AWF LARGE LANDSCAPE PRIORITIZATION - HOW AWF DECIDES WHERE TO WORK

INTRODUCTION:

AWF was founded in 1961 primarily to develop the capacity of Africans to protect and manage wildlife in natural areas. However, Africa is dynamic, as are challenges and opportunities for conservation and sustainable development. In the late 1990s, AWF was developing its 10-year strategy and asking at what scale it would continue investing to achieve significant conservation and related economic impact across Africa. AWF settled on landscape-scale conservation, henceforth adapting its existing and future on-the-ground programs to a large landscape perspective implemented as the *AWF African Heartland Program*[1][2] across West, Central, East, and Southern Africa. AWF landscapes reflect the needs of conservation targets – those biological & non-biological entities – that conservation efforts strive to secure in perpetuity. Importantly, people and their needs are central to the AWF program. This paper summarizes key aspects of AWF's landscape conservation including definition, objective, how AWF selects African conservation landscapes, list of potential and current landscapes we have considered and invested in across Africa, ending with a summary of threats we anticipate and mitigate.

AWF LANDSCAPE LEVEL CONSERVATION

In 1999 AWF established its African Heartland Program, a landscape-level approach to conservation that includes both conservation and nature-based livelihood improvement goals. The Program aims to conserve Africa's biodiversity in large conservation landscapes encompassing terrestrial and aquatic ecosystems that have the scope to maintain wild species and conserve ecological processes in perpetuity and, to achieve sustainable development. AWF's landscape conservation program augments protected areas and helps to manage the surrounding areas, considering the needs of native species, ecosystem processes and local stakeholders. Such landscapes have the potential to provide economic benefits and ecosystem services that strengthen livelihoods of local people.

An AWF conservation landscape comprises a mosaic of land units under different management and ownership regimes - national parks, private land and community land - ranging in size from 7,000 km^2 to 95,000 km^2. Some landscapes are within a single country, such as the Ruaha Landscape in southern Tanzania; however, many span international borders of two or more countries, forming

[1] Muruthi, P. M. 2005. African Heartlands: a science-based and pragmatic approach to Landscape-scale conservation in Africa. AWF Conservation in Practice Papers. www.awf.org/aboutus/publications/ . Reproduced from Burgess, N. D., et al. (eds). 2004. Terrestrial Ecoregions of Africa and Madagascar. World Wildlife Fund, Washington. Island Press.

[2] Henson, A., Williams, D., Dupain, J., Gichohi, H., and P. Muruthi. 2009. The Heartland Conservation Process: enhancing biodiversity conservation and livelihoods through landscape-scale conservation planning in Africa. *Oryx* 43(4): 508 – 519.

transboundary landscapes, like the Mid-Zambezi landscape spanning Mozambique, Zamabia and Zimbabawe (Figure 1)
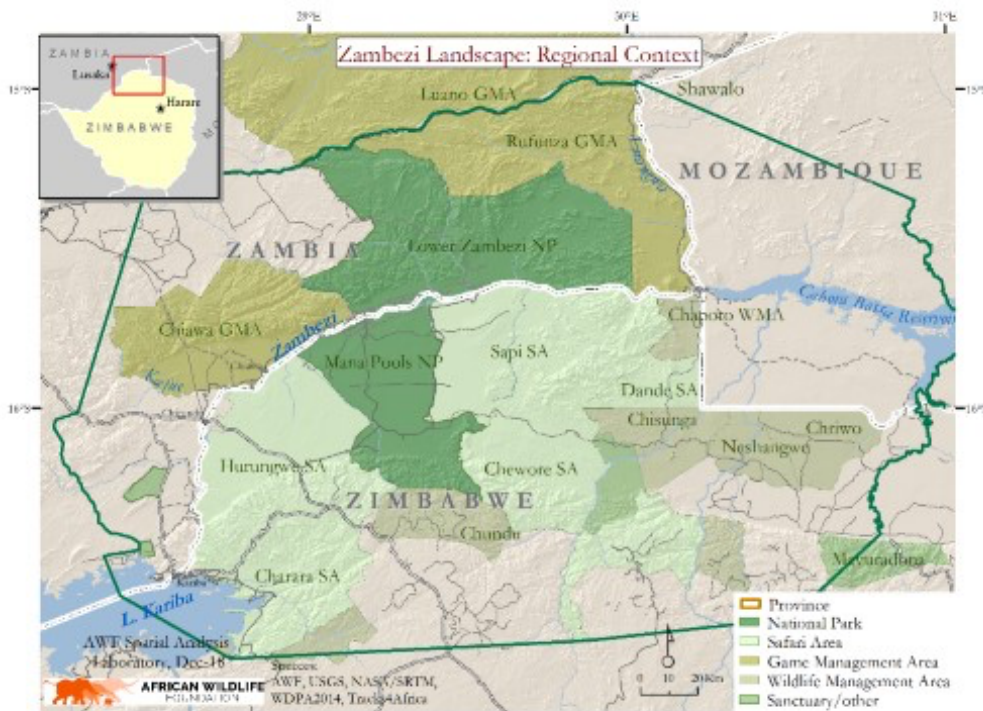

Figure 1: Middle Zambezi landscape

AWF has designed a suite of intervention strategies and applies them in different ways and intensities across the various Heartlands. These strategies are informed by an iterative planning process that includes systematic conservation assessment along with a compilation of existing information gathered from the experience of AWF and its partners. Strategies AWF employs in Heartlands include: convening key stakeholders to agree a shared landscape vision and governance, protection of critical habitats including protected areas and corridors by bringing land under conservation management, development of conservation-based enterprises, applied research and species conservation, development of capacity and leadership for conservation and, engagement in policy and legislation work with partner governments. The interventions are designed to halt or reverse the process of landscape fragmentation while enhancing benefits to multiple stakeholders. To the extent possible, AWF clusters these often complementary activities to result in maximum conservation impact. Conservation and economic success in the activity clusters form the basis for replication across the landscapes.

AWF Landscape Conservation Process (LCP), considers the national development agendas, business considerations, and the potential to forge meaningful partnerships with each host country's local and international players. Strong ties with policy frameworks feed the global conservation agenda and legal instruments. The LCP is people-centred and stakeholder-led. It follows the Rights-Based Approach to Conservation through an elaborate Free, Prior and Informed Consent method with conflict resolution and grievance reporting mechanisms for the affected and interested parties. Since 1999, AWF has implemented landscape conservation programs in southern, east, central and west Africa with seventeen currently active.

AWF LANDSCAPE SELECTION

To select the large priority African conservation landscapes, AWF builds on regional and global site-selection approaches used by other organizations (e.g., Birdlife International's important bird areas, Conservation International's hotspots, and World Wildlife Fund's ecoregions). While little work was being done to prioritize investment at the landscape scale, analyses by other organizations enhanced our landscape prioritization across sub-Sahara Africa. As a science-based organization, AWF starts with the science and thereafter layers in other critical aspects to further determine where best to work. We undertakea spatial modelling prioritization analysis to identify Africa's most biologically important with the potential to establish a conservation program at scale designed to achieve real impact (Figure 2). Two sets of questions drive AWF's approach to landscape selection:

1. Where are the most biologically significant areas for conservation in Africa, considering species and habitat values?
   a. Is the ecologically intact core?
   b. Is there high biological value based on species diversity and endmism?
   c. Are there endabgered and/or declining species currently or historically present in the landscape? (AWF focal species strategies)
   d. Is there potential to enhance ecological functions by restoring or maintaining connectivity?
   e. Does this add a different habitat type(s) to AWF's landscape portfolio?

2. How feasible and costly would it be for AWF to initiate and implement conservation programs at scale in each area? What are AWF's chances for conservation success?
   a. What are threats to conservation and related trends? What impacts and implications will climate change bring for both people and wildlife?
   b. Are protected areas available to serve as conservation building blocks/anchors?
   c. Is there an appropriate niche for AWF?
   d. Are there appropriate partners with whom to work?
   e. Can conservation, social and economic and/or commercial benefits be generated that will contribute to the abatement of threats in cost-effective ways?
   f. Can AWF and partners raise the necessary funds?
   g. Are there insurmountable political barriers to success?
   h. Will conservation actions offer scope for innovative solutions and methodologies?
   i. Would the landscape program help develop expertise that is replicable in other areas?
   j. What economic activities can we implement to improve /safeguard human wellbeing in line with conservation outcomes?

The approach factors distributions of biological significance and conservation threats for Africa and then integrates them to determine conservation priority areas which AWF considers in delineating potential priority landscapes.

Central among the scientific objectives is the selection of target species and habitat types that help drive the selection of priority landscapes. AWF uses a short list of large, charismatic mammals recognizing their roles as flagship (ability to garner attention and support) and umbrella species (their ranges overlap significantly with those of many species). Landscapes with two or more focal

species are weighted higher than those with less. AWF leverages its species (African apes, elephants, giraffes, large carnivores, and rhinoceros) strategies, ranking the populations of each target species.

After the species layer, AWF's analysis incorporates other factors representing:

- Biodiversity: Key Biodiversity Areas (KBAs)[3] and significant ecoregions (terrestrial and freshwater)[4]
- Habitat integrity: Wildlands (areas that are relatively intact and removed from roads, settlement, and infrastructure, the more remote, the higher the ranking)
- Presence of protected areas
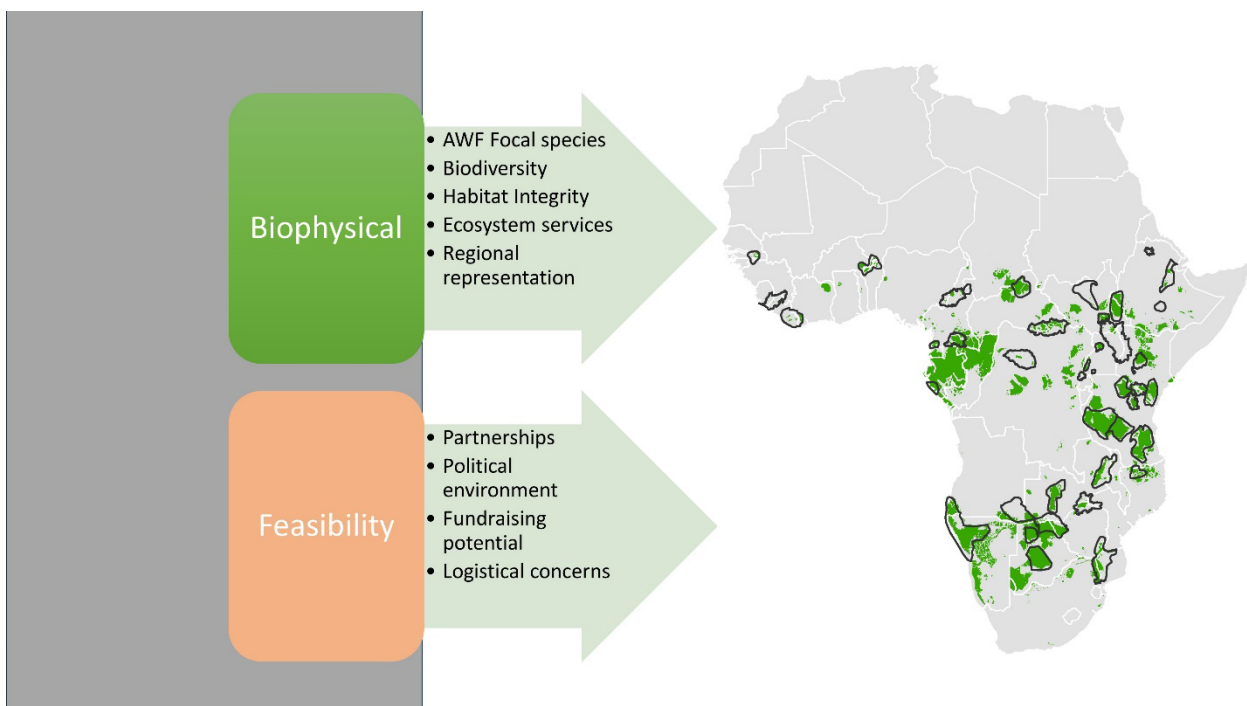- Ecosystem services: emphasizing water provisioning and carbon storage.

Figure 2: AWF landscape prioritization process profiling biophysical and feasibility considerations in landscape selection. Top-tier biophysical areas are green on the map with current priority landscapes.

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[3] https://www.keybiodiversityareas.org/
[4] Olson et al., 2001; www.worldwildlife.org/ecoregions).
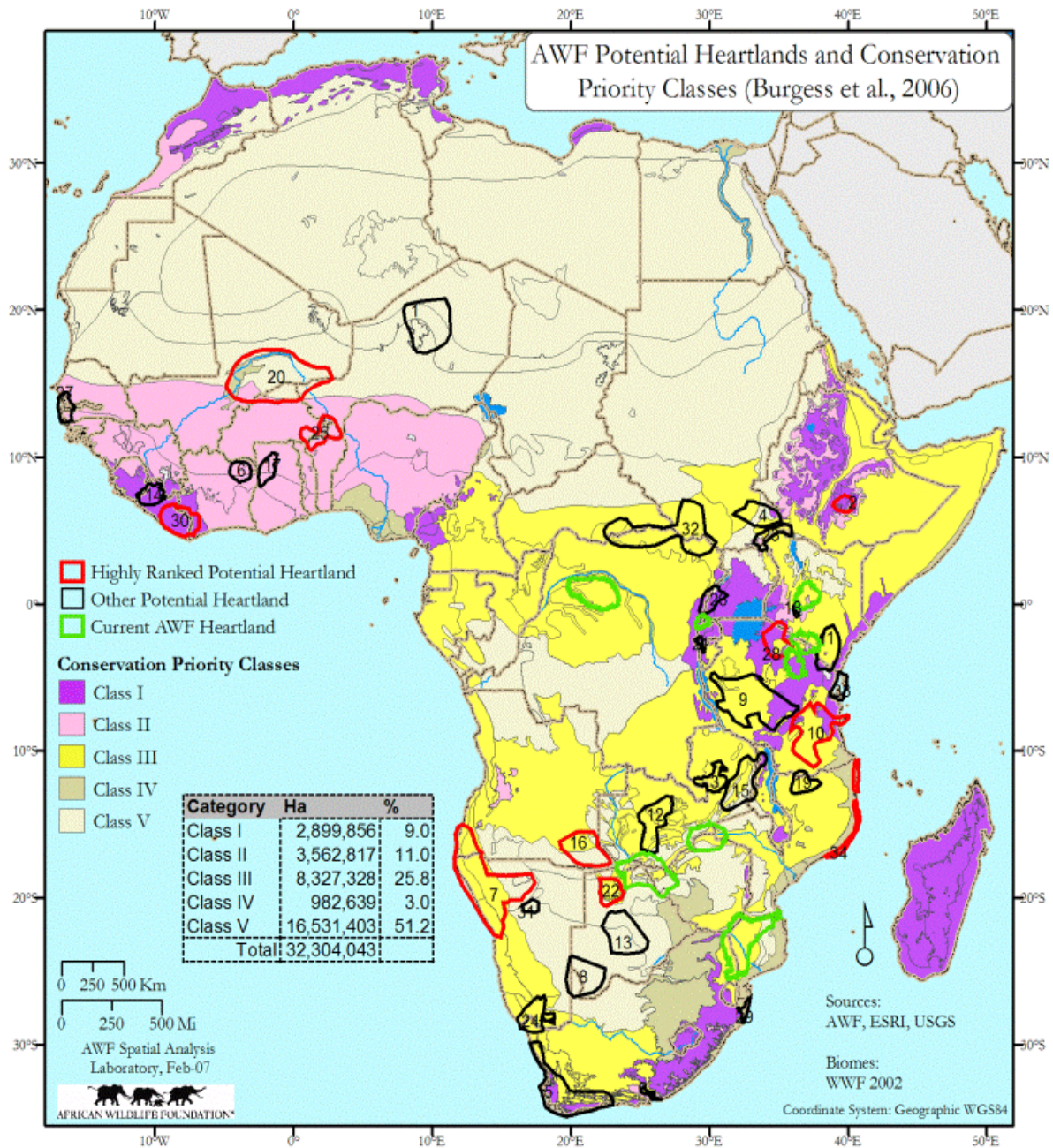
Figure 3. African conservation priority classes derived from integrating threats and biological values applied to WWF ecoregions – 2007 analyses.

Key: Conservation priority classes derived from integrating biological significance and threats.
Class I: Outstanding global biological significance/ Highly threatened
Class II: Outstanding regional biological significance/ Highly threatened
Class III: Outstanding global or regional biological significance/ Relatively stable and intact
Class IV: Outstanding regional biological significance and national importance/ Highly threatened
Class V: Important National biological significance/ Relatively stable and intact ecoregion

EASTERN AFRICA

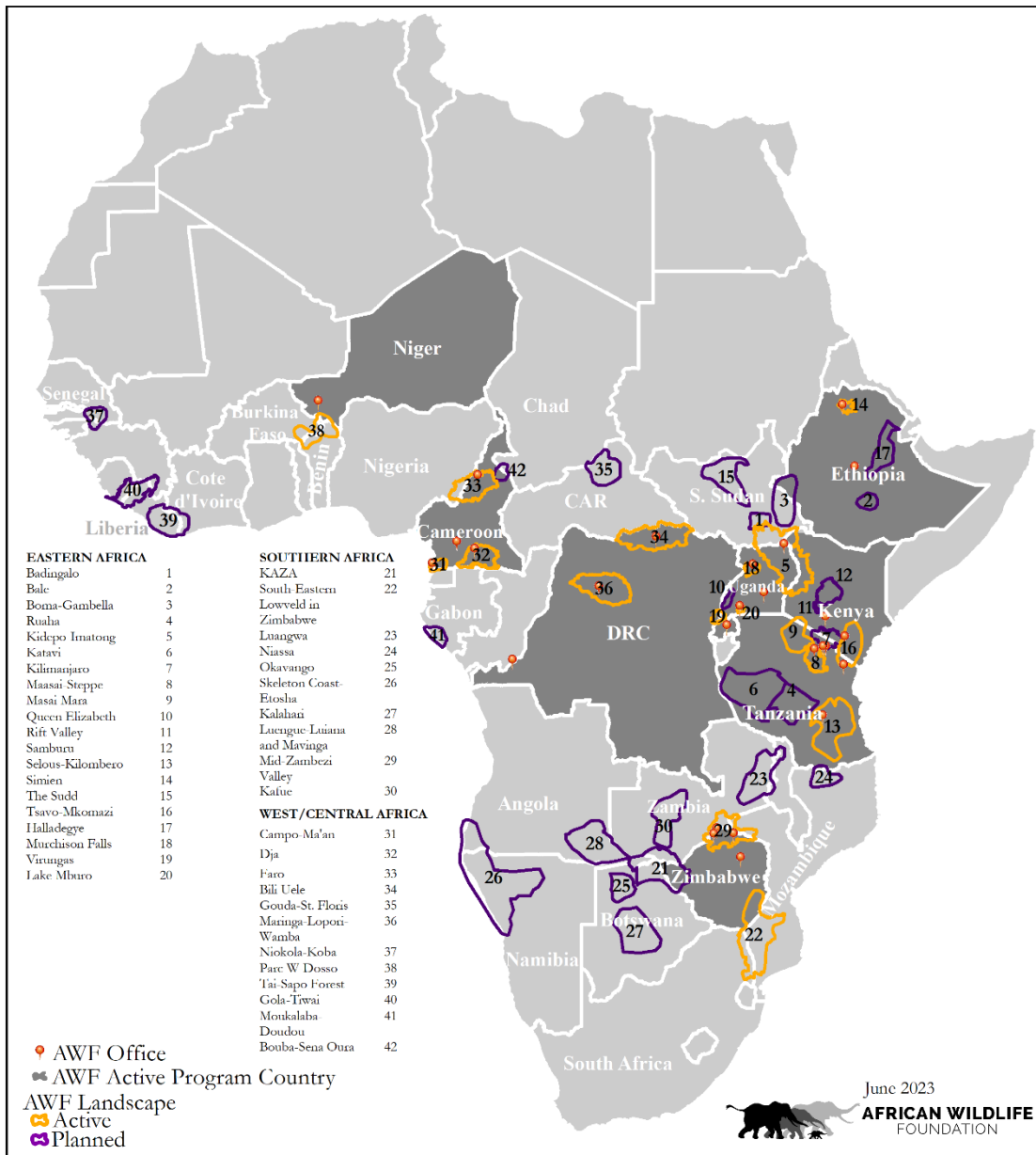|	
Badingalo	1
Bale	2
Boma-Gambella	3
Ruaha	4
Kidepo Imatong	5
Katavi	6
Kilimanjaro	7
Maasai Steppe	8
Masai Mara	9
Queen Elizabeth	10
Rift Valley	11
Samburu	12
Selous-Kilombero	13
Simien	14
The Sudd	15
Tsavo-Mkomazi	16
Halladegye	17
Murchison Falls	18
Virungas	19
Lake Mburo	20

SOUTHERN AFRICA

KAZA	21
South-Eastern Lowveld in Zimbabwe	22
Luangwa	23
Niassa	24
Okavango	25
Skeleton Coast-Etosha	26
Kalahari	27
Luengue-Luiana and Mavinga	28
Mid-Zambezi Valley	29
Kafue	30

WEST/CENTRAL AFRICA

Campo-Ma'an	31
Dja	32
Faro	33
Bili Uele	34
Gouda-St. Floris	35
Maringa-Lopori-Wamba	36
Niokola-Koba	37
Parc W Dosso	38
Tai-Sapo Forest	39
Gola-Tiwai	40
Moukalaba Doudou	41
Bouba-Sena Oura	42

● AWF Office
⋈ AWF Active Program Country
AWF Landscape
🔲 Active
🔲 Planned

June 2023
AFRICAN WILDLIFE FOUNDATION

Figure 4: AWF 42 African conservation landscapes, active (17) and planned (25).

AWF conservation landscapes are in West, Central, East and Southern Africa, some located within one country (e.g. Simien Mountains, Ruaha & Maringa-Lopori-Wamba), two countries (e.g.Tsavo-Mkomazi,), three countries (e.g. Kidepo, Dja, Limpopo) and even five countries (Kazungula). As stated earlier, the landscape is not defined by the size of the area, but rather by the interacting elements that are meaningful to the management objectives. AWF landscapes cover most biomes of Africa with each landscape covering multiple habitat and land use types. AWF is actively investing in 17 conservation landscapes (Figure 4, Table 2).

Table 2: AWF's 42 landscapes, their locations and current AWF activity

#	Landscape	Countries	~Size (km2)	Region	Major Habitat/ Ecoregion Type	Current AWF activity (June 2023)
1	Bandingilo	South Sudan	15,977	East	Woodlands, marshland	No
2	Bale Mts	Ethiopia	14,886	East	Afromontane grasslands	No
3	Boma-Gambella	Ethiopia – South Sudan	56,332	East	Tropical grassland/ savannas	No
4	Ruaha	Tanzania	61,447	East	Savannah, woodland	No
5	Kidepo	Uganda, South Sudan, Kenya	136,329	East	Savannah, woodland	Landscape since 2012
6	Katavi	Tanzania	121,290	East	Tropical grassland/ savannas	No
7	Kilimanjaro	Kenya, Tanzania	24,868	East	Savannah wooded grasslands	Past (1970s – 2017)
8	Maasi Steppe	Tanzania	22,458	East	Savannah wooded grasslands	Landscape since 1998
9	Mara-Serengeti	Kenya, Tanzania	40,013	East	Savannah	Partner/enterprise, species
10	Queen Elizabeth	Uganda	6,441	East	Tropical grassland/ savannas	No
11	Rift Valley	Kenya	1,623	East	Tropical grassland/ savannas	No
12	Samburu	Kenya	26,303	East	Savannah	Past (2000-2017)
13	Selous/Kilombero	Tanzania	97,229	East	Tropical grassland/ savannas	Landscape since 2015
14	Simien	Ethiopia	7,420	East	Afromontane grasslands	Landscape since 2017
15	The Sudd	Sudan, South Sudan	63,356		Flooded grassland/ wetland	No
16	Tsavo - Mkomazi	Kenya, Tanzania	45,592	East	Tropical grassland/ savannas	Landscape since 2019
17	Halledeghe	Ethiopia	40,949	East	Tropical grassland/ savannas	No
18	Murchison Falls	Uganda	8,799	East	Tropical grassland/ savannas	Landscape since 2017
19	Virunga	DRC, Rwanda, Uganda	7,503	Central	Afromontane Forest	Landscape since 1990s
20	Lake Mburo	Uganda	2,020	East	Tropical grassland/ savannas	Landscape, 1990s
21	Kazungula	Angola, Botswana, Namibia, Zambia, Zimbabwe	96,521	South	Tropical grassland/ savannas	No
22	Limpopo	Mozambique, South Africa, Zimbabwe	119,918	South	Woodland, savanna	Partner, species, since 2015
23	Luangwa	Zambia	75,259	South	Woodland, savanna	No
24	Niassa	Mozambique	25,775	South	Savannah	No
25	Okavango d	Botswana	31,335	South	Flooded grassland/ wetland	No
26	Skeleton Coast/ Etosha	Namibia	226,806	South	Desert/ tropical grassland	No
27	Kalahari	Botswana	87,671	South	Desert	No

28	Luengue-Luiana-Mavinga	Angola	92,790	South	Forest	No
29	Middle Zambezi	Zambia, Zimbabwe, Mozambique	60,666	South	Tropical grassland/ savannas	Landscape since 2000
30	Kafue	Zambia	65,932	South	Tropical grassland/ savannas	No
31	Campo Maan	Cameroon, E. Guinea?	9,007	Central	Forest	Landscape
32	Dja	Cameroon, Gabon?, Congo?	36,526	Central	Forest	Landscape since 2016
33	Faro	Cameroon, Nigeria	52,240	Central	Savannah	Landscape since 2017
34	Billi Uele	D R C	79,556	Central	Forest, savannah	Landscape since 2017
35	Gouda St Floris	CAR		Central	Savannah	No
36	Maringa Lopori Wamba	DRC	72,877	Central	Tropical Forest	Landscape since 2004
37	Niokolo Koba	Senegal	19,482	West	Savannah	No
38	Park W Complex	Burkina Faso, Benign, Niger	42,137	West	Tropical grassland/ savannas (Sahel)	Partner, since 2018
39	Tai Sapo	Liberia	55,095	West	Tropical Forest	No
40	Gola - Tiwai	Sierra Leone – Liberia	41,862	West	Tropical forest (Upper Guinean)	No
41	Moukalaba-Doudou	Gabon	15,637	Central	Tropical rainforest, savannahs	No
42	Boubba	Cameroon, Chad	10,549	Central	Savannah	No