact Sheet)

³¹⁸ SA Milledge 'Getting REDDy in Tanzania: Principles, preparations and perspectives' (2009) *The Arc Journal* 2

³¹⁹ T Treue et al 'Does participatory forest management promote sustainable forest utilisation in Tanzania? (2014) 16(1) *International Forestry Review* :23-38

everyone can express views publicly and to form and join with associations or organizations formed for purposes of preserving or furthering his beliefs or interests or any other interest. These provisions speak to aspects of CBNRM including the community interest, the belief system in terms of conservation, and the need to be treated equally under the law. There are no socio-economic rights guaranteed under the Constitution. However, section 23(1) entitles every person, without discrimination of any kind, to a remuneration that is commensurate with his work, and all persons working according to their ability shall be remunerated according to the measure and qualification for the work. Section 23(2) entitles every worker to just remuneration. By virtue of section 24(1), every person is entitled to own property, and has a right to the protection of his property held in accordance with the law. This provision is, further strengthened by subsection 2 which declares that it shall be unlawful for any person to be deprived of his property for the purposes of nationalization or any other purposes without the authority of law which makes provision for fair and adequate compensation. These provisions are, however, limited by provisions of other legislations which allow the state to acquire property in the interests of public use. Section 27(1) provides that every person has the duty to protect the natural resources, the property of the state authority, all property collectively owned by the people, and to respect another person's property.

5.2 Forest Act, 2002

The Act aims to promote and advance the impact of the forest sector to the sustainable development of the country and to ensure conservation and management of natural resources for the benefit of all. It also aims to facilitate and support public participation in the planning, management, use and conservation of forests by developing individual and community rights to use and manage forest resources. To development educational programmes to ensure public awareness of benefit of sustainable use of natural resources and conservation of natural resources, section 8(1) provides for the consultation and information of local authority and forest management authorities about the management of forests under the Act.

Section 14 provides for the village land forest management plan in which local authorities and communities must be consulted and upon of approval of the plan, the village council bears the responsibility of managing the forest. The Forest Act of Tanzania is also regarded by the National Strategy as critical in the implementation of the REDD+ particularly its provisions on participatory forest management (PFM) through Community Based Forest Management (CBFM) Scheme. The basis for this viewpoint is that section 3(b) encourages the facilitation of active participation of citizen in 'sustainable planning, management, use and conservation of forest resources'. However, the Minister is empowered under the Act to declare any given land a national or local authority forest reserves. Subject to the right to receive compensation, a national forest or local authority forest area may be so declared for the purposes of production and protection of the forest.

³²⁰ The Forest Act (2002) section 22(1)(a) and (b)

5.3 Wildlife Conservation Act. 2009

The aim of the Act is to provide adequate provisions for the conservation, management, protect and sustainable use of wildlife and wildlife products. The objectives of the Act include (i) the protection and conservation and administration of areas with diverse biodiversity and areas inhabited by rare and threatened species; and (ii) to promote and encourage active involvement of local and customary communities in the sustainable use and management and conservation of wildlife resources. Section 8 read with section 10 provides for the establishment of the Wildlife Authority responsible for enforcing environmental laws and protection of wildlife resources. It further provides for the employment of public servants who will constitute a Wildlife Protection Unit. Section 31 provides for the establishment of wildlife management areas for purposes of ensuring community-based wildlife conservation. It also makes provision for benefit sharing in wildlife management areas and equal distribution of costs and benefits targeted at encouraging wildlife conservation, advancement of the economy and alleviation of poverty. Subsection 5 provides for consultation of local community before making regulations that affect Wildlife Management Areas. The Act empowers the Minister to declare any area of land as a game controlled area and prohibits activities which are incompatible with the Forest Act, the Beekeeping Act, the Environmental Management Act or any other relevant laws.

5.4 The Land Act ,1999

The Land Act of Tanzania aims at ensuring that land is productively and sustainably used. Considering that the lifestyle of local populations and indigenous peoples leaves scanty physical evidence of occupation of possession, these provisions provide the basis for expropriation on the ground that such lands are idle or unoccupied. No doubt, the Land Act urges that land use accords with commerce and requires that this should be done without disadvantaging small-holders and groups such as the pastoralists. The Land Act recognises customary right of occupancy which includes 'deemed right of occupancy' signifying the title of 'a Tanzania citizen of African descent or a community of Tanzania citizens of African descent using or occupying land under and in accordance with customary law'. 323

5.5 Village Land Act (1999) for Tanzania Mainland

Under section 14 of the Village Land Act, a landholding may be allowed under customary right of occupancy if it is held in such circumstances before the coming into effect of the Act. While this may be beneficial to indigenous peoples, this is limited in its application as customary right of occupancy may be revoked if such land is adjudged as lying fallow for about five years or used for any purpose which is considered illegal.³²⁴ Also, the president reserves the right to transfer any land held under the Village Act into a general or reserved

³²² AO Jegede Climate regulatory framework and indigenous peoples' land: Human rights implications (PULP 2016)

³²³ The Land Act (1999) preamble

³²⁴ Village Land Act (1999) art 45(a)

land for the purpose of public interests which may include investments or national interests.³²⁵

5.6 Environmental Management Act, 2004

Among other things, ensures clean, safe and healthy environment and motivates actions on environment and promotes the national environmental policy. Its main objective is to promote the 'enhancement, protection, conservation and management of the environment'. However, the power of the minister to declare a given land as environmentally protected area may have a qualifying effect on the land use and tenure of indigenous peoples. While there is a provision that in coming to a decision of acquisition, the minister may take into considerations the representations made by persons or NGOs with public or private interests, local communities' interests, and international obligations.

5.7 The Beekeeping Act, 2002

According to this Act, the Minister may in similar circumstances as applicable in forest reserves, declare a given area as a Beekeeping Zone.³³² This zone refers to an area either within national or local forests reserves in which activities relating to beekeeping are taking place.³³³

5.8 National Forest Policy, 1998

The National Forest Policy identifies constraints hindering sustainable management of forests. These include inadequate resources to implement active and sustainable management of forests and related resources. 334 It acknowledges that much remains to be done in terms of benefit- sharing accruing from wildlife management in some areas, despite efforts aimed at involving local people. 335 For policy statements, it describes the scope of forest management as including central and local government reserves as well as forest on public land (non -reserved forest land) and private and community forestry. While central and local government forests are respectively under the management of central and local government or agencies to which this role may have been designated, 337 the management of forest on public lands can be allocated to villages, private individuals and the governments. 338

³²⁵ Village Land Act (1999) art 4

³²⁶ The Environmental Management Act (2004) arts 4, 5 and 6

³²⁷ The Environmental Management Act (2004) art 7

³²⁸ The Environmental Management Act (2004) art 47

³²⁹ The Environmental Management Act (2004) section 47(3)(a)

³³⁰ The Environmental Management Act (2004) section 47 (3)(f)

³³¹ The Environmental Management Act (2004) section 47(3)(g)

³³² The Beekeeping Act (2002) section 11

³³³ The Beekeeping Act (2002) preamble

³³⁴ National Forestry Policy (1995) section 2

³³⁵ National Forestry Policy (1995) section 2(3)

³³⁶ National Forestry Policy (1995) section 4(1)(1), 4(1)(2) and 4(1)(3) respectively

³³⁷ National Forestry Policy (1995) section 4(1)(1)

³³⁸ National Forestry Policy (1995) section 4(1)(2)

5.9 National Water Policy, 2002

The National Water Policy links with forestry in the sense that the latter has an important effect on the conservation of water resources.³³⁹

5.10 National Energy Policy, 2003

Section 17 of the National Energy Policy acknowledges that trees are main source of biomass- based fuels in Tanzania and are being harvested at a faster rate than its regeneration rate. Hence, one of the policy objectives of implication for forestry is that it seeks to 'arrest woodfuel depletion by evolving more appropriate land management practices'. ³⁴⁰ It views forest clearance as a negative trigger of environmental challenge. ³⁴¹ In order to contribute to the preservation of the environment, the National Energy Policy requires for environmental impact assessment, ³⁴² and implementation of measures such as afforestation and reforestation. ³⁴³ However, the provision that forbids forest clearance as part of policy environment for the implementation of the REDD+ process, ³⁴⁴ may be counterproductive for indigenous peoples.

5.11 National Land Policy, 1997

One of the objectives of the National Land Policy is to ensure that customary rights of groups such as peasants and herdsmen are recognised and secured in law.³⁴⁵ What seems like a set of promising provisions are, however limited by several qualifications. For instance, land in Tanzania is regarded as 'public land', whether granted, customary or unoccupied, and are vested in the President as trustee on behalf of all citizens.³⁴⁶ It also recognises that the president in the exercise of this power may compulsorily acquire the land and tenancy may be revoked in the interest of the public.³⁴⁷

5.12 National Human Settlements Development Policy, 2000

There are specific objectives of the National Human Settlements Development Policy that are relevant to REDD+ process. These include the need to make serviced land available for shelter and human settlements to all sections of the communities including the disadvantaged,³⁴⁸ and protect environment from destruction.³⁴⁹ To realise these objectives, the government undertakes to embark upon certain steps. These include taking steps to ensure the availability of land to all, fast track and ensure adequate compensation to holders of land required for expansion.³⁵⁰ However, the prescription of

³³⁹ National Water Policy (2002) section 2(10)
340 National Energy Policy (2009) section 28(5)
341 National Energy Policy (2009) section 139
342 National Energy Policy (2009) section 148(iii)
343 National Energy Policy (2009) section 148 (viii)
344 National Water Policy (2002) section 27
345 National Land Policy (1997) section 2(2)
346 National Land Policy (1997) section 4(1)(1)
347 National Land Policy (1997) section 4(2)(1)(3) to 4(2)(14)
348 National Human Settlements Development Policy (2000) section 3(2)(i)
349 National Human Settlements Development Policy (2000) section 3(2)(vi)

³⁵⁰ National Human Settlements Development Policy (2000) section 4(1)(1), 4(2)(i), (ii) and (iii)

procedures 'for getting legal rights of occupancy' to land seems discriminatory as it presupposes that the informal tenure of indigenous peoples such as the Maasai is inferior.

ZAMBIA



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Republic of Zambia is a landlocked southern African country covering an area of 752, 614 sq. km.351 Its boundaries are with Angola and Namibia in the west, the Democratic Republic of Congo (DRC) in the north, Malawi in the east, Mozambique in the Southeast, Zimbabwe in the South and Botswana in the southwest. 352 Zambia is a multi-cultural and ethnic country consisting of groups such as the Bemba, Tonga, Lozi, Ngoni, Chewa, Kaonde and Luvale. 353 The vegetation comprises forests and grasslands with majority of its forest plantations at the Copperbelt Province providing habitation for wildlife and their habitats outside the forest areas.³⁵⁴ The main sectors of the Zambia economy are namely agriculture, forestry and fishing, mining and quarrying. 355 There are five river systems at the centre of Zambia potential for high hydroelectricity. These are namely, Zambezi, Kafue, Luapula and Chambeshi, while its major lakes include Tanganyika, Bangweulu, Mweru and Kariba.³⁵⁶ In addition to being in the tropics, Zambia is covered by rich vegetation consisting of open and closed forests and grasslands.³⁵⁷ However, as a result of change in climate, seasonal droughts, occasional dry spells, intense rainfall, heat wave, high temperatures in valleys, floods, changes in growing season, delayed onset of rainy season and shortened growing period are being experienced. 358

CBNRM as a conservation and rural development strategy came into force in 1980s from realization that natural resources were degrading at more rapid rates than was acceptable. It was perceived by stakeholders that local communities were a significant factor to the natural resource management. Therefore, since 1980s when CBNRM was initiated, the people centered programme has been implemented variedly from one natural sector to another. The merits of CBNRM programme so far have been the relegation of rights from government to local communities in natural resources utilization in their respective areas, to their benefit in community development and livelihood enhancement while taking responsibility to effectively manage the resource base. For instance, several employment opportunities were created. In the past years, over four hundred community projects were conducted by local communities using revenues generated from safari hunting. In order to legitimize the rights, sector-based legislation were progressively enacted, though harmonization is recommended. In areas such as Luangwa Valley, where CBNRM is oldest, there has been increase in wildlife species that are partly linked to CBNRM programme. Consequently, the presence of the programme has spread to expanses of resources.³⁵⁹ Other sectors such as gemstone sectors were working to fully integrate CBNRM. Some of the key areas where impacts for the local communities have been noted to be significant include job creation, livelihood enhancement, rural development projects, legitimization of management power

³⁵¹ Republic of Zambia National Adaptation Programme of Action on climate change (September 2007) (Zambia NAPA) 1; Republic of Zambia Initial National Comunication under the United Nations Framework Convention on Climate Change (August 2002) (Zambia Initial National Communication) iv

³⁵² As above 353 World Directory of Minorities 'Zambia Overview' http://www.minorityrights.org/?lid=3922&tmpl=printpage (accessed 10 November 2013) identifies the Mambwe, Tumbuka and Lamba as minorities in Zambia 354 Zambia Initial National Communication (n 351 above) 2

³⁵⁵ Zambia Initial National Communication (n 351 above) 9

³⁵⁶ Zambia Initial National Communication (n 351 above) iv

³⁵⁷ As above

³⁵⁸ Zambia NAPA (n 351 above)19

³⁵⁹ VR Nyirenda 'Zambia's Community Based Natural Resource Management Status' 2010 January 2012 a

structures for natural resource management, participation in resource protection, monitoring and resource quota setting.³⁶⁰ The ZCBNRM Forum helps create linkages between stakeholders such as communities, donors, government, and NGOs, ensuring that stakeholder expectations are negotiated and understood from the outset and multi-stakeholder relationships are maintained.³⁶¹

2. FOOD SECURITY & HUMAN RIGHTS

Food insecurity is an urgent issue in Zambia. Around 18 per cent of the country's rural population require urgent action to protect their livelihoods. A further 15 per cent are only marginally able to meet their food needs, while three per cent of the country's 17.8m people are already facing considerable food gaps. 362 The health and nutrition impacts are pronounced, particularly for children. Close to half of the population are categorized as undernourished, while 34 per cent of children under the age of five experience stunted growth. The mortality for children in this age group is currently 5.4 per cent. 363 According to the acute food insecurity analysis in Zambia, it is estimated that around 1.42 million people (22% of the analysed population) were facing high levels of acute food insecurity (IPC Phase 3 or above) between July and September 2020, despite increased crop production in most areas. 364 This includes 1.24 million people in Crisis (IPC Phase 3) and nearly 190,000 people in Emergency (IPC Phase 4).365 These populations have been affected by flooding, below-normal rainfall, an outbreak of Fall Armyworm, and high maize prices.³⁶⁶ Although the price of maize has been on a decline since the start of the 2020/2021 consumption year, it remains above the five-year average. Out of the 64 districts analysed, 37 are classified in Crisis (IPC Phase 3) while 27 are classified in Stressed (IPC Phase 2).³⁶⁷ Tourism in Zambia is largely based on the country's stock of natural resources, particularly the system of national parks (NPs) and game management areas (GMAs). GMAs serve as buffer zones between the NPs and rural agricultural land. They were intended to promote sustainable hunting as an alternative to activities not compatible with wildlife protection. ³⁶⁸The Zambia Wildlife Authority (ZAWA) partners with community organizations to share wildlife management responsibilities and revenue from hunting licenses. This approach is an example of CBNRM, with the dual goal of enhancing the welfare of local communities and creating incentives for the protection and conservation of natural resources. ³⁶⁹ Through the CBNRM program, communities receive a share of the revenues generated from hunting licenses and concession fees

³⁶⁰ Nyirenda (n 359) -10

³⁶¹ A O'Connor, A Gumbo & K Moombe 'Potential for integrated landscape approaches: A review of Zambia's national environment and development policies'. Infobrief No.321. CIFOR, Bogor, Indonesia

³⁶² UN Volunteers Working with smallholders to tackle food insecurity in Zambia 25 March 2022 Hiroaki Sonoda, Value Chain Development Specialist, FAO

³⁶³ As above

³⁶⁴ IPC Zambia: Acute Food Insecurity Situation July - September 2020 and Projection for October 2020 - March 2021

³⁶⁵ As above

³⁶⁶ As above

³⁶⁷ 'IPC Zambia: Acute Food Insecurity Situation' July - September 2020 and Projection for October 2020 - March 2021

³⁶⁸M Leach, R Mearns and I Scoones 'Environmental Entitlements: Dynamics and Institutions in Community-Based Natural Resource Management' (1999) 27(2) *World Development* 225-247 ³⁶⁹ As above

paid by hunting outfitters. These funds are distributed to Village Action Groups (VAGs), which use the revenue to employ village scouts (who aid in wildlife protection) and for implementation of community development projects (such as the construction of health clinics, schools, water wells, and boreholes). Tourism development also creates opportunities for wage employment and entrepreneurship, in addition to the benefits from increased access to infrastructure and services.³⁷⁰

Integrated conservation and development projects (ICDP) are one of the most popular mechanisms by which CBNRM approach is accomplished. The ICDP combines conservation activities and local customs with aspects of economic development. including poverty reduction, job creation, health care, and food security.³⁷¹ A major goal of ICDPs is for local people to become involved in conservation efforts and have access to opportunities and markets for which sustainable use of natural resources is more valuable than its destructive use. Zambia's Community Markets for Conservation program (COMACO) illustrates on how this goal can be achieved. 372 Working around the Luangwa Valley's national parks. COMACO helps food-insecure households and bushmeat hunters to meet their nutritional and income needs through sustainable production of honey, soy, Chama rice, groundnuts, and peanut butter. As additional incentive, COMACO connects participants to high-value markets where the villagers' locally crafted products and sustainably cultivated produce can earn significantly higher prices than locally. ³⁷³Through this project, the area's average household income has more than quadrupled, over 1,400 bushmeat hunters have adopted more sustainable lifestyles, and over 10,000 km2 of land have been dedicated to community-conserved areas where wildlife populations are now thriving.³⁷⁴

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

Climate-induced changes to physical and biological systems are exerting significant stress on sectors including agriculture and food security, wildlife, forestry, water and energy, health and infrastructure, thereby affecting the economic, social, and environmental dimensions of sustainable development efforts. The Notre Dame Global Adaptation Initiative (ND-GAIN) Index ranks Zambia as the 34th most vulnerable and 69th least ready to adapt to climate change, of the countries it covered for 2015.³⁷⁵ Climate variability undermines attempts to reduce poverty and food insecurity, since most of

³⁷⁰ RB Richaldson et al 'The impacts of wildlife conservation policies on rural household welfare in Zambia' (2012) 40(5) *World Development* 1068-1081

³⁷¹ As above

³⁷² MP Lewis, GF Simons and CD Fennig 'Ethnologue: Languages of the World (Dallas: SIL International 2014). https://www.ethnologue.com

³⁷³ As above

³⁷⁴ JW Wilson & RB Primack 'Linking Conservation to Socio-Economic Development 'https://bio.libretexts.org/Bookshelves/Ecology/Conservation_Biology_in_Sub-Saharan_Africa_(Wilson_and_Primack)/14%3A_Conservation_on_Unprotected_Lands/14.03%3A_Linking_Conservation_to_Socio-Economic_Development
³⁷⁵ As above

Zambia's poor population consists of rural small-scale farmers who rely on agricultural incomes as the main source of livelihood.³⁷⁶

Over 30 percent of Zambia's land is under protected areas, including 19 game parks covering 8 percent of the country's land area and 34 game reserves covering 22 percent.³⁷⁷ The park system and the wildlife it supports is a major attraction for foreign tourism, which is an important source of livelihoods and economic growth in the country.³⁷⁸ Droughts and decreases in rainfall may cause losses in soil moisture and fertility, worsen water scarcity, and reduce the quality of fodder that wildlife populations rely upon for survival. Changes in precipitation, temperature, and forest fires may reduce wildlife diversity and abundance, and alter the ecosystems and habitats they depend on for survival. Droughts and reduced rainfall may increase uncontrolled wildlife migration into areas with human settlements, while flooding events enable animals such as crocodiles to swim and move onto fields and areas where they may threaten the lives of villagers.³⁷⁹ Floods from heavy rainfall events are also threatening food production, particularly in northern Zambia. low food production due to drought, excessive temperatures in the floodplain than before, floods leading to crop damage, reduction in some plant species like Linjefu as well as Mashelaand Mampana which are both edible tuberous plants. 380 Non-climate change factors, such as increased agricultural activity near rivers and unprotected wildlife habitats, affect animal populations and increase the likelihood of potential human/wildlife conflict.³⁸¹

4. SUSTAINABLE USE OF WILDLIFE AS CLIMATE ADAPTATION & MITIGATION

Zambia focuses on adaptation and three mitigation components—renewable energy development, conservation farming and forest management. Conservation agriculture encourages climate resilience in agriculture because it has legs in both adaptation and mitigation, as agriculture is seen as both a contributor as well as a solution to carbon emissions. In some settings people use religious and traditional beliefs to adapt to adverse consequences of climate change. For example, the Gonde Malende forest shrine, found in Monze District, is the burial site of prominent Tonga chiefs and is managed by rules and rituals unique to the sacred site. Another conservation approach

^{376 &#}x27;Zambia Climate Action Report 2016

https://www.irishaid.ie/media/irishaid/allwebsitemedia/30whatwedo/climatechange/Zambia-Country-Climate-Action-Report-2016.pdf

³⁷⁷ USAID 'Climate Change Adaptation in Zambia'

https://www.climatelinks.org/sites/default/files/asset/document/zambia_adaptation_fact_sheet_feb2012.pdf ³⁷⁸ As above

³⁷⁹ As above

³⁸⁰ FH Johnsen & JB Aune 'Smallholder Farmers' Perceptions of Climate Change and Conservation Agriculture: Evidence from Zambia' 2011

³⁸¹ USAID (n 377)

³⁸² 'Conservation Agriculture: Zambia's Double Edged Sword Against Climate Change and Hunger 'http://www.preventionweb.net/news/conservation-agriculture-zambias-double-edged-sword-against-climate-change-and-hunger

³⁸³ KM Kennedy 'The environmentality of shrines: Case of Gonde Malende (Shrine) of the Tonga people of southern Zambia'(2015) 4(2) . Asian Journal of Social Sciences and Humanities 4(2) 154–160

outside of protected areas is conservation agriculture, in Zambia commonly known asconservation farming. Conservation farming seeks to improve agricultural productivity and ecological sustainability through minimum soil disturbance, permanent organic soil cover, crop rotation, and intercropping. In response to low agricultural productivity and degraded soils, seven of Zambia's ten provinces have received active support for conservation farming. FAO is supporting the Ministry of Agriculture in the implementation of the Conservation Agriculture Scaling Up (CASU) project. It aims at Targeting to benefit a total of 21,000 lead farmers and an additional 315,000 follower farmers, the project's overall goal is to contribute to reduced hunger, improved food security, nutrition and income while promoting sustainable use of natural resources in Zambia. Sec

To manage Drought resistance crops like early maturing cassava locally known as lipuu which is grown in fields called matongo are planted in June and harvested in December. Local populations also grow vegetables in fields locally called litapa, Intensifying fishing though water levels are low. In addition, seasonal movement of cattle from the floodplain to the upper land when the plain is flooded and only returns when water levels are low. This movement of animals allows pastures to regenerate before the animals come back to the plain.³⁸⁷

Zambia finalised a National REDD+ Strategy in 2015, focusing on decreasing drivers of deforestation in forestry and other key sectors like agriculture, energy, mining,. 388 However, these state-led initiatives have faced increasing pressure in recent years. Between 2006 and 2016, Zambia's population rapidly grew from 11.8 million to 15.9 million. 389 Informal settlements and search for agricultural land have led to the encroachment of game management areas, national parks, and forest reserves. 390 In some cases, forest reserves have been formally degazetted for residential areas, farm plots, and other development projects. 391 This underscores the importance of sustainable natural resource management approaches inside and outside protected areas that also consider local livelihoods. In the Eastern Province, large-scale initiatives are being undertaken by BioCarbon Partners and Community Markets for Conservation (COMACO) in partnership with the Forestry Department, Department of National Parks and Wildlife, and communities to develop community forestry management across one million hectares

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³⁸⁴ A Arslan et al 'Adoption and intensity of adoption of conservation farming practices in Zambia' (2014) 187 Agriculture, Ecosystems and Environment 72–86

³⁸⁵ As above

³⁸⁶ Conservation Agriculture (n 382)

³⁸⁷ID Milupi et al "Climate Change Ímpacts, Vulnerability, and Adaptation Options among the Lozi Speaking People in the Barotse floodplain of Zambia' (2019) 6(9) *International Journal of Humanities Social Sciences and Education* 149-157

³⁸⁸ PW Matakala et al 'Zambia National Strategy to Reduce Emissions from Deforestation and Forest Degradation. Ministry of Lands, Natural Resources and Environmental Protection and Zambia Forestry Department. UN-REDD Programme 2015).

³⁸⁹ MNDP (Ministry of National Development Planning) 'The Seventh National Development Plan' (7NDP) 2017–2021. Republic of Zambia, Lusaka, Zambia 2017

³⁹⁰ J Mabeta B Mweemba and J Mwitma 'Zambia policy brief #3: Key drivers of biodiversity loss in Zambia. Biodiversity Finance Initiative (BIOFIN 2018) 1–8

of forest.³⁹² Community forestry initiatives emerging across the country include timber, honey, mushrooms, and carbon credits produced through REDD+ .³⁹³

5. LEGAL AND POLCIY FRAMEWORK

5.1 Constitution of Zambia, 1991 with Amendments through 2016

The general principles of human rights which could enhance the cause of CBNRM are evident in the constitution of Zambia. Section 11 recognises principles, in particular, equality principle, by declaring that everyone in Zambia is entitled to the fundamental rights and freedoms notwithstanding race, place of origin, political opinions, colour, creed, sex or marital status. This provision is, however, qualified by certain limitations which signify that the principle is not absolute. Section 12 deals with the protection of the right to life by affirming that no person shall be deprived of his life intentionally except in execution of the sentence of a court in respect of a criminal offence under the law in force in Zambia of which he has been convicted. The right not to be subject to torture or to inhuman or degrading punishment or other like treatment is the focus of section 15. The provision of section 16 on the protection from deprivation of poverty is useful but it has a unique qualification which could undermine the CBNRM approach under subsection 2(v) of the Constitution. The said provision indicates that nothing contained in or done under the authority of any law shall be held to be inconsistent with or in contravention of the right to property if it is shown that a law provides for the taking possession or acquisition of any property or interest therein or right thereover consisting of wild animals existing in their natural habitat or the carcasses of wild animals. The legal consequence of this provision is to fundamentally restrain the rights of community regarding wildlife.

The protection of freedom of assembly and association is catered for under section 21 of the Constitution which stipulates that except with his own consent, no person shall be hindered in the enjoyment of his freedom of assembly and association, that is to say, his right to assemble freely and associate with other persons and in particular to form or belong to any political party, trade union or other association for the protection of his interests. The Zambia constitution does not provide for socio-economic rights. Under the fundamental directives section, article 112(i) affirms the aspiration of the Zambia state to promote awareness of the need to manage land, air and water resources in a sustainable manner for the present and future generation. Also, the state undertakes to provide a clean and healthy environment for all in Zambia. Generally, section 23 governs non discrimination principle and exceptions. For instance, the right not to be discriminated against does not apply with respect to non-citizens of Zambia, and matters under customary law. This provision may operate as a legal basis for justifying unfair measures or initiatives against the traditional tenure system for which indigenous peoples are known. The gaps in the Constitution concerning socio-economic rights and exceptions

³⁹² F Nelson et al 'Progress or regression? Institutional evolutions of community-based conservation in eastern and southern Africa' (2020) 3 *Conservation Science and Practice* 3

³⁹³ AL Davis et al 'Community-based natural resource management in Zambia: A review of institutional reforms and lessons from the field. Maliasili, ILRG and The Nature Conservancy', Lusaka, Zambia 2020.

³⁹⁴ Republic of Zambia Constitution (1996) art 112 (h)

³⁹⁵ Republic of Zambia Constitution (1996) art 23(4)(d)

to key rights such as right o property may undermine the rights of communities involved in the CBNRM approach.

5.2 Land Act, 1995

According to section 3(4) of the Act, land held under customary tenure cannot be alienated by the president without considering the local customary laws on land tenure, ³⁹⁶ consultation with the Chiefs and the Director of National Parks and Wildlife Service, in the case of a game management area, ³⁹⁷ consultation of anyone likely to be affected by the alienation, ³⁹⁸ and prior approval of the Chief and local government where land is situated. ³⁹⁹

5.3 Town and Country Planning (Amendment) Act, 1997

The Act empowers the president, upon the recommendation of the Minister, to acquire land if such is required for inclusion in a structure plan or local plan or approved structure plan or approved local plan. The possibility that this provision can negatively impact REDD+ activities is real considering that forestry is categorised as one of the items that may be included in the exercise of the ministerial power. Hence, where Zambia decides to establish a regional plan for REDD+ projects, it could use the Town and County (Amendment) Act as a legal tool to evade land use management rights of local communities on customary lands.

5.4 Forests (Community Forest Management) Regulations, 2018

These regulations give rights to local community members to engage in forest management programmes and projects. Regulation 4 makes it possible for local communities to apply for forest management in an open area, local forests and game management areas. This regulation also provides for encouragement of local community members to participate in forest management, Regulation 3 imposes an obligation to the Local Authority to ensure that local communities are identified, supported and encouraged to make applications to the Director of Forestry for control, use and management of areas of forests for purposes of social, cultural and economic needs. Upon approval of the application by the director, the community enjoy exclusive right of use of the community forest management area. They also assist the Director in management and control of restricted activities within the community forest area.

5.5 Forests Act, 2015

The Act aims to establish and recognise Forests and Botanical reserves in the country and provide for ways in which forests may be managed and conserved. It further promotes participation of local communities, institutions and organisations in the

³⁹⁶ Lands Act (1995) Cap 184, section 3(4)(a)

³⁹⁷ Lands Act (1995) section 3(4)(b)

³⁹⁸ Lands Act (1995) section 3(4()c)

³⁹⁹ Lands Act (1995) section 3(4)(d)

⁴⁰⁰ Town and Country Planning (Amendment) Act (1997) section 40

⁴⁰¹ Town and Country Planning (Amendment) Act (1997) second schedule (sections 16 and 44) matters for which provision may be made in a development plan

sustainable use, conservation and management of forests and tress. Section 4 read with section 5 provides for the appointment of officials within the of Forestry Department who will be responsible for the rationalisation of the exploitation of forest resources and the promotion of sustainable forest management. Section 17 read with section 19 provides for the establishment local forests that will be used for conservation and development for protection of resources and ecosystem, use of forest resources in local communities and to satisfy the needs of the local community. Section 21 provides for the recognition of community forest management in which communities acquire rights of control, management use of forests within the local communities. Section 24 provides for the establishment of botanical reserves and further gives local communities or peoples the liberty to acquire approval to use the reserves for cultural, religious, educational and scientific purposes.

5.6 ZAMBIA'S SECOND NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN (NBSAP -2)

This policy is focused on the government's commitment in mitigating climate change and environmental degradation. It sets out the government's strategy and ways of implementation for biodiversity conservation. It also sets out measures for the protection of forests and recognises water and climate regulation functions. In its foreword it recognises the need to conserve the environment and natural resources in order to protect the natural heritage of the country. Its target is to reduce deforestation and to establish co-management regimes in major fisheries.

5.7 Zambia Wildlife Act, 2015

The Act focuses on the establishment, management and control of National Park for the purposes of conservation and advancement of wildlife ecosystems and biodiversity. It further aims to promote equal opportunity for sustainable use of wildlife and management thereof. Section 4 provides principles for wildlife conservation and management, this incudes recognition of wildlife as an asset which is essential for future generations and the growth of the economy, management, conservation and use of wildlife shall protect biological diversity, preserve the integrity and ensure the sustainability of the ecosystem and biological diversity. Integrated wildlife management and conservation and promotion of equal participation of local communities in conservation of wildlife. Section 12 provides for the establishment of Community Partnership Parks for the purposes of education, conservation, preservation, recreation, and restoration of biological diversity and natural resources. This gives any person or local community to enter into a partnership with the Department of Wildlife for the purposes of conservation and management of wildlife.

5.8 Environmental Management Act, 2011

This establishes the right to clean, safe and healthy environment.⁴⁰² While it directs that as with other sectors, the forestry resources shall be managed in line with the Forests Act,⁴⁰³ the Environmental Management Act requires the state through the minister to prepare a State of Environment Report and develop National Environmental Action Plan

⁴⁰² Environmental Management Act (2011) section 4

⁴⁰³ Environmental Management Act (2011) section 76(1)(c)

as well as develop environmental management strategies. 404 Proponents of projects likely to have adverse effects on the environment are also required to conduct strategic environmental assessment. 405 The Act empowers the Minister to declare area of land environmentally fragile, taking into consideration such factors as natural feature of the area, cultural features, the interests of the local communities and compliance with any international obligations to which Zambia is a party. 406

5.9 the Water Resources Management Act, 2011

The Act is a vital component of the legal framework deserving consideration in the preparing for REDD+ activities in Zambia. It aims at ensuring forest-related objectives such as the protection, conservation and sustenance of the environment, environmental impact assessment where necessary, fostering collaboration with appropriate authorities including forestry and ensuring right of access by members to places related to a water resource. The Act, however, confers the powers to execute certain functions on the President and the Board of the Water Management Authority which may have undermining effect on indigenous peoples land tenure and use. For instance, the president may, in accordance with the provisions of LAC compulsorily acquire any land for the purpose of protecting a water resource area. The Board can after consulting an appropriate authority or conservancy authority be declared as a water resource area.

5.10 The Mines and Minerals Development Act of Zambia, 2008

According to section 15(1) (c) of the Act, the land in respect of which prospecting license may be sought may include the national or local forests as defined by the Forests Act. It is thus not strange that the Act contains provisions which may be used in undermining the rights of forest-dependents. For instance, except for the requirement that environmental impact study is necessary in any area where mining activities are being proposed, no obligation in terms of consultation and protection of tenure and benefit-sharing is anticipated to the communities that live on such land. Indeed, this expectation is impossible in the light of the provision of section 3 of the Act that vests rights of ownership for the prospecting and disposing of minerals in the President notwithstanding any right, title or interest that any person may possess in or over the soil in or under which minerals are found in Zambia. At 2

5.11 The National Policy on Environment, 2007

⁴⁰⁴ Environmental Management Act (2011) sections 20, 21 and 22 respectively

⁴⁰⁵ Environmental Management Act (2011) section 23

⁴⁰⁶ Environmental Management Act (2011) section 24(4)

⁴⁰⁷ Lands Acquisition Act (1970) section 30 (a), (c), (e) and (f) respectively

⁴⁰⁸ Lands Acquisition Act (1970) section 41

⁴⁰⁹ Water Resources Management Act (2011) section 29(1)

⁴¹⁰ 'Local forest' means an area declared as such under section 17 of the Forest Act, while 'National Forest' means an area declared as such under section 8 of the Forests Act, see section 2 of the Mines and Minerals Development Act (2008)

⁴¹¹ Mines and minerals Development Act (2008) section 25(5) and 36(4)

⁴¹² Mines and Minerals Development Act (2008) section 3

The policy identifies deforestation as a major consideration in addressing climate change. 413 and recognises the importance of the participation and reward of the local communities in the management of forest resources. 414 Particularly, a strategy for the implementation of the policy is to engage local communities in afforestation and rehabilitation of bare, fragile or erosion-prone areas, 415 and establish a forum where interested parties in forestry issues can share ideas. 416 The guiding principles of the policy indicate that a comprehensive land tenure and use policy should embody property and resource rights as well as the need to grant permission to community based organisations in managing and regulating resources on common property in their respective areas.⁴¹⁷ Nonetheless, these provisions are doubtful for the protection of forest-dependent peoples' interest in REDD+. For instance, the provision dealing with tenure security is only ensured for 'smallholder farmers'. 418 Similarly, although the policy expresses that customary rights to land and resource use will be recognised and protected, 419 with no strategy indicated as to how this is to be achieved, this statement of policy is at best an expression of intention. It contrasts poorly with the categorical affirmation made elsewhere in the policy that state will increase rents reflecting market value with the view of promoting sustainable leasehold land.420

5.12 The National Forest Policy, 1998

The instrument has been criticised on a number of grounds. Foremost of the criticisms is its lack of implementation as a result of want of active Forestry Act. Among other things, it has also been shown that there is general gap in the policy to adequately address the issues of collaboration between local communities and government, involvement of local communities and other stakeholders in forest management. Other concerns made in relation to the policy are the absence of guidelines on forest resource tenure, stakeholders' role, costs as well as benefit-sharing arrangements.

5.13 The National Agricultural Policy, 1995

It identifies forest-related issues such as rapid deforestation and land degradation as some of the environmental challenges to agricultural sector in Zambia. ⁴²¹ It proposes solutions such as the promotion of conservation farming, afforestation and agro-forestry as environmental friendly farming system and strategy to achieve sustainable agricultural practices. ⁴²² In describing the issue of land tenure, the National Agricultural Policy merely conceives security of land tenure as a means to ensuring the utility of land to its fullness

⁴¹³ National Policy on Environment (2007) para 7(2)(4)(2)(a)

⁴¹⁴ National Policy on Environment (2007) para 7(2)(4)(2)(e)

⁴¹⁵ National Policy on Environment (2007) para 7(2)(4)(3)(j)

⁴¹⁶ National Policy on Environment (2007) para 7(2)(4)(3)(0)

⁴¹⁷ National Policy on Environment (2007) para 7(1)(13)(2) (b) ,(c) and (d)

⁴¹⁸ National Policy on Environment (2007) para 7(1)(13)(2)

⁴¹⁹ National Policy on Environment (2007) para 7(1)(13)(2)(c)

⁴²⁰ National Policy on Environment (2007) para 7(1)(13)(2)(h)

⁴²¹ National Agricultural Policy (1995)7

⁴²² National Agricultural Policy (1995) 12

by farmers.⁴²³ Although presented as relevant to the implementation of REDD+ activities in Zambia, the National Agricultural Policy does not consider the land tenure and use of forest- dependent communities as a significant issue which may become compromised if its solutions and propositions are strictly applied. Also, in endorsing the expansion of commercial farming to attract investment without providing appropriate safeguards, the policy conflicts with REDD+ strategies as it signifies that farming developments can expand to forested lands.

5.14 The National Energy Policy, 2008

The policy implicates forests in a number of areas. Foremost is that it identifies the forests as a component of energy sources for Zambia. As the main source of woodfuel particularly for the low income earners, forests, according to the National Energy Policy, will continue to dominate the energy consumption of Zambia. As a way to address this trend, the National Energy Policy contemplates a switch from what it considers as a 'low quality energy sources' to an improved energy sources such as electricity, petroleum products, biofuels and biogas for domestic use. It also underscores the need for a regulatory framework to coordinate activities between institutions responsible for energy, agriculture and forestry. Other measures suggested in the National Energy Policy include improved management and use of forests resources, promotion of forest plantation, and agroforestry.

However, in addition to non-reference to land tenure anywhere in the policy, there are initiatives aimed at improving energy resources which particularly exclude groups such as indigenous peoples or forest-dependent communities. For instance, the prevention of exploitation of local peoples mentioned in the policy is only in respect of biofuel projects. Arguably, this may not include the exploitation of these peoples in forest related projects such as REDD+. In all, the gap in tenureship affects negatively consultation, carbon rights, access to benefit as well as remedies

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⁴²³ National Agricultural Policy (1995) 23

⁴²⁴ National Energy Policy (2008) para 2(1)

⁴²⁵ National Energy Policy (2008) para 2(1)(1)(1)

⁴²⁶ National Energy Policy (2008) para 5(2)

⁴²⁷ National Energy Policy (2008) para 5(2)(2) (c)(ii)

⁴²⁸ National Energy Policy (2008) para 5(2)(2)(1)(a)(i)

⁴²⁹ National Energy Policy (2008) para 5(2)(2)(1)(a)(iii)

⁴³⁰ National Energy Policy (2008) para 5(2)(2)(1)(d)

⁴³¹ National Energy Policy (2008) para 5(2)(2)(2)(d)(iii)



1. COUNTRY BRIEF DESCRIPTION & CBNRM

Zimbabwe, a landlocked country in Southeast Africa, separated from Zambia by the Zambezi River. The Limpopo River in south forms part of the border with South Africa, it is bordered in east by Mozambique, and in west by Botswana. With an area of 390,757 km² (150,872 sq mi), its principal geologic feature is a broad plateau that forms an elevated savanna region, or Highveld, through the center of the country. Lower plateau regions on either side of it slope to three river basins: the Zambezi on northern border, the Limpopo in the south, and Sabi in the southeast. The two dominant languages are Shona and Ndebele. The Country is rich in minerals and mining industry produces gold, asbestos, nickel, cooper, chromite and coal. The climate is warm, consists of rainy seasons and drought is uncommon. 433

The first initiative on CRNRM emanated from Zimbabwe. Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) is a long-term programmatic approach to rural development that uses wildlife and other natural resources as a mechanism for promoting devolved rural institutions and improved governance and livelihoods. The cornerstone of CAMPFIRE is the right to manage, use, dispose of, and benefit from these resources. Between 1989 and 2006, CAMPFIRE income, mostly from high valued safari hunting, totalled nearly USD\$ 30 million, of which 52% was allocated to sub-district wards and villages for community projects and household benefits. Whilst a number of assumptions underlying the success of CAMPFIRE as an innovative model for CBNRM have yet to be met, CAMPFIRE confirms the concept that devolving responsibility and accountability for natural resource management can be highly effective for the collective and participatory management of such resources. Elephant numbers in CAMPFIRE areas have increased and buffalo numbers are either stable or decreased slightly during the life of the programme. CAMPFIRE project is structured in such a way that there is an elected CAMPFIRE committee that manages the project at a local

^{432 &#}x27;Zimbabwe' https://www.nationsonline.org/oneworld/zimbabwe.htm

⁴³³ HD Nelson Zimbabwe: a country study, Foreign Area Studies (The American University 1982)

⁴³⁴ R Taylor 'Community based natural resource management in Zimbabwe: the experience of CAMPFIRE' (2013) 18 *Conservation* 2563-2583

⁴³⁵As above

⁴³⁶ As above

⁴³⁷ As above

level and is also responsible for representing the community in dealings with various stakeholders.⁴³⁸ In the Zimbabwean context the CAMPFIRE has been the flagship programme for the country and for the wider southern African region.

2. FOOD SECURITY & HUMAN RIGHTS

Zimbabwe experienced a drought in the 2018/2019 agricultural season, resulting in large-scale crop failure. The 2019 Zimbabwe Vulnerability Assessment Committee projects an estimated 5.5 million rural Zimbabweans to be food insecure during the peak of the 2019/20 lean season, with 3.8 million people in need of food assistance. It has been estimated that up to 2.2 million people in urban areas are food insecure. Economic crises, recurrent droughts, and depletion of ground water are causing severe food and water shortages. Approximately 30% of the rural Zimbabwean population is undernourished and obtains water from unprotected sources.

CBNRM can and is enhancing food security and nutrition by scaling up production of honey, wild fruits, and game meat in Zimbabwe). In Masoka in Zimbabwe for example, income from wildlife has been used for maintenance and social projects. When times are bad and drought has reduced the crops, the community has often chosen to provide household payments or drought relief to households. The flexibility to make choices enabled the community to adapt to different circumstances. It strengthened the ability of the Masoka community to cope during droughts and improve food security. It offered the opportunity to use their income as an important part of community empowerment. The impact of food security on communities involved in CBNRM is also evident among the hunting and gathering in western Zimbabwe In the past, the CBNRM helped in meeting the Tshwa subsistence needs, seasonal reliance on bush food, mopane worms, were identified as an important food among the Tshwa.

Generally, households in Zimbabwe adopt several coping mechanisms to reduce the impact of food deficit.⁴⁴⁷ The variety of adopted household coping mechanisms often exposes the severity and intricacy of food deficit.⁴⁴⁸. For instances, adoption of coping strategies such as decreasing the number of mealtimes, paternal and maternal buffering, borrowing outside affinity or kinship linkage, borrowing from relatives and friends may not

⁴⁴¹ A Mambondiyani 'Groundwater Crisis in Zimbabwe Brought on by Droughts' Eos, 2 September 2020

⁴³⁸ NC Shereni & J Saarinen 'Community perceptions on the benefits and challenges of community-based natural resources management in Zimbabwe' (2021) 38(6) *Development Southern Africa* 879-895

⁴³⁹ USAID 'Food security'https://www.usaid.gov/zimbabwe/agriculture-and-food-security

⁴⁴⁰ As above

⁴⁴² FNC Zimbabwe National Nutrition Survey 2018. Food and Nutrition Council; Harare, Zimbabwe: 2018

⁴⁴³ ZimStat Inter-Censal Demographic Survey 2017. Zimbabwe National Statistics Agency; Harare, Zimbabwe: 2017.

⁴⁴⁴ USAID Community Based Natural Resource Management in Southern Afrca: A decision maker guide'

As above
 As above
 Author and MW Murphree 'Case Studies on Successful Southern African NRM and their impacts on poverty and Governance Zimbabwe: Masoka and Gairezi'. International Resources Group. Washington 2007
 As above

⁴⁴⁷WCJ Grobler W 'Food Insecure Household Coping Strategies: The Case of a Low Income Neighborhood in South Africa' (2014) 5 *Soc. Sci.* 100-106

⁴⁴⁸ BN Wambua 'The Status and Effects of Food Insecurity on the households and option in Semi-Arid Parts of Makueni District' (2013) 1 *Agric. Food Sci.* 171 - 175

be unusual.⁴⁴⁹ However, these strategies are reversible and do not incapacitate household in their future endeavour to recover from food deficit. In contrast, severe coping mechanisms such as avoiding food the entire day, migration and the sale of productive assets show deteriorating household economic and food situations and can weaken future household food security status.⁴⁵⁰

3. CLIMATE CHANGE: THREAT TO SUSTAINABLE USE IN CBNRM

Climate change is having its toll on sustainability of wildlife in Zimbabwe. Climate of drought conditions reduce the available aquatic habitat for water-dependent species such as hippopotamuses and elephants. ⁴⁵¹ For instance, Zimbabwe has a population of 83,000 elephants, much the same number as it had in 2001. However, two of Zimbabwe's four regional populations declined significantly between 2006 and 2014 with a loss of at least 20,000 elephants. 452 Climate change also has adverse impact in specific National Parks in Zimbabwe. Gonarezhou National Park (GNP) has a hot and semi-arid climate, which is characterised by highly seasonal and unreliable rainfall quantity and duration. 453 The park receives an average annual precipitation of approximately 466 mm with high interannual variability. 454 GNP has three distinct climatic seasons namely hot and wet (November-April), cool and dry (May-August) and hot and dry (September-October). Average monthly maximum temperatures are 25.9°C in July and 36°C in January. whereas average monthly minimum temperatures range between 9°C in June and 24°C in January. 455 Climate-related extreme events have affected the abundance of tree species. 456. Extreme events such as drought directly affect primary productivity and consequently the predator-prey populations. For instance, Drought in particular has caused large herbivore death in GNP. Large mammals, such as elephant, buffalo, hippo and large antelopes, have a low capacity to resist drought 457[55] and likely to be threatened by climate change. 458 Buffalos in particular are vulnerable to drought. 459 Rainfall in Zimbabwe Mana Pools National Park (MPNP) is characterised by monthly and

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⁴⁴⁹ F Joseph & B Kilonzo 'Strategies for coping with household food insecurity in Chipinge District, Zimbabwe' (2021) 1(2) *Humanities Southern Africa* 24

⁴⁵⁰ BM Selepe, SS Mtyingizane & MM Masuku 'Factors contributing to household food insecurity in Mhlontlo area, Eastern Cape' (2015) 4(1) *South Africa. Tour. Leis* 1-11

⁴⁵¹ OL Kupika et al 'Impacts of Climate Change and Climate Variability on Wildlife Resources in Southern Africa: Experience from Selected Protected Areas in Zimbabwe' Intech Open 2017

⁴⁵³ E Gandiwa et al 'The impact of African elephants on Acacia tortilis woodland in northern Gonarezhou National Park, Zimbabwe' (2011) 75 *Journal of arid Environments* 809-814

⁴⁵⁵ E Gandiwa & S Kativu 'Influence of fire frequency on Colophospermum mopane and Combretum apiculatum woodland structure and composition in northern Gonarezhou National Park, Zimbabwe' (2009) 51 *Koedoe* 1-13 ⁴⁵⁶ As above

⁴⁵⁷E Gandiwa & P Zisadza 'Wildlife management in Gonarezhou National Park, Southeast Zimbabwe: Climate change and implications for management' (2010) 25 *Nature and Faune*:96-106

⁴⁵⁸ CHD Magadza 'Environmental Monitoring and Assessment' (2000) 193-205

⁴⁵⁹ E Gandiwa 'Rainfall variability and its impact on large mammal populations in a complex of semi-arid African savanna protected areas' (2016) 57 *Tropical Ecology* 163-180

intra-annual variability with a mean annual rainfall of 724 mm .⁴⁶⁰ Rainfall variability has a distinct effect on the primary productivity of the area and hence the wildlife and community that it can support.

4. SUSTAINABLE USE OF WILDLIFE AS CLIMATE ADAPTATION & MITIGATION

Conservation activities relevant to adaptation and mitigation. Illegal harvesting of wildlife and harvesting and consumption of wild fruits and legumes are used to alleviate food shortages during drought and is critical to livelihoods and overall adaptive capacity.⁴⁶¹ Local ecological knowledge held by local communities on climate adaptation has been found useful in the Middle Zambezi Biosphere Reserve (MZBR), Zimbabwe. 462 These include knowledge in weather forcasting, wildlife resources, water conservation, indigenous plant food sources, and alternative income generation as way of adapting and coping with changing rainfall patterns, extreme temperatures, and droughts. 463 Similar findings have been observed by Communities around Victoria Falls in Zimbabwe Matabeleland province, which lies within the Kavango Zambezi (KAZA) Transfrontier Conservation Area adapt to climate change by using different methods. These include changes in livestock practices where people have sold some or all of their livestock in order to pay for food and other essentials. Others use changes in crop practices where people have reduced their farm area or completely abandoned farming. Farmers have also resulted to planting different crops, adopted conservation agriculture methods, or adjusted their planting calendar. There are practices of adjustment in livelihood including selling assets, such as livestock, selling crafts, providing casual labor, and fishing as alternatives to farming and livestock rearing.⁴⁶⁴

Also, there are tree planting and woodlot management in Zimbabwe's communal areas. Afforestation in the CA of Zimbabwe started in while ago with the establishment of eucalyptus plantations to replace the dwindling indigenous timber resources. With respect to general woodlot management, activities include watering, weeding, building small fences around seedlings, and spacing seedlings further apart. General woodlot management, activities include watering, weeding, building small fences around seedlings, and spacing seedlings further apart. General water, practicing traditional and Christian ceremonies to ask for rain during drought seasons used traditional knowledge to prepare

⁴⁶⁰ KM Dunham & AJ du Toit 'Using citizen-based survey data to determine densities of large mammals: A case study from Mana Pools National Park, Zimbabwe' (2013) 51 *African Journal of Ecology* 431-440

 ⁴⁶¹OL Kupila 'Local Ecological Knowledge on Climate Change and Ecosystem-Based Adaptation Strategies Promote
 Resilience in the Middle Zambezi Biosphere Reserve' (2019) Scientifica 1
 ⁴⁶² As above

⁴⁶³ As above

⁴⁶⁴ ABCG News 'ABCG Initiates Five Community Based Adaptation Projects in Zimbabwe to Empower Communities to Adapt to Climate Change' https://abcg.org/empowering-communities-to-adapt-to-climate-change-abcg-initiates-five-community-based-adaptation-projects-in-zimbabwe/

⁴⁶⁵ T Vangile 'The rural afforestation project in Zimbabwe: Effectiveness and Participation (1991)

⁴⁶⁶ P Jagger 'Investments and returns from cooperative and household managed woodlots in Zimbabwe: Implications for rural afforestation policy'(2008) 25 *Land Use Policy* 139–152

future climate.⁴⁶⁷ Migration is also a coping and adaptive approach as some migrate to South Africa.⁴⁶⁸

5. LEGAL AND POLICY ENVIRONMENT

5.1 Constitution of Zimbabwe, 2013

The right to an environment that is safe to the health and livelihood of all people and future generation is guaranteed under section 73. This provision offers redress to communities that have suffered pollution and environmental degradation. While the right is couched as an individual right, it can be argued that it applies to groups as well, as pollution and environmental degradation do not affect an individual only, but also affect the whole group or community. Section 13(2) of the Constitution requires that the State and its institutions must "involve the people in the formulation and implementation of development plans and programmes that affect them". In addition, Section 13(3) requires that such measures "protect and enhance the right of the people, particularly women, to equal opportunities in development" (Constitution, Section 13(4)). These provisions require the state to ensure that local communities benefit from the resources exploited in their areas (Section 18(2)).

The new Constitution provides for State institutions and agencies of government to promote and respect cultural values and practices so as to enhance the dignity and equality of Zimbabweans. Section 16(1) of the Constitution: "The State and all institutions and agencies of government at every level, and all Zimbabwean citizens, must endeavour to preserve and protect Zimbabwe's heritage". They are further required to preserve and protect Zimbabwe's heritage, which includes natural resources, and culture, as these are all important for the sustenance of local communities' livelihoods (Section 16(2)). In addition, they are required to ensure that there is "due respect for the dignity of traditional institutions" (Section 16(3)). Socio-economic rights, in particular, the right to food, shelter, and health care are guaranteed to people under sections 15, 28 and 29 respectively. Also, section 14 (1) is useful considering that people who constitute the CBNRM communities are often distinct, and most times a minority in their belief system. It provides that the 'State and all institutions and agencies of government at every level must endeavour to facilitate and take measures to empower, through appropriate, transparent, fair and just affirmative action, all marginalised persons, groups and communities in Zimbabwe'. The State is further required under section 33 to take measures and steps to preserve, protect. and promote IKS, which includes knowledge of medicinal and other properties of plant and animal life possessed by local community and people. Sections 71 and 72 dealing with the right to property and the right to agricultural land are to be enjoyed with some qualifications while section 74 of the Constitution provides that no person may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances. These are very progressive provision given the cultural significance and IKS often associated with the CBNRM approach.

⁴⁶⁷ T Marango' Potential strategies for harnessing indigenous rainmaking practices to combat the negative effects of climate change in Chmamimani district of Zimbabwe' submitted PhD thesis UNIVEN.

⁴⁶⁸ B Mandlen 'Impact on Climate Change and adaptation on cattle and sheep farming in the Eastern Cape Province South Africa' University of Venda 2011

5.2 Environmental Management Act (Chapter 20:27)

The Act provides for the development of an effective and efficient legal and administrative framework to facilitate management of natural resources. It establishes the Environmental Management Agency that administers it, and its objectives are to provide for the sustainable management of natural resources and protection of the environment; the prevention of pollution and environmental degradation; the preparation of a National Environment Plan and other plans for the management and protection of the environment. The EMA takes precedence over other laws that are in conflict or inconsistent with, as per Section 3 of the EMA. Section 4(1) of the EMA provides for environmental rights and principles of environmental management. These rights include the right to live in a clean environment that is not harmful to health; access to environmental information; protection of the environment for the benefit of present and future generations; participation in the implementation of legislation and policies that prevent pollution, environmental degradation, and secure ecologically sustainable management and use of natural resources while promoting justifiable economic and social development. All these rights promote the recognition of community rights and their participation in natural resources protection and management. Section 4(2) of the EMA Act sets out "General Principles of Environmental Management" that apply to the activities of all people and government departments in environmental management. These General Principles highlight the need for community participation and acknowledge that: a) All elements of the environment are linked and environmental management must be integrated; b) People and their needs should be put at the forefront of environmental management; c) All people should participate in environmental management; d) Communities must be made aware of environmental aspects through environmental education, awareness raising, sharing of knowledge and experience. This will build capacity to participate in environmental management, thereby leading to sustainable development; e) Development must be socially, environmentally, and economically sustainable; f) Negative impacts on the environment and people's rights that are anticipated should be prevented and where it is not possible to prevent them, they should be minimised and remedied; g) Any person who causes pollution or environmental degradation shall meet the cost of correcting such environmental pollution and degradation Sections 97, 98, and 99 of the EMA Act make provision for an Environmental Impact Assessment (EIA) to be carried out before the implementation of certain projects listed in the 1st Schedule (including projects involving Forestry, Mining and Quarrying, and Infrastructure Development)

5.3 Indigenisation and Economic Empowerment Act (Chapter 14:33)

The Act provides for support measures for the further indigenisation of the economy; to provide for support measures for the economic empowerment of indigenous Zimbabweans; to provide for the establishment of the National Indigenisation and Economic Empowerment Board and its functions and management; to provide for the establishment of the National Indigenisation and Economic Empowerment Fund; to provide for the National Indigenisation and Empowerment Charter; and to provide for matters connected with or incidental to the foregoing.

5.4 National Environmental Policy and Strategies, 2009

The Policy objectives and key policy principles promote community participation in natural resources management. Section 2.3.1 provides for the promotion of equitable access to and sustainable use of natural and cultural resources with an emphasis on satisfying basic needs, improving standards of living, enhancing food security, and reducing poverty. Equitable access to natural resources is a key concern to communities living in natural resource-rich areas, as sustainable use of natural and cultural resources cannot be achieved without the participation of local communities. Furthermore, it calls for sustainable development by optimizing the use of energy and resources, and minimising irreversible environmental damage, waste production, and pollution, through incorporating provisions for environmental assessment and management in all economic and development activities as set out in Section 2.3.4. If properly done, environmental assessments include the participation of all interested and affected stakeholders such as local communities.

5.5 Environmental Management (Access to Genetic Resources and Indigenous Genetic Resources Based Knowledge) Regulations (Statutory Instrument 61 of 2009)

It requires stakeholders (including communities) to be consulted where access to genetic resources is given to external parties, promoting community participation in the management of genetic resources. Consultation, which is a key aspect of good governance of natural resources, is strengthened by the requirement of Prior Informed Consent in Part 5. In addition, Section 8 sets out some very progressive provisions on access and benefit sharing of genetic and indigenous genetic resources. Communities are allowed to harvest, gather, collect, market, beneficiate, or exploit for gain genetic resources on a large or commercial scale. This creates an incentive for communities to participate in sustainable management of natural and genetic resources.

5.6 Communal Land Act (Chapter 20:04)

The Act provides for the classification of land in Zimbabwe as communal land and for the alteration of such classification. It seeks to alter and regulate the occupation and use of Communal Land. Communal Lands Act of 1982 and the Rural District Councils' Act (Chapter 20:04). While communities have rights over communal lands (such as use rights), they do not own the land. Land is owned by the state, and once valuable resources like minerals have been found, communities can be evicted and relocated. This has been the Achilles heel of community rights. Communal land belongs to the State and is regulated by the Communal Lands Act (Chapter 20; 04), passed as Act 20 of 1982. Under the Communal Lands Act, all communal land is vested in the President and managed on his behalf by rural district councils. The Rural District Council can allocate user rights over such land; in doing so it is to have regard for the traditional and customary use and allocation of such land, and to allocate it to the community that has traditionally and customarily used the land in question. The Communal Land Act gives communities usufruct rights (rights of use), in respect to land for agriculture, housing, and pasture. In reality, however, the State holds de jure (legal) ownership over land in rural areas, while rural communities and individuals exert de facto (factual or on the ground) rights. As such, communal farmers do not have secure tenure, as the government owns the land. Those on communal land do not have title over the land and cannot sell it, mortgage the property.

lease, or transfer the land since it does not belong to them. This situation leaves communities—especially communal farmers—vulnerable, as they may be displaced or evicted by the state. The Communal Land Act only gives communities use rights in respect of land for agriculture, housing, and pasture, meaning local communities have limited surface rights over land. In addition, communities cannot sell land, mortgage the property, lease, or transfer communal land. The existing legal position makes it very difficult for communal residents to directly receive compensation and payment from mining companies in a situation where minerals are discovered at a persons' homestead, field, or grazing land.

5.7 Water Act, 1998

The principal legislative framework for water use, management, and conservation in Zimbabwe is the Water Act. Different uses of water are recognised in the Water Act, including use of water for primary purposes and agricultural purposes (e.g., irrigation of land, fish farming, animal husbandry, and the keeping of poultry) where the amount of water used exceeds 10,000 litres per day. Use of water for local authority purposes, electrical purposes, railway purposes, road purposes, and miscellaneous purposes are also set out in the legislation. There are several provisions in the Water Act that have implications on the use, management, and conservation of water resources by local communities in Zimbabwe. The most important provision that seeks to protect the rights of communities is Sections 4(1) and (2) of the Water Act, which prohibits private ownership of water in Zimbabwe. These provisions protect the right to water for rural communities. Before the passage of the Water Act in 1998, commercial farmers enjoyed water rights to the exclusion of local communities, as water was being abstracted on a first come first serve basis. Of all the uses of water that are recognised in the Water Act, the use of water for primary purposes is of paramount importance to communities. Section 32 of the Water Act allows any person to abstract water for primary purposes or use, without the need for a permit where "primary purposes" is defined in Section 2 as the reasonable use of water for basic domestic human needs in or about the area of residential premises, the support of animal life, the making of bricks for the private use of the owner, lessee, or occupier of the land concerned, or for dip tanks. Arguably, the concept of primary use of water is meant to protect the right of people to access and use water for domestic purposes, and the important function that water plays in everyday life, especially for cooking, drinking, and bathing, among other domestic uses. To that extent this section advances the rights of local communities. This is vital for those in rural areas. However, the recognition of water use for "primary purposes" without the need for a permit does not entitle any person to enter or occupy any land for the purposes of extracting water where he/she is not entitled to be. Accordingly, one has to seek permission from the owner of the premises before water can be extracted for primary purposes.

Further, under Section 33(1) of the Water Act, Catchment Councils, whose function is to monitor the use of water, are empowered to limit the amount of water that can be extracted by people for primary purposes. The Water Act specified the need for government to safeguard the interests of occupants of communal land in relation to water. Section 48 of the Water Act gives the Minister responsible for communal lands the power to nominate any fit person to represent the interests of communities living on communal land before the Catchment Council on the hearing of any matter affecting the water supply

or any claim for servitudes. At least in theory, this provision is important in ensuring that communal residents are involved in decision-making processes related to the use, management, and distribution of water resources and advances their rights. 27 Section 54 of the Water Act provides the right to use water when volume is insufficient to satisfy demand. Under these conditions, the Catchment Council is empowered to revise, reallocate, or reapportion the water allocations and conditions to ensure equitable distribution and use of the available water in a river system. This section seeks to ensure that all users of water have access to water during dry periods, which is important in situations where there are irrigation schemes for communal farmers who rely on irrigated water from river systems. The Water Act is complemented by the Water (Permits) Regulations 2001 (Statutory Instrument 206 of 2001), facilitating the implementation of the water permit system provided for in the Water Act. For example, Section 3 of the Water (Permits) Regulations prohibits the abstraction of surface water or storage of water in excess of 5,000 cubic metres in a public stream for purposes other than primary purposes, without a surface water permit issued by the Catchment Council.

5.8 Rural District Councils Act (Chapter 29:12)

The Act, under Section (61), provides for the establishment of Environmental Committees and Sub-committees that have an oversight on the conservation of natural resources in Communal Lands. The Rural Land Occupiers (Protection) Act was enacted to protect land occupiers for land not yet acquired by the government. The Rural Land Occupiers (Protection from Eviction) Act (2001) was also passed to protect occupiers from eviction for a period of six months, if they had occupied the farm in question before March 2001. Resettlement is also regulated through the Resettlement Act and the Agricultural Land Settlement Act (Chapter 20: 01)

5.9 Mines and Minerals Act (Chapter 21:05)

Legislation as to ownership of subsoil resources is found in the Mines and Minerals Act (21:05). Section 2 states that the rights to minerals are vested in the President. In particular, section 2 states that the dominium in and right to search and mine for and dispose of all minerals, mineral oils, and natural gases, notwithstanding the dominium or right which any person may possess in and to the soil on or under which such minerals, mineral oils, and natural gases are found or situated, is vested in the President. This clearly means local communities and private landholders alike do not own sub-soil resources such as minerals. In cases where minerals are discovered on land being occupied by local communities (usually communal land), they will be removed and/or displaced from the land to make way for mining operations. The Mines and Minerals Act does not contain any rights for communities. Section 188(2) provides for the payment of compensation by holders of mining rights to private landowners where a mining site is established on such land. The rights of private landowners are protected given they have the right to claim payment as compensation for being denied the right to use and enjoy his/her property/land. Section 188(7) of the Mines and Minerals Act states that the Rural District Council (RDC) will act as landowner if a mine is developed on communal land and the payment of compensation is made to the District Development Fund. The local authorities are expected to use the money for development of the area under their jurisdiction. It is through the provision of such infrastructure that those on communal land

are expected to benefit from contributions by mining companies. However, in reality many RDCs have not prioritized community development projects and/or have not ploughed back the monies they get from mining companies to assist communities.

5.10 Communal Land Forest Produce Act (Chapter 19:04)

The Act controls the use of wood resources within communal lands, where such resources in communal lands should be used for domestic purposes by the residents only.

5.11Parks and Wildlife Act (Chapter 20:14) 1996

This is the key legislative framework for wildlife heritage conservation and management in Zimbabwe. It provides for the establishment and management of protected areas, conservation, and management of wildlife resources and associated habitats. The Act provides for the establishment and management of gazetted protected areas and conservation and management of the wildlife resources and landscape therein. The Act confers privileges on owners or occupiers of alienated land as custodians of wildlife. It gives the Appropriate Authority over wildlife to Rural District Councils for communal lands on behalf of local communities. Section 2 confers privileges on owners or occupiers of alienated land as custodians of wildlife and offers "Appropriate Authority" status to Rural District Councils over wildlife in their respective Communal Lands on behalf of their rural local communities, referred to as "producer communities". The Parks and Wildlife Act (Chapter 20:14) of 1996 does not clearly define what a "protected area" is, but provides for the: ...establishment of national parks, botanical reserves, botanical gardens, sanctuaries, safari areas, and recreational parks; to make provision for the preservation, conservation, propagation, or control of the wild life, fish, and plants of Zimbabwe and the protection of her natural landscape and scenery; to confer privileges on owners or occupiers of alienated land as custodians of wild life, fish, and plants; to give certain powers to intensive conservation area committees; and to provide for matters incidental to or connected with the foregoing

5.12 Forest Act 1949 (Chapter 19:05)

The Act provides for the management of woodlands on alienated land privately owned by the landowner. Here, the State is concerned by the over-utilization of forests for commercial purposes by landowners including members of local communities. Forest management is regulated by the Forest Act 1949 (Chapter 19:05) and the Communal Land Forest Produce Act 1988 (Chapter 19:04). The Communal Land Forest Produce Act regulates the exploitation and management of forests on communal land, while the Forest Act applies to state-owned forest resources and forests on private land. There are number of state agencies that have a direct and indirect impact on forest resources including the Ministries of Mines and Mining Development; Ministry of Environment, Water and Climate; Environmental Management Agency; Parks and Wildlife Management Authority; and the Forestry Commission. Forest management has always been controlled by the

government or its agencies. Section 15 of the Forest Act allows the Forest Commission to control and manage demarcated forests. The Act is silent on participation of communities in forest management and access to information. The Communal Land Forest Produce Act is silent on all aspects of participation and incentives for community participation. This has generated debate, resulting in efforts to ensure participation of community stakeholders in forest management, particularly those that dwell in areas near demarcated forests. Despite the exclusion of community participation in the provisions mentioned above, communities have, in practice, participated in shared forest management through the Forest Commission's Social Forestry Programme. The Social Forestry Programme has been made possible through an innovative and creative application of the Communal Areas Management Programme for Indigenous Resources. The Social Forestry Programme is not provided for in current legislation, however, causing a contradiction between the legislation and practical realities. Other Shared Forestry Management Schemes have existed in areas such as Mafungabusi in Gokwe District of the Midlands Province, in which local institutions such as Resource Management Committees (RMCs) supervise the implementation of agreed projects

5.12 Traditional Leaders Act (Chapter 29:17)

The Act provides for the management of natural resources by traditional leaders. Section 5(1) states that traditional chiefs have the responsibility to ensure land and natural resources are used and exploited according to the law, to control: (i) overcultivation; (ii) over-grazing; (iii) the indiscriminate destruction of flora and fauna; (iv) illegal settlements; and generally preventing the degradation, abuse or misuse of land and natural resources. The specific role of traditional leaders with respect to land and water management issues is also found in the Traditional Leaders Act (Chapter 29:17), which provides for the appointment of village heads, headmen, and chiefs. Section 5 stipulates functions related to land and natural resource management. On land issues, traditional leaders are required to ensure that communal land is allocated in accordance with the Communal Land Act and to ensure that all laws related to the use and occupation of communal or resettlement land are observed, and to prevent any unauthorised settlement or use of any land. Traditional leaders are also empowered to ensure that the land and its natural resources are used and exploited lawfully, and to control over-cultivation, overgrazing, and indiscriminate destruction of flora and fauna. They have the power to adjudicate and resolve disputes relating to land in their area, and to enforce all environmental conservation and planning laws. This means traditional leaders have an important function in promoting the rights of communities on land and water resources management. In reality, traditional leaders often clash with local authorities or municipalities in discharging their duties, as they typically feel undermined by local authorities. While the law provides that the traditional leaders consult local authorities on various matters, it is often felt that by engaging with local authorities, they are becoming subject to them. Many traditional leaders in Zimbabwe feel that they have lost their traditional and customary authority to various government departments, and this has created tension to the detriment of community interests. Politics has also affected the traditional leadership 33 portfolio in the distribution of land, as some traditional leaders have become partisan and are no longer serving community interests in distribution of land, but rather are serving interests of the political party.

5.13 Environmental Management (Access to genetic resources and indigenous genetic resources based knowledge regulations, 2009).

The purpose of the regulations is to protect the rights of local communities from exploitation of their indigenous generic materials and resources. It promotes indigenous resource based knowledge by conserving and strengthening indigenous communal systems of informed knowledge. The regulation provides for a framework that ensures access and benefit sharing of generic resources and ensures protection of these resources. It is the pillar for the access and benefit-sharing regime in Zimbabwe. In particular, it mirrors and operationalizes access and benefit-sharing provisions for local communities contained in the Constitution including Sections 13(4), 16(3), 18(2), and 33. Objectives of the Regulation include protection of the rights of local authorities and communities to their genetic materials and indigenous genetic resource-based knowledge through promotion of indigenous genetic resource-based knowledge by conserving and strengthening the indigenous communal systems of informal knowledge, collective innovations, and transmission thereof which do not conform to the notion of private ownership, private intellectual property rights, or individual privilege. The Regulation provides an appropriate system of access to genetic resources and indigenous genetic resource-based knowledge that is based upon the explicit prior informed consent of the local or indigenous communities and the State. The Regulation also implement appropriate mechanisms for the equitable sharing of the benefits arising from the use of genetic resources and indigenous genetic resource-based knowledge; that is, mechanisms that ensure the participation and agreement of concerned communities in decision-making regarding the distribution of benefits that may be derived from the use of genetic resources and indigenous resource-based knowledge.

Part 7 of the Regulation provides for communal rights claims, where the local community has the right to lodge a claim to redeem its rights to any genetic resources and the genetic resource-based knowledge. It asserts the rights of indigenous and local communities, medicinal practitioners, and communal rights claims over their genetic resources and indigenous genetic resources-based knowledge; and recognises community rights claims as "a claim by an indigenous community for the recovery or recognition of ancestral rights to genetic resource-based knowledge". The Instrument also bestows the community with a variety of other rights. Section 111, paragraph 8 provides that the community has exclusive specific rights, including: (i) Managing, maintaining, conserving, and reproducing genetic material that is indigenous to the community concerned;(ii) Harvesting, gathering, collecting specimens of or taking samples from or otherwise prospecting for, genetic materials that are indigenous to the indigenous community concerned; (iii) Harvesting, gathering, or collecting on a large or commercial scale genetic material that is indigenous to the community concerned; (iv) Cultivating or breeding on a large or commercial scale genetic materials that are indigenous to the community concerned; (v) Exporting from Zimbabwe any protected genetic materials indigenous to the community concerned; (vi) Marketing, beneficiating, or otherwise exploiting for gain genetic materials that are indigenous to the community concerned; (vii) Publishing any indigenous genetic resource-based knowledge that constitutes part of the common, traditional, or customary patrimony of an indigenous community; (viii) Publishing or registering a patent or other intellectual property right in relation to any genetic material

indigenous to the community concerned, including any indigenous resource-based knowledge

5.14 Zimbabwe Policy on Wildlife, 1999

The policy protects and maintains parks and wildlife for the conservation of wild resources and biological diversity. It promotes protection of various species and helps encourage conservation of wild animals and their ecosystem. It promotes rural-based wildlife industry by involving neighboring communities in the management of parks and wildlife estate. It allows rural community to manage their wildlife and natural resources for direct benefit. The policy aims at empowering land owners to conserve and derive benefits from wildlife resources existing on their land, inclusive of communal and private lands.

5.15 Wildlife Based Land Reform Policy 2006

The policy aims to promote the participation of Zimbabweans in the wildlife industry, especially local communities living in or adjacent to areas with wildlife. It encourages new participants outside core wildlife zones to engage in wildlife production where this can demonstrate profitability and sustainability, including in mixed wildlife—livestock systems. The policy aims to facilitate wildlife-based land reform to ensure profitable, equitable, and sustainable use of wildlife resources, particularly in areas where agricultural potential is limited. One of the policy objectives under Section 3 is to "to facilitate the indigenisation of the wildlife sector and to ensure more equitable access by the majority of Zimbabweans to land and wildlife resources and to the business opportunities that stem from these resources".

5.16 Forest Based Land Reform Policy, 2004

The policy ensures that forest development plans are integrated with overall land use plans and supports the development of environmentally sustainable small-scale industries including furniture manufacturing and wood carving. It also ensures strict control of invasive alien species encroaching from plantations into natural forests, cultural heritage sites, and protected biodiversity zones.

5. 17 National Museums and Monuments Act (Chapter 25:11), 2001

The Minister may declare National Monuments under this Act. The discovery of any ancient monument or relic must be declared to the National Museums and Monuments Board by the discoverer or the owner or occupier where the relic occurs. The state can acquire the land on which the monument or relic occurs for its preservation or analysis. Section 23 of the National Museum and Monuments Act empowers the State to compulsorily acquire any such sites and the surrounding land, even in the area of jurisdiction of traditional leaders and their communities. The National Museum and Monuments Act does not acknowledge local community rights over these areas, and disempowers them in as far as the governance and control of such areas is concerned, weakening the power, authority, and status of traditional institutions