



Mpatamanga Hydropower Project

Environmental & Social Impact Assessment Volume II – Main ESIA Report

Sub-volume 4: Chapter 5 – Annexes 17 to 27

Prepared for
MHPL

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Revision Record

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To limit the size of the files of the ESIA document disclosed on internet, the ESIA Volume II has been divided into sub-volumes.

This sub-volume 4 contains Chapter 5 annexes 17 to 27.

Volume II – ESIA Report

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This sub-volume

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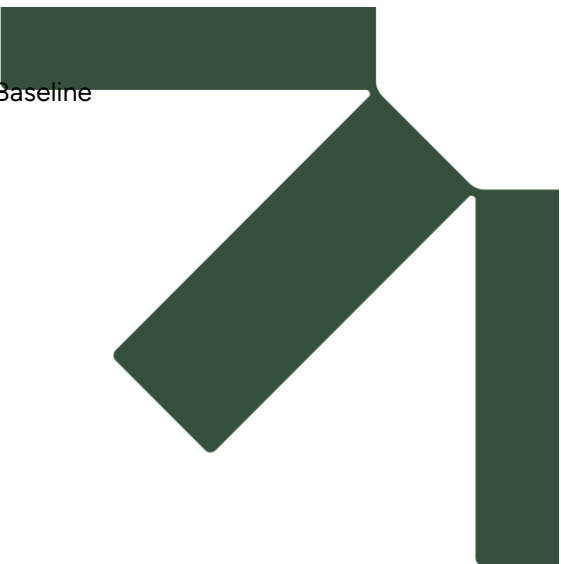
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Annex 5-17: Photographs of Fish Species Caught in 2023 Surveys



Plate 1. Fish species recorded in the Middle Shire River and its tributaries during surveys conducted in 2023.

<p><i>Opsaridium microcephalum</i>: Male approx 10cm TL in full breeding condition from Lisungwe River (Photo: R. Palmer).</p>	<p><i>Opsaridium microcephalum</i>: Female from Lisungwe River (Photo: R. Palmer).</p>
<p><i>Opsaridium microcephalum</i>: Recently hatched fry, plus specimens approx. 6-7cm TL from the Lukhubula River at the base of the escarpment</p>	<p><i>Enteromius trimaculatus</i></p>
<p><i>Enteromius</i> sp. nov. "cf. viviparus"</p>	<p><i>Labeobarbus johnstonii</i></p>
<p><i>Labeo cylindricus</i></p>	<p><i>Amphilius hageri</i></p>
<p><i>Clarias gariepinus</i></p>	<p><i>Chiloglanis</i> sp. nov. "Shire"</p>



	
<p><i>Astatotilapia calliptera</i></p>	<p><i>Oreochromis mossambicus</i></p>

Annex 5-18: Rationale for Omitting Lake Malawi Fish Species



The following five species have been omitted as 'key species' for the Middle Shire for the following reasons:

Labeo mesops

Labeo mesops is an endemic Lake Malawi species that inhabits calm inshore areas of Lakes Malawi and Malombe, together with the Upper Shire and the Middle Shire near its outlet from Lake Malombe. It ascends the lower stretches of inflowing streams to spawn when they first come down in flood early in the rainy season. The eggs are laid over flooded banks and grasses. They rapidly develop and hatch, and the fry rise to the surface and are carried back to the lake in the receding floodwaters. The species is classed as Critically Endangered because of a collapse in its lake populations in Malawi in the early 1960s. This collapse had two reasons: (1) overfishing when gathering around stream mouths and in the streams to spawn; and (2) deforestation of the stream catchments that leads to short-lived flash-flooding, thereby smothering the eggs in silt and/or leaving them high and dry as the stream rapidly recedes. The danger of this happening was recognised even in the 1940s (Lowe 1952). Populations continued to thrive on the Mozambique side of the lake as a result of the long civil war but have now declined rapidly in the last two decades as a result of the rapid rise in human population in the catchment.

The Upper Shire River hosts a healthy population of *L. mesops* because (1) the area in Liwonde National Park is protected from fishing and (2) The Liwonde National Park protects numerous small temporary stream catchments including the riparian vegetation. This provides ideal spawning habitat (Tweddle, 2019).

Below Matope there is a marked change in the character of the river as it narrows and becomes primarily fast-flowing with rocky outcrops and rapids. This creates an unsuitable habitat for *Labeo mesops* and its algal/detritus feeding niche is replaced by *Labeo cylindricus*, a species that is abundant throughout the Middle Shire and indeed in the majority of the rivers and streams of the region. This niche segregation can be observed in Lake Malawi itself, where *L. cylindricus* is found in abundance on all rocky shores grazing on epilithic algae on the rocks.

Labeo mesops therefore has no presence in the Middle Shire in the project footprint and the very rare specimens found there are involuntary stragglers with no chance of establishing populations.

Bagrus meridionalis

While *Bagrus meridionalis* is listed as Critically Endangered in the red data list, this assessment was based entirely on the decline in trawl catches in the southern part of the lake. The species has healthy populations on rocky shores throughout the rest of the lake. *Bagrus* live offshore in deeper waters during daytime but migrate inshore at night to feed on sleeping cichlids (Tweddle & Boddington (1992). They are very rarely found in rivers, indeed in three decades of sampling by D. Tweddle in all the rivers flowing into the lake, only one small juvenile was caught, in the Linthipe River very close to the lake.

The species occurs in small numbers in the Middle Shire close to its outflow from Lake Malombe in Liwonde National Park, but further downstream it disappears from catches because its ecological requirements are not present. Occasional stragglers are found further downstream, e.g. I am aware of one juvenile specimen caught in the Lower Shire in the last 50 years.

Oreochromis karongae* and *Oreochromis squamipinnis

These two species of chambo are treated together. Both were grouped together in the Middle Shire species list by Tweddle *et al.*, (1979) but only because juveniles cannot be separated from one another. Chambo are lacustrine species endemic to Lakes Malawi and Malombe. Small shoals rarely move into the wide slow-flowing section of the Middle Shire in Liwonde National Park. Juveniles very rarely become entrapped in faster flowing water and get swept into the river in the project area but this is not through choice. The chambo species are replaced ecologically in the river by the unrelated *Oreochromis shiranus* (and very recently by the alien *O. mossambicus*) and *O. shiranus* is found throughout the Middle Shire and into the section of the Lower Shire just below Kapichira falls. From Chikwawa downstream *O. shiranus* is absent and replaced by *O. mossambicus* and *O. placidus*.



Serranochromis robustus

Serranochromis robustus is a Lake Malawi endemic species. It is a lurking predator in two habitats, (1) along relatively calm rocky shores in the lake, where it is found at the transition zone between rocks and sand at about 4-8 m depth, and (2) in reedbeds in the same depth zone in Lake Malombe and the Upper Shire and Middle Shire near its outlet from Lake Malombe in Liwonde National Park.

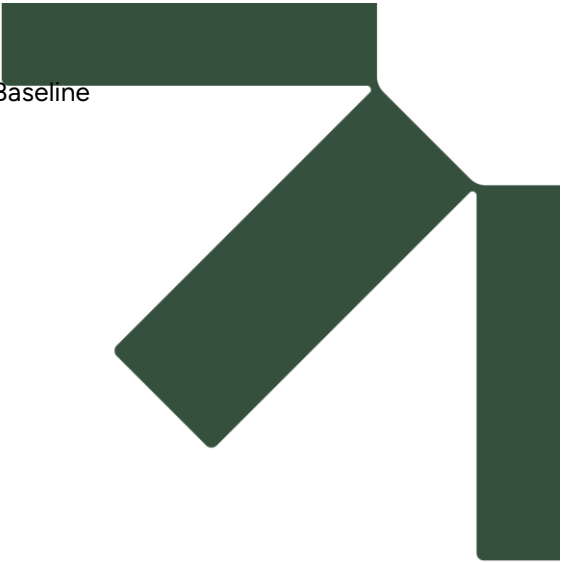
The clearance of the weed beds from Lake Malimbe and the Upper Shire River by the nacho net fishery in the late 1970s/ early 1980s caused a collapse of the populations there, and the species is targeted in Lake Malawi by hook-and-line fishers.

Small juveniles have been recorded down through the Middle Shire, with a single record in the Lower Shire in the 1970s, but these are stragglers and suitable habitat is largely absent in the project area. The rises and falls in river level as a result of hydroelectric operations are not conducive to the survival of this species.

Annex 5-19: 2023 Terrestrial Ecology Survey Itinerary



Date	Survey Area / Task	Overnight	Team Members
25 April 2023	Travel to Blantyre	Blantyre	W McClelland (SLR)
26 April 2023	Induction & planning at MHPL	Blantyre	W McClelland (SLR)
27 April 2023	Main Dam wall and Spillway, Powerhouse, Temporary Construction Facilities (alt 2) (left bank)	Geotech Camp	W McClelland (SLR), Ibrahim Mitole (MHPL)
28 April 2023	Return Main Dam to Blantyre Data entry and recovery	Blantyre	W McClelland (SLR), Ibrahim Mitole (MHPL)
29 April 2023	400kV Phombeya substation to Nkula/Tedzani. Upper portion of inundation zone downstream of Tedzani	Blantyre	W McClelland (SLR), Ibrahim Mitole (MHPL)
30 April 2023	D McCulloch travel to Blantyre.	Blantyre	W McClelland (SLR)
1 May 2023	First attempt to reach 132kV transmission line sample points	Blantyre	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole (MHPL)
2 May 2023	Surveyed downstream EFlow sites 9, 13 and 14 (between Chikwawa and upper Elephant Marsh)	Majete WR Research camp	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole (MHPL)
3 May 2023	Surveyed downstream EFlow sites 4A, 4, 5, 6 and 7 (Mkulamadzi area in MWR)	Ngon'a Lodge	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole (MHPL)
4 May 2023	Surveyed downstream EFlow site 8. Drove back to Blantyre	Blantyre	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole (MHPL)
5 May 2023	Second attempt to reach sample points along 132kV transmission line (southern road route)	Blantyre	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole (MHPL)
6 May 2023	Surveyed parts of the 400 kV line and two areas in the central part of the main dam inundation zone	Mwanza Hotel	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole & Manasseh Matemba (MHPL)
7 May 2023	Surveyed the western Resettlement Area, dam wall and quarry (right bank), and parts of the lower inundation zone of the main dam	Mwanza Hotel	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole & Manasseh Matemba (MHPL) Joined by Multiconsult (CIA) (Jorn Stave & Jameston Kamwendo)
8 May 2023	Surveyed the regulating dam basin (right bank) and portions of the access road to the dam, as well as several sites along the lower part of the 400 kV line	Mwanza Hotel	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole & Manasseh Matemba (MHPL). Joined by Multiconsult (CIA) (Jorn Stave & Jameston Kamwendo)
9 May 2023	Surveyed sample sites along the 400 kV line and the main dam inundation zone at the Lisungwe River / Shire River junction	Blantyre	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole (MHPL)
10 May 2023	Surveyed temporary construction facilities and operator camp facilities south of Mpatamanga Dam (left bank), as well as quarry and a portion of the eastern Resettlement Area	Blantyre	W McClelland & Doug McCulloch (SLR), Ibrahim Mitole (MHPL)
11 May 2023	MHPL debrief meeting Data entry	Blantyre	W McClelland & Doug McCulloch (SLR)
12 May 2023	Return to South Africa		



Annex 5-20: 2023 Field Reference Points for Habitat Mapping



Figure 5-334a: Location of Vegetation Field Reference Points (FRP) and Walked Transects (TMS) for 2023 Fieldwork. Note these correspond to the MPT numbering provided in the photo logsheets below the maps.

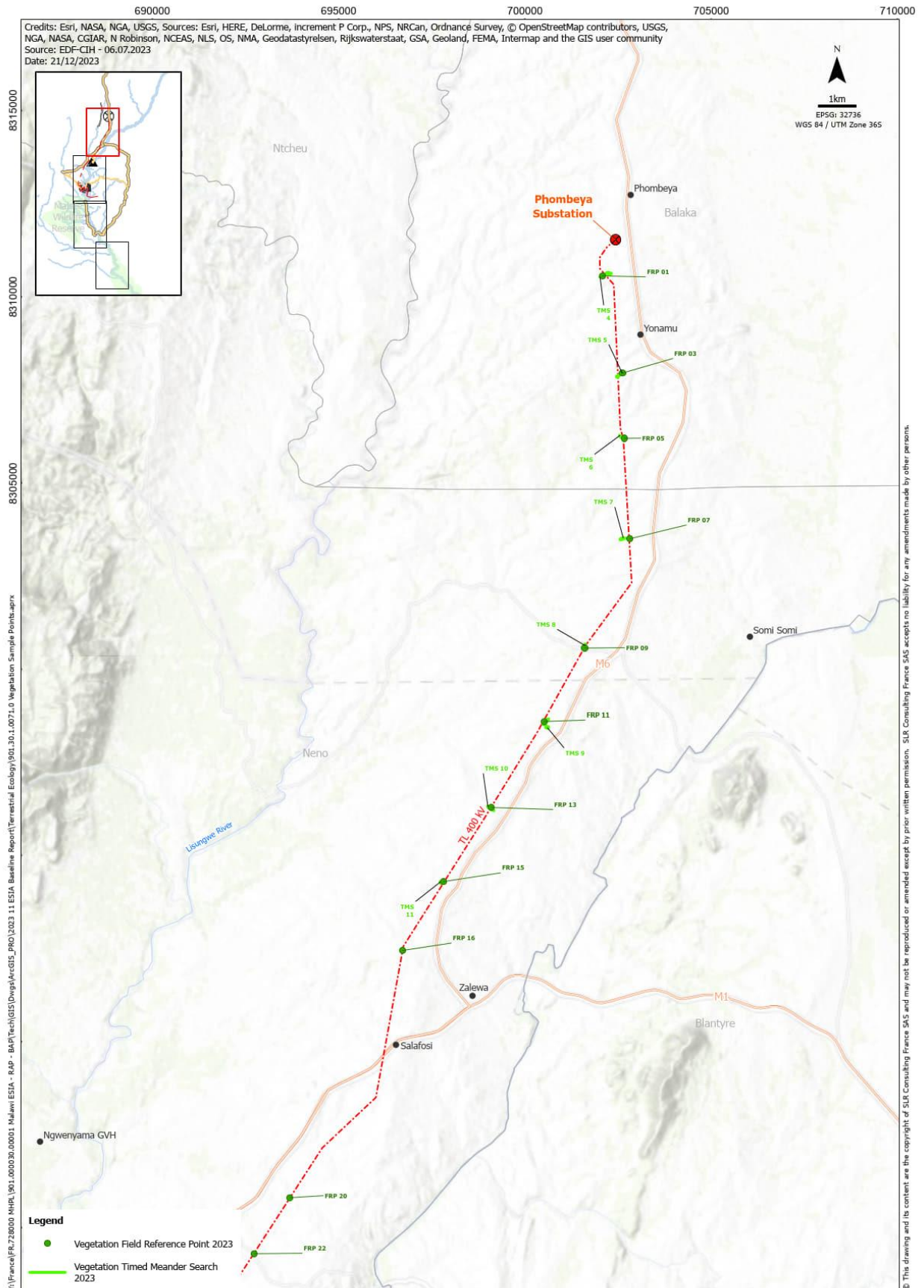




Figure 5-335b: Location of Vegetation Field Reference Points and Walked Transects for 2023 Fieldwork

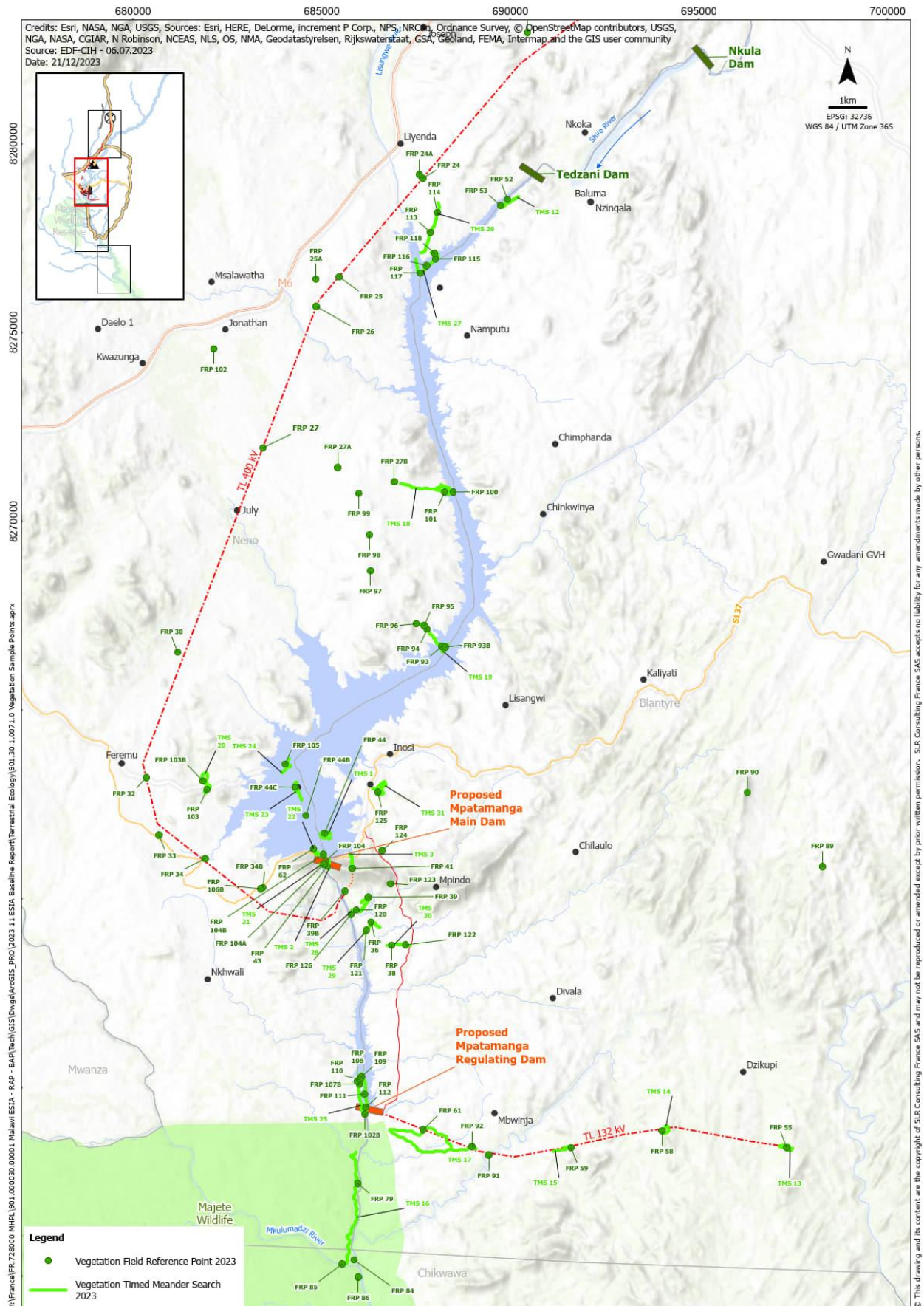




Figure 5-336c: Location of Vegetation Field Reference Points and Walked Transects for 2023 Fieldwork

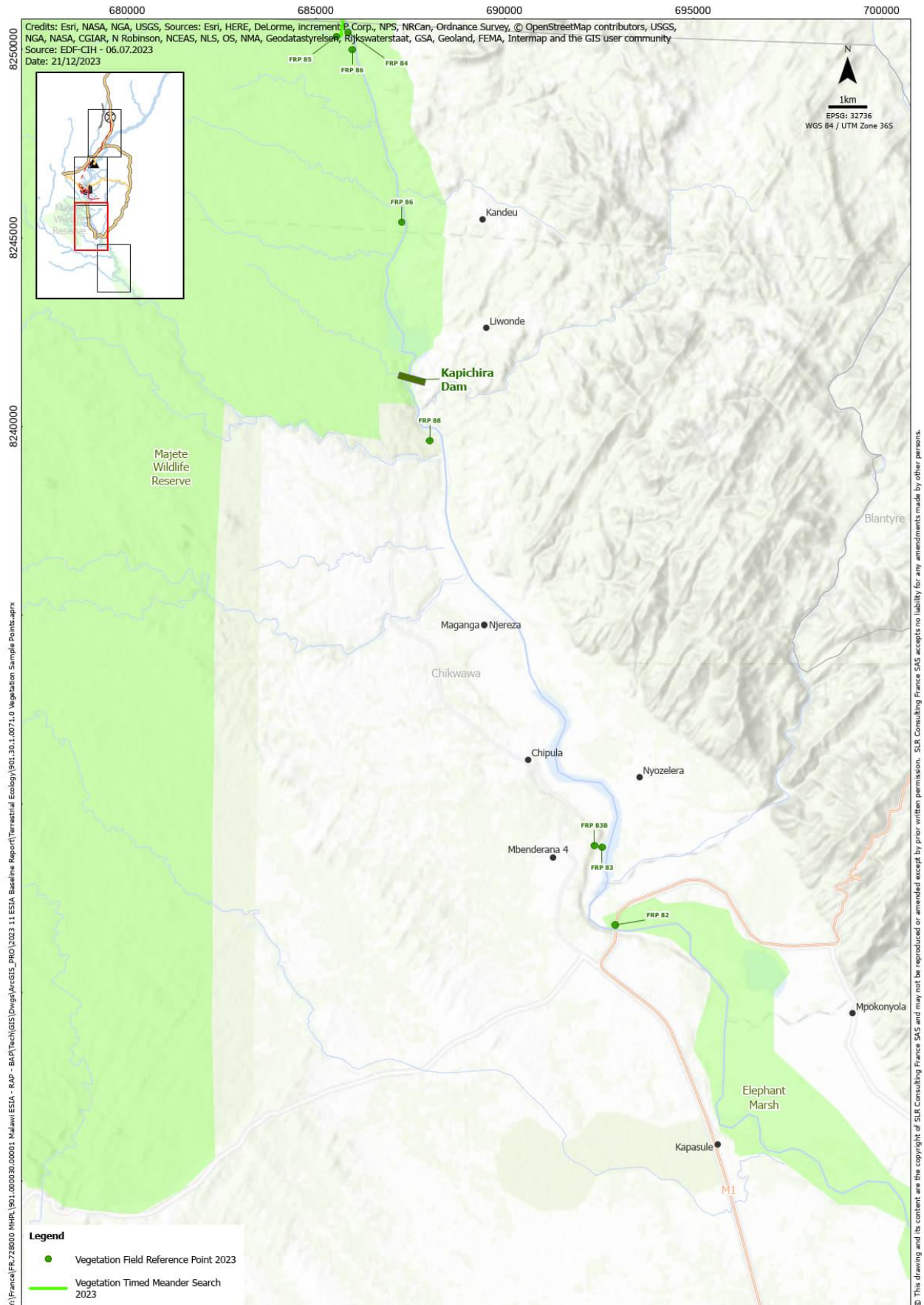
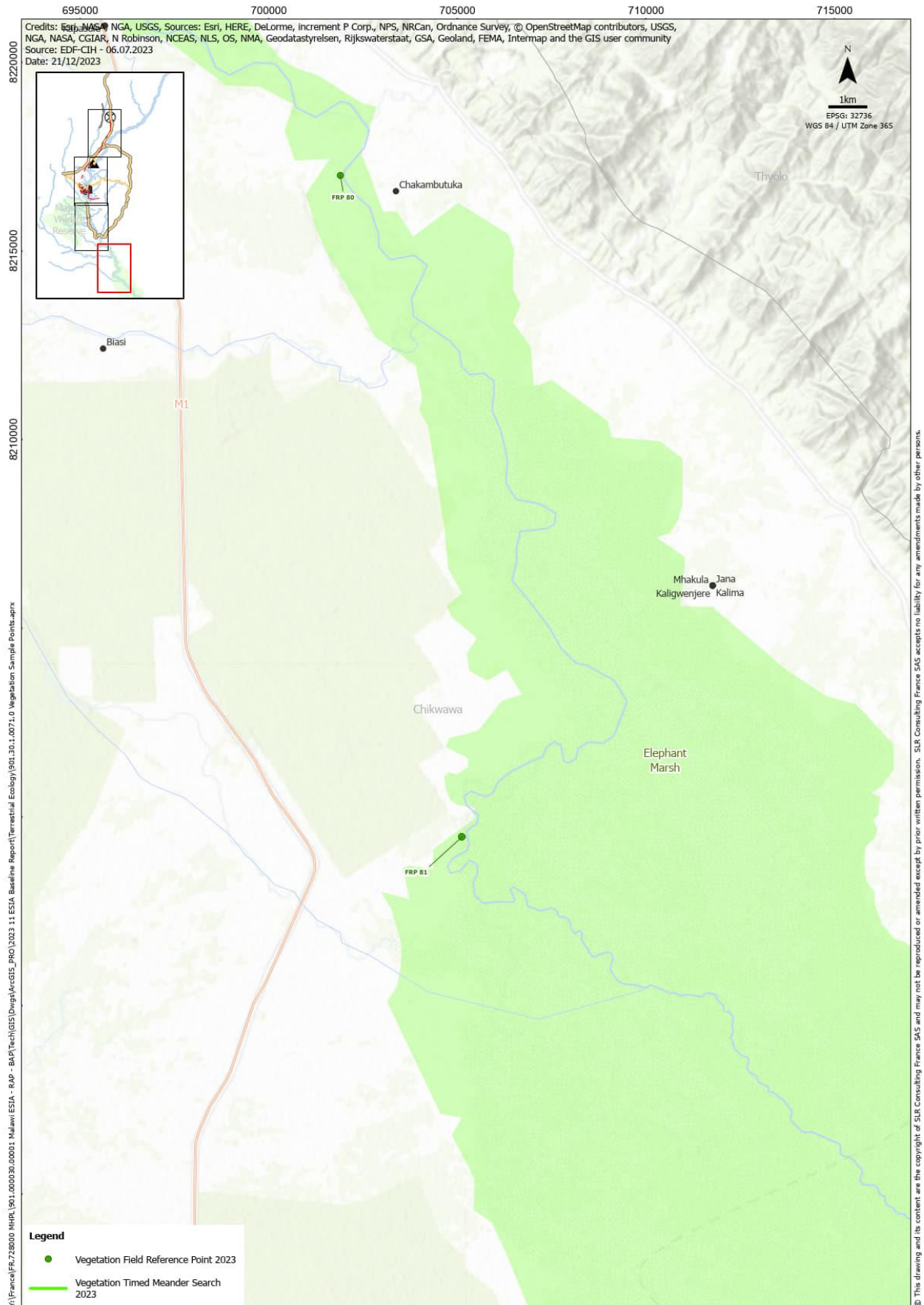




Figure 5-337d: Location of Vegetation Field Reference Points and Walked Transects for 2023 Fieldwork





<p>Site Number MPT 01 Co-ordinates S15.273336°, E34.881852° Date 29/04/2023 Time 08:12 Vegetation Low, mid-dense shrubland Structure Vegetation Woody shrubs 60% Canopy Cover Vegetation 2-3 m Height Habitat 0.3 (habitat functionality severely altered; all canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 05 Co-ordinates S15.312727°, E34.887610° Date 29/04/2023 Time 09:36 Vegetation Low, mid-dense shrubland Structure Vegetation Woody shrubs 50% Canopy Cover Vegetation 2-4 m Height Habitat 0.4 (habitat functionality severely altered; all canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 03 Co-ordinates S15.296899°, E34.887023° Date 29/04/2023 Time 08:50 Vegetation Tall, mid-dense shrubland Structure Vegetation Woody shrubs, small trees Canopy 80% Cover Vegetation 2-6 m Height Habitat 0.5 (mostly indigenous species, but habitat functionality altered; many canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 07 Co-ordinates S15.337083°, E34.889238° Date 29/04/2023 Time 10:11 Vegetation Tall, mid-dense woodland Structure Vegetation Tree cover 80-90% Canopy Cover Vegetation 10-12 m Height Habitat 0.8 (all indigenous species, canopy mostly intact, representative of miombo woodland) Quality Score Habitat Natural Status Human None, but farmland adjacent to the woodland Utilisation</p>	
<p>Site Number MPT 09 Co-ordinates S15.363680°, E34.878157° Date 29/04/2023 Time 10:47 Vegetation Low, closed woodland Structure Vegetation Trees, shrubs 90-100% Canopy Cover Vegetation 4-6 m Height Habitat 0.7 (woodland partly restored although small; habitat functionality mostly intact, but fragmented) Quality Score Habitat Natural Status Human Minor wood removal currently; historically logged Utilisation</p>		<p>Site Number MPT 11 Co-ordinates S15.381600°, E34.868205° Date 29/04/2023 Time 11:11 Vegetation Low open shrubland / grassland Structure Vegetation Woody shrubs 25%, grass 75% Canopy Cover Vegetation 1.5-2 m Height Habitat 0.3 (several alien species, habitat functionality severely altered; all canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 13 Co-ordinates S15.402561°, E34.855178° Date 29/04/2023 Time 11:47 Vegetation Low, mid-dense shrubland with emergents Structure Vegetation Woody shrubs, small trees Canopy 70% Cover Vegetation 1-2 m, emergents to 10 m Height Habitat 0.5 (mostly indigenous species, but habitat functionality altered; most canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 15 Co-ordinates S15.420653°, E34.843401° Date 29/04/2023 Time 12:10 Vegetation Low, mid-dense shrubland with emergents Structure Vegetation Woody shrubs 75% Canopy Cover Vegetation Shrubs 2-3 m, trees 10-12 m Height Habitat 0.4 (mostly indigenous species, but habitat functionality compromised; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	



<p>Site Number MPT 16 Co-ordinates S15.437441°, E34.833271° Date 29/04/2023 Time 12:37 Vegetation Low, closed herbaceous (farmland) Structure Vegetation Trees 10%, crops 80% Canopy Cover Vegetation 1-2 m, trees 8-10 m Height Habitat 0.1 (cultivated lands, entirely modified, but with some indigenous species along verges) Quality Score Habitat Modified Status Human Heavily settled area Utilisation</p>		<p>Site Number MPT 20 Co-ordinates S15.497650°, E34.805575° Date 29/04/2023 Time 16:10 Vegetation Low closed woodland Structure Vegetation Woody shrubs 75% Canopy Cover Vegetation 4-6 m Height Habitat 0.6 (mostly indigenous spp, habitat functionality partially altered; some canopy trees removed) Quality Score Habitat Natural Status Human Historical wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 22 Co-ordinates S15.511295°, E34.796786° Date 29/04/2023 Time 15:54 Vegetation Mid-high closed woodland Structure Vegetation Woody shrubs, small trees Canopy 80-90% Cover Vegetation 5-10 m Height Habitat 0.6 (mostly indigenous species; habitat functionality altered; canopy intact but understorey removed) Quality Score Habitat Mostly Natural Status Human Minor wood removal currently; historically logged Utilisation</p>		<p>Site Number MPT 23 Co-ordinates S15.523797°, E34.775696° Date 29/04/2023 Time 15:35 Vegetation Low closed grassland Structure Vegetation Woody shrubs 20% grass Canopy 70% Cover Vegetation 1-4 m Height Habitat 0.3 (several alien species, habitat functionality severely altered; all canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 24 Co-ordinates S15.558900°, E34.750107° Date 09/05/2023 Time 08:29 Vegetation Low closed to mid-dense shrubland Structure Vegetation Shrubs 60-70% Canopy Cover Vegetation 2-3 m Height Habitat 0.4 (mostly indigenous spp, habitat functionality severely compromised; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 24A Co-ordinates S15.558029°, E34.749264° Date 09/05/2023 Time 08:14 Vegetation Tall closed woodland Structure Vegetation Trees 80-90% Canopy Cover Vegetation 5-10 m Height Habitat 0.8 (all indigenous species, canopy mostly intact, species representative of undifferentiated woodland) Quality Score Habitat Natural Status Human Wood removal adjacent to site Utilisation</p>	
<p>Site Number MPT 25 Co-ordinates S15.582703°, E34.729667° Date 06/05/2023 Time 08:55 Vegetation Low closed shrubland Structure Vegetation Shrubs 70-80%, grass 20% Canopy Cover Vegetation 2-4 m Height Habitat 0.5 (mostly indigenous spp, habitat functionality altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 25A Co-ordinates S15.583240°, E34.723915° Date 06/05/2023 Time 08:32 Vegetation Low mid-dense shrubland Structure Vegetation Shrubs 60-70%, grass 20% Canopy Cover Vegetation 2-4 m, emergent trees to 6 m Height Habitat 0.4 (mostly indigenous spp, habitat functionality compromised; canopy trees removed; aliens present) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	



















<p>Site Number MPT 26 Co-ordinates S15.589799°, E 34.724029 Date 06/05/2023 Time 09:16 Vegetation Low mid-dense woodland Structure Woody shrubs, small trees Vegetation Canopy 70-80% Cover Vegetation Height 4-6 m Habitat 0.6 (mostly indigenous species; habitat functionality altered; canopy partially logged) Quality Score Habitat Mostly Natural Status Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 27 Co-ordinates S15.623730°, E 34.711166° Date 06/05/2023 Time 10:05 Vegetation Tall, mid-dense woodland / shrubland Structure Woody shrubs, trees 60-70% Cover Vegetation Height 4-8 m Habitat 0.6 (mostly indigenous species; habitat functionality altered; canopy partially logged) Quality Score Habitat Mostly Natural Status Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 27A Co-ordinates S15.628323°, E 34.729688° Date 06/05/2023 Time 10:35 Vegetation Tall closed woodland on left side of track; farmland adj Structure Vegetation Canopy Trees and shrubs 90% Cover Vegetation Height 4-9 m Habitat 0.7 (mostly indigenous spp, habitat functionality intact; canopy trees present) Quality Score Habitat Natural Status Human Some firewood harvesting; adjacent farmland Utilisation</p>		<p>Site Number MPT 27B Co-ordinates S15.631653°, E 34.743698° Date 06/05/2023 Time 08:32 Vegetation Tall closed woodland Structure Vegetation Canopy Trees, woody shrubs 80-90% Cover Vegetation Height 8-10 m Habitat 0.8 (climax woodland, habitat functionality and species composition intact; no alien spp) Quality Score Habitat Natural Status Human Minimal fuelwood collection Utilisation</p>	
<p>Site Number MPT 33 Co-ordinates S15.716587°, E34.686197° Date 08/05/2023 Time 14:37 Vegetation Low closed to mid-dense shrubland Structure Woody shrubs, small trees Vegetation Canopy 60-70% Cover Vegetation Height 1-4 m Habitat 0.4 (mostly indigenous spp, habitat functionality compromised; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 34 Co-ordinates S15.722141°, E34.697655° Date 08/05/2023 Time 14:09 Vegetation Low mid-dense shrubland / thicket Structure Woody shrubs 40-50%, grass 30% Cover Vegetation Height 2-4 m Habitat 0.4 (mostly indigenous spp, habitat functionality compromised; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 34B Co-ordinates S15.728983°, E34.712038° Date 08/05/2023 Time 17:45 Vegetation Tall to mid-high closed woodland Structure Trees and shrubs 80-90% Cover Vegetation Height 5-10 m Habitat 0.8 (climax woodland, habitat functionality and species composition intact; no alien spp) Quality Score Habitat Natural Status Human Numerous cattle tracks and evidence of historical logging Utilisation</p>		<p>Site Number MPT 36 Co-ordinates S15.736987°, E34.738864° Date 10/05/2023 Time 11:15 Vegetation Low mid-dense shrubland Structure Trees, woody shrubs 60-70% Cover Vegetation Height 2-3 m Habitat 0.5 (mostly indigenous spp, habitat functionality significantly altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	



<p>Site Number MPT 38 Co-ordinates S15.742492°, E34.743978° Date 10/05/2023 Time 12:41 Vegetation Low mid-dense shrubland Structure Vegetation Woody shrubs, small trees Canopy 60-70% Cover Vegetation Height 2-4 m Habitat 0.5 (mostly indigenous spp, habitat functionality significantly altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 	<p>Site Number MPT 39 Co-ordinates S15.731057°, E34.738098° Date 10/05/2023 Time 09:33 Vegetation Low mid-dense to closed shrubland Structure Vegetation Woody shrubs 60-70%, grass 30% Canopy Cover Vegetation Height 2-4 m, emergent trees to 10 Habitat 0.5 (mostly indigenous spp, habitat functionality significantly altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 
<p>Site Number MPT 39B Co-ordinates S15.729671°, E34.732322° Date 27/04/2023 Time 16:05 Vegetation Low mid-dense shrubland Structure Vegetation Trees and shrubs 50-70% Canopy Cover Vegetation Height 3-4 m Habitat 0.5 (mostly indigenous spp, habitat functionality significantly altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 	<p>Site Number MPT 41 Co-ordinates S15.724207°, E34.734064° Date 27/04/2023 Time 14:28 Vegetation Tall mid-dense shrubland with emergent trees Structure Vegetation Woody shrubs 80%, trees 10% Canopy Cover Vegetation Height 3-4 m (trees to 10 m) Habitat 0.5 (mostly indigenous spp, habitat functionality significantly altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 
<p>Site Number MPT 43 Co-ordinates S15.723739°, E34.727887° Date 27/04/2023 Time 11:00 Vegetation Low open shrubland Structure Vegetation Woody shrubs, small trees Canopy 30%; mostly rock cover Cover Vegetation Height 1-2 m Habitat 0.6 (mostly indigenous spp, habitat functionality altered and canopy trees removed, but through natural floods) Quality Score Habitat Mostly Natural Status Human Disturbance by geotech team Utilisation</p>	 	<p>Site Number MPT 44 Co-ordinates S15.716143°, E34.727481° Date 27/04/2023 Time 09:45 Vegetation Low closed shrubland / thicket with emergent trees Structure Vegetation Woody shrubs 90%, trees 30% Canopy Cover Vegetation Height 3 m, emergent trees to 10-12 m Habitat 0.5 (mostly indigenous spp, habitat functionality significantly altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 
<p>Site Number MPT 44B Co-ordinates S15.711614°, E34.722546° Date 07/05/2023 Time 13:06 Vegetation Low mid-dense to open woodland / shrubland Structure Vegetation Woody shrubs, small trees Canopy 40%, grass 60% Cover Vegetation Height 2-5 m Habitat 0.4 (mostly indigenous spp, habitat functionality severely altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 	<p>Site Number MPT 44C Co-ordinates S15.704871°, E34.719760° Date 07/05/2023 Time 13:42 Vegetation Tall closed woodland / forest Structure Vegetation Woody shrubs and trees Canopy 100% Cover Vegetation Height 6-10 m Habitat 0.7 (mostly natural, but some disturbance from cattle and minor wood removal, edge effects from Quality Score Habitat Natural Status Human Cattle trails, fuelwood removal Utilisation</p>	 



<p>Site Number MPT 52 Co-ordinates S15.563736°, E34.771153° Date 29/04/2023 Time 14:55 Vegetation Tall riparian thicket Structure Vegetation 100% woody cover Canopy Cover Vegetation 5-12 m Height Habitat 0.7 (mostly indigenous spp, habitat functionality impaired through loss of understory, but through natural floods) Quality Score Habitat Natural Status Human Tracks to the river Utilisation</p>	 	<p>Site Number MPT 53 Co-ordinates S15.565256°, E34.769354° Date 29/04/2023 Time 14:38 Vegetation Low to tall thicket and closed shrubland Structure Vegetation Woody shrubs 70%, trees 20% Canopy Cover Vegetation 3-4 m, emergent trees to 8-10 m Height Habitat 0.6 (mostly indigenous spp, habitat functionality altered through removal of many canopy trees for charcoal) Quality Score Habitat Mostly Natural Status Human Numerous large trees logged for charcoal Utilisation</p>	 
<p>Site Number MPT 55 Co-ordinates S15.790120°, E34.842148° Date 01/05/2023 Time 12:38 Vegetation Low open to mid-dense shrubland Structure Vegetation Woody shrubs 30-40%, grass 50% Canopy Cover Vegetation 2-4 m Height Habitat 0.3 (few species typical of original habitat, habitat functionality severely altered) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 	<p>Site Number MPT 58 Co-ordinates S15.786331°, E34.811247° Date 01/05/2023 Time 13:46 Vegetation Low mid-dense shrubland Structure Vegetation Woody shrubs 30-40%, grass 40-50% Canopy Cover Vegetation 1-2.5 m Height Habitat 0.3 (few species typical of original habitat, habitat functionality severely altered) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 
<p>Site Number MPT 59 Co-ordinates S15.790578°, E34.788743° Date 01/05/2023 Time 14:24 Vegetation Low to tall mid-dense shrubland Structure Vegetation Woody shrubs 30-40%, grass 50-60% Canopy Cover Vegetation 1-2.5 m Height Habitat 0.4 (mostly indigenous spp, habitat functionality severely altered; canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 	<p>Site Number MPT 61 Co-ordinates S15.786575°, E34.752119° Date 05/05/2023 Time 11:48 Vegetation Low mid-dense woodland Structure Vegetation Woody shrubs, small trees Canopy 40-60%, grass 20-30% Cover Vegetation 2-5 m Height Habitat 0.6 (mostly indigenous spp, habitat functionality altered through removal of many canopy trees for charcoal) Quality Score Habitat Mostly Natural Status Human Numerous large trees logged for charcoal Utilisation</p>	 
<p>Site Number MPT 62 Co-ordinates S15.719593°, E34.724429° Date 07/05/2023 Time 12:52 Vegetation Low open to mid-dense woodland Structure Vegetation Woody shrubs, small trees Canopy 50-60%, grass 40% Cover Vegetation 2-6 m Height Habitat 0.4 (few species typical of original habitat, habitat functionality altered, canopy fragmented) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	 	<p>Site Number MPT 79 (Eflows Site 4A) Co-ordinates S15.799606°, E34.736111° Date 03/05/2023 Time 10:33 Vegetation Tall, mid-dense riparian woodland Structure Vegetation Woody shrubs and trees 60-70% Canopy Cover Vegetation 4-12 m Height Habitat 0.9 (entirely natural, although high levels of flood disturbance and large herbivore browsing) Quality Score Habitat Natural Status Human None observed Utilisation</p>	 



<p>Site Number MPT 80 (EFlows Site 13) Co-ordinates S16.118783°, E34.887857° Date 02/05/2023 Time 12:40 Vegetation Low closed shrubland with scattered trees Structure Vegetation Woody shrubs 70-80%, trees 10% Canopy Cover Vegetation Height 1-2.5 m, trees to 8 m Habitat 0.4 (alien spp, habitat functionality severely altered; loss of original riparian thicket / forest) Quality Score Habitat Modified Status Human Cultivated fields close to river, fuelwood collection Utilisation</p>		<p>Site Number MPT 81 (EFlows Site 14) Co-ordinates S16.276851°, E34.919456° Date 02/05/2023 Time 10:54 Vegetation Low closed grassland with patches of thicket Structure Vegetation Grass 80%, woody veg 20% Canopy Cover Vegetation Height 0.5 m, trees to 6 m Habitat 0.3 (few indigenous spp, habitat functionality severely altered through removal of riparian Quality Score Habitat Modified Status Human Regular mowing of grass up to fence (golf course) Utilisation</p>	
<p>Site Number MPT 82 Co-ordinates S16.031076°, E34.803338° Date 02/05/2023 Time 09:29 Vegetation Low closed grassland / shrubland Structure Vegetation Grass 70%, shrubs and trees Canopy Cover 30% Vegetation Height 0.5-2 m, scattered trees to 12 m Habitat 0.4 (some species typical of original habitat, but habitat functionality altered, canopy fragmented) Quality Score Habitat Modified Status Human Woody riparian fringe removed; cultivation Utilisation</p>		<p>Site Number MPT 83 (EFlows Site 9) Co-ordinates S16.012513°, E34.799914° Date 02/05/2023 Time 14:25 Vegetation Low closed grassland / shrubland Structure Vegetation Grass 70%, shrubs and trees Canopy Cover 30% Vegetation Height 1-10 m Habitat 0.4 (some species typical of original habitat, but habitat functionality altered, canopy fragmented) Quality Score Habitat Modified Status Human Woody riparian fringe removed; cultivation Utilisation</p>	
<p>Site Number MPT 83B Co-ordinates S16.012109°, E34.797985° Date 02/05/2023 Time 13:55 Vegetation Low to mid-high thicket Structure Vegetation Woody shrubs & trees 100% Canopy Cover Vegetation Height 3-8 m Habitat 0.6 (mostly natural spp, habitat functionality moderately intact; severe canopy fragmentation) Quality Score Habitat Natural Status Human Cattle paths, historical logging Utilisation</p>		<p>Site Number MPT 84 (EFlows Site 4) Co-ordinates S15.817893°, E34.735327° Date 03/05/2023 Time 11:52 Vegetation Low to tall riparian thicket Structure Vegetation Woody shrubs & trees 80-90% Canopy Cover Vegetation Height 4-14 m Habitat 0.9 (entirely natural, although high levels of flood disturbance and large herbivore browsing) Quality Score Habitat Natural Status Human Low impact tourism lodge units Utilisation</p>	
<p>Site Number MPT 85 (EFlows Site 6) Co-ordinates S15.818894°, E34.732405° Date 03/05/2023 Time 12:17 Vegetation Tall mid-dense woodland Structure Vegetation Woody shrubs and trees 60-70%, grass 10% Canopy Cover Vegetation Height 6-10 m Habitat 0.9 (entirely natural, although some flood disturbance and large herbivore browsing) Quality Score Habitat Natural Status Human None apart from swingbridge nearby Utilisation</p>		<p>Site Number MPT 86 (EFlows Site 5) Co-ordinates S15.821994°, E34.736407° Date 03/05/2023 Time 12:46 Vegetation Low to tall riparian thicket Structure Vegetation Woody shrubs & trees 80-90% Canopy Cover Vegetation Height 4-10 m Habitat 0.8 (natural, but high levels of flood disturbance and canopy fragmented) Quality Score Habitat Natural Status Human None observed Utilisation</p>	



<p>Site Number MPT 87 (EFlows Site 7) Co-ordinates S15.863239°, E34.749022° Date 03/05/2023 Time 14:16 Vegetation Tall open woodland with closed shrubland Structure Vegetation Trees 30%, woody shrubs 20%, grass 40% Canopy Cover Vegetation Height 2-4 m (shrubs), 10-12 m (trees) Habitat 0.8 (natural, but high levels of flood disturbance and canopy fragmented) Quality Score Habitat Natural Status Human Utilisation Game viewing road and parking area</p>		<p>Site Number MPT 88 (EFlows Site 8) Co-ordinates S15.915489°, E34.756368° Date 04/05/2023 Time 06:28 Vegetation Low riparian thicket with scattered emergents Structure Vegetation Woody shrubs 70% trees 20% Canopy Cover Vegetation Height 2-3 m (shrubs), 10-14 m (trees) Habitat 0.4 (some species typical of original habitat, but habitat functionality altered, canopy fragmented) Quality Score Habitat Modified Status Human Utilisation Heavy grazing, fuelwood removal, cultivation</p>	
<p>Site Number MPT 89 Co-ordinates S15.722824°, E34.850349° Date 01/05/2023 Time 11:55 Vegetation Low closed woodland Structure Vegetation Woody shrubs and trees 70-80% Canopy Cover Vegetation Height 4-8 m Habitat 0.6 (indigenous spp, but canopy removed historically, now recovering) Quality Score Habitat Natural Status Human Utilisation Road, small village, some fuelwood collection</p>		<p>Site Number MPT 90 Co-ordinates S15.705211°, E34.831642° Date 01/05/2023 Time 09:09 Vegetation Low closed to mid-dense shrubland Structure Vegetation Woody shrubs & trees 60-70% Canopy Cover Vegetation Height 2-4 m Habitat 0.4 (some species typical of original habitat, but habitat functionality altered, canopy fragmented) Quality Score Habitat Modified Status Human Utilisation Long history of wood removal for charcoal</p>	
<p>Site Number MPT 91 Co-ordinates S15.792525°, E34.768416° Date 05/05/2023 Time 10:32 Vegetation Low closed woodland / thicket on riverbanks Structure Vegetation Woody shrubs 40%, water & rocks 60% Canopy Cover Vegetation Height 2-4 m (shrubs) Habitat 0.4 (some species typical of original habitat, but habitat functionality altered, canopy fragmented) Quality Score Habitat Modified Status Human Utilisation Long history of wood removal for charcoal</p>		<p>Site Number MPT 92 Co-ordinates S15.790531°, E34.764249° Date 05/05/2023 Time 10:45 Vegetation Low closed herbaceous Structure Vegetation Crops 90% Canopy Cover Vegetation Height 0.4 m Habitat 0.2 (few indigenous spp at edge of field, but habitat functionality entirely altered) Quality Score Habitat Modified Status Human Utilisation Cultivated fields</p>	
<p>Site Number MPT 93 Co-ordinates S15.670896°, E34.755750° Date 06/05/2023 Time 15:00 Vegetation Tall closed to mid-dense woodland Structure Vegetation Woody shrubs and trees 60-80% Canopy Cover Vegetation Height 6-12 m Habitat 0.9 (entirely natural; ecological functions intact; minor fuelwood collection) Quality Score Habitat Natural Status Human Utilisation Minor fuelwood collection, cattle paths</p>		<p>Site Number MPT 93B Co-ordinates S15.671065°, E34.756673° Date 06/05/2023 Time 15:25 Vegetation Tall riparian woodland with some low shrubland Structure Vegetation Woody shrubs & trees 70-80% Canopy Cover Vegetation Height 2-4 m (shrubs), 10-12 m (trees) Habitat 0.8 (mostly indigenous spp, ecological functionality mostly intact, some alien spp) Quality Score Habitat Natural Status Human Utilisation Some fuelwood collection</p>	



<p>Site Number MPT 94 Co-ordinates S15.666800°, E34.752086° Date 06/05/2023 Time 14:45 Vegetation Mid-high closed woodland Structure Woody shrubs & trees 70-80% Vegetation Canopy 80% Cover 4-8 m Vegetation Height 0.9 (entirely natural; ecological functions intact; minor fuelwood collection) Quality Score Habitat Natural Status Human Minor fuelwood collection, cattle paths Utilisation</p>		<p>Site Number MPT 95 Co-ordinates S15.665989°, E34.751378° Date 06/05/2023 Time 14:39 Vegetation Low to mid-high closed woodland Structure Woody shrubs & trees 70-80% Vegetation Canopy 80% Cover 4-8 m Vegetation Height 0.8 (mostly natural; ecological functions intact; historical logging; minor fuelwood collection) Quality Score Habitat Natural Status Human Some collection of fuelwood, historical logging Utilisation</p>	
<p>Site Number MPT 96 Co-ordinates S15.665542°, E34.749413° Date 06/05/2023 Time 14:20 Vegetation Tall closed to mid-dense woodland Structure Woody shrubs and trees 70-80% Vegetation Canopy 80% Cover 6-10 m Vegetation Height 0.8 (natural; ecological functions mostly intact, although some canopy fragmentation) Quality Score Habitat Natural Status Human Fuelwood collection, cattle paths Utilisation</p>		<p>Site Number MPT 97 Co-ordinates S15.652954°, E34.738006° Date 06/05/2023 Time 14:02 Vegetation Low mid-dense to closed shrubland, emergent trees Structure Woody shrubs 60-80% Vegetation Canopy 2-4 m (shrubs), 8-10 m (trees) Cover 0.4 (some species typical of original habitat, but habitat functionality altered, canopy fragmented) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 98 Co-ordinates S15.644341°, E34.737618° Date 06/05/2023 Time 13:54 Vegetation Low mid-dense to closed shrubland Structure Woody shrubs 60-80% Vegetation Canopy 2-4 m (shrubs) Cover 0.3 (some species typical of original habitat, but habitat functionality severely altered, canopy fragmented) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 99 Co-ordinates S15.634462°, E34.734980° Date 06/05/2023 Time 14:47 Vegetation Low mid-dense to closed shrubland, emergent trees Structure Woody shrubs 60-80% Vegetation Canopy 2-4 m (shrubs), 7-8 m (trees) Cover 0.3 (some species typical of original habitat, but habitat functionality severely altered, canopy fragmented) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 100 Co-ordinates S15.633943°, E34.758294° Date 06/05/2023 Time 12:31 Vegetation Tall closed woodland / tall thicket Structure Woody shrubs and trees 80-90% Vegetation Canopy 6-12 m Cover 0.8 (mostly indigenous spp, ecological functionality mostly intact, some alien spp) Quality Score Habitat Natural Status Human Some fuelwood collection Utilisation</p>		<p>Site Number MPT 101 Co-ordinates S15.633970°, E34.756136° Date 06/05/2023 Time 12:11 Vegetation Mid-high closed woodland with scattered emergents Structure Woody shrubs & trees 60-70% Vegetation Canopy 6-8 m, 10-12 m (emergents) Cover 0.8 (mostly indigenous spp, ecological functionality mostly intact, canopy fragmented) Quality Score Habitat Natural Status Human Some fuelwood collection Utilisation</p>	



<p>Site Number MPT 102 Co-ordinates S15.666800°, E34.752086° Date 06/05/2023 Time 09:49 Vegetation Low to mid-high closed woodland Structure Vegetation Woody shrubs & trees 50-70% Canopy Cover Vegetation 4-8 m Height Habitat 0.3 (some species typical of original habitat, but habitat functionality severely altered, canopy fragmented) Quality Score Habitat Status Modified Human Long history of wood utilisation Utilisation removal for charcoal</p>		<p>Site Number MPT 102B Co-ordinates S15.783007°, E34.737678° Date 08/05/2023 Time 09:15 Vegetation Tall closed woodland / tall thicket Structure Vegetation Woody shrubs and trees 80-90% Canopy Cover Vegetation 6-12 m Height Habitat 0.8 (mostly indigenous spp, ecological functionality mostly intact, some alien spp) Quality Score Habitat Status Natural Human Some fuelwood collection Utilisation</p>	
<p>Site Number MPT 103 Co-ordinates S15.705597°, E34.697955° Date 07/05/2023 Time 10:24 Vegetation Low closed to mid-dense shrubland Structure Vegetation Woody shrubs and small trees 60-70% Canopy Cover Vegetation 3-4 m Height Habitat 0.3 (some species typical of original habitat, but habitat functionality severely altered, canopy fragmented) Quality Score Habitat Status Modified Human Long history of wood utilisation Utilisation removal for charcoal</p>		<p>Site Number MPT 103B Co-ordinates S15.703543°, E34.696928° Date 06/05/2023 Time 09:18 Vegetation Low closed to mid-dense shrubland Structure Vegetation Woody shrubs and small trees 60-80% Canopy Cover Vegetation 3-4 m, emergents to 10 m Height Habitat 0.3 (species typical of original habitat, but habitat functionality severely altered, canopy fragmented) Quality Score Habitat Status Modified Human Long history of wood utilisation Utilisation removal for charcoal</p>	
<p>Site Number MPT 104 Co-ordinates S15.722401°, E34.727505° Date 07/05/2023 Time 11:38 Vegetation Mid-high closed woodland and thicket Structure Vegetation Woody shrubs & trees 90-100% Canopy Cover Vegetation 4-9 m Height Habitat 0.9 (entirely natural; ecological functions intact; a few paths present, but no habitat modification) Quality Score Habitat Status Natural Human Human paths and geotech utilisation Utilisation drilling activity nearby</p>		<p>Site Number MPT 104A Co-ordinates S15.723251°, E34.727020° Date 07/05/2023 Time 12:08 Vegetation Tall closed woodland / tall thicket Structure Vegetation Woody shrubs & trees 90-100% Canopy Cover Vegetation 6-12 m Height Habitat 0.9 (entirely natural; ecological functions intact; a few paths present, but no habitat modification) Quality Score Habitat Status Natural Human Human paths and geotech utilisation Utilisation drilling activity nearby</p>	
<p>Site Number MPT 104B Co-ordinates S15.705597°, E34.697955° Date 07/05/2023 Time 10:24 Vegetation Tall closed woodland / forest Structure Vegetation Woody shrubs and small trees 90-100% Canopy Cover Vegetation 10-14 m Height Habitat 0.7 (most species typical of original habitat, but understory disturbed, canopy fragmented) Quality Score Habitat Status Natural Human Geotech drilling teams working on the site Utilisation</p>		<p>Site Number MPT 105 Co-ordinates S15.703543°, E34.696928° Date 06/05/2023 Time 09:18 Vegetation Low closed to mid-dense shrubland Structure Vegetation Woody shrubs and small trees 60-80% Canopy Cover Vegetation 3-4 m, emergents to 10 m Height Habitat 0.4 (species typical of original habitat, but habitat functionality altered, canopy fragmented) Quality Score Habitat Status Modified Human Long history of wood utilisation Utilisation removal for charcoal</p>	



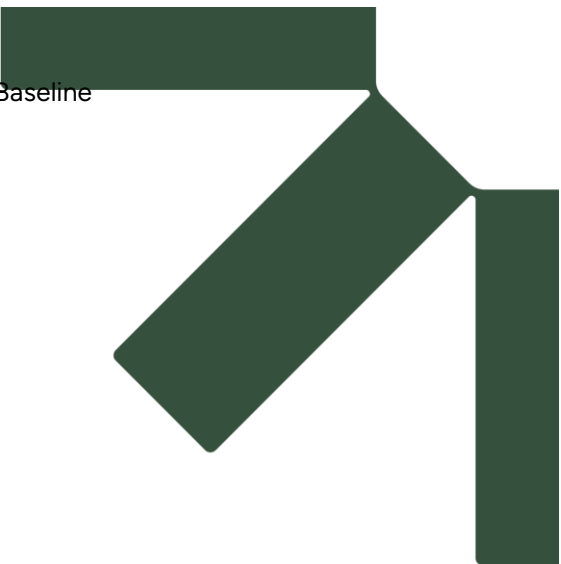
<p>Site Number MPT 106 Co-ordinates S15.702872°, E34.682977° Date 07/05/2023 Time 15:16 Vegetation Low closed to mid-dense shrubland Structure Vegetation Woody shrubs and small trees 50-70% Canopy Cover Vegetation Height 3-4 m, emergents to 10 m Habitat 0.3 (some species typical of original habitat, but habitat functionality severely altered, canopy fragmented) Quality Score Habitat Status Modified Human Utilisation Long history of wood removal for charcoal</p>		<p>Site Number MPT 106B Co-ordinates S15.729257°, E34.711438° Date 08/05/2023 Time 13:25 Vegetation Low mid-dense woodland Structure Vegetation Woody shrubs & trees 60-80% Canopy Cover Vegetation Height 6-10 m Habitat 0.6 (mostly natural; ecological functions mostly intact, although canopy fragmented) Quality Score Habitat Status Natural Human Utilisation Quite a bit of evidence of wood collecting</p>	
<p>Site Number MPT 107 Co-ordinates S15.672813°, E34.690466° Date 07/05/2023 Time 15:55 Vegetation Open woodland to mid-dense shrubland Structure Vegetation Woody shrubs and trees 40-60% Canopy Cover Vegetation Height 3-10 m Habitat 0.3 (most trees and shrubs cleared for charcoal manufacture; habitat functioning severely altered) Quality Score Habitat Status Modified Human Utilisation Long history of wood removal for charcoal</p>		<p>Site Number MPT 107B Co-ordinates S15.775832°, E34.736280° Date 08/05/2023 Time 11:18 Vegetation Mid-dense to closed woodland Structure Vegetation Trees & shrubs 60-80%, grass 20% Canopy Cover Vegetation Height 6-8 m Habitat 0.8 (entirely natural; ecological functions intact; some fuelwood collection, but canopy mostly intact) Quality Score Habitat Status Natural Human Utilisation Some wood removal for fuel and possibly charcoal</p>	
<p>Site Number MPT 108 Co-ordinates S15.775143°, E34.735803° Date 08/05/2023 Time 11:10 Vegetation Tall closed thicket / forest Structure Vegetation Woody shrubs and small trees 100% Canopy Cover Vegetation Height 4-12 m Habitat 0.9 (entirely natural; ecological functions intact; minimal disturbance and canopy mostly intact) Quality Score Habitat Status Natural Human Utilisation Just a single access track, no other evidence of impacts</p>		<p>Site Number MPT 109 Co-ordinates S15.774029°, E34.736783° Date 08/05/2023 Time 10:59 Vegetation Tall closed thicket / forest Structure Vegetation Woody shrubs and small trees 100% Canopy Cover Vegetation Height 5-10 m Habitat 0.8 (entirely natural; ecological functions intact; some fuelwood collection, but canopy mostly intact) Quality Score Habitat Status Natural Human Utilisation Some wood removal for fuel and possibly charcoal</p>	
<p>Site Number MPT 110 Co-ordinates S15.774736°, E34.736390° Date 08/05/2023 Time 10:55 Vegetation Tall closed thicket / forest Structure Vegetation Woody shrubs and small trees 100% Canopy Cover Vegetation Height 4-12 m Habitat 0.9 (entirely natural; ecological functions intact; minimal disturbance and canopy mostly intact) Quality Score Habitat Status Natural Human Utilisation No evidence of impacts apart from an access track</p>		<p>Site Number MPT 111 Co-ordinates S15.778227°, E34.737581° Date 08/05/2023 Time 10:25 Vegetation Mid-high closed woodland Structure Vegetation Trees & shrubs 80-90% Canopy Cover Vegetation Height 6-8 m Habitat 0.8 (entirely natural; ecological functions intact; some fuelwood collection, but canopy mostly intact) Quality Score Habitat Status Natural Human Utilisation Some wood removal for fuel and possibly charcoal</p>	



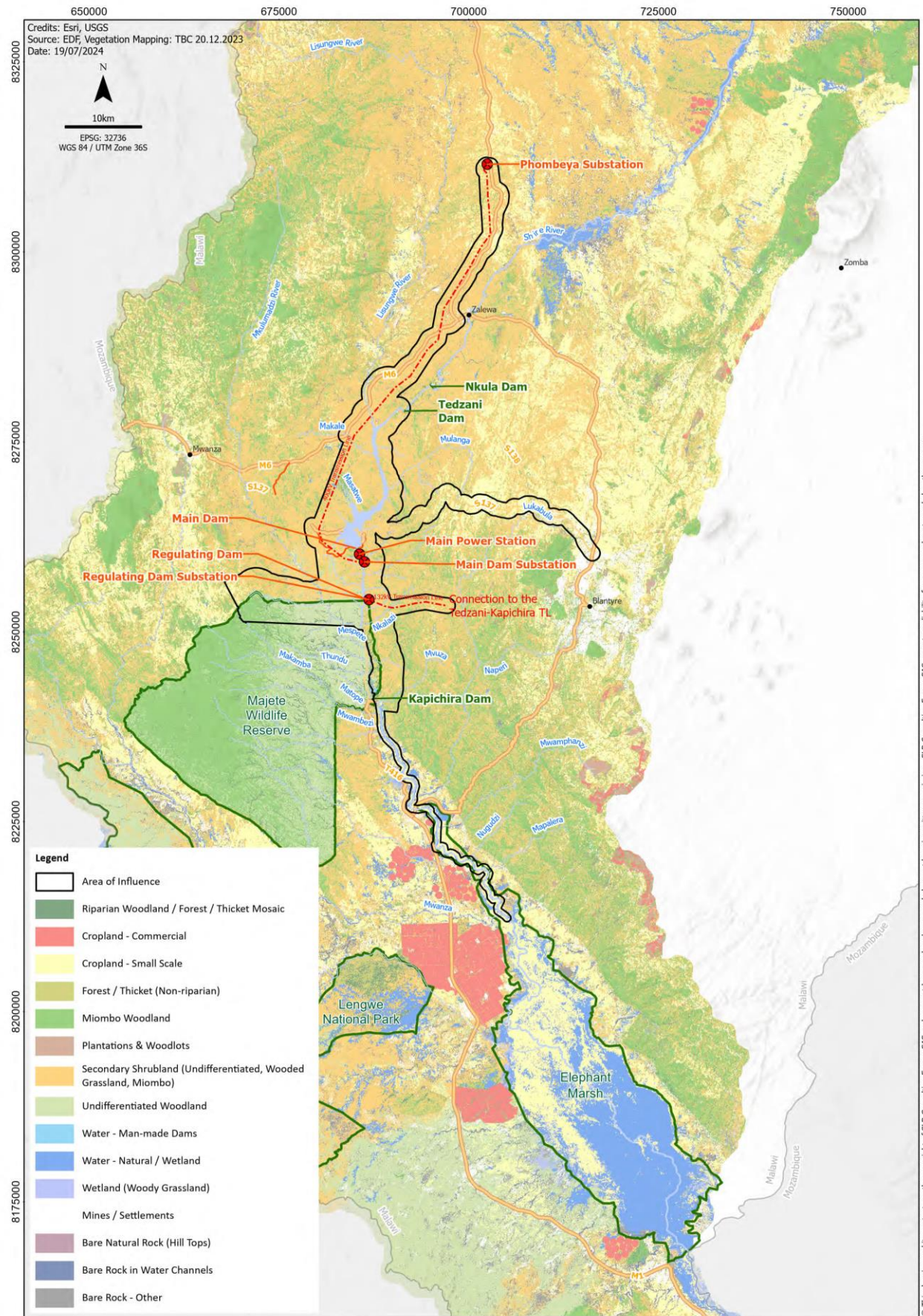
<p>Site Number MPT 112 Co-ordinates S15.781350°, E34.737910° Date 08/05/2023 Time 10:10 Vegetation Low thicket with tall emergent trees Structure Woody shrubs and small trees Canopy 80-90% Cover Vegetation Height 2-5 m (shrubs), 10-12 m (emergents) Habitat 0.6 (mostly natural; ecological functions moderately intact; canopy fragmented) Quality Score Habitat Status Mostly Natural Human Some evidence of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 113 Co-ordinates S15.571819°, E34.752132° Date 09/05/2023 Time 09:26 Vegetation Low mid-dense to closed shrubland Structure Woody shrubs and small trees Canopy 40-70%, grass 20% Cover Vegetation Height 2-6 m Habitat 0.3 (species typical of original habitat, but habitat functionality altered, canopy trees removed) Quality Score Habitat Status Modified Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 114 Co-ordinates S15.567086°, E34.753788° Date 09/05/2023 Time 09:10 Vegetation Low closed shrubland / thicket Structure Woody shrubs and small trees Canopy 60-80% Cover Vegetation Height 3-6 m Habitat 0.3 (species typical of original habitat, but habitat functionality altered, canopy trees removed) Quality Score Habitat Status Modified Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 115 Co-ordinates S15.578198°, E34.753454° Date 09/05/2023 Time 10:32 Vegetation Low thicket Structure Trees & shrubs 80-90% Canopy Cover Vegetation Height 3-4 m Habitat 0.3 (ecological functions compromised; most canopy trees removed; numerous alien spp) Quality Score Habitat Status Modified Human Wood removal for fuel and possibly charcoal Utilisation</p>	
<p>Site Number MPT 116 Co-ordinates S15.579849°, E34.751217° Date 09/05/2023 Time 10:24 Vegetation Low thicket and low shrubland Structure Vegetation Woody shrubs and small trees Canopy 80-90% Cover Vegetation Height 2-4 m Habitat 0.3 (ecological functions compromised; most canopy trees removed; dense alien spp infestation) Quality Score Habitat Status Modified Human Wood removal for fuel and possibly charcoal Utilisation</p>		<p>Site Number MPT 117 Co-ordinates S15.581580°, E34.749705° Date 09/05/2023 Time 10:08 Vegetation Low closed shrubland / thicket with emergent trees Structure Vegetation Woody shrubs 70-80%, trees 10% Canopy Cover Vegetation Height 2-4 m (shrubs), 10 m (trees) Habitat 0.4 (ecological functions compromised; most canopy trees removed; numerous alien spp) Quality Score Habitat Status Modified Human Wood removal for fuel and possibly charcoal Utilisation</p>	
<p>Site Number MPT 118 Co-ordinates S15.576907°, E34.753217° Date 09/05/2023 Time 10:43 Vegetation Low closed shrubland / thicket with emergent trees Structure Vegetation Woody shrubs 60-70%, trees 10% Canopy Cover Vegetation Height 2-4 m (shrubs), 10 m (trees) Habitat 0.4 (ecological functions compromised; most canopy trees removed; numerous alien spp) Quality Score Habitat Status Modified Human Long history of wood removal for charcoal Utilisation</p>		<p>Site Number MPT 120 Co-ordinates S15.734175°, E34.735147° Date 10/05/2023 Time 09:57 Vegetation Low mid-dense shrubland Structure Vegetation Woody shrubs & small trees Canopy 40-70% Cover Vegetation Height 3-4 m Habitat 0.4 (mostly natural spp but ecological functions compromised; most canopy trees removed) Quality Score Habitat Status Modified Human Wood removal for fuel and possibly charcoal Utilisation</p>	

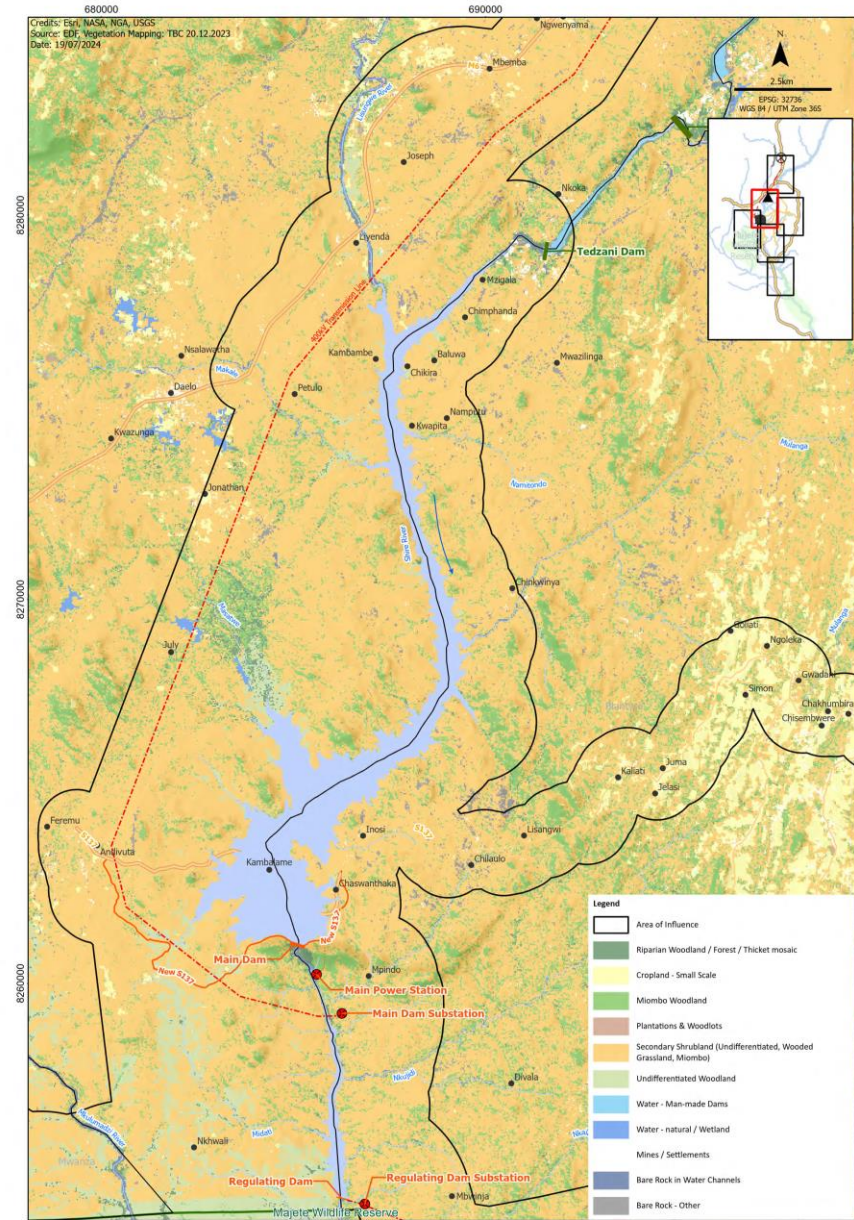
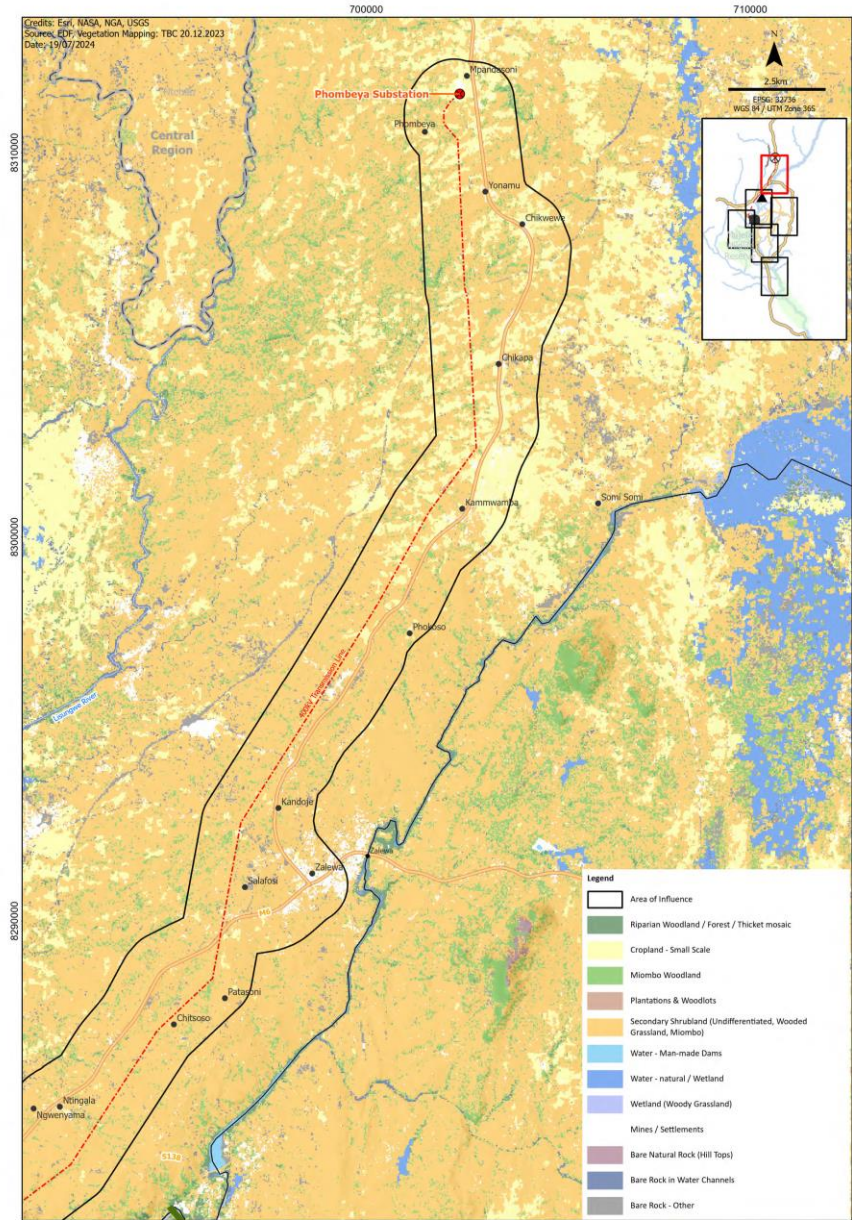


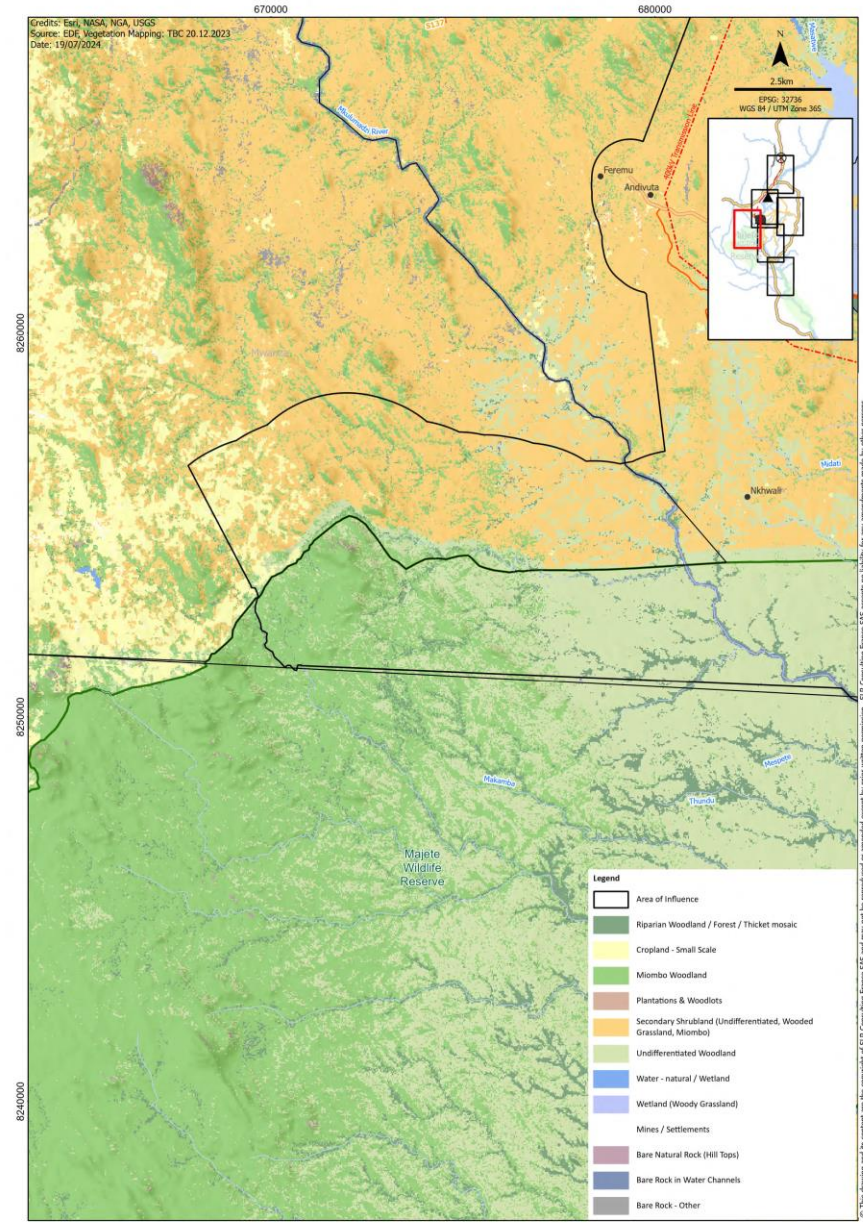
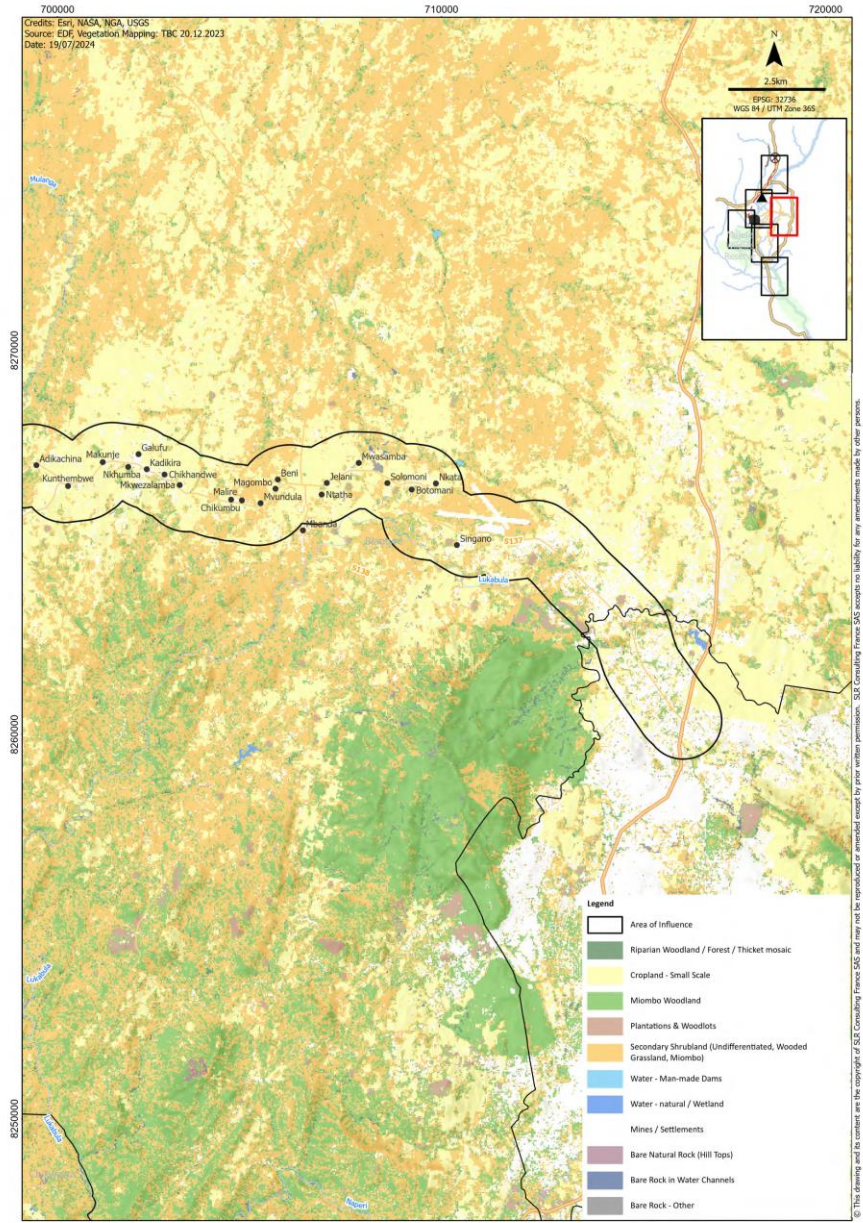
<p>Site Number MPT 121 Co-ordinates S15.738970°, E34.737677° Date 10/05/2023 Time 11:28 Vegetation Low closed shrubland with emergent trees Structure Woody shrubs 50-70%, trees 10% Canopy Cover Vegetation Height 2-4 m (shrubs), 8-10 m (trees) Habitat 0.4 (mostly natural spp but ecological functions compromised; most canopy trees removed) Quality Score Habitat Modified Status Human Wood removal for fuel and possibly charcoal Utilisation</p>		<p>Site Number MPT 122 Co-ordinates S15.742397°, E34.747419° Date 10/05/2023 Time 12:29 Vegetation Low mid-dense shrubland Structure Woody shrubs & small trees Canopy 40-70% Cover Vegetation Height 3-4 m Habitat 0.4 (mostly natural spp but ecological functions compromised; most canopy trees removed) Quality Score Habitat Modified Status Human Wood removal for fuel and possibly charcoal Utilisation</p>	
<p>Site Number MPT 123 Co-ordinates S15.727767°, E34.743613° Date 10/05/2023 Time 13:14 Vegetation Low mid-dense shrubland Structure Woody shrubs 40-60%, grass 30% Canopy Cover Vegetation Height 2-3 m Habitat 0.4 (mostly natural spp but ecological functions compromised; most canopy trees removed) Quality Score Habitat Modified Status Human Wood removal for fuel and possibly charcoal Utilisation</p>		<p>Site Number MPT 124 Co-ordinates S15.719855°, E34.741449° Date 10/05/2023 Time 13:23 Vegetation Low closed shrubland Structure Woody shrubs & small trees Canopy 80-90% Cover Vegetation Height 3-4 m Habitat 0.3 (ecological functions compromised; most canopy trees removed; some alien spp) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	
<p>Site Number MPT 125 Co-ordinates S15.705894°, E34.740224° Date 10/05/2023 Time 13:54 Vegetation Low closed woodland with emergent trees Structure Woody shrubs 70-80%, trees 10% Canopy Cover Vegetation Height 3-7 m (emergents to 10 m) Habitat 0.8 (typical indigenous spp expected; ecological functions intact; canopy mostly intact) Quality Score Habitat Modified Status Human Minor fuelwood collection, cattle paths Utilisation</p>		<p>Site Number MPT 126 Co-ordinates S15.735193°, E34.733862° Date 10/05/2023 Time 10:11 Vegetation Low mid-dense shrubland with emergent trees Structure Woody shrubs & small trees Canopy 40-70%, emergents 10% Cover Vegetation Height 2-5 m (shrubs), 10-12 m (trees) Habitat 0.4 (mostly natural spp but ecological functions compromised; most canopy trees removed) Quality Score Habitat Modified Status Human Long history of wood removal for charcoal Utilisation</p>	

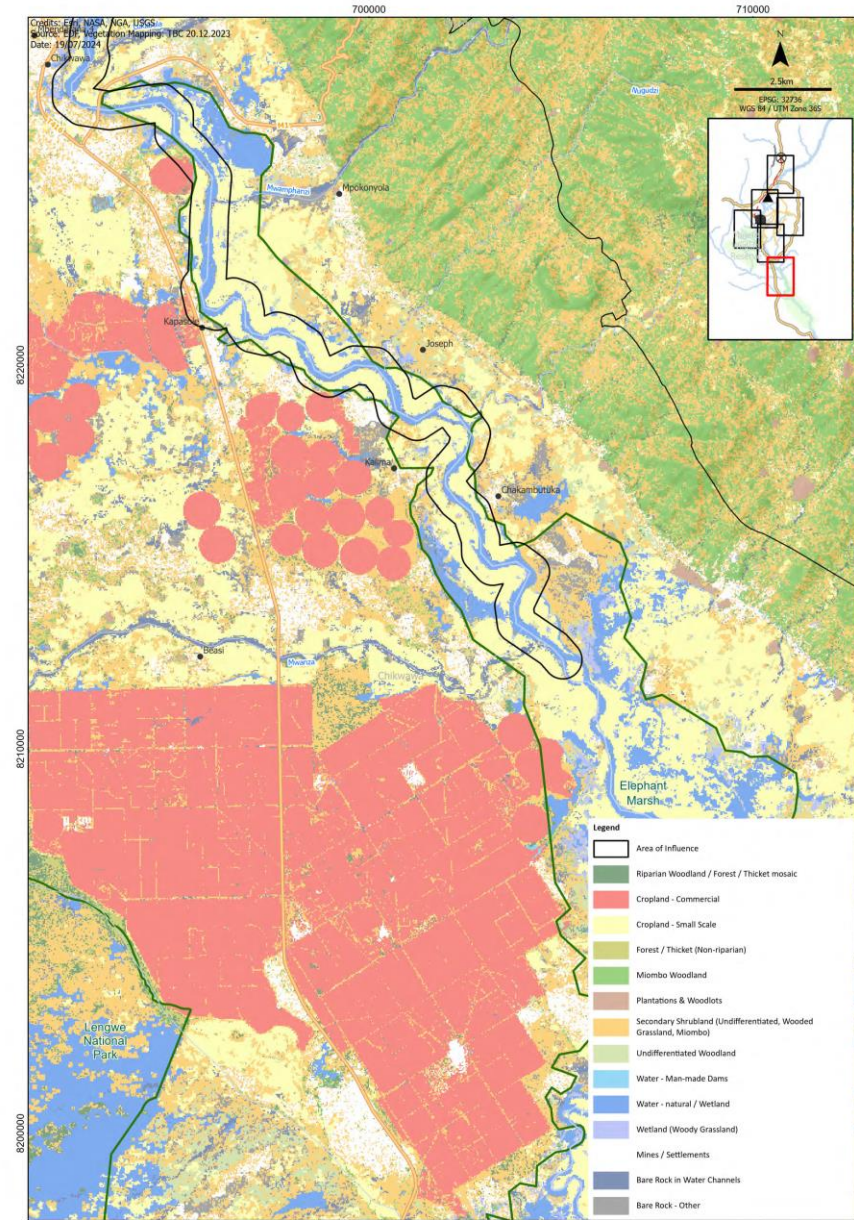
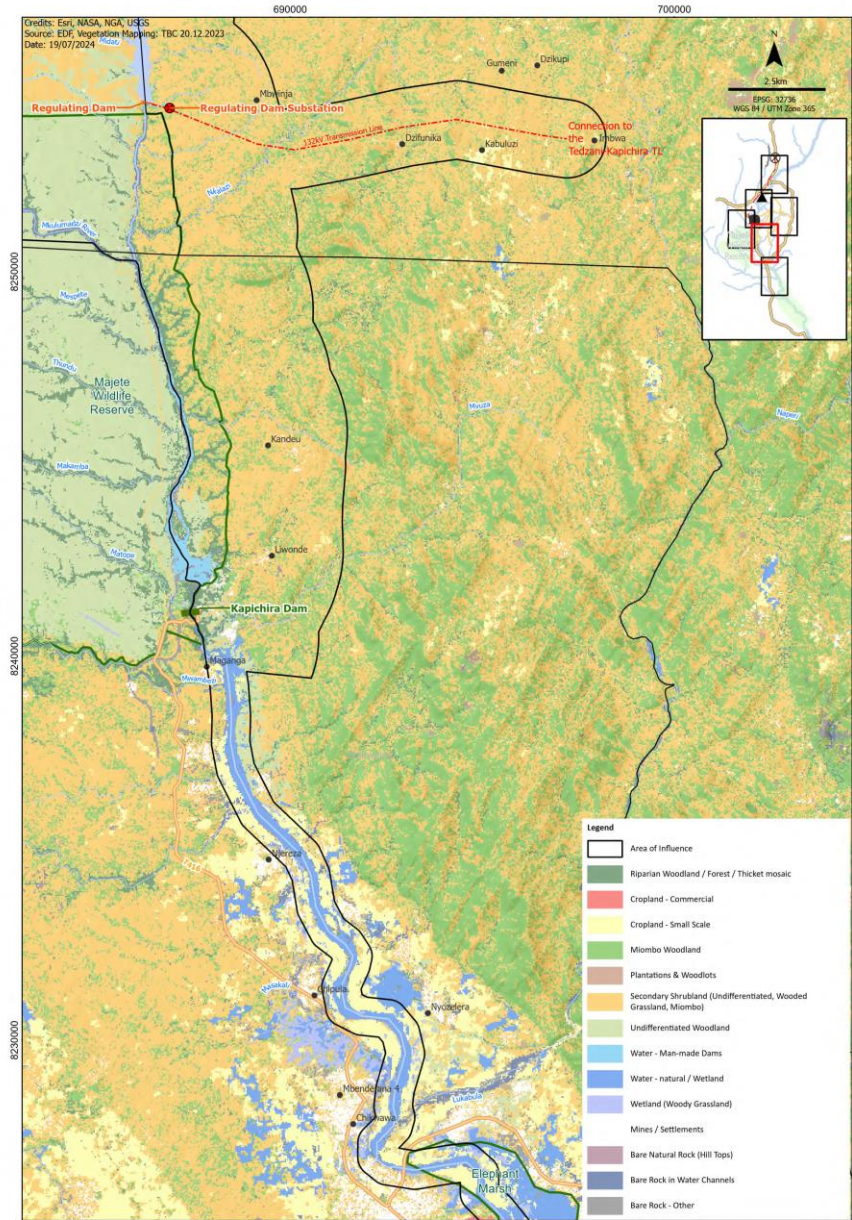


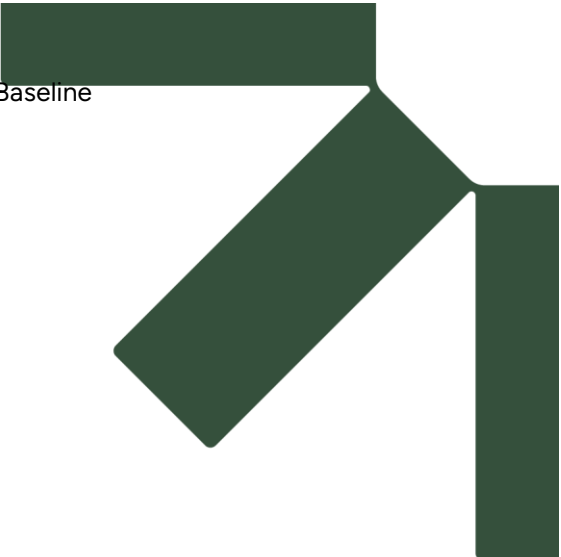
Annex 5-21: Vegetation Mapping of the Study Area











Annex 5-22: Flora List



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
CLASS POLYPODIOPSIDA													
Pteridaceae													
<i>Ceratopteris cornuta</i> (P.Beauv.) Lepr.	Hydrophyte							x					x
Salviniaceae													
<i>Azolla filiculoides</i> Lam.*	Hydrophyte							fc	x				x
<i>Azolla nilotica</i> Decne. ex Mett.	Hydrophyte							x		x			x
<i>Azolla pinnata</i> R. Br. subsp. <i>africana</i> (Desv.) R.M.K. Saunders & K. Fowler	Hydrophyte							x					x
<i>Salvinia hastata</i> Desv.	Hydrophyte							x					x
<i>Salvinia</i> × <i>molesta</i> D.S.Mitch. *	Hydrophyte							x					x
Tectariaceae													
<i>Arthropteris monocarpa</i> (Cordem.) C.Chr.	Fern							x					x
PALAEODICOTS													
Nymphaeaceae													
<i>Nymphaea lotus</i> L.	Hydrophyte							x					x
<i>Nymphaea nouchali</i> Burm. f. var. <i>caerulea</i> (Savigny) Verdc.	Hydrophyte							fc	x	x			x
CLASS MAGNOLIOPSIDA													
Acanthaceae													
<i>Asystasia gangetica</i> (L.) T. Anderson subsp. <i>micrantha</i> (Nees) Ensermu	Forb			u	u				u	x			
<i>Barleria spinulosa</i> Klotzsch	Dwarf shrub	u			fc				u	x	x		
<i>Barleria</i> sp. 1 (sterile)	Forb				r				x				
<i>Blepharis cf. acanthodioides</i> Klotzsch	Forb								fc	x			x
<i>Blepharis maderaspatensis</i> (L.) Roth	Forb				u					x			
<i>Blepharis</i> sp. 1 (photos)	Forb	u								x			
<i>Dyschoriste hildebrandtii</i> (S. Moore) S. Moore	Dwarf shrub	fc	u	u					u	x			
<i>Elytraria acaulis</i> (L.f.) Lindau	Forb	u								x			
<i>Hypoestes forskollii</i> (Vahl) Roem. & Schult.	Dwarf shrub	u		u	fc				x	x			



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Isoglossa</i> sp. 1 (sterile)	Dwarf shrub				u				x				
<i>Justicia bracteata</i> (Hochst.) Zarb.	Forb	fc	fc	fc				fc	x				
<i>Justicia kirkiana</i> T. Anderson	Forb			u	u				x				
<i>Justicia striata</i> (Klotzsch) Bullock	Forb	u			u				x				
<i>Megalochlamys hamata</i> (Klotzsch) Vollesen	Dwarf shrub					u		u	x				
<i>Rhinacanthus zambesiacus</i> I. Darbysh.	Forb	u			u				x				
<i>Ruspolia decurrens</i> (Hochst. ex Nees) Milne-Redh.	Dwarf shrub				fc				x				
<i>Thunbergia alata</i> Bojer ex Sims	Climber			u				u	x				
<i>Thunbergia</i> sp. 1 (sterile)	Forb	u						u	x				
Achariaceae													
<i>Xylothecca tettensis</i> (Klotzsch) Gilg	Shrub										x		
Amaranthaceae													
<i>Achyranthes aspera</i> L.*	Forb	u			fc			u	x		x		
<i>Aerva leucura</i> Moq.	Forb							u	x				
<i>Alternanthera nodiflora</i> R. Br.*	Forb												x
<i>Alternanthera pungens</i> Kunth*	Forb												x
<i>Alternanthera sessilis</i> (L.) DC.*	Forb												x
<i>Amaranthus hybridus</i> L.*	Forb							fc	x		x		x
<i>Amaranthus lividus</i> L.*	Forb												x
<i>Amaranthus spinosus</i> L.	Dwarf shrub			fc		fc			x				x
<i>Celosia argentea</i> L.	Forb												x
<i>Celosia trigyna</i> L.	Forb	fc			u				x				x
<i>Centrostachys aquatica</i> (R.Br.) Wall.	Forb							x					x
<i>Chenopodium ambrosioides</i> L.*	Forb							u	x				x
<i>Cyathula cylindrica</i> Moq.	Forb									x			
<i>Gomphrena celosioides</i> Mart.*	Forb					u		fc	x				



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Pupalia lappacea</i> (L.) A. Juss.	Forb	u			u				x				
Anacardiaceae													
<i>Lannea discolor</i> (Sond.) Engl.	Tree	fc	fc					u	x	x			
<i>Lannea schweinfurthii</i> (Engl.) Engl. var. <i>stuhlmannii</i> (Engl.) Kokwaro	Tree	u						u	x	x	x		
<i>Mangifera indica</i> L.*	Tree			u	u			u	x		x		x
<i>Ozoroa reticulata</i> (Baker f.) R. Fern. & A. Fern.	Tree	fc	u					fc	x	x			
<i>Sclerocaya birrea</i> (A. Rich.) H(A. Rich.) Hochst. subsp. <i>caffra</i> (Sond.) Kokwaro	Tree	fc		u					x	x	x		
<i>Searsia longipes</i> (Engl.) Moffett	Shrub	u		u		u			x				
<i>Searsia natalensis</i> (Bernh. ex C. Krauss) F.A. Barkley	Shrub			u	fc				x				
Anisophylleaceae													
<i>Anisophyllea boehmii</i> Engl.	Tree		u						x				
Annonaceae													
<i>Annona senegalensis</i> Pers. subsp. <i>senegalensis</i>	Shrub	u	u			u		fc	x				
<i>Artabotrys brachypetalus</i> Benth.	Shrub				fc				x				
<i>Cleistochlamys kirkii</i> (Benth.) Oliv.	Tree	fc		fc	c			u	x	x	x		x
<i>Friesodielsia obovata</i> (Benth.) Verdc.	Shrub	r			fc				x	x			
<i>Monanthes buehneri</i> (Engl.) Verdc.	Shrub												x
<i>Monodora junodii</i> Engl. & Diels var. <i>junodii</i>	Shrub				u				x				
Apiaceae													
<i>Centella asiatica</i> (L.) Urb.	Forb										x		x
<i>Hydrocotyle mannii</i> Hook. F.	Forb								x				x
<i>Steganotaenia araliacea</i> Hochst.	Tree	fc	u					fc	x	x			
Apocynaceae subfamilies Apocynoideae													
<i>Adenium multiflorum</i> Klotzsch	Shrub	r							x				
<i>Holarrhena pubescens</i> (Buch. - Ham.) Wall. ex G. Don	Tree	fc	fc	u				fc	x	x	x		x
<i>Strophanthus kombe</i> Oliv.	Climber				u				x				



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
Apocynaceae subfamilies Asclepiadoideae													
<i>Calotropis procera</i> (Aiton) W.T. Aiton *	Dwarf shrub					fc		u	x		x		x
<i>Gomphocarpus fruticosus</i> (L.) Aiton. f.	Dwarf shrub												x
<i>Huernia aspera</i> N.E. Br.	Succulent	r							x				
<i>Huernia verekeri</i> Stent var. <i>verekeri</i>	Succulent	r							x				
<i>Telosma africana</i> (N.E. Br.) N.E. Br.	Climber			u		fc		u	x				
Apocynaceae subfamily Periplocoideae													
<i>Mondia whitei</i> (Hook. f.) Skeels	Climber				u				x				
<i>Tacazzea apiculata</i> Oliv.	Climber					c			x				x
Apocynaceae subfamilies Rauvolfioideae													
<i>Carissa spinarum</i> L.	Shrub										x		
<i>Diplorhynchus condylocarpon</i> (Müll. Arg.) Pichon	Tree	fc	fc	u				c	x	x			
<i>Tabernaemontana elegans</i> Stapf	Tree	u			u				x	x	x		x
Apocynaceae subfamily Secamonoideae													
<i>Secamone parvifolia</i> (Oliv.) Bullock	Climber	u			u			u	x				
Araliaceae													
<i>Cussonia arborea</i> Hochst. ex A. Rich.	Tree	u						u	x				
Aristolochiaceae													
<i>Aristolochia albida</i> Duch.	Forb										x		
Asteraceae													
<i>Acanthospermum hispidum</i> DC.*	Forb					fc		fc	x				
<i>Acmella radicans</i> (Jacq.) R.K. Jansen*	Forb		u	fc	u	fc		fc	x				
<i>Ageratum conyzoides</i> L.*	Forb	u	u	fc		c	fc	fc	x				x
<i>Ageratum houstonianum</i> Mill *	Forb						x				x		x
<i>Aspilia</i> sp. 1	Forb					u		u	x				
<i>Bidens pilosa</i> L.*	Forb	u	u	fc	fc	fc	u	fc	x	x			x



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Conyza stricta</i> Willd. *	Forb												x
<i>Cosmos sulphureus</i> Cav.*	Forb							fc	x				
<i>Crassocephalum rubens</i> (Jacq.) S. Moore	Forb												x
<i>Dichrocephala integrifolia</i> (L.f.) Kuntze	Forb												x
<i>Eclipta prostrata</i> (L.) L.	Forb						x						x
<i>Erigeron bonariensis</i> L. *	Forb	u		u		u		fc	x		x		x
<i>Galinsoga parviflora</i> Cav. *	Forb												x
<i>Gamochaeta pennsylvanica</i> (Willd.) Cabrera *	Forb						x						x
<i>Gnaphalium polycaulon</i> Pers. *	Forb												x
<i>Grangea maderaspatana</i> (L.) Poir.	Forb						x						x
<i>Gymnanthemum myrianthum</i> (Hook.f.) H. Rob.	Shrub				u	u			x				
<i>Launaea cornuta</i> (Hochst. ex Oliv. & Hiern) C.Jeffrey	Forb												x
<i>Linzia glabra</i> Steetz	Forb		u	fc		fc		fc	x				
<i>Macledium</i> sp. 1 (sterile)	Forb	u							x				
<i>Melanthera scandens</i> (Schumach. & Thonn.) Roberty	Forb						x						x
<i>Microglossa pyrhopappa</i> (A.Rich.) A.D.Q.Agnew	Dwarf shrub												x
<i>Mikania cordata</i> (Burm.fil.) B.L.Rob.	Climber						x			x			x
<i>Neojeffreya decurrens</i> (L.) Cabrera	Forb												x
<i>Nidorella auriculata</i> DC. subsp. <i>auriculata</i>	Forb						x			x			x
<i>Nidorella resedifolia</i> DC.	Forb						x						x
<i>Pluchea dioscoridis</i> (L.) DC.	Shrub			u		fc	fc		x	x			x
<i>Polydora poskeana</i> (Vatke & Hildebr.) H. Rob.	Forb	u	u	u		u		fc	x	x			
<i>Pseudoconyza viscosa</i> (Mill.) D' Arcy	Forb						x						x
<i>Pseudognaphalium luteo-album</i> (L.) Hilliard & B.L. Burttt *	Forb												x
<i>Pseudognaphalium oligandrum</i> (DC.) Hilliard & B.L. Burttt	Forb												x
<i>Sigesbeckia orientalis</i> L. *	Forb												x



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Sphaeranthus angolensis</i> O. Hoffm.	Forb							x					x
<i>Sphaeranthus peduncularis</i> DC. subsp. <i>rogersii</i> (N.E. Br.) Wild	Forb							x		x			x
<i>Sphaeranthus randii</i> S. Moore	Forb							x		x			x
<i>Spilanthes mauritiana</i> (Rich. ex Pers.) DC.	Forb							x					x
<i>Synedrella nodiflora</i> (L.) Gaertn. *	Forb												x
<i>Tithonia diversifolia</i> (Hemsl.) A. Gray*	Shrub	r	r	u	u	fc		c	x				
<i>Tithonia rotundifolia</i> (Mill.) S.F. Blake*	Shrub							fc	x				
<i>Tridax procumbens</i> L.*	Forb	u	u	fc	u	c	fc	c	x		x		
<i>Vernonia petersii</i> Oliv. & Hiern ex Oliv.	Dwarf shrub										x		
<i>Xanthium spinosum</i> L. *	Dwarf shrub										x		
<i>Xanthium strumarium</i> L.*	Dwarf shrub			u		fc	u		x				
Bignoniaceae													
<i>Kigelia africana</i> (Lam.) Benth.	Tree			fc					x	x	x		x
<i>Markhamia obtusifolia</i> (Baker) Sprague	Tree	fc	fc					fc	x				x
<i>Markhamia zanzibarica</i> (Bojer ex DC.) K. Schum.	Tree			u	fc				x	x	x		
<i>Stereospermum kunthianum</i> Cham.	Tree	u						u	x	x			
Boraginaceae													
<i>Cordia africana</i> Lam.	Shrub										x		
<i>Ehretia amoena</i> Klotzsch	Shrub	fc	u	fc	u	u		fc	x	x			
<i>Heliotropium indicum</i> L.	Forb			u		fc			x		x		x
<i>Heliotropium ovalifolium</i> Forssk.	Forb												x
<i>Trichodesma zeylanicum</i> (Burm. f.) R. Br.	Forb									x	x		
Brassicaceae													
<i>Brassica juncea</i> (L.) Czern. *	Forb										x		
<i>Rorippa micrantha</i> (Roth) Jonsell	Forb						x						x
Burseraceae													



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Commiphora africana</i> (A. Rich.) Engl.	Tree	fc	u					fc	x	x			
<i>Commiphora caerulea</i> Burt	Tree									x			
<i>Commiphora edulis</i> (Klotzsch) Engl.	Tree	fc							x				
<i>Commiphora glandulosa</i> Schinz	Tree	u						fc	x				
<i>Commiphora mollis</i> (Oliv.) Engl.	Tree	u						u	x				
<i>Commiphora mossambicensis</i> (Oliv.) Engl.	Tree	c	u					c	x	x			
Cactaceae													
<i>Opuntia ficus-indica</i> (L.) Mill.*	Succulent							u	x		x		
Capparaceae													
<i>Boscia salicifolia</i> Oliv.	Tree	u	u	u					x	x	x		
<i>Cadaba kirkii</i> Oliv.	Shrub			fc	fc				x				x
<i>Capparis erythrocarpos</i> Iserl var. <i>rosea</i> (Klotzsch) DeWolf	Climber				fc				x		x		x
<i>Capparis sepiaria</i> L. var. <i>subglabra</i> (Oliv.) DeWolf	Climber	u	u	fc	fc	u		u	x				
<i>Capparis tomentosa</i> Lam.	Climber												x
<i>Cladostemon kirkii</i> (Oliv.) Pax & Gilg	Shrub				u				x	x			
<i>Cleome gynandra</i> L.	Forb									x	x		
<i>Maerua angolensis</i> DC.	Tree												x
<i>Maerua kirkii</i> (Oliv.) F. White	Shrub												x
<i>Thilachium africanum</i> Lour.	Shrub				u				x		x		
Caricaceae													
<i>Carica papaya</i> L.*	Tree							u	x		x		
Celastraceae													
<i>Gymnosporia maranguensis</i> (Loes.) Loes.	Shrub	u							x				
<i>Gymnosporia senegalensis</i> (Lam.) Loes.	Shrub	fc	u	fc	u	fc		u	x	x	x		x
<i>Loeseneriella africana</i> (Willd.) N. Hallé var. <i>richardiana</i> (Cambess.) N. Hallé	Climber	u		u	fc	u			x				
<i>Mystroxydon aethiopicum</i> (Thunb.) Loes. subsp. <i>schlechteri</i> (Loes.) R.H. Archer	Shrub										x		



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Reissantia indica</i> (Willd.) N. Hallé	Climber	u		u	fc			u	x				
Ceratophyllaceae													
<i>Ceratophyllum demersum</i> L.	Hydrophyte								x				x
Chrysobalanaceae													
<i>Parinari curatellifolia</i> Planch. ex Benth.	Tree	r	u						x				
Clusiaceae													
<i>Garcinia livingstonei</i> T. Anderson	Tree			u	u				x				
Combretaceae													
<i>Combretum adenogonium</i> Steud. ex A. Rich.	Tree	fc	u	u				c	x				x
<i>Combretum apiculatum</i> Sond. subsp. <i>apiculatum</i>	Tree	u						u	x		x		
<i>Combretum collinum</i> Fresen.	Tree	fc						fc	x	x			
<i>Combretum hereroense</i> Schinz subsp. <i>hereroense</i>	Tree							u	x				
<i>Combretum imberbe</i> Wawra	Tree	fc		fc				u	x	x	x		
<i>Combretum microphyllum</i> Klotzsch	Tree			fc	c	c		fc	x		x		x
<i>Combretum molle</i> R.Br ex G. Don	Tree	fc	fc	u	u			fc	x				
<i>Combretum mossambicense</i> (Klotzsch) Engl.	Tree			fc		u			x		x		
<i>Combretum padoides</i> Engl. & Diels	Tree	u			u				x				
<i>Combretum pentagonum</i> M.A. Lawson	Tree			u	fc				x				
<i>Combretum zeyheri</i> Sond.	Tree	c	fc	fc				c	x	x			
<i>Pteleopsis myrtifolia</i> (M.A. Lawson) Engl. & Diels	Tree				u				x	x			
<i>Terminalia brachystemma</i> Welw. ex Hiern	Tree	r							x				
<i>Terminalia sambesiaca</i> Engl. & Diels	Tree				u				x				
<i>Terminalia sericea</i> Burch. ex DC.	Tree	fc	u	fc				fc	x	x	x		
<i>Terminalia stenostachya</i> Engl. & Diels	Tree	c	fc	fc				c	x				
Connaraceae													
<i>Rourea orientalis</i> Baill.	Shrub	u		u					x				



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
Convolvulaceae													
<i>Convolvulus farinosus</i> L.	Climber							x				x	
<i>Ipomoea albivenia</i> (Lindl.) Sweet	Climber	u							u	x			
<i>Ipomoea aquatica</i> Forssk.	Climber							fc		x	x	x	
<i>Ipomoea batatas</i> (L.) Lam.*	Forb								fc	x	x		
<i>Ipomoea buchananii</i> Choisy	Forb											x	
<i>Ipomoea coptica</i> (L.) Roth. Ex. Roem & Schultz	Climber											x	
<i>Ipomoea obscura</i> (L.) Ker-Gawl	Climber											x	
<i>Ipomoea pes-tigridis</i> L.	Climber							x				x	
<i>Ipomoea verbascoidea</i> Choisy	Climber			u		fc				x			
<i>Ipomoea wightii</i> (Wall.) Choisy var. <i>wightii</i>	Climber			u	u	u				x			
<i>Merremia tridentata</i> (L.) Hall. f.	Climber								u	x			
Cucurbitaceae													
<i>Citrullus lanatus</i> (Thunb.) Matsum. & Nakai	Climber										x		
<i>Corallocarpus bainesii</i> (Hook. f.) A. Meeuse	Climber											x	
<i>Cucumis metuliferus</i> Naudin	Climber	u		u	fc				u	x			
<i>Lagenaria siceraria</i> (Molina) Standl. *	Climber											x	
<i>Lagenaria sphaerica</i> (Sond.) Naudin	Climber			fc	fc	fc			fc	x			
<i>Luffa cylindrica</i> (L.) M. Roem.	Climber			fc	fc	fc			fc	x	x	x	
<i>Momordica cardiospermoides</i> Klotzsch	Climber											x	
<i>Momordica foetida</i> Schumach.	Climber											x	
<i>Zehneria scabra</i> (L.f.) Sond.	Climber								u	x			
Ebenaceae													
<i>Diospyros kirkii</i> Hiern	Shrub	fc	u						fc	x	x		
<i>Diospyros loureiriana</i> G. Don subsp. <i>loureiriana</i>	Shrub	fc	fc	u		u			fc	x			
<i>Diospyros mespiliformis</i> Hochst. ex A. DC.	Tree			fc	fc					x	x	x	



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<i>Diospyros natalensis</i> (Harv.) Brenan	Shrub									x			
<i>Diospyros quiloensis</i> (Hiern) F. White	Shrub	u			u			x	x	x		x	
<i>Diospyros senensis</i> Klotzsch	Shrub	u			fc			x	x				
<i>Diospyros squarrosa</i> Klotzsch	Shrub	u			u			x	x	x		x	
Euphorbiaceae													
<i>Acalypha brachiata</i> C. Krauss	Forb			u	u			u	x				
<i>Acalypha glabrata</i> Thunb. var. <i>glabrata</i>	Dwarf shrub	u			fc				x				
<i>Acalypha ornata</i> Hochst. ex A. Rich.	Forb									x			
<i>Acalypha villicaulis</i> Hochst. ex A. Rich.	Forb							u	x		x		
<i>Croton macrostachyus</i> Hochst. ex Delile	Tree	u							x			x	
<i>Croton megalobotrys</i> Müll. Arg.	Tree				fc				x	x	x		
<i>Croton menyharthii</i> Pax	Shrub	u			u				x				
<i>Euphorbia cooperi</i> N.E. Br. ex A. Berger	Tree	r							x				
<i>Euphorbia depauperata</i> Hochst. ex A. Rich.	Forb											x	
<i>Euphorbia heterophylla</i> L.*	Forb			fc	u	fc		fc	x				
<i>Euphorbia hirta</i> L.*	Forb	u	u	fc		fc	u	fc	x	x	x		
<i>Euphorbia ingens</i> E. Mey. ex Boiss.	Tree	u							x				
<i>Euphorbia prostrata</i> Aiton *	Forb										x		
<i>Euphorbia tettensis</i> Klotzsch	forb	fc	u					fc	x				
<i>Euphorbia transvaalensis</i> Schltr.	Dwarf shrub										x		
<i>Jatropha curcas</i> L.*	Shrub							u	x				
<i>Jatropha gossypifolia</i> L.*	Shrub							u	x		x		
<i>Manihot esculenta</i> Crantz*	Shrub							fc	x		x		
<i>Ricinus communis</i> L. var. <i>communis</i> *	Shrub			fc	fc	fc		u	x	x	x	x	
<i>Schinziophyton rautanenii</i> (Schinz) Radcl.-Sm.	Tree	u							x	x			



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Shirakiopsis elliptica</i> (Hochst.) Esser	Tree												x
<i>Synadenium kirkii</i> N.E. Br.	Shrub	r			r				x				
<i>Tragia</i> sp. 1	Climber	u	u					u	x				
Fabaceae subfamily Cercioideae													
<i>Bauhinia petersiana</i> Bolle	Shrub	fc	u	fc		u		fc	x				
<i>Bauhinia tomentosa</i> L.	Shrub				u				x				
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	Tree	u		u				u	x				
Fabaceae subfamily Caesalpinioideae													
<i>Burkea africana</i> Hook.	Tree	u	u					u	x				
<i>Cassia abbreviata</i> Oliv.	Tree	fc						u	x				
<i>Chamaecrista absus</i> (L.) H.S. Irwin & Barneby	Dwarf shrub			fc		fc	u	u	x	x			
<i>Delonix regia</i> (Bojer ex Hook.) Raf.*	Tree							u	x		x		
<i>Erythrophleum africanum</i> (Welw. ex Benth.) Harms	Tree	fc	fc					u	x				
<i>Guilandina bonduc</i> L. *	Climber												x
<i>Parkinsonia aculeata</i> L. *	Tree						x				x		x
<i>Pterolobium stellatum</i> (Forssk.) Brenan	Shrub										x		
<i>Senna alata</i> (L.) Roxb.*	Shrub			fc	u	fc	x	fc	x				x
<i>Senna didymobotrya</i> (Fresen.) H.S. Irwin & Barneby *	Shrub										x		
<i>Senna obtusifolia</i> (L.) H.S. Irwin & Barneby*	Shrub			fc		fc		fc	x				
<i>Senna occidentalis</i> (L.) Link*	Shrub			u	fc	fc	u	fc	x		x		x
<i>Senna petersiana</i> (Bolle) Lock	Shrub	fc						fc	x				
<i>Senna septemtrionalis</i> (Viv.) H.S. Irwin & Barneby *	Shrub									x			
<i>Senna siamea</i> (Lam.) H.S. Irwin & Barneby*	Tree							fc	x		x		x
<i>Senna singueana</i> (Delile) Lock	Tree	u	u						x	x	x		
<i>Senna</i> sp. 1 (photos)	Dwarf shrub							u	x				
Fabaceae subfamily Detarioideae													



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Azelia quanzensis</i> Welw.	Tree	u						u	x	x			
<i>Brachystegia boehmii</i> Taub.	Tree		d					u	x				
<i>Brachystegia spiciformis</i> Benth.	Tree		d					u	x				
<i>Colophospermum mopane</i> (Benth.) J. Léonard	Tree	r						u	x				
<i>Julbernardia globiflora</i> (Benth.) Troupin	Tree		d					c	x	x			
<i>Tamarindus indica</i> L.	Tree			fc	c				x	x	x		
Fabaceae subfamily Faboideae													
<i>Abrus precatorius</i> L. subsp. <i>africanus</i> Verdc.	Climber	u						u	x	x	x		x
<i>Aeschynomene cristata</i> Vatke var. <i>cristata</i>	Shrub							fc	x				x
<i>Aeschynomene elaphroxylon</i> (Guill. & Perr.) Taub.	Shrub							fc	x				x
<i>Bobgunnia madagascariensis</i> (Desv.) J.H. Kirkbr. & Wiersama	Tree	u	u						x				
<i>Cajanus cajan</i> (L.) Millsp.*	Shrub							fc	x		x		
<i>Cordyla africana</i> Lour.	Tree			u	u				x	x	x		x
<i>Crotalaria recta</i> Steud. ex A. Rich.	Dwarf shrub									x			x
<i>Crotalaria virgulata</i> Klotzsch	Dwarf shrub							fc	x				
<i>Dalbergia arbutifolia</i> Baker subsp. <i>arbutifolia</i>	Climber				fc	u			x				
<i>Dalbergia boehmii</i> Taub. subsp. <i>boehmii</i>	Tree	u	u						x	x			
<i>Dalbergia fischeri</i> Taub.	Climber										x		
<i>Dalbergia melanoxydon</i> Guill. & Perr.	Tree	fc	u			u		fc	x	x	x		
<i>Dalbergia nitidula</i> Welw. ex Baker	Tree	u						u	x				
<i>Dalbergiella nysae</i> Baker f.	Tree	fc	fc					u	x	x			
<i>Desmodium salicifolium</i> (Poir.) DC.	Dwarf shrub										x		x
<i>Desmodium tortuosum</i> (Sw.) DC. *	Climber					fc		fc	x				
<i>Erythrina livingstoniana</i> Baker	Tree	r			r				x				
<i>Indigofera antunesiana</i> Harms	Dwarf shrub												x
<i>Indigofera astragalina</i> DC.	Dwarf shrub	u		fc		fc		fc	x				



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Indigofera atriceps</i> Hook. f.	Shrub									x			
<i>Indigofera emarginella</i> A. Rich.	Shrub									x		x	
<i>Indigofera hirsuta</i> L.	Dwarf shrub											x	
<i>Indigofera ormocarpoides</i> Baker	Shrub				r				x				
<i>Indigofera</i> sp. 1 (sterile shrub)	forb	u							x				
<i>Indigofera tinctoria</i> L. var. <i>arcuata</i> J.B. Gillett	Dwarf shrub			fc		fc	x	u	x			x	
<i>Macrotyloma axillare</i> (E. Mey.) Verdc.	Climber									x			
<i>Mucuna coriacea</i> Baker subsp. <i>irritans</i> (Burt Davy) Verdc.	Climber	u	u	c	c	fc	u	c	x		x	x	
<i>Mundulea sericea</i> (Willd.) A. Chev.	Shrub	u						u	x				
<i>Neorautanenia mitis</i> (A. Rich.) Verdc.	Climber				u			u	x				
<i>Ormocarpum kirkii</i> S. Moore	Tree	fc		u				fc	x	x			
<i>Pericopsis angolensis</i> (Baker) Meeuwen	Tree	fc	fc					u	x				
<i>Phaseolus vulgaris</i> L. *	Dwarf shrub							fc	x		x		
<i>Philenoptera bussei</i> (Harms) Schrire	Tree	u							x	x	x		
<i>Philenoptera violacea</i> (Klotzsch) Schrire	Tree			fc		u			x	x	x	x	
<i>Psophocarpus lancifolius</i> Harms	Dwarf shrub										x	x	
<i>Pseudarthria hookeri</i> Wight & Arn. var. <i>hookeri</i>	Dwarf shrub	u				u		fc	x				
<i>Pterocarpus angolensis</i> DC.	Tree	fc	fc					u	x				
<i>Pterocarpus brenanii</i> Barbosa & Torre	Tree	u						u	x				
<i>Pterocarpus rotundifolius</i> (Sond.) Druce subsp. <i>polyanthus</i> (Harms) Mendonça & E.P. Sousa	Tree	fc	u					c	x	x			
<i>Rhynchosia cf. minima</i> (L.) DC.	Climber			u	fc			fc	x			x	
<i>Rhynchosia</i> sp. 1 (sterile)	Climber							u	x				
<i>Sesbania bispinosa</i> (Jacq.) W. F. Wight var. <i>bispinosa</i>	Shrub			u		fc	fc	u	x			x	
<i>Sesbania leptocarpa</i> DC.	Shrub						x					x	
<i>Sesbania macrantha</i> Welw. ex E. Phillips & Hutch.	Shrub						x					x	



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Sesbania sesban</i> (L.) Merr.	Shrub							x		x			x
<i>Sesbania tetraptera</i> Hochst. ex Baker	Shrub							fc	x				x
<i>Tephrosia paniculata</i> Baker	Dwarf shrub										x		
<i>Tephrosia purpurea</i> (L.) Pers.	Dwarf shrub					u		fc	x				
<i>Tephrosia rhodesica</i> Baker f.	Dwarf shrub	fc						fc	x				
<i>Tephrosia</i> sp. 1 (sterile)	Dwarf shrub							u	x				
<i>Vigna luteola</i> (Jacq.) Benth.	Climber										x		
<i>Vigna unguiculata</i> (L.) Walp.	Climber										x		
<i>Xeroderris stuhlmannii</i> (Taub.) Mendonça & E.P. Sousa	Tree	fc	u	fc	u			fc	x	x			
<i>Zornia glochidiata</i> C. Rchb. ex DC.	Forb							u	x				
Fabaceae subfamily Mimosoideae													
<i>Albizia anthelmintica</i> (A. Rich.) Brongn.	Tree										x		x
<i>Albizia antunesiana</i> Harms	Tree	u	fc					fc	x				
<i>Albizia cf. forbesii</i> Benth.	Tree				u				x				
<i>Albizia glaberima</i> (Schumach. & Thonn.) Benth. var. <i>glabrescens</i> (Oliv.) Brenan	Tree				u				x		x		
<i>Albizia harveyi</i> E. Fourn.	Tree	fc							x	x	x		
<i>Albizia lebbeck</i> (L.) Benth.*	Tree							u	x				
<i>Albizia tanganyikensis</i> Baker f.	Tree	r							x				
<i>Albizia versicolor</i> Welw. ex Oliv.	Tree	u		fc	fc				x				
<i>Dichrostachys cinerea</i> (L.) Wight & Arn.	Shrub	fc	u	u		u		c	x	x	x		
<i>Elephantorrhiza goetzei</i> (Harms) Harms	Shrub	fc						fc	x				
<i>Faidherbia albida</i> (Delile) A. Chev.	Tree	u		fc	fc			x	x		x		x
<i>Mimosa pigra</i> L.*	Shrub					fc	fc		x		x		x
<i>Neptunia oleracea</i> Lour.	Dwarf shrub							x					x
<i>Prosopis glandulosa</i> Torr. *	Tree							x			x		x
<i>Senegalia burkei</i> (Benth.) Kyal. & Boatwr.	Tree	fc		u					x				



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Senegalia goetzei</i> Harms	Tree	fc		u					x				
<i>Senegalia nigrescens</i> (Oliv.) P.J.H. Hurter	Tree	c		fc				fc	x	x	x		
<i>Senegalia polyacantha</i> (Willd.) Seigler & Ebinger subsp. <i>campylacantha</i> (Hochst. ex A. Rich.) Kyal. & Boatwr.	Tree	u		fc	u	u		u	x		x		
<i>Senegalia schweinfurthii</i> (Brenan & Exell) Seigler & Ebinger	Shrub			u					x				
<i>Vachellia nilotica</i> (L.) P.J.H. Hurter & Mabb. subsp. <i>kraussiana</i> (Benth.) Kyal. & Boatwr.	Tree	u						u	x	x	x		
<i>Vachellia tortilis</i> (Forssk.) Hayne	Tree	fc						c	x	x	x		
<i>Vachellia xanthophloea</i> Benth.	Tree			u		u	x		x		x		x
Gisekiaceae													
<i>Gisekia pharnaceoides</i> L.	Forb						x						x
Haloragaceae													
<i>Myriophyllum spicatum</i> L. *	Hydrophyte						x						x
Hernandiaceae													
<i>Gyrocarpus americanus</i> Jacq. subsp. <i>africanus</i> Kubitzki	Tree	u			u				x				
Hydrostachyaceae													
<i>Hydrostachys polymorpha</i> Klotzsch	Hydrophyte						x						x
Kirkiaceae													
<i>Kirkia acuminata</i> Oliv.	Tree	fc	u					u	x	x	x		
Lamiaceae													
<i>Basilicum polystachyon</i> (L.) Moench *	Forb						x						x
<i>Gmelina arborea</i> Roxb.*	Tree							u	x				x
<i>Hoslundia opposita</i> Vahl	Shrub	fc	u	fc	fc			fc	x				
<i>Karomia tettensis</i> (Klotzsch) R. Fern.	Shrub	fc	u			u		c	x				
<i>Leonotis nepetifolia</i> (L.) W.T. Aiton	Dwarf shrub							u	x	x			x
<i>Leucas glabrata</i> (Vahl) R. Br.	Dwarf shrub	u						fc	x				



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Mesosphaerum suaveolens</i> (L.) Kuntze*	Dwarf shrub			u		u		fc	x				
<i>Ocimum americanum</i> L.	Dwarf shrub	fc	fc	fc				fc	x		x		
<i>Ocimum canum</i> Sims	Dwarf shrub												x
<i>Ocimum</i> sp. 1 (sterile)	Dwarf shrub	u						u	x				
<i>Vitex mombassae</i> Vatke	Tree	fc	fc					fc	x				
Linderniaceae													
<i>Lindernia nummularifolia</i> (D.Don) Wettst.	Forb												x
Loganiaceae													
<i>Strychnos cocculoides</i> Baker	Tree	fc	u						x				
<i>Strychnos innocua</i> Delile	Tree		u						x	x			
<i>Strychnos madagascariensis</i> Poir.	Tree	fc	fc	u		u		u	x	x	x		
<i>Strychnos potatorum</i> L.f.	Tree				fc				x		x		
Lythraceae													
<i>Ammannia involucrata</i> S.A.Graham & Gandhi	Forb							x					x
<i>Ammannia prieuriana</i> Guill. & Perr.	Forb							x					x
<i>Ammannia radicans</i> (Guill. & Perr.) S.A.Graham & Gandhi	Forb							x					x
Malvaceae subfamily Bombacoideae													
<i>Adansonia digitata</i> L.	Tree	u		u				u	x	x	x		x
<i>Bombax rhodognaphalon</i> K. Schum.	Tree	u							x	x			
Malvaceae subfamily Byttnerioideae													
<i>Hermannia glanduligera</i> K. Schum.	Dwarf shrub					u		fc	x				
<i>Waltheria indica</i> L.	Dwarf shrub	u				fc		fc	x		x		
Malvaceae subfamily Grewioideae													
<i>Corchorus olitorius</i> L.	Dwarf shrub					fc	u	u	x	x	x		
<i>Grewia bicolor</i> Juss.	Shrub	c	fc	fc				c	x	x	x		
<i>Grewia flavescens</i> Juss. var. <i>flavescens</i>	Climber	fc	u	fc	fc	u		fc	x		x		



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Grewia forbesii</i> Harv. ex Mast.	Shrub	u	u						x				
<i>Grewia inaequilatera</i> Garcke	Shrub			u	fc				x	x			
<i>Grewia micrantha</i> Bojer	Shrub										x		
<i>Grewia monticola</i> Sond.	Shrub	fc	fc	u				fc	x				
<i>Grewia sulcata</i> Mast.	Shrub			fc	fc				x				
<i>Triumfetta rhomboidea</i> Jacq.	Dwarf shrub	fc	fc	fc		fc		c	x	x			
Malvaceae subfamily Malvoideae													
<i>Abutilon angulatum</i> (Guill. & Perr.) Mast. var. <i>macrophyllum</i> (Baker f.) Hochr.	Dwarf shrub			fc		u			x				
<i>Abutilon grandiflorum</i> G. Don	Dwarf shrub					fc			x	x			
<i>Abutilon cf. indicum</i> (L.) Sweet subsp. <i>guineense</i> (Schumach.) Borss.Waalk.	Dwarf shrub	fc						fc	x				
<i>Hibiscus diversifolius</i> Jacq.	Dwarf shrub							x					x
<i>Hibiscus shirensis</i> Sprague & Hutch.	Dwarf shrub	fc	fc	fc				fc	x				
<i>Hibiscus surattensis</i> L.	Dwarf shrub	u						u	x				
<i>Hibiscus vitifolius</i> L.	Dwarf shrub							fc	x				
<i>Pavonia urens</i> Cav.	Dwarf shrub										x		
<i>Sida acuta</i> Burm.f.	Dwarf shrub		u	fc	u	fc	x	c	x		x		x
<i>Sida alba</i> L.	Dwarf shrub	u		fc		fc		c	x		x		
<i>Sida cordifolia</i> L. subsp. <i>maculata</i> (Cav.) Marais	Dwarf shrub									x	x		
<i>Thespesia garckeana</i> F. Hoffm.	Shrub	u	u					u	x	x			
<i>Urena lobata</i> L.	Shrub			u		fc	fc	fc	x		x		
Malvaceae subfamily Sterculioideae													
<i>Dombeya kirkii</i> Mast.	Shrub			fc	fc	fc			x				
<i>Melochia corchorifolia</i> L.	Dwarf shrub					u		u	x				
<i>Sterculia africana</i> (Lour.) Fiori	Tree	fc		u				fc	x	x	x		x
<i>Sterculia appendiculata</i> K. Schum.	Tree			fc	fc				x	x	x		
<i>Sterculia quinqueloba</i> (Garcke) K. Schum.	Tree	fc	fc	u				fc	x				



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
Meliaceae													
<i>Azadirachta indica</i> A.Juss*	Tree							fc	x				x
<i>Melia azederach</i> L.*	Tree							fc	x				
<i>Toona ciliata</i> M.Roem. *	Tree				u				x		x		
<i>Trichilia emetica</i> Vahl subsp. <i>emetica</i>	Tree				fc				x		x		
<i>Turraea floribunda</i> Hochst.	Shrub	u			u			u	x				
<i>Turraea nilotica</i> Kotschy & Peyr.	Shrub									x			
Menispermaceae													
<i>Cissampelos mucronata</i> A. Rich.	Climber	u		u	fc		x	u	x		x		x
<i>Cocculus hirsutus</i> (L.) Diels	Climber	fc		fc	fc			fc	x		x		
<i>Tiliacora funifera</i> (Miers) Oliv.	Climber				fc				x				
Menyanthaceae													
<i>Nymphoides brevipedicellata</i> (Vatke) A.Raynal	Hydrophyte						x						x
<i>Nymphoides indica</i> (L.) Kuntze	Hydrophyte						x						x
Molluginaceae													
<i>Corbichonia decumbens</i> (Forssk.) Exell	Forb						x						x
<i>Glinus leptocarpa</i> (Nutt.) Harm.	Forb						x						x
<i>Glinus lotoides</i> L.	Forb						x						x
<i>Glinus oppositifolius</i> (L.) A. DC.	Forb						x						x
Moraceae													
<i>Ficus abutilifolia</i> (Miq.)Miq.	Tree	u						u	x	x			
<i>Ficus capreifolia</i> Delile	Shrub			fc		fc	u		x		x		
<i>Ficus exasperata</i> Vahl	Tree												x
<i>Ficus glumosa</i> Delile	Tree	u							x				
<i>Ficus ingens</i> (Miq.) Miq.	Tree	u		u	u			u	x	x	x		
<i>Ficus natalensis</i> Hochst.	Tree									x			



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Ficus stuhlmannii</i> Warb.	Tree	fc		u					x				
<i>Ficus sycomorus</i> L.	Tree			fc	c	fc	x		x	x			x
<i>Ficus trichopoda</i> Baker	Tree									x			
<i>Ficus vallis-choudae</i> Delile	Tree				r				x	x			
<i>Maclura africana</i> (Bureau) Corner	Shrub			fc	fc		x		x	x			x
Myrtaceae													
<i>Eucalyptus saligna</i> Sm.*	Tree										x		
<i>Eucalyptus</i> sp. 1* (photos)	Tree					u		u	x				
<i>Psidium guajava</i> L.*	Shrub					u		u	x		x		
Nyctaginaceae													
<i>Boerhavia coccinea</i> Mill. *	Forb						x						x
<i>Boerhavia diffusa</i> L. *	Forb						x			x	x		x
<i>Boerhavia erecta</i> L.*	Forb	u	u	fc	fc	fc		fc	x				
Olacaceae													
<i>Olax obtusifolia</i> De Wild.	Shrub	u						u	x				
<i>Ximenia caffra</i> Sond. var. <i>caffra</i>	Shrub	fc	u	u				u	x	x			
Oleaceae													
<i>Jasminum fluminense</i> Vell.	Climber	u		fc	fc	fc		u	x		x		
<i>Jasminum stenolobum</i> Rolfe	Dwarf shrub	fc	u	u		u		u	x		x		
<i>Schrebera trichoclada</i> Welw.	Tree	u							x				
Onagraceae													
<i>Ludwigia abyssinica</i> A. Rich.	Hydrophyte						x				x		x
<i>Ludwigia adscendens</i> (L.) H. Hara subsp. <i>diffusa</i> (Forssk.) P.H. Raven	Hydrophyte						x						x
<i>Ludwigia erecta</i> (L.) H. Hara	Hydrophyte						x				x		x
<i>Ludwigia leptocarpa</i> (Nutt.) H. Hara	Hydrophyte						x						x
<i>Ludwigia octovalvis</i> (Jacq.) P.H. Raven	Hydrophyte						x						x



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Ludwigia perennis</i> L.	Hydrophyte							x					x
Orobanchaceae													
<i>Buchnera</i> sp. 1 (photos)	Forb	u						u	x				
<i>Striga asiatica</i> (L.) Kuntze	Forb									x			
Oxalidaceae													
<i>Biophytum umbraculum</i> Welw.	Forb	u	u					u	x				
Papaveraceae													
<i>Argemone mexicana</i> L.*	Forb					u	x		x		x		x
Passifloraceae													
<i>Adenia gummifera</i> (Harv.) Harms	Climber												x
Pedaliaceae													
<i>Ceratotheca sesamoides</i> Endl.	Forb			fc		fc		fc	x	x			
Phyllanthaceae													
<i>Antidesma venosum</i> E. Mey. ex Tul.	Shrub	u		u				u	x		x		
<i>Bridelia cathartica</i> G. Bertol. subsp. <i>melanthesoides</i> (Baill.) J. Léonard	Shrub	fc	u	fc	fc			fc	x	x	x		x
<i>Cleistanthus schlechteri</i> (Pax) Hutch. var. <i>schlechteri</i>	Tree				u				x				
<i>Flueggea virosa</i> (Roxb. ex Willd.) Voigt subsp. <i>virosa</i>	Shrub	fc	fc	fc	u	fc		fc	x		x		
<i>Hymenocardia ulmoides</i> Oliv.	Shrub	u		u				u	x				
<i>Margaritaria discoidea</i> (Baill.) G.L. Webster	Shrub				u			u	x				
<i>Phyllanthus leucanthus</i> Pax	Shrub										x		
<i>Phyllanthus reticulatus</i> Poir. var. <i>reticulatus</i>	Shrub	u		fc	fc	fc		fc	x		x		
<i>Phyllanthus</i> sp. 1 (sterile)	Forb							u	x				
<i>Pseudolachnostylis maprouneifolia</i> Pax var. <i>maprouneifolia</i>	Tree	fc	u	fc				fc	x	x			
Phrymaceae													
<i>Mimulus gracilis</i> R. Br.	Forb							x					x
Plantaginaceae													



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Limnophila indica</i> (L.) Druce	Forb							x					x
Plumbaginaceae													
<i>Plumbago zeylanica</i> L.	Forb				u				u	x			
Polygalaceae													
<i>Polygala erioptera</i> DC. subsp. <i>erioptera</i>	Forb								u	x			
Polygonaceae													
<i>Persicaria decipiens</i> (R. Br.) K.L. Wilson	Hydrophyte					fc	fc			x			x
<i>Persicaria lapathifolia</i> (L.) Gray	Hydrophyte										x		
<i>Persicaria limbata</i> (Meisn.) H. Hara	Hydrophyte										x		
<i>Persicaria senegalensis</i> (Meisn.) Soják	Hydrophyte						fc		x		x		x
<i>Rumex abyssinicus</i> Jacq.	Forb							x					x
<i>Rumex bequaertii</i> De Wild.	Forb							x					x
Portulacaceae													
<i>Portulaca oleracea</i> L. *	Forb							x					x
Putranjivaceae													
<i>Drypetes mossambicensis</i> Hutch.	Tree	u			fc					x			
<i>Drypetes reticulata</i> Pax	Tree				fc					x			
Rhamnaceae													
<i>Berchemia discolor</i> (Klotzsch) Hemsl.	Tree				u					x			
<i>Ziziphus mauritiana</i> Lam.	Tree	u				u		fc	x		x		
<i>Ziziphus mucronata</i> Willd.	Tree	u	u						x		x		
Rubiaceae													
<i>Canthium glaucum</i> Hiern subsp. <i>frangula</i> (S. Moore) Bridson	Shrub		u							x			
<i>Carphalea pubescens</i> (Klotzsch) Verdc.	Shrub	fc						fc	x				
<i>Catunaregam taylorii</i> (S. Moore) Bridson	Shrub	fc	u	u	fc			fc	x	x			
<i>Crossopteryx febrifuga</i> (Afzel. ex G. Don) Benth.	Tree		u						u	x			



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Feretia aeruginescens</i> Stapf	Shrub	u			u				x				
<i>Gardenia volkensii</i> K. Schum. subsp. <i>spatulifolia</i> (Stapf & Hutch.) Verdc.	Shrub	u						u	x				
<i>Hymenodictyon floribundum</i> (Hochst. & Steud.) B. L. Rob.	Shrub				u				x				
<i>Hyperacanthus cf. inamoenus</i> (Sims) Bridson	Shrub				u				x				
<i>Kohautia coccinea</i> Royle	Forb	fc	fc			fc		fc	x				
<i>Multidentia crassa</i> (Hiern) Bridson	Shrub	u	fc					u	x				
<i>Pavetta schumanniana</i> F. Hoffm. ex K. Schum.	Shrub		u					u	x				
<i>Pavetta</i> sp. 1 (sterile)	Shrub	u						u	x				
<i>Pavetta</i> sp. 2 (photos)	Shrub				u				x				
<i>Polysphaeria dischistocalyx</i> Brenan	Shrub										x		
<i>Psychotria</i> sp.	Shrub										x		
<i>Psydrax livida</i> (Hiern) Bridson	Shrub	u		fc				u	x				
<i>Spermacoce pusilla</i> Wall.	Forb			u		u		u	x				
<i>Spermacoce senensis</i> (Klotzsch) Hiern	Forb									x			
<i>Tricalysia</i> sp. 1 (sterile)	Shrub				u				x				
<i>Vangueria esculenta</i> S. Moore	Shrub	u			fc				x				
<i>Vangueria infausta</i> Burch. subsp. <i>infausta</i>	Shrub	u	u					u	x	x			
Salicaceae													
<i>Flacourtia indica</i> (Burm. f.) Merr.	Shrub	fc	u	u	u			fc	x	x			
<i>Oncoba spinosa</i> Forssk.	Shrub	u						u	x	x			
Salvadoraceae													
<i>Azima tetracantha</i> Lam.	Shrub				u				x				
<i>Salvadora persica</i> L. var. <i>persica</i>	Shrub				u	u			x				
Sapindaceae													
<i>Allophylus africanus</i> P. Beauv.	Shrub	u		fc	fc			u	x		x		
<i>Cardiospermum halicacabum</i> L.	Climber							x					x



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Deinbollia borbonica</i> Scheff.	Shrub							fc	x		x		
<i>Lecaniodiscus fraxinifolius</i> Baker	Tree	u		u	fc				x	x			
<i>Zanha africana</i> (Radlk.) Exell	Tree	u	u					u	x	x	x		
Sapotaceae													
<i>Manilkara mochisia</i> (Baker) Dubard	Tree				u				x				
Solanaceae													
<i>Datura inoxia</i> Mill.*	Dwarf shrub			u		fc			x				
<i>Lycopersicon esculentum</i> Mill. *	Dwarf shrub							u	x		x		
<i>Solanum campylacanthum</i> Hochst. ex A.Rich.	Dwarf shrub	fc		fc				fc	x	x			
<i>Solanum melongena</i> L. *	Dwarf shrub							u	x		x		
<i>Solanum nigrum</i> L. *	Dwarf shrub						x				x		x
<i>Solanum panduriforme</i> E. Mey.	Dwarf shrub	fc		fc		fc		fc	x		x		
Stilbaceae													
<i>Nuxia oppositifolia</i> (Hochst.) Benth.	Shrub										x		
Urticaceae													
<i>Pouzolzia mixta</i> Solms	Shrub				u				x				
Verbenaceae													
<i>Lantana camara</i> L.*	Shrub	u		fc	fc	fc		fc	x	x	x		
<i>Lantana trifolia</i> L.	Dwarf shrub	u						u	x				
<i>Lippia javanica</i> (Burm.f.) Spreng.	Dwarf shrub	fc	u	u				fc	x				
<i>Phyla nodiflora</i> (L.) Greene	Forb						x						x
Vitaceae													
<i>Cissus cornifolia</i> (Baker) Planch.	Dwarf shrub	u						u	x				
<i>Cissus grisea</i> (Baker) Planch.	Dwarf shrub												x
<i>Cissus integrifolia</i> (Baker) Planch.	Climber	fc		u	fc			u	x				
<i>Cissus quadrangularis</i> L.	Climber	u			u				x		x		



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Cissus rotundifolia</i> (Forssk.) Vahl	Climber	u			u				x				
<i>Cissus cf. rubiginosa</i> (Welw. ex Baker) Planch. (sterile)	Climber	fc						fc	x				
<i>Cyphostemma cf. junceum</i> (Webb) Desc. ex Wild & R.B. Drumm.	Climber	fc						u	x				
Zygophyllaceae													
<i>Tribulus terrestris</i> L.	Forb									x			
CLASS LILIOPSIDA													
Alismataceae													
<i>Limnophyton obtusifolium</i> (L.) Miq.	Hydrophyte						x						x
Amaryllidaceae													
<i>Crinum buphanoides</i> Welw. ex Baker	Geophyte			fc				u	x				
Anthericaceae													
<i>Chlorophytum</i> sp. 1 (sterile)	Geophyte	u						u	x				
Araceae													
<i>Colocasia esculenta</i> (L.) Schott *	Geophyte										x		
<i>Gonatopus boivinii</i> (Decne.) Engl.	Geophyte	u			u				x				
<i>Lemna aequinoctialis</i> Welw.	Hydrophyte						x						x
<i>Pistia stratiotes</i> L.*	Hydrophyte						fc		x		x		x
<i>Stylochaeton natalensis</i> Schott subsp. <i>natalensis</i>	Geophyte	fc	u					u	x				
Areaceae													
<i>Borassus aethiopicum</i> Mart.	Tree	u		fc			u	u	x				x
<i>Hyphaene petersiana</i> Mart.	Tree	u		fc		fc		fc	x		x		
<i>Phoenix reclinata</i> Jacq.	Tree				u	u	u		x				
Asparagaceae													
<i>Asparagus krebsianus</i> (Kunth) Jessop	Dwarf shrub												x
<i>Asparagus</i> sp. 1 (sterile)	Dwarf shrub	fc	fc	u				fc	x				
<i>Asparagus africanus</i> Lam.	Dwarf shrub										x		



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
Asphodelaceae													
<i>Aloe cryptopoda</i> Baker	Succulent	u							x				
<i>Aloe zebrina</i> Baker	Succulent	u	u						x				
Commelinaceae													
<i>Commelina africana</i> L.	Forb									x			
<i>Commelina cf. benghalensis</i> L.	Forb			u			x	u	x		x		x
<i>Commelina diffusa</i> Burm. f.	Forb						x						x
<i>Commelina</i> sp. 1 (sterile)	Forb	fc		u				u	x				
Cyperaceae													
<i>Bolboschoenus maritimus</i> (L.) Palla	Graminoid						fc		x				
<i>Carex cognata</i> Kunth	Graminoid						x						x
<i>Cyperus alopecuroides</i> Rottb.	Graminoid						x						x
<i>Cyperus alternifolius</i> L.	Graminoid						x			x			x
<i>Cyperus amabilis</i> Vahl	Graminoid						x						x
<i>Cyperus articulatus</i> L.	Graminoid						x						x
<i>Cyperus aterrimus</i> Steud.	Graminoid						x						x
<i>Cyperus blepharoleptos</i> Steud.	Graminoid						x						x
<i>Cyperus compressus</i> L.	Graminoid						x						x
<i>Cyperus cf. cuspidatus</i> Kunth	Graminoid						fc		x				
<i>Cyperus cyperoides</i> (L.) Kuntze	Graminoid						fc	u	x				x
<i>Cyperus denudatus</i> L.f.	Graminoid						x						x
<i>Cyperus derreilema</i> Steud.	Graminoid						x						x
<i>Cyperus difformis</i> L.	Graminoid						x						x
<i>Cyperus digitatus</i> Roxb.	Graminoid						x						x
<i>Cyperus distans</i> L.f.	Graminoid						x						x
<i>Cyperus dives</i> Delile	Graminoid						x						x



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Cyperus dubius</i> Rottb.	Graminoid						x					x	
<i>Cyperus esculentus</i> L.	Graminoid					u		fc	x				
<i>Cyperus exaltatus</i> Retz.	Graminoid						x			x		x	
<i>Cyperus flavescens</i> L.	Graminoid						x					x	
<i>Cyperus hemisphaericus</i> Boeckeler	Graminoid						x					x	
<i>Cyperus imbricatus</i> Retz.	Graminoid						x					x	
<i>Cyperus involucratu</i> s Rottb.	Graminoid			u		c	c		x				
<i>Cyperus macrostachyos</i> Lam.	Graminoid						x					x	
<i>Cyperus microbolbos</i> C.B.Clarke	Graminoid									x			
<i>Cyperus papyrus</i> L.	Graminoid						c		x	x			
<i>Cyperus pectinatus</i> Vahl	Graminoid						x					x	
<i>Cyperus polystachyos</i> Rottb.	Graminoid						x					x	
<i>Cyperus rotundus</i> L.	Graminoid						x					x	
<i>Cyperus</i> sp. 1	Graminoid						fc		x				
<i>Cyperus</i> sp. 2	Graminoid						fc		x				
<i>Cyperus squarrosus</i> L.	Graminoid						x					x	
<i>Cyperus zollingeri</i> Steud.	Graminoid						x					x	
<i>Fimbristylis diphylla</i> Vahl.	Graminoid						x					x	
<i>Fimbristylis exilis</i> (Kunth) Roem. & Schultz.	Graminoid						x					x	
<i>Fimbristylis hispidula</i> Kunth.	Graminoid						x					x	
<i>Fuirena stricta</i> Steud.	Graminoid						x					x	
<i>Fuirena umbellata</i> Rottb.	Graminoid						x					x	
<i>Kyllinga alba</i> Nees	Graminoid						x					x	
<i>Schoenoplectus articulatus</i> (L.) Palla	Graminoid						x					x	
<i>Schoenoplectus corymbosus</i> (Roth ex Roem. & Schult.) J. Raynal	Graminoid						x			x		x	
<i>Schoenoplectus subulatus</i> (Vahl) Lye	Graminoid						x					x	



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		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
Dioscoreaceae													
<i>Dioscorea</i> sp. 1 (sterile)	Climber	u			u				x				
<i>Tacca leontopetaloides</i> (L.) Kuntze	Geophyte	fc	fc					u	x	x			
Dracaenaceae													
<i>Sansevieria cylindrica</i> Bojer ex Hook.	Succulent	u							x				
<i>Sansevieria kirkii</i> Baker	Succulent	u			u				x				
Hyacinthaceae													
<i>Drimia</i> sp. 1 (sterile)	Geophyte	u						u	x				
Hydrocharitaceae													
<i>Ottelia exserta</i> (Ridl.) Dandy	Hydrophyte							x				x	
<i>Ottelia ulvifolia</i> (Planch.) Walp.	Hydrophyte							fc	x				
Musaceae													
<i>Musa paradisiaca</i> L.*	Tree							u	x			x	
Najadaceae													
<i>Najas pectinata</i> (Parl.) Magnus	Hydrophyte							x				x	
Poaceae													
<i>Aristida adscensionis</i> L.	Graminoid	fc	u					fc	x				
<i>Aristida congesta</i> Roem. & Schult.	Graminoid	u	u	fc		fc		fc	x				
<i>Arthraxon</i> sp. 1 (sterile)	Graminoid	u							x				
<i>Bambusa vulgaris</i> Schrad. ex J.C.Wendl. *	Graminoid										x		
<i>Brachiaria brizantha</i> (A. Rich.) Stapf	Graminoid	u						u	x	x			
<i>Brachiaria deflexa</i> (Schumach.) Robyns	Graminoid									x			
<i>Cenchrus purpureus</i> (Schumach.) Morrone	Graminoid	u					x	c	x		x	x	
<i>Chloris pycnothrix</i> Trin.	Graminoid	fc							x				
<i>Chrysopogon nigritanus</i> (Benth.) Veldk.	Graminoid										x		
<i>Cynodon aethiopicus</i> Clayton & Harlan	Graminoid											x	



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Cynodon dactylon</i> (L.) Pers.	Graminoid			fc		fc	x	u	x		x		x
<i>Cynodon nlemfuensis</i> Vanderyst	Graminoid												x
<i>Digitaria diagonalis</i> (Nees) Stapf	Graminoid			u						x			x
<i>Digitaria longiflora</i> (Retz.) Pers.	Graminoid									x			
<i>Digitaria milanjjana</i> (Rendle) Stapf	Graminoid	c	fc	fc				fc	x	x			
<i>Diheteropogon amplexans</i> (Nees) Clayton var. amplexans	Graminoid	fc							x				
<i>Echinochloa colona</i> (L.) Link	Graminoid						c		x		x		
<i>Echinochloa haploclada</i> (Stapf) Stapf	Graminoid						x						x
<i>Echinochloa pyramidalis</i> (Lam.) Hitchc. & Chase	Graminoid						fc		x				x
<i>Eleusine indica</i> (L.) Gaertn.	Graminoid						x						x
<i>Eragrostis arenicola</i> C.E. Hubb.	Graminoid			u					x				
<i>Eragrostis ciliaris</i> (L.) R. Br.	Graminoid	u				fc		fc	x				
<i>Eragrostis heteromera</i> Stapf	Graminoid	c	fc	fc				fc	x				
<i>Eragrostis racemosa</i> (Thunb.) Steud.	Graminoid												x
<i>Eragrostis superba</i> Peyr.	Graminoid	fc						u	x				
<i>Eragrostis welwitschii</i> Rendle	Graminoid												x
<i>Eustachys paspaloides</i> (Vahl) Lanza & Mattei	Graminoid			u				fc	x				
<i>Hemarthria</i> sp. 1 (photos)	Graminoid					u			x				
<i>Heteropogon contortus</i> (L.) P. Beauv. ex Roem. & Schult.	Graminoid	fc	fc	u				c	x				
<i>Hyparrhenia</i> sp. 1	Graminoid	c	u	fc				c	x				
<i>Hyperthelia dissoluta</i> (Steud.) Clayton	Graminoid	fc	u	u				fc	x				
<i>Leersia hexandra</i> Sw.	Graminoid						fc		x				x
<i>Loudetia flavida</i> (Stapf) C.E. Hubb.	Graminoid	fc						u	x				
<i>Melinis repens</i> (Willd.) Zizka	Graminoid	u	u	u		fc		fc	x	x			
<i>Olyra latifolia</i> L.	Graminoid				u				x				
<i>Oryza sativa</i> L.*	Graminoid						fc		x				

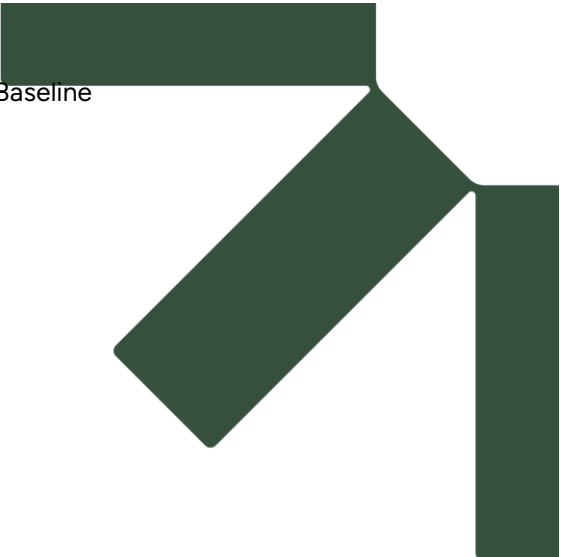


Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland					
<i>Panicum cf. coloratum</i> L. var. <i>coloratum</i>	Graminoid	fc		fc				u	x				
<i>Panicum ecklonii</i> Nees	Graminoid						x						x
<i>Panicum maximum</i> Jacq.	Graminoid	fc		c	fc	fc	x	fc	x	x	x		x
<i>Paspalidium geminatum</i> (Forssk.) Stapf	Graminoid						x						x
<i>Paspalum scrobiculatum</i> L.	Graminoid						x						x
<i>Paspalum urvillei</i> Steud.*	Graminoid					u	u	u	x				
<i>Phragmites australis</i> (Cav.) Trin.	Graminoid					fc	c		x		x		x
<i>Phragmites mauritianus</i> Kunth	Graminoid					fc	c		x		x		x
Poaceae sp. 1 (photos)	Graminoid				u				x				
<i>Pogonarthria squarrosa</i> (Roem. & Schult.) Pilg.	Graminoid	fc						u	x				
<i>Rottboellia cochinchinensis</i> (Lour.) Clayton	Graminoid									x			
<i>Saccharum officinarum</i> L.*	Graminoid							fc	x		x		
<i>Sacciolepis africana</i> C.E.Hubb. & Snowden	Graminoid						x						x
<i>Sacciolepis indica</i> (L.) Chase	Graminoid						x						x
<i>Setaria sphacelata</i> (Schumach.) Moss	Graminoid						x	fc	x	x			x
<i>Sorghum arundinaceum</i> (Desv.) Stapf	Graminoid						x						x
<i>Sorghum bicolor</i> (L.) Moench	Graminoid					u	u	fc	x		x		
<i>Sorghum halepense</i> (L.) Pers.	Graminoid						u	fc	x				
<i>Sporobolus africanus</i> (Poir.) A. Robyns & Tournay	Graminoid	u	u	fc		fc		fc	x	x			
<i>Sporobolus consimilis</i> Fresen.	Graminoid						fc		x				x
<i>Sporobolus cf. fimbriatus</i> (Trin.) Nees	Graminoid	u							x				
<i>Sporobolus panicoides</i> A. Rich.	Graminoid										x		
<i>Sporobolus pyramidalis</i> P. Beauv.	Graminoid			u		u			x				x
<i>Sporobolus</i> sp. 1	Graminoid							u	x				
<i>Themeda triandra</i> Forssk.	Graminoid	fc	u	u				u	x				
<i>Tragus berteronianus</i> Schult.	Graminoid									x			



Species	Growth Form	Vegetation Communities							SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)	
		Undifferentiated Woodland	Miombo Woodland	Riparian Woodland	Riparian Forest /	Riparian Shrubland / Grassland	Wetlands	Degraded Shrubland						
<i>Urochloa panicoides</i> P. Beauv.	Graminoid	fc	fc	fc				fc	x					
<i>Urochloa trichopus</i> (Hochst.) Stapf	Graminoid									x				
<i>Vossia cuspidata</i> (Roxb.) Griff.	Graminoid						fc		x	x				
<i>Zea mays</i> L.*	Graminoid							fc	x	x				
Pontederiaceae														
<i>Pontederia crassipes</i> Mart. *	Hydrophyte						c		x	x		x		
Potamogetonaceae														
<i>Potamogeton nodosus</i> Poir.	Hydrophyte						x						x	
<i>Potamogeton</i> sp.	Hydrophyte									x				
Velloziaceae														
<i>Xerophyta</i> sp. (sterile)	Dwarf shrub	u							x					
Zingiberaceae														
<i>Siphonochilus aethiopicus</i> (Schweinf.) B.L. Burt	Geophyte	fc	u					fc	x					
TOTAL		649	235	103	156	132	105	171	259	432	113	182	0	238

Frequency Categories
 d = abundant / dominant
 c = common
 fc = fairly common
 u = uncommon
 r = rare



Annex 5-23: Avifauna List



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Anatidae (ducks, geese, swans)							
White-faced whistling duck	<i>Dendrocygna viduata</i>	LC				x	x
Fulvous whistling duck	<i>Dendrocygna bicolor</i>	LC				x	x
African comb duck	<i>Sarkidiornis melanotos</i>	LC				x	x
Red-billed teal	<i>Anas erythrorhyncha</i>	LC					x
Blue-billed teal	<i>Spatula hottentota</i>	LC					x
Egyptian goose	<i>Alopochen aegyptiaca</i>	LC		x		x	x
Spur-winged goose	<i>Plectropterus gambensis</i>	LC				x	x
Numididae (guineafowl)							
Helmeted guineafowl	<i>Numida meleagris</i>	LC	Part II	x	x	x	x
Phasianidae (pheasants & allies)							
Common quail	<i>Coturnix coturnix</i>	LC		x	x		
Red-necked spurfowl	<i>Pternistis afer</i>	LC		x		x	x
Caprimulgidae (nightjars)							
Fiery-necked nightjar	<i>Caprimulgus pectoralis</i>	LC		x			
Square-tailed nightjar	<i>Caprimulgus fossii</i>	LC		x		x	x
Apodidae (swifts)							
African palm swift	<i>Cypsiurus parvus</i>	LC		x		x	x
Common swift	<i>Apus apus</i>	LC					x
African black swift	<i>Apus barbatus</i>	LC		x			
Little swift	<i>Apus affinis</i>	LC		x			x
Horus swift	<i>Apus horus</i>	LC		x			
White-rumped swift	<i>Apus caffer</i>	LC		x			
Musophagidae (turacos)							
Grey go-away-bird	<i>Crinifer concolor</i>	LC	Part II	x			
Livingstone's turaco	<i>Tauraco livingstonii</i>	LC	Part II		x		
Purple-crested turaco	<i>Gallirex porphyreolophus</i>	LC	Part II	x		x	x
Otididae (bustards)							
Black-bellied bustard	<i>Lissotis melanogaster</i>	LC		x			
Cuculidae (cuckoos)							
White-browed coucal	<i>Centropus superciliosus</i>	LC		x	x	x	x
Chattering yellowbill	<i>Ceuthmochares aereus</i>	LC					x
Levaillant's cuckoo	<i>Clamator levaillantii</i>	LC		x			



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Jacobin cuckoo	<i>Clamator jacobinus</i>	LC					x
Diederik cuckoo	<i>Chrysococcyx caprius</i>	LC					x
Klaas's cuckoo	<i>Chrysococcyx klaas</i>	LC		x		x	x
Columbidae (pigeons, doves)							
Rock dove	<i>Columba livia</i>	LC		x			
Mourning collared dove	<i>Streptopelia decipiens</i>	LC		x			x
Red-eyed dove	<i>Streptopelia semitorquata</i>	LC		x	x	x	x
Ring-necked dove	<i>Streptopelia capicola</i>	LC		x	x	x	x
Laughing dove	<i>Spilopelia senegalensis</i>	LC		x			x
Emerald-spotted wood dove	<i>Turtur chalcospilos</i>	LC		x	x	x	x
Tambourine dove	<i>Turtur tympanistria</i>	LC		x	x	x	
Namaqua dove	<i>Oena capensis</i>	LC		x		x	x
African green pigeon	<i>Treron calvus</i>	LC		x	x	x	x
Podicipididae (grebes)							
Little grebe	<i>Tachybaptus ruficollis</i>	LC					x
Rallidae (rails, crakes)							
Black crake	<i>Zapornia flavirostra</i>	LC					x
Common moorhen	<i>Gallinula chloropus</i>	LC					x
Allen's gallinule	<i>Porphyrio alleni</i>	LC					x
African swampphen	<i>Porphyrio madagascariensis</i>	LC					x
Jacanidae (jacanas)							
African jacana	<i>Actophilornis africanus</i>	LC				x	x
Lesser jacana	<i>Microparra capensis</i>	LC					x
Recurvirostridae (stilts, avocets)							
Black-winged stilt	<i>Himantopus himantopus</i>	LC		x			x
Avocet	<i>Recurvirostra avosetta</i>	LC					x
Charadriidae (plovers)							
White-fronted plover	<i>Charadrius marginatus mechowii</i>	LC		x			
Common ringed plover	<i>Charadrius hiaticula</i>	LC				x	x
Kittlitz's Plover	<i>Charadrius pecuarius</i>	LC					x
Three-banded plover	<i>Charadrius tricollaris</i>	LC				x	x
White-crowned lapwing	<i>Vanellus albiceps</i>	LC		x			
Crowned lapwing	<i>Vanellus coronatus</i>	LC		x		x	



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
African wattled lapwing	<i>Vanellus senegallus</i>	LC				x	
Long-toed lapwing	<i>Vanellus crassirostris</i>	LC				x	x
Scolopacidae (sandpipers, shanks and allies)							
Little stint	<i>Calidris minuta</i>	LC					x
Curlew sandpiper	<i>Calidris ferruginea</i>	NT					x
Ruff	<i>Calidris pugnax</i>	LC					x
Green sandpiper	<i>Tringa ochropus</i>	LC				x	
Wood sandpiper	<i>Tringa glareola</i>	LC				x	x
Marsh sandpiper	<i>Tringa stagnatilis</i>	LC					x
Common greenshank	<i>Tringa nebularia</i>	LC					x
Common sandpiper	<i>Actitis hypoleucos</i>	LC			x	x	x
Black-tailed godwit	<i>Limosa limosa</i>	NT					x
Rostratulidae (painted snipes)							
Greater painted-snipe	<i>Rostratula benghalensis</i>	LC					x
Burhinidae (stone-curlews, thick-knees)							
Water thick-knee	<i>Burhinus vermiculatus</i>	LC		x		x	x
Glareolidae (pratincoles)							
Collared pratincole	<i>Glareola pratincola</i>	LC					x
Laridae (gulls, terns, skimmers)							
Grey-headed gull	<i>Larus cirrocephalus</i>	LC					x
Whiskered tern	<i>Chlidonias hybrida</i>	LC				x	x
White-winged tern	<i>Chlidonias leucopterus</i>	LC					x
African skimmer	<i>Rynchops flavirostris</i>	LC	Part II			x	x
Ciconiidae (storks)							
Yellow-billed stork	<i>Mycteria ibis</i>	LC	Part II	x		x	x
African openbill	<i>Anastomus lamelligerus</i>	LC		x		x	x
Marabou stork	<i>Leptoptilos crumenifer</i>	LC	Part II			x	
Pelecanidae (pelicans)							
Great white pelican	<i>Pelecanus onocrotalus</i>	LC	Part II			x	
Pink-backed pelican	<i>Pelecanus rufescens</i>	LC	Part II				x
Phalacrocoracidae (cormorants, shags)							
White-breasted cormorant	<i>Phalacrocorax carbo lucidus</i>	LC				x	x
Reed cormorant	<i>Microcarbo africanus</i>	LC		x		x	x



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Anhingidae (darters)							
African darter	<i>Anhinga rufa</i>	LC				x	x
Threskiornithidae (ibises, spoonbills)							
Hadada ibis	<i>Bostrychia hagedash</i>	LC		x			x
African sacred ibis	<i>Threskiornis aethiopicus</i>	LC	Part II			x	x
Glossy ibis	<i>Plegadis falcinellus</i>	LC	Part II			x	x
African Spoonbill	<i>Platalea alba</i>	LC	Part II				x
Phoenicopteridae (flamingos)							
Greater Flamingo	<i>Phoenicopus roseus</i>	LC	Part II				x
Ardeidae (herons, bitterns)							
Black-crowned night heron	<i>Nycticorax nycticorax</i>	LC					x
Little bittern	<i>Ixobrychus minutus</i>	LC					x
Common squacco heron	<i>Ardeola ralloides</i>	LC					x
Striated heron	<i>Butorides striata</i>	LC		x			x
Western cattle egret	<i>Bubulcus ibis</i>	LC		x		x	x
Grey heron	<i>Ardea cinerea</i>	LC		x		x	x
Black-headed heron	<i>Ardea melanocephala</i>	LC		x	x	x	x
Goliath heron	<i>Ardea goliath</i>	LC	Part II	x			x
Purple heron	<i>Ardea purpurea</i>	LC				x	x
Great egret	<i>Ardea alba</i>	LC		x			x
Intermediate egret	<i>Ardea intermedia</i>	LC				x	x
Little egret	<i>Egretta garzetta</i>	LC		x		x	x
Black egret	<i>Egretta ardesiaca</i>	LC					x
Scopidae (hamerkop)							
Hamerkop	<i>Scopus umbretta</i>	LC		x	x	x	x
Accipitridae (kites, hawks, eagles)							
Black-winged kite	<i>Elanus caeruleus</i>	LC		x			x
Black kite	<i>Milvus migrans</i>	LC				x	x
Hooded vulture	<i>Necrosyrtes monachus</i>	CR	Part III	x			
White-backed vulture	<i>Gyps africanus</i>	CR	Part III	x			
White-headed vulture	<i>Trigonoceps occipitalis</i>	CR	Part III	x			
Black-breasted snake eagle	<i>Circaetus pectoralis</i>	LC	Part II				x
Brown snake eagle	<i>Circaetus cinereus</i>	LC	Part II	x		x	x



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Western banded snake eagle	<i>Circaetus cinerascens</i>	LC	Part II	x			x
Bateleur	<i>Terathopius ecaudatus</i>	EN	Part II	x		x	x
Palmnut vulture	<i>Gypohierax angolensis</i>	LC				x	
Western marsh-harrier	<i>Circus aeruginosus</i>	LC					x
African marsh-harrier	<i>Circus ranivorus</i>	LC					x
Pallid harrier	<i>Circus macrourus</i>	NT	Part II				x
African harrier-hawk	<i>Polyboroides typus</i>	LC					x
Wahlberg's eagle	<i>Hieraaetus wahlbergi</i>	LC	Part II				x
Martial eagle	<i>Polemaetus bellicosus</i>	EN	Part II	x		x	
Crowned eagle	<i>Stephanoaetus coronatus</i>	NT	Part II		x		
Long-crested eagle	<i>Lophaetus occipitalis</i>	LC	Part II	x	x		
Augur buzzard	<i>Buteo augur</i>	LC			x		
Lizard buzzard	<i>Kaupifalco monogrammicus</i>	LC		x			
Gabar goshawk	<i>Micronisus gabar</i>	LC		x			
Dark chanting goshawk	<i>Melierax metabates</i>	LC				x	
African goshawk	<i>Accipiter tachiro</i>	LC		x		x	x
Shikra	<i>Accipiter badius</i>	LC		x		x	
Little sparrowhawk	<i>Accipiter minullus</i>	LC		x			
Ovambo sparrowhawk	<i>Accipiter ovampensis</i>	LC		x		x	
Black sparrowhawk	<i>Accipiter melanoleucus</i>	LC		x			
African fish eagle	<i>Haliaeetus vocifer</i>	LC	Part II	x		x	x
Osprey	<i>Pandion haliaetus</i>	LC	Part II			x	x
Tytonidae (barn owls)							
Western barn owl	<i>Tyto alba</i>	LC	Part II	x	x		x
Strigidae (owls)							
Spotted Eagle-owl	<i>Bubo africanus</i>	LC	Part II		x		
Verreaux's Eagle-owl	<i>Bubo lacteus</i>	LC	Part II		x		x
African wood owl	<i>Strix woodfordii</i>	LC	Part II	x			
Coliidae (mousebirds)							
Speckled mousebird	<i>Colius striatus</i>	LC		x	x	x	x
Red-faced mousebird	<i>Urocolius indicus</i>	LC		x		x	x
Trogonidae (trogons)							
Narina trogon	<i>Apaloderma narina</i>	LC	Part II	x			



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Upupidae (hoopoes)							
African hoopoe	<i>Upupa epops africana</i>	LC				x	
Phoeniculidae (woodhoopoes)							
Green woodhoopoe	<i>Phoeniculus purpureus</i>	LC		x	x	x	
Common scimitarbill	<i>Rhinopomastus cyanomelas</i>	LC		x		x	x
Bucerotidae (hornbills)							
Crowned hornbill	<i>Lophoceros alboterminatus</i>	LC		x	x	x	
African grey hornbill	<i>Lophoceros nasutus</i>	LC		x		x	
Trumpeter hornbill	<i>Bycanistes bucinator</i>	LC		x		x	
Southern Ground-hornbill	<i>Bucorvus leadbeateri</i>	VU	Part II		x		
Coraciidae (rollers)							
European roller	<i>Coracias garrulus</i>	LC	Part II				x
Lilac-breasted roller	<i>Coracias caudatus</i>	LC	Part II	x		x	x
Racket-tailed roller	<i>Coracias spatulatus</i>	LC	Part II			x	
Alcedinidae (kingfishers)							
Brown-hooded kingfisher	<i>Halcyon albiventris</i>	LC		x		x	x
Striped kingfisher	<i>Halcyon chelicuti</i>	LC		x		x	x
Grey-headed Kingfisher	<i>Halcyon leucocephala</i>	LC					x
Woodland kingfisher	<i>Halcyon senegalensis</i>	LC			x		
Malachite kingfisher	<i>Corythornis cristatus</i>	LC		x		x	x
Giant kingfisher	<i>Megaceryle maxima</i>	LC		x		x	x
Pied kingfisher	<i>Ceryle rudis</i>	LC		x		x	x
Meropidae (bee-eaters)							
Little bee-eater	<i>Merops pusillus</i>	LC		x	x	x	x
White-fronted bee-eater	<i>Merops bullockoides</i>	LC		x		x	
Böhm's bee-eater	<i>Merops boehmi</i>	LC		x		x	x
European bee-eater	<i>Merops apiaster</i>	LC			x		x
Blue-cheeked bee-eater	<i>Merops persicus</i>	LC		x			x
Southern carmine bee-eater	<i>Merops nubicoides</i>	LC					x
Lybiidae (African barbets)							
Yellow-fronted tinkerbird	<i>Pogoniulus chrysoconus</i>	LC		x		x	x
Yellow-rumped tinkerbird	<i>Pogoniulus bilineatus</i>	LC					x
Black-collared barbet	<i>Lybius torquatus</i>	LC		x	x	x	x



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Indicatoridae (honeyguides)				x			
Brown-backed honeybird	<i>Prodotiscus regulus</i>	LC		x			
Lesser honeyguide	<i>Indicator minor</i>	LC		x			x
Greater honeyguide	<i>Indicator indicator</i>	LC		x			
Picidae (woodpeckers)							
Golden-tailed woodpecker	<i>Campethera abingoni</i>	LC		x	x	x	x
Green-backed woodpecker	<i>Campethera cailliautii</i>	LC				x	
Bearded woodpecker	<i>Chloropicus namaquus</i>	LC				x	
Cardinal woodpecker	<i>Dendropicos fuscescens</i>	LC		x	x		x
Falconidae (caracaras, falcons)							
Peregrine falcon	<i>Falco peregrinus</i>	LC					x
Lanner falcon	<i>Falco biarmicus</i>	LC		x			x
Lesser kestrel	<i>Falco naumanni</i>	LC	Part II		x		
Eurasian hobby	<i>Falco subbuteo</i>	LC					x
Amur falcon	<i>Falco amurensis</i>	LC					x
Dickinson's kestrel	<i>Falco dickinsoni</i>	LC		x			
Red-necked falcon	<i>Falco ruficollis</i>	LC					x
Psittacidae (African & New World parrots)							
Brown-headed parrot	<i>Poicephalus cryptoxanthus</i>	LC	Part II	x	x	x	
Brown-necked parrot	<i>Poicephalus fuscicollis</i>	LC	Part II			x	
Platysteiridae (wattle-eyes, batises)							
Chinspot batis	<i>Batis molitor</i>	LC		x		x	x
Black-throated wattle-eye	<i>Platysteira peltata</i>	LC		x			x
Malaconotidae (bushshrikes)							
Grey-headed bushshrike	<i>Malaconotus blanchoti</i>	LC		x		x	x
Orange-breasted bushshrike	<i>Chlorophoneus sulfureopectus</i>	LC		x			x
Brown-crowned tchagra	<i>Tchagra australis</i>	LC		x		x	x
Black-crowned tchagra	<i>Tchagra senegalus</i>	LC		x	x	x	
Black-backed puffback	<i>Dryoscopus cubla</i>	LC		x	x	x	x
Tropical boubou	<i>Laniarius major</i>	LC		x	x	x	x
Brubru	<i>Nilaus afer</i>	LC					x
Vangidae (vangas & allies)							
White-crested helmetshrike	<i>Prionops plumatus</i>	LC		x	x	x	



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Retz's helmetshrike	<i>Prionops retzii</i>	LC		x	x	x	
Campephagidae (cuckooshrikes)							
White-breasted cuckooshrike	<i>Coracina pectoralis</i>	LC		x			
Black cuckooshrike	<i>Campephaga flava</i>	LC		x			
Laniidae (shrikes)							
Southern fiscal	<i>Lanius collaris</i>	LC		x			x
Red-backed shrike	<i>Lanius collurio</i>	LC					x
Oriolidae (figbirds, Old World orioles)							
Black-headed oriole	<i>Oriolus larvatus</i>	LC		x	x	x	
African golden oriole	<i>Oriolus auratus</i>	LC		x			
Dicuridae (drongos)							
Fork-tailed drongo	<i>Dicurus adsimilis</i>	LC		x	x	x	x
Monarchidae (monarchs)							
African paradise flycatcher	<i>Terpsiphone viridis</i>	LC		x	x	x	x
Corvidae (crows, jays)							
Pied crow	<i>Corvus albus</i>	LC		x		x	x
Paridae (tits, chickadees)							
Southern black tit	<i>Melaniparus niger</i>	LC		x		x	
Nicatoridae (nicators)							
Eastern nicator	<i>Nicator gularis</i>	LC		x		x	
Alaudidae (larks)							
Flappet lark	<i>Mirafra rufocinnamomea</i>	LC		x			
Pycnonotidae (bulbuls)							
Sombre greenbul	<i>Andropadus importunus</i>	LC		x			x
Yellow-bellied greenbul	<i>Chlorocichla flaviventris</i>	LC		x		x	x
Terrestrial brownbul	<i>Phyllastrephus terrestris</i>	LC		x	x	x	x
Dark-capped bulbul	<i>Pycnonotus tricolor</i>	LC		x	x	x	x
Hirundinidae (swallows, martins)							
Barn swallow	<i>Hirundo rustica</i>	LC			x		x
Wire-tailed swallow	<i>Hirundo smithii</i>	LC		x		x	x
Lesser striped swallow	<i>Cecropis abyssinica</i>	LC		x		x	x
Northern house martin	<i>Delichon urbicum</i>	LC			x		x
Collared sand martin	<i>Riparia riparia</i>	LC					x



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Banded martin	<i>Riparia cincta</i>	LC				x	
African Plain Martin	<i>Riparia paludicola</i>	LC					x
Red-throated rock martin	<i>Ptyonoprogne rufigula</i>	LC			x		
Grey-rumped swallow	<i>Pseudhirundo griseopyga</i>	LC					x
Black sawwing	<i>Psalidoprocne pristoptera</i>	LC			x		
Sylviidae (sylviid warblers and parrotbills)							
Garden warbler	<i>Sylvia borin</i>	LC					x
Macrosphenidae (crombecs, African warblers)							
Long-billed crombec	<i>Sylvietta rufescens</i>	LC		x		x	x
Erythroceridae (yellow flycatchers)							
Livingstone's flycatcher	<i>Erythrocerus livingstonei francisi</i>	LC		x			
Acrocephalidae (reed warblers & allies)							
Great reed-warbler	<i>Acrocephalus arundinaceus</i>	LC					x
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	LC					x
Lesser swamp warbler	<i>Acrocephalus gracilirostris</i>	LC		x			x
Marsh warbler	<i>Acrocephalus palustris</i>	LC					x
Common reed warbler	<i>Acrocephalus scirpaceus</i>	LC					x
African yellow-warbler	<i>Iduna natalensis</i>	LC			x		
Locustellidae (grassbirds & allies)							
Little rush warbler	<i>Bradypterus baboecala</i>	LC		x			x
Phylloscopidae (leaf warblers)							
Willow Warbler	<i>Phylloscopus trochilus</i>	LC					x
Cisticolidae (cisticolas & allies)							
Red-faced cisticola	<i>Cisticola erythrops</i>	LC		x	x	x	x
Lazy cisticola	<i>Cisticola aberrans lurio</i>	LC		x			
Rattling cisticola	<i>Cisticola chiniana procerus</i>	LC		x	x		x
Rufous-winged cisticola	<i>Cisticola galactotes</i>	LC		x			x
Short-winged cisticola	<i>Cisticola brachypterus</i>	LC		x		x	
Neddicky	<i>Cisticola fulvicapilla</i>	LC		x			
Zitting cisticola	<i>Cisticola juncidis</i>	LC				x	
Tawny-flanked prinia	<i>Prinia subflava</i>	LC		x		x	x
Yellow-breasted apalis	<i>Apalis flavida</i>	LC		x		x	x
Grey-backed camaroptera	<i>Camaroptera brevicaudata sharpei</i>	LC		x		x	x



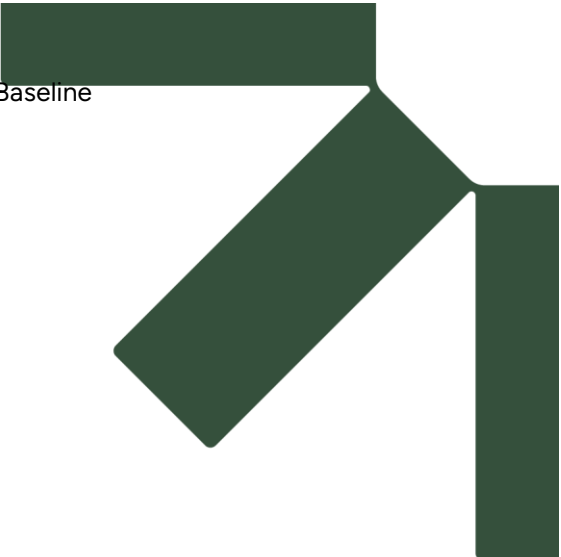
Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Stierling's wren-warbler	<i>Calamonastes stierlingi stierlingi</i>	LC		x			
Rudd's apalis	<i>Apalis ruddi</i>	LC					x
Green-capped eremomela	<i>Eremomela scotops scotops</i>	LC		x		x	
Burnt-necked eremomela	<i>Eremomela usticollis</i>	LC		x			x
Yellow-bellied Eremomela	<i>Eremomela icteropygialis</i>	LC				x	
Zosteropidae (white-eyes)							
Southern yellow white-eye	<i>Zosterops anderssoni anderssoni</i>	LC		x		x	
Leiothrichidae (laughingthrushes & allies)							
Arrow-marked babbler	<i>Turdoides jardineii</i>	LC		x		x	
Hylotiidae (hyliotas)							
Southern hyliota	<i>Hyliota australis</i>	LC		x			
Sturnidae (starlings, rhabdornises)							
Greater blue-eared starling	<i>Lamprotornis chalybaeus</i>	LC		x	x	x	x
Violet-backed starling	<i>Cinnyricinclus leucogaster</i>	LC		x	x		x
Buphagidae (oxpeckers)							
Red-billed oxpecker	<i>Buphagus erythrorhynchus</i>	LC		x			
Turdidae (thrushes and allies)							
Kurrichane thrush	<i>Turdus libonyana</i>	LC				x	
Muscicapidae (chats, Old World flycatchers)							
Bearded scrub robin	<i>Cercotrichas quadrivirgata</i>	LC		x		x	
White-browed scrub robin	<i>Cercotrichas leucophrys</i>	LC		x			
Thrush Nightingale	<i>Luscinia luscinia</i>	LC					x
Grey tit-flycatcher	<i>Myioparus plumbeus</i>	LC		x			
Spotted flycatcher	<i>Muscicapa striata</i>	LC					x
Ashy flycatcher	<i>Muscicapa caerulescens</i>	LC		x	x	x	x
Southern black flycatcher	<i>Melaenornis pammelaina</i>	LC				x	
White-browed robin-chat	<i>Cossypha heuglini heuglini</i>	LC		x	x	x	x
Red-capped robin-chat	<i>Cossypha natalensis</i>	LC		x			
Collared palm thrush	<i>Cichladusa arquata</i>	LC		x		x	x
Nectariniidae (sunbirds)							
Collared sunbird	<i>Hedydipna collaris</i>	LC		x	x	x	x
Amethyst sunbird	<i>Chalcomitra amethystina</i>	LC		x	x		
Scarlet-chested sunbird	<i>Chalcomitra senegalensis</i>	LC		x		x	



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Purple-banded sunbird	<i>Cinnyris bifasciatus microrhyncus</i>	LC		x	x	x	x
White-bellied sunbird	<i>Cinnyris talatala</i>	LC		x			
Variable sunbird	<i>Cinnyris venustus</i>	LC		x		x	x
Copper sunbird	<i>Cinnyris cupreus</i>	LC		x			
Passeridae (Old World sparrows, snowfinches)							
Yellow-throated bush sparrow	<i>Gymnoris superciliaris bororensis</i>	LC		x	x		
Southern grey-headed sparrow	<i>Passer diffusus stygiceps</i>	LC		x	x	x	x
House sparrow	<i>Passer domesticus</i>	LC		x		x	x
Ploceidae (weavers, widowbirds)							
White-browed Sparrow-Weaver	<i>Plocepasser mahali</i>	LC					x
Spectacled weaver	<i>Ploceus ocularis</i>	LC		x	x		x
Holub's golden weaver	<i>Ploceus xanthops</i>	LC		x	x		
African golden weaver	<i>Ploceus subaureus</i>	LC				x	
Southern brown-throated weaver	<i>Ploceus xanthopterus</i>	LC		x			x
Southern masked weaver	<i>Ploceus velatus</i>	LC		x		x	
Lesser masked weaver	<i>Ploceus intermedius</i>	LC			x	x	x
Village weaver	<i>Ploceus cucullatus</i>	LC		x			x
Dark-backed weaver	<i>Ploceus bicolor</i>	LC		x			x
Thick-billed weaver	<i>Amblyospiza albifrons</i>	LC				x	x
Red-headed weaver	<i>Anaplectes rubriceps rubriceps</i>	LC		x			
Red-billed quelea	<i>Quelea quelea</i>	LC			x	x	
Cardinal quelea	<i>Quelea cardinalis</i>	LC				x	
Southern red bishop	<i>Euplectes orix</i>	LC			x	x	x
Black-winged red bishop	<i>Euplectes hordeaceus</i>	LC		x		x	
Yellow bishop	<i>Euplectes capensis</i>	LC		x	x	x	
Fan-tailed Widowbird	<i>Euplectes axillaris</i>	LC					x
Red-collared widowbird	<i>Euplectes ardens</i>	LC		x		x	
Estrildidae (waxbills, munias & allies)							
Bronze mannikin	<i>Lonchura cucullata</i>	LC		x	x	x	x
Red-backed mannikin	<i>Lonchura nigriceps</i>	LC		x			
Common waxbill	<i>Estrilda astrild</i>	LC		x	x	x	x
Cut-throat finch	<i>Amadina fasciata</i>	LC		x			x



Common Name	Latin Name	IUCN Status	Protection Status	Surveys			
				SLR 2023	Agri-Pro (2018)	Multiconsult (2019)	Anchor (2016)
Zebra Waxbill	<i>Amandava subflava</i>	LC			x		x
Blue waxbill	<i>Uraeginthus angolensis</i>	LC		x	x	x	x
Green-winged pytilia	<i>Pytilia melba grotei</i>	LC		x			x
Red-throated twainpot	<i>Hypargos niveoguttatus</i>	LC			x		
Red-billed firefinch	<i>Lagonosticta senegala rendalli</i>	LC		x	x	x	x
African firefinch	<i>Lagonosticta rubricata haematocephala</i>	LC		x		x	x
Jameson's firefinch	<i>Lagonosticta rhodopareia</i>	LC		x	x	x	
Viduidae (indigobirds, whydahs)							
Village indigobird	<i>Vidua chalybeata</i>	LC		x	x		x
Dusky indigobird	<i>Vidua funerea</i>	LC		x			
Purple indigobird	<i>Vidua purpurascens</i>	LC				x	
Pin-tailed whydah	<i>Vidua macroura</i>	LC		x	x		x
Long-tailed paradise whydah	<i>Vidua paradisaea</i>	LC		x	x		x
Broad-tailed paradise whydah	<i>Vidua obtusa</i>	LC		x			
Motacillidae (wagtails, pipits)							
African pied wagtail	<i>Motacilla aguimp vidua</i>	LC		x	x	x	x
Mountain wagtail	<i>Motacilla clara</i>	LC				x	
African pipit	<i>Anthus cinnamomeus</i>	LC				x	x
Wood pipit	<i>Anthus nyassae nyassae</i>	LC		x			
Yellow-throated longclaw	<i>Macronyx croceus</i>	LC				x	x
Fringillidae (finches, euphonias)							
Yellow-fronted canary	<i>Crithagra mozambica</i>	LC		x	x	x	x
Brimstone canary	<i>Crithagra sulphurata sharpii</i>	LC		x		x	x
Emberizidae (buntings)							
Cinnamon-breasted bunting	<i>Emberiza tahapisi tahapisi</i>	LC		x	x		
Golden-breasted bunting	<i>Emberiza flaviventris kalaharica</i>	LC		x		x	
Total Species		30 9	40	187	75	15 0	20 0



Annex 5-24: Mammal List



Common Name	Scientific Name	IUCN Status	Protected Status	Habitat Association				No of recorded occasions (SLR)	No of recorded occasions (previous surveys)	Surveys			
				Tall intact woodland	Riparian thicket/ forest	Riparian zone/ wetland	Degraded woodland/ shrubland			SLR 2023	Multi-consult (2018)	Agri-Pro (2016)	Anchor (2016)
ORDER: PRIMATES													
Family Cercopithecidae													
Blue monkey	<i>Cercopithecus mitis</i>	LC	Part II		x								x
Vervet monkey	<i>Chlorocebus pygerythrus</i>	LC		x	x			3		x			x
Yellow baboon	<i>Papio cynocephalus</i>	LC		x	x			6		x	x		
ORDER: CHIROPTERA													
Family Emballonuridae													
Mauritian tomb bat	<i>Taphozous mauritanus</i>	LC		x			x						x
Family Rhinolophinae													
Hildebrandt's horseshoe bat	<i>Rhinolophus hildebrandtii</i>	LC		x									x
Family Hipposiderinae													
Cape leaf-nosed bat	<i>Hipposideros caffer</i>	LC		x									x
Family Vespertilionidae													
Natal long-fingered bat	<i>Miniopterus natalensis</i>	LC					x						x
Schlieffen's bat	<i>Nyctceinops schlieffeni</i>	LC		x									x
Yellow-bellied house bat	<i>Scotophilus dinganii</i>	LC					x						x
Family Molossidae													
Angola free-tailed bat	<i>Mops condylurus</i>	LC		x	x	x							x
Little free-tailed bat	<i>Chaerephon pumilus</i>	LC		x	x	x							x
ORDER: LAGOMORPHA													
Family Leporidae													
Savanna hare	<i>Lepus victoriae</i>	LC		x			x	1		x			
ORDER: RODENTIA													
Family Sciuridae													



Common Name	Scientific Name	IUCN Status	Protected Status	Habitat Association				No of recorded occasions (SLR)	No of recorded occasions (previous surveys)	Surveys			
				Tall intact woodland	Riparian thicket/ forest	Riparian zone/ wetland	Degraded woodland/ shrubland			SLR 2023	Multi-consult (2018)	Agri-Pro (2016)	Anchor (2016)
Smith's bush squirrel	<i>Paraxerus cepapi</i>	LC		x				1		x			
Family Myoxidae													
Small-eared dormouse	<i>Graphiurus microtis</i>	LC			x			0 (1)			x		
Family Bathyergidae													
Silvery mole-rat	<i>Heliophobius argenteocinereus</i>	LC			x								x
Family Hystricidae													
Cape porcupine	<i>Hystrix africae australis</i>	LC	Part II	x	x						x		
Family Thryonomyidae													
Greater cane rat	<i>Thryonomys swinderianus</i>	LC			x		x				x		x
Family Gerbillinae													
Cape gerbil	<i>Tatera afra</i>	LC			x		x	18 (3)			x		
Family Cricetomyinae													
South African pounced mouse	<i>Saccostomus campestris</i>	LC			x		x	2 (2)			x		
Family Muridae													
African marsh rat	<i>Dasymys cf incomtus</i>	LC				x							x
Natal multimammate mouse	<i>Mastomys natalensis</i>	LC			x		x	25 (23)		x	x	x	
Single-striped grass mouse	<i>Lemniscomys rosalia</i>	LC			x	x	x	1 (4)			x	x	
Southern African spiny mouse	<i>Acomys spinosissimus</i>	LC			x		x	29 (1)			x		
ORDER: CARNIVORA													
Family Canidae													
Side-striped jackal	<i>Canis adustus</i>	LC	Part II	x									x
Family Mustelidae													



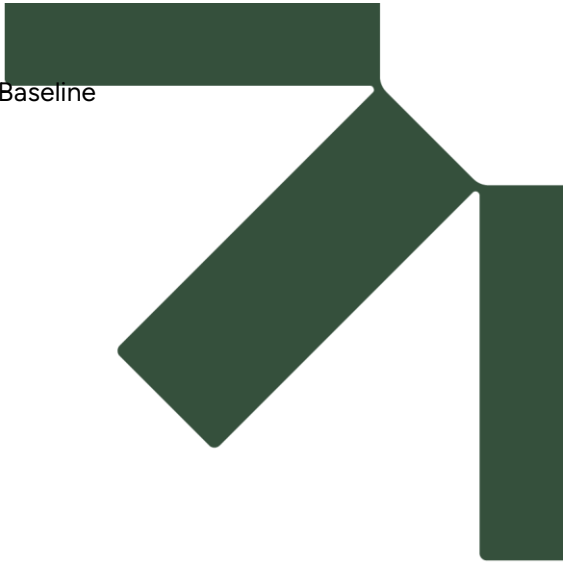
Common Name	Scientific Name	IUCN Status	Protected Status	Habitat Association				No of recorded occasions (SLR)	No of recorded occasions (previous surveys)	Surveys			
				Tall intact woodland	Riparian thicket/ forest	Riparian zone/ wetland	Degraded woodland/ shrubland			SLR 2023	Multi-consult (2018)	Agri-Pro (2016)	Anchor (2016)
African striped weasel	<i>Poecilogale albinucha</i>	LC		x									x
Family Lutrinae													
African clawless otter	<i>Aonyx capensis</i>	NT	Part II			x							x
Spotted-necked otter	<i>Hydrictis maculicollis</i>	NT	Part II			x							x
Family Herpestidae													
Banded mongoose	<i>Mungos mungo</i>	LC		x			x						x
Meller's mongoose	<i>Rhynchogale melleri</i>	LC		x			x						
Slender mongoose	<i>Herpestes sanguineus</i>	LC					x	2		x			x
Water mongoose	<i>Atilax paludinosus</i>	LC				x							x
White-tailed mongoose	<i>Ichneumia albicauda</i>	LC		x			x						x
Family Viverridae													
African civet	<i>Civettictis civetta</i>	LC	Part II	x	x		x				x		x
Angolan genet	<i>Genetta angolensis</i>			x			x						x
Common large-spotted genet	<i>Genetta maculata</i>	LC		x			x						x
Family Hyaenidae													
Spotted hyaena	<i>Crocuta crocuta</i>	LC	Part II	x	x						x		
Family Felidae													
African wild cat	<i>Felis silvestris</i>	LC	Part II				x						x
Leopard	<i>Panthera pardus</i>	VU	Part III	x	x			1			x		
Lion	<i>Panthera leo</i>	VU	Part III	x	x								
Serval	<i>Leptailurus serval</i>	LC	Part II										*
ORDER: PHILODOTA													
Family Manidae													



Common Name	Scientific Name	IUCN Status	Protected Status	Habitat Association				No of recorded occasions (SLR)	No of recorded occasions (previous surveys)	Surveys			
				Tall intact woodland	Riparian thicket/ forest	Riparian zone/ wetland	Degraded woodland/ shrubland			SLR 2023	Multi-consult (2018)	Agri-Pro (2016)	Anchor (2016)
Temminck's ground pangolin	<i>Smutsia temminckii</i>	VU	Part III	x						*		x	
ORDER: TUBULIDENTATA													
Family Orycteropodidae													
Aardvark	<i>Orycteropus afer</i>	LC	Part II	x						x			
ORDER: PROBOSCIDEA													
Family Elephantidae													
African elephant	<i>Loxodonta africana</i>	EN	Part III		x	x		2		x	x		
ORDER: PERRISSODACTYLA													
Family: Equidae													
Plains zebra	<i>Equus quagga</i>	NT	Part II							*		x	
ORDER: ARTIODACTYLA													
Family Hippopotamidae													
Hippopotamus	<i>Hippopotamus amphibius</i>	VU				x		3	3 (3)	x	x	x	
Family Suidae													
Bushpig	<i>Potamochoerus larvatus</i>	LC										x	
Common warthog		LC										x	
Family Giraffidae													
Giraffe	<i>Giraffa camelopardalis</i>	VU	Part III	x				1		x		x	
Family Bovidae													
African buffalo	<i>Syncerus caffer</i>	NT	Part II							*		x	
Common wildebeest	<i>Connachaetes taurinus</i>	LC										x	
Bushbuck	<i>Tragelaphus scriptus</i>	LC										x	
Common duiker	<i>Sylvicapra grimmia</i>	LC		x	x		x	1		x	x	x	



Common Name	Scientific Name	IUCN Status	Protected Status	Habitat Association				No of recorded occasions (SLR)	No of recorded occasions (previous surveys)	Surveys			
				Tall intact woodland	Riparian thicket/ forest	Riparian zone/ wetland	Degraded woodland/ shrubland			SLR 2023	Multi-consult (2018)	Agri-Pro (2016)	Anchor (2016)
Common eland	<i>Tragelaphus oryx</i>	LC	Part II	x		x		1		x			
Common reedbuck	<i>Redunca arundinum</i>	LC	Part II			x							x
Impala	<i>Aepyceros melampus melampus</i>	LC	Part II	x		x		1		x			x
Nyala	<i>Tragelaphus angasii</i>	LC	Part II	x	x			4		x			x
Waterbuck	<i>Kobus ellipsiprymnus</i>	LC	Part II	x	x	x		1		x			x
TOTAL		56	22	30	22	13	19	14	7	13	14	7	42



Annex 5-25: Herpetofauna List



Common Name	Scientific Name	IUCN Status	Protected Status	SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
Arthroleptidae (squeakers)								
Dune squeaker	<i>Arthroleptis stenodactylus</i>	LC					x	
Dwarf squeaker	<i>Arthroleptis xenodactyloides</i>	LC					x	x
Brevicipitidae (rain frogs)								
Power's rain frog	<i>Breviceps poweri</i>	LC						x
Bufonidae (true toads)								
Guttural toad	<i>Amietophrynus gutturalis</i>	LC			x		x	x
African red toad	<i>Schismaderma carens</i>	LC						x
Hallowell's toad	<i>Sclerophrys maculata</i>	LC		x			x	x
Hemisotidae (shovelnose frogs)								
Marbled snout-burrower	<i>Hemisis marmoratus</i>	LC						x
Hyperoliidae (African reed frogs)								
Fornasini's spiny reed frog	<i>Afrixalus fornasini</i>	LC						x
Argus reed frog	<i>Hyperolius argus</i>	LC						x
Striped painted reed frog	<i>Hyperolius marmoratus taeniatus</i>	LC						x
Sharp-headed reed frog	<i>Hyperolius microps</i>	NE						x
Tinker reed frog	<i>Hyperolius tuberilinguis</i>	LC						x
Senegal running frog	<i>Kassina senegalensis</i>	LC						x
Microhylidae (narrow-mouth toads)								
Red-banded rubber frog	<i>Phrynomantis bifasciatus</i>	LC						x
Phrynobatrachidae (puddle frogs)								
Eastern puddle frog	<i>Phrynobatrachus acridoides</i>	LC						x
Mababe puddle frog	<i>Phrynobatrachus cf mababiensis</i>	LC					x	x
Natal puddle frog	<i>Phrynobatrachus natalensis</i>	LC		x			x	x
Pipidae (clawed frogs)								
Müller's platanna	<i>Xenopus muelleri</i>	LC					x	x
Ptychadenidae (grassland frogs)								
Ornate frog	<i>Hildebrandtia ornata</i>	LC						x
Plain grass frog	<i>Ptychadena anchietae</i>	LC		x	x	x	x	x
Mascarene grass frog	<i>Ptychadena mascareniensis</i>	LC					x	
Mozambique ridged frog	<i>Ptychadena mossambica</i>	LC					x	x
Sharp-nosed ridged frog	<i>Ptychadena oxyrhynchus</i>	LC					x	x



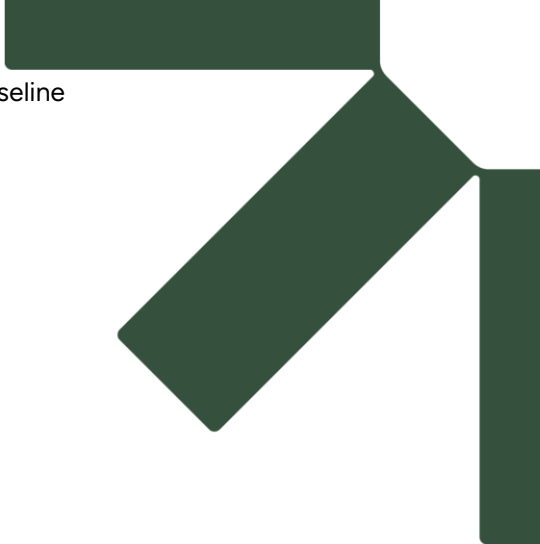
Common Name	Scientific Name	IUCN Status	Protected Status	SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
Pyxicephalidae (African box-headed frogs)								
Common river frog	<i>Amietia delalandii</i>	LC					x	
Giant African bullfrog	<i>Pyxicephalus adspersus</i>	LC					x	
Edible bullfrog	<i>Pyxicephalus edulis</i>	LC						x
Cryptic sand frog	<i>Tomopterna cryptotis</i>	LC		x				x
Marbled sand frog	<i>Tomopterna marmorata</i>	LC						x
Rhacophoridae (shrub frogs)								
Grey Foam-nest tree frog	<i>Chiromantis xerampelina</i>	LC						x
REPTILES								
ORDER TESTUDINES (tortoises, terrapins)								
Pelomedusidae (African terrapins)								
Central marsh terrapin	<i>Pelomedusa subrufa</i>	LC						x
Pan hinged terrapin	<i>Pelusios cf subniger</i>	LC					x	x
ORDER CROCODYLIA (crocodiles)								
Crocodylidae (crocodiles)								
Nile crocodile	<i>Crocodylus niloticus</i>	LC	Part II	x	x	x	x	x
ORDER SQUAMATA (scaled reptiles)								
Typhlopidae (blind snakes)								
Zambezi giant blind snake	<i>Afrotyphlops mucruso</i>	LC						
Viperidae (adders and vipers)								
Puff adder	<i>Bitis arietans</i>	LC	Part II				x	
Pythonidae (pythons)								
Southern African rock python	<i>Python natalensis</i>	LC	Part II			x	x	
Psammophiidae (sand snakes and relatives)								
Eastern bark snake	<i>Hemirhagerrhis nototaenia</i>	LC						x
Eastern stripe-bellied sand snake	<i>Psammophis orientalis</i>	LC					x	
Lamprophiidae (Old World snakes)								
Brown house snake	<i>Boaedon capensis</i>	LC					x	x
File snake	<i>Gonionotophis sp.</i>	NE					x	
Elapidae (mambas, cobras and relatives)								
Green mamba	<i>Dendroaspis angusticeps</i>	LC	Part II		x		x	
Black mamba	<i>Dendroaspis polylepis</i>	LC	Part II		x		x	



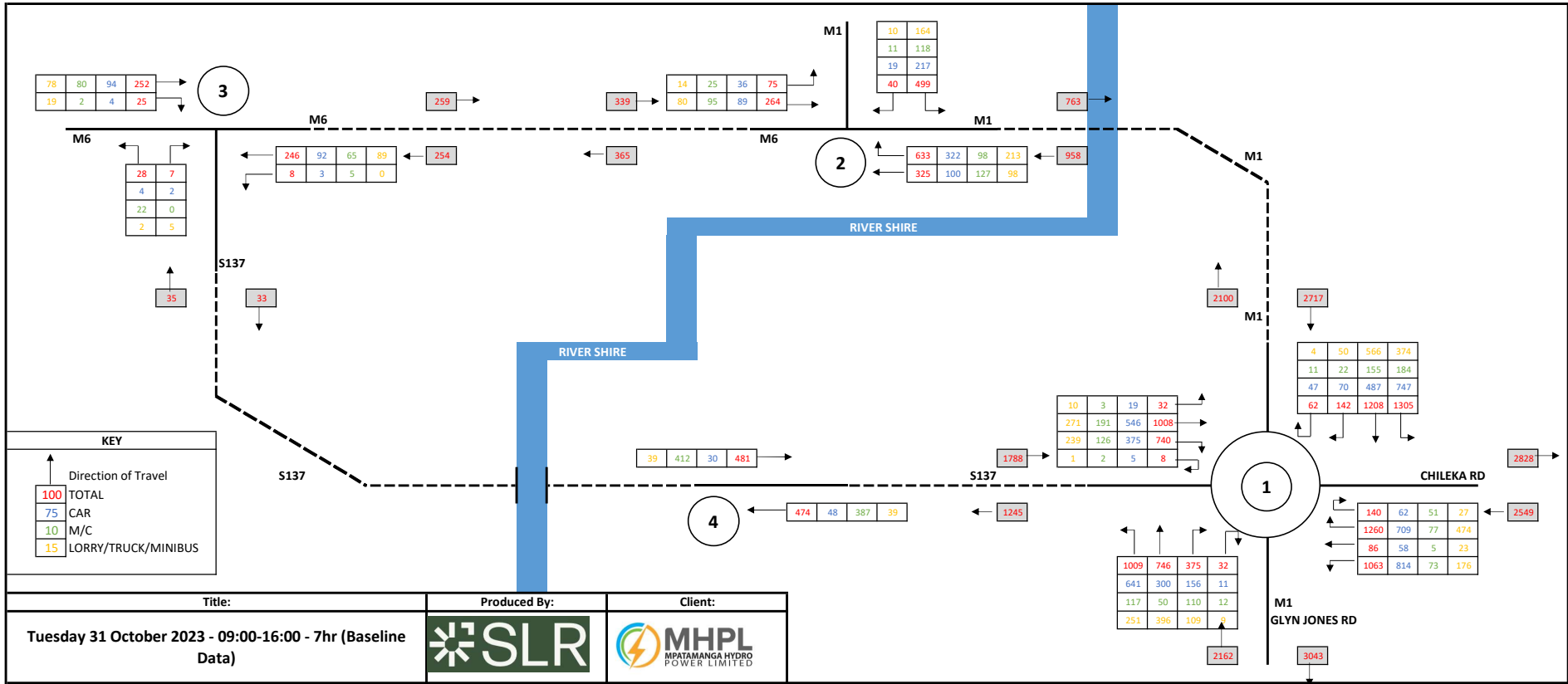
Common Name	Scientific Name	IUCN Status	Protected Status	SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
Snouted cobra	<i>Naja annulifera</i>	LC	Part II		x			x
Mozambique spitting cobra	<i>Naja mossambica</i>	LC	Part II			x		x
Brown forest cobra	<i>Naja subfulva</i>	LC	Part II				x	
Natricidae (Old World water snakes)								
Olive marsh snake	<i>Natriciteres olivacea</i>	LC						x
Colubridae (typical snakes)								
Black-templed cat snake	<i>Crotaphopeltis hotamboeia</i>	LC						x
South-eastern green snake	<i>Philothamnus hoplogaster</i>	LC					x	
Spotted bush snake	<i>Philothamnus semivariiegatus</i>	LC					x	x
Rufous beaked snake	<i>Rhamphiophis rostratus</i>	LC					x	
Southern twig snake	<i>Thelotornis capensis</i>	LC					x	
Gekkonidae (geckos)								
Turner's gecko	<i>Chondrodactylus turneri</i>	LC						x
Zambezi Thick-toed gecko	<i>Elasmodactylus tetensis</i>	LC					x	
Common tropical house gecko	<i>Hemidactylus mabouia</i>	LC						x
Flat-headed tropical house gecko	<i>Hemidactylus platycephalus</i>	LC						x
Common dwarf gecko	<i>Lygodactylus capensis</i>	LC					x	x
Chobe dwarf gecko	<i>Lygodactylus chobiensis</i>	LC					x	
Gerrhosauridae (plated lizards)								
Yellow-throated plated lizard	<i>Gerrhosaurus flavigularis</i>	LC			x		x	
Eastern black-lined plated lizard	<i>Gerrhosaurus intermedius</i>	LC						x
Common giant plated lizard	<i>Matobosaurus validus</i>	LC		x			x	
Cordylidae (girdled lizards)								
Striped flat lizard	<i>Platysaurus torquatus</i>	LC			x			
Eugongylidae (Pacific skinks)								
Snake-eyed skink	<i>Panaspis sp. nov.</i>	NE						x
Wahlberg's snake-eyed skink	<i>Panaspis wahlbergii</i>	LC			x			
Lacertidae (Old World lizards)								
Rough-scaled savannah lizard	<i>Meroles squamulosus</i>	LC			x			
Mabuyidae (true skinks)								
Boulenger's skink	<i>Trachylepis boulengeri</i>	LC					x	
Bronze rock skink	<i>Trachylepis lacertiformis</i>	LC						

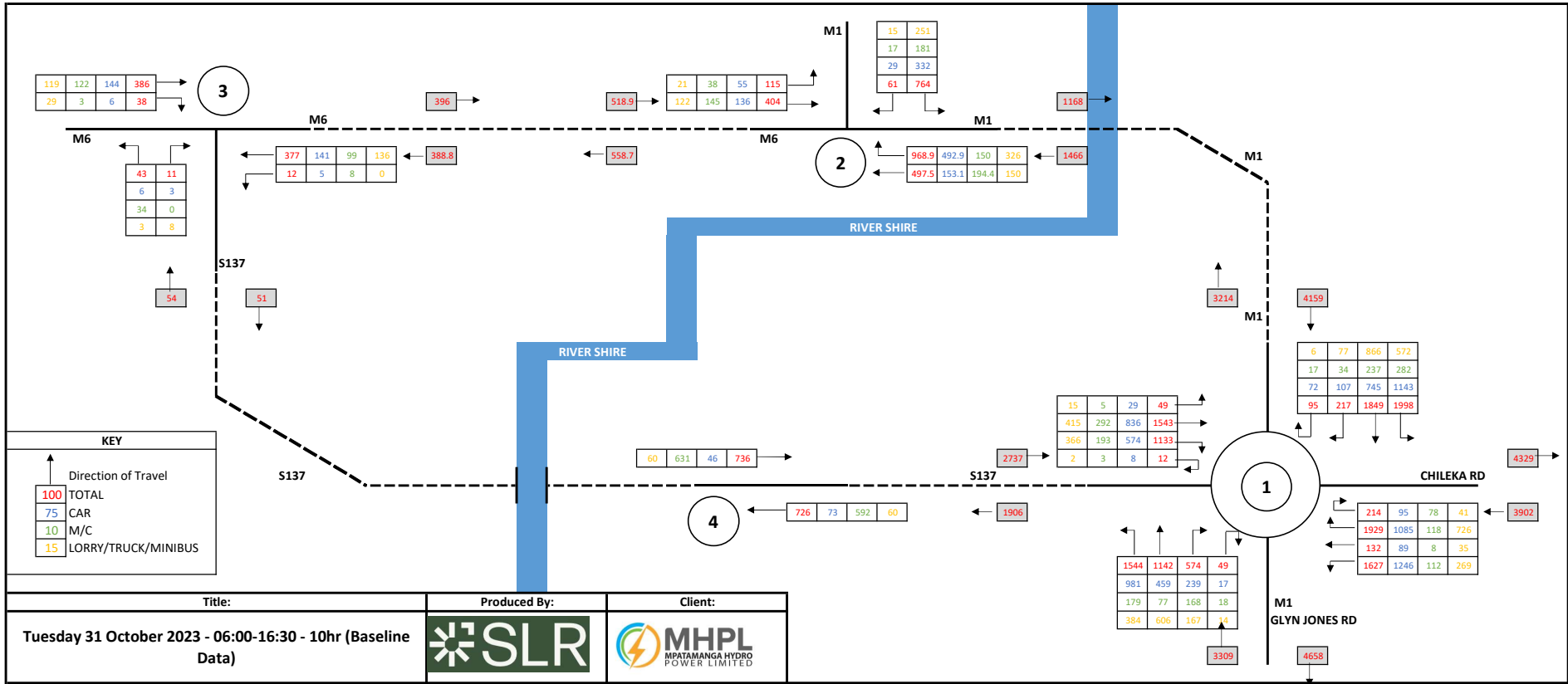


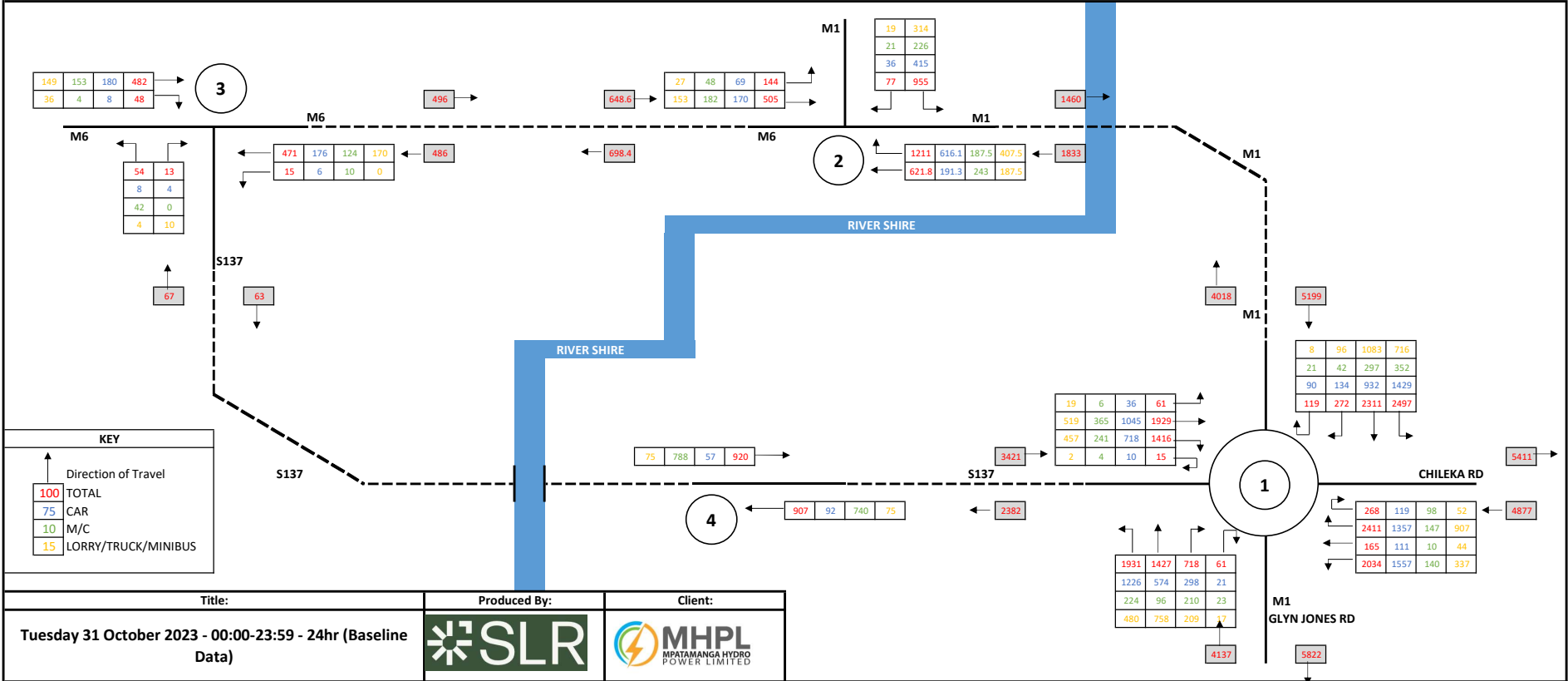
Common Name	Scientific Name	IUCN Status	Protected Status	SLR (2023)	AgriPro (2018)	Multiconsult (2019)	PIU (2022)	Anchor (2016)
Rainbow skink	<i>Trachylepis margaritifer</i>	LC		x	x	x	x	x
Eastern striped skink	<i>Trachylepis striata</i>	LC		x	x		x	x
Variable skink	<i>Trachylepis varia</i>	LC		x	x		x	x
Varanidae (monitors)								
White-throated monitor	<i>Varanus albigularis</i>	LC	Part II		x		x	
Water monitor	<i>Varanus niloticus</i>	LC	Part II	x	x	x	x	x
Chamaeleonidae (chamaeleons)								
Flap-necked chamaeleon	<i>Chamaeleo dilepis</i>	LC	Part II				x	x
Agamidae (agamas)								
Blue-headed tree agama	<i>Acanthocercus atricollis</i>	LC			x		x	
Peters' ground agama	<i>Agama armata</i>	LC		x	x		x	x
Kirk's rock agama	<i>Agama kirkii</i>	LC					x	
TOTALS		74	11	11	17	6	42	47



Annex 5-26: Traffic Flow Diagrams at Each of the Survey Sites







149	153	180	482
36	4	8	48

3

54	13
8	4
42	0
4	10

M6

471	176	124	170
15	6	10	0

496

648.6

27	48	69	144
153	182	170	505

M1

19	314
21	226
36	415
77	955

1460

M1

2

1211	616.1	187.5	407.5
621.8	191.3	243	187.5

1833

RIVER SHIRE

RIVER SHIRE

S137

67

63

75	788	57	920
----	-----	----	-----

4

907	92	740	75
-----	----	-----	----

2382

19	6	36	61
519	365	1045	1929
457	241	718	1416
2	4	10	15

3421

S137

1

8	96	1083	716
21	42	297	352
90	134	932	1429
119	272	2311	2497

4018

M1

5199

CHILEKA RD

5411

268	119	98	52
2411	1357	147	907
165	111	10	44
2034	1557	140	337

4877

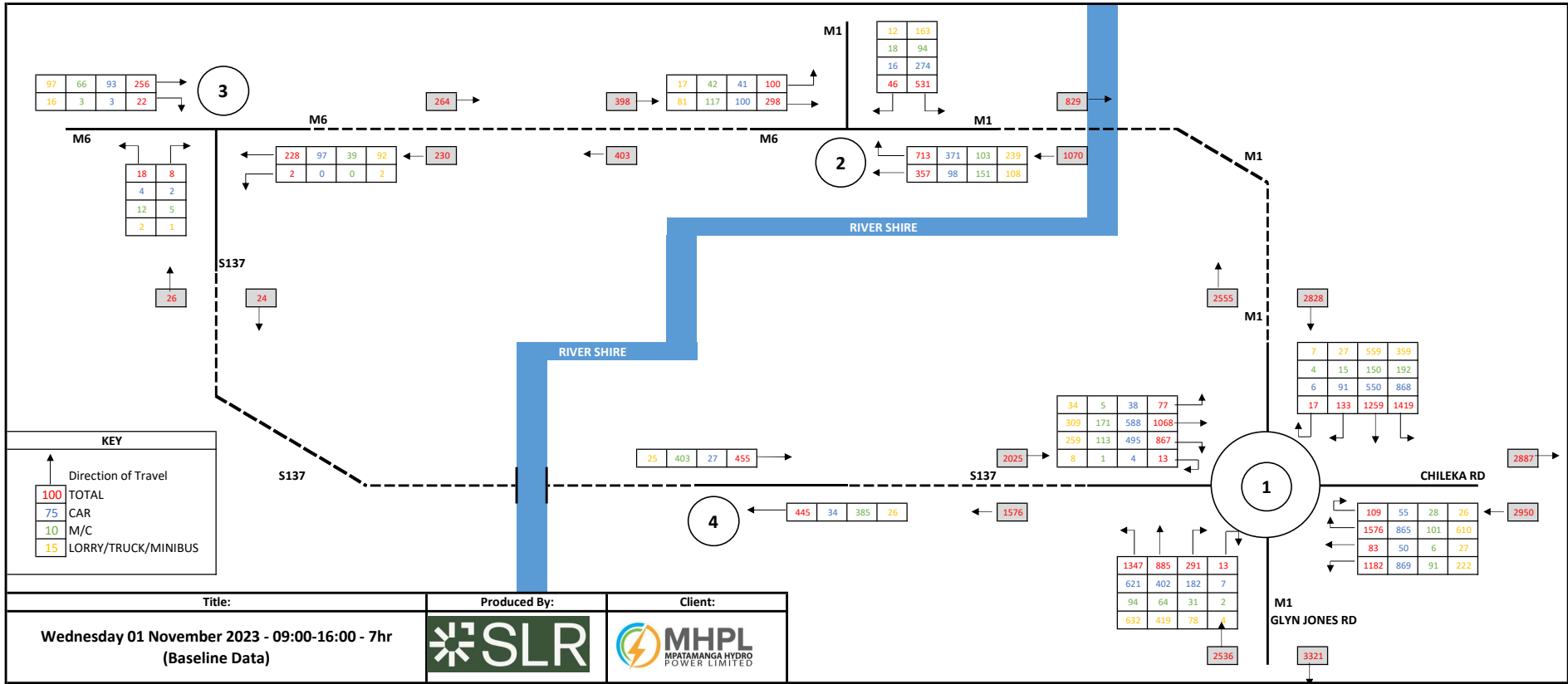
1931	1427	718	61
1226	574	298	21
224	96	210	23
480	758	209	7

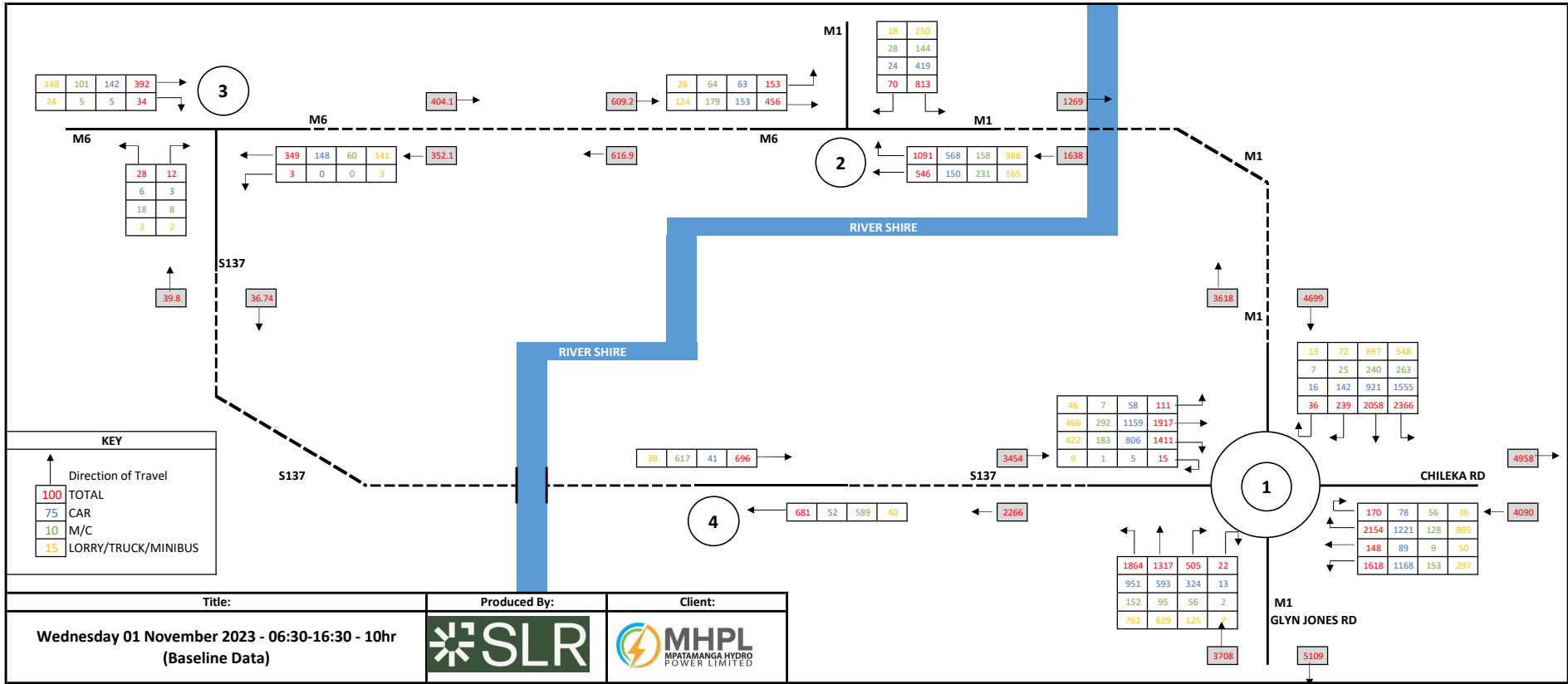
4137

M1

GLYN JONES RD

5822





148	101	142	392
24	5	5	34

3

28	12
6	3
18	8
3	2

M6

349	148	60	141
3	0	0	3

352.1

616.9

26	64	63	153
124	179	153	456

M1

18	250
28	144
24	419
70	813

M1

1091	568	158	366
546	150	231	165

1638

1269

2

RIVER SHIRE

RIVER SHIRE

S137

39.8

36.74

S137

38	617	41	696
----	-----	----	-----

4

681	52	589	40
-----	----	-----	----

2266

46	7	58	111
466	292	1159	1917
422	183	806	1411
9	1	5	15

3454

2266

1

M1

13	72	897	548
7	25	240	263
16	142	921	1555
36	239	2058	2366

3618

4699

CHILEKA RD

4958

4090

170	78	56	36
2154	1221	128	805
148	89	9	50
1618	1168	153	297

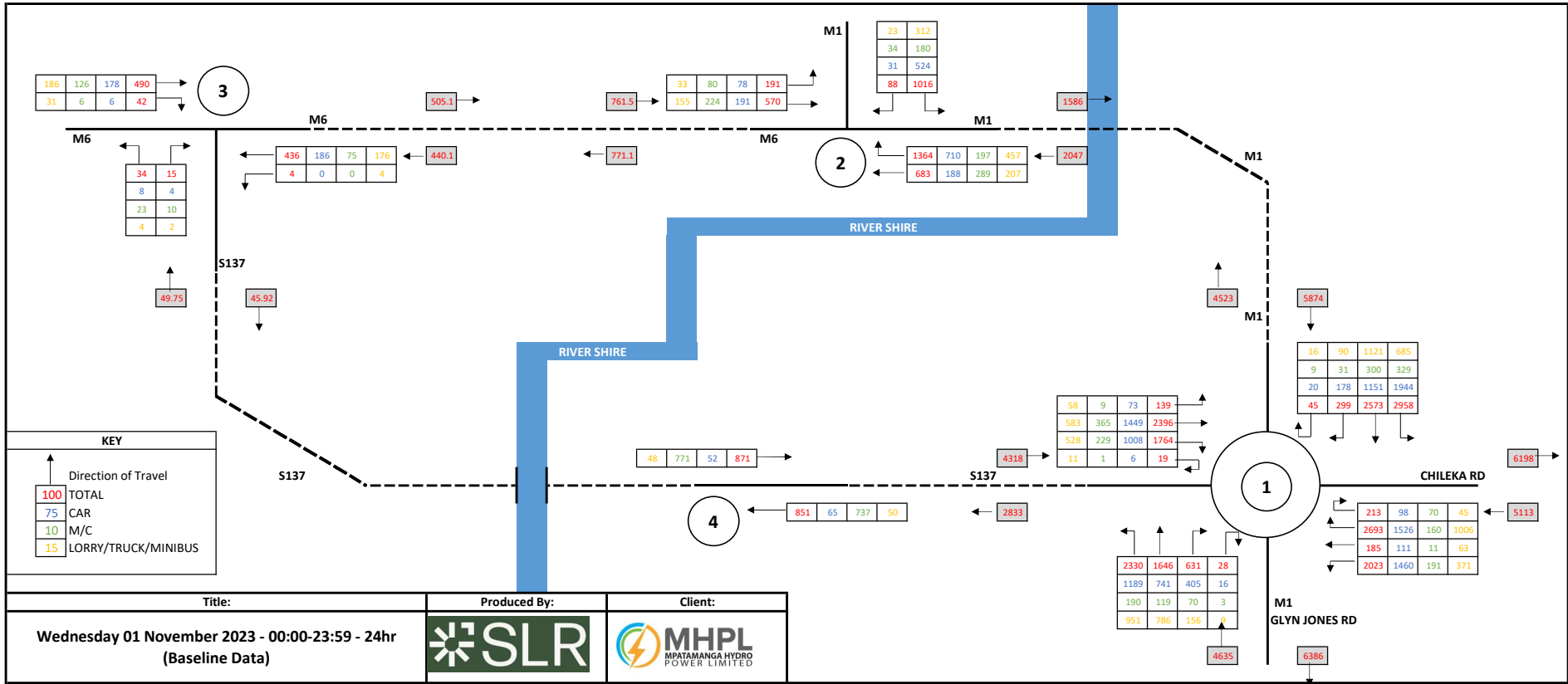
1864	1317	505	22
951	593	324	13
152	95	56	2
761	629	125	

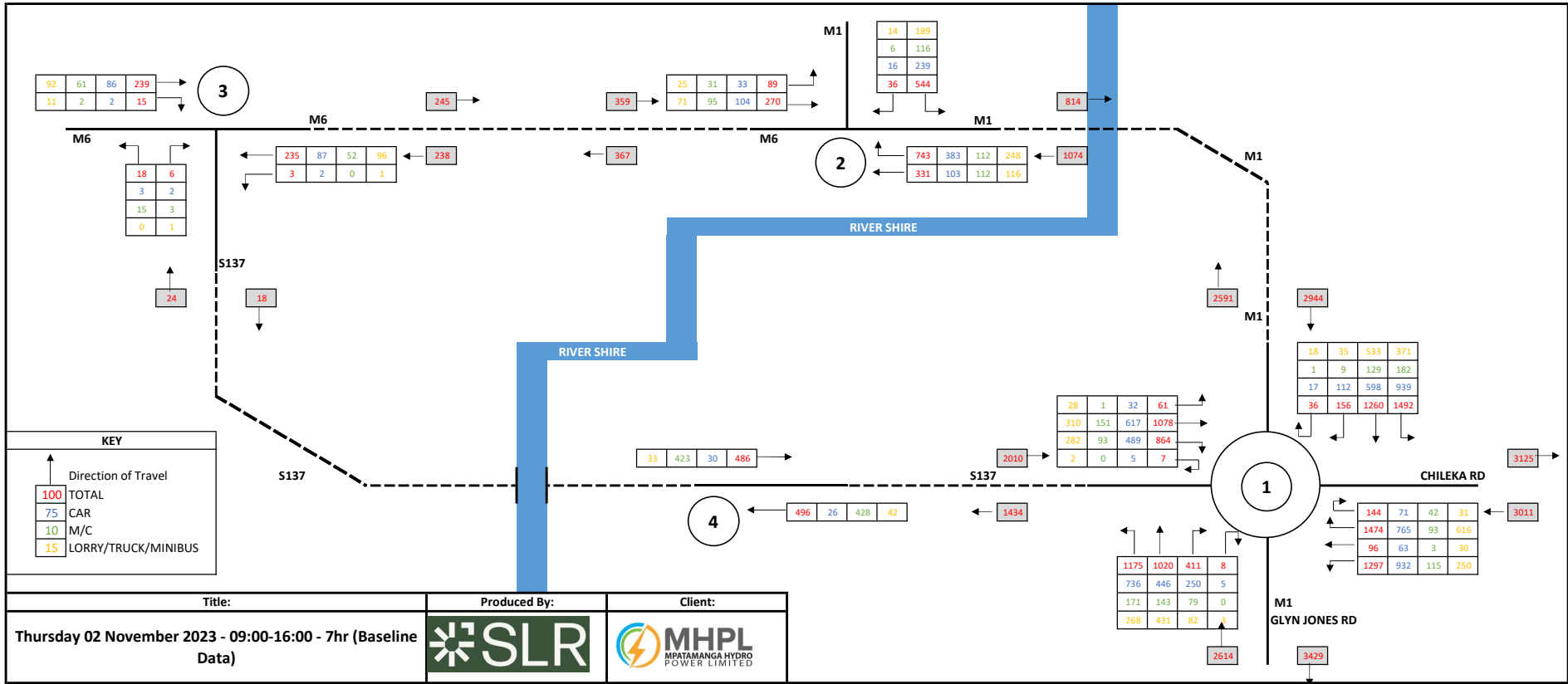
3708

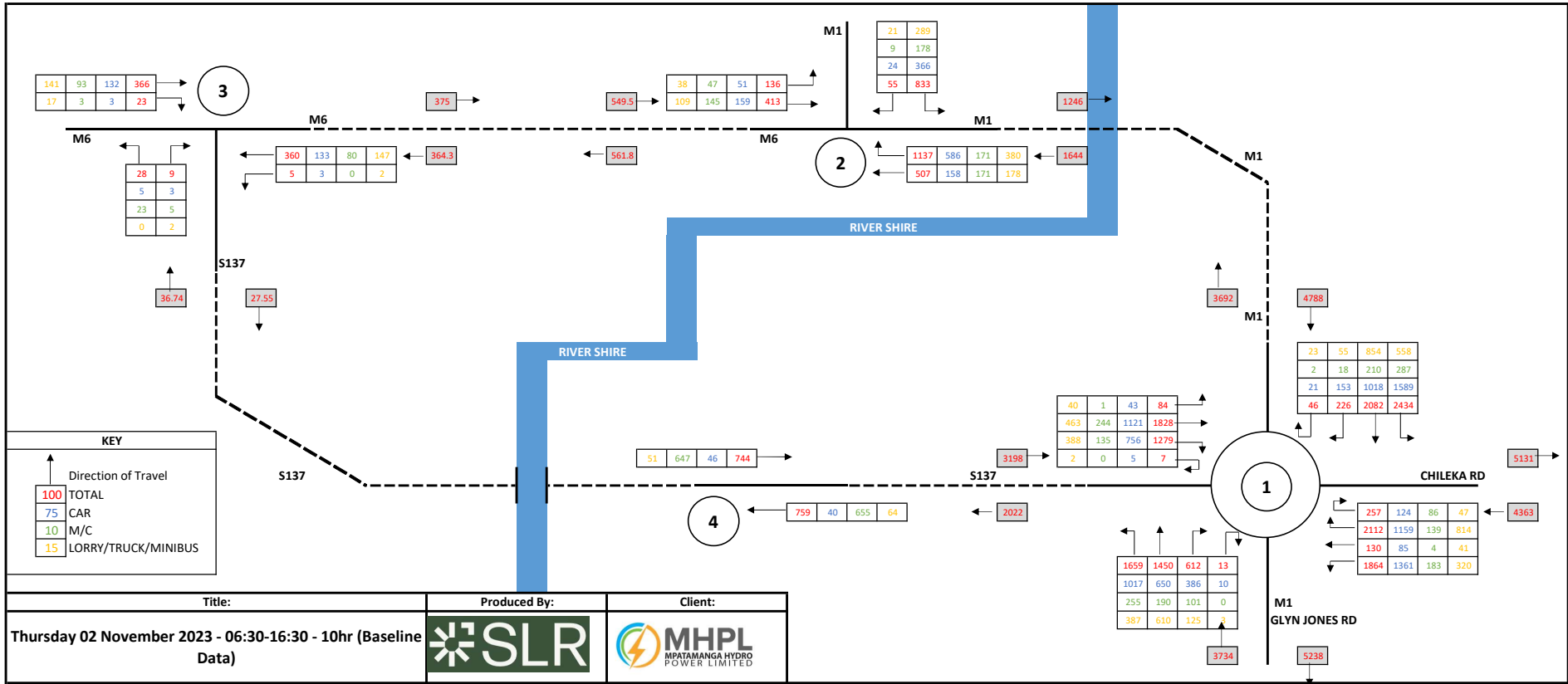
M1

GLYN JONES RD

5109







141	93	132	366
17	3	3	23

28	9
5	3
23	5
0	2

360	133	80	147
5	3	0	2

38	47	51	136
109	145	159	413

21	289
9	178
24	366
55	833

1137	586	171	380
507	158	171	178

40	1	43	84
463	244	1121	1828
388	135	756	1279
2	0	5	7

23	55	854	558
2	18	210	287
21	153	1018	1589
46	226	2082	2434

257	124	86	47
2112	1159	139	814
130	85	4	41
1864	1361	183	320

51	647	46	744
----	-----	----	-----

759	40	655	64
-----	----	-----	----

1659	1450	612	13
1017	650	386	10
255	190	101	0
387	610	125	8

5131

4363

3734

5238

36.74

27.55

364.3

561.8

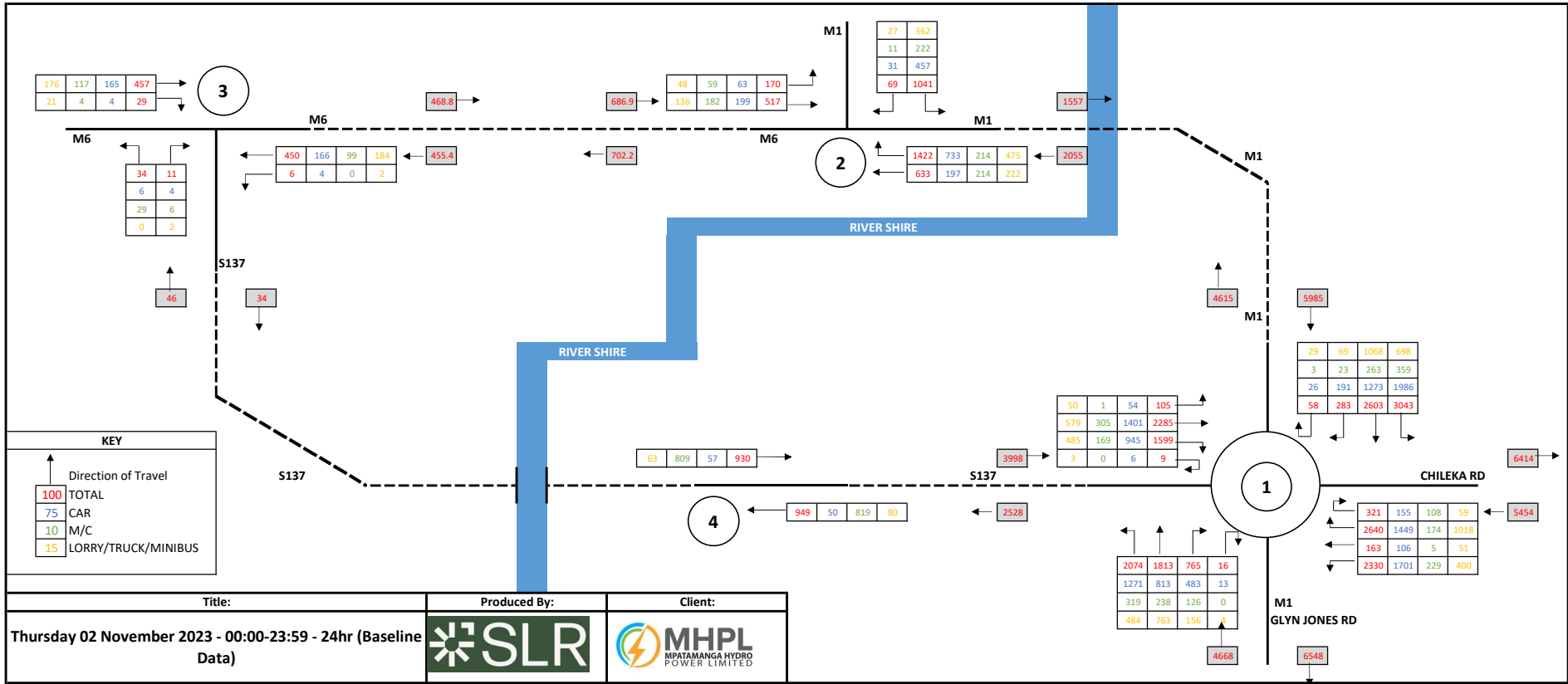
1246

3692

4788

3198

2022



176	117	165	457
21	4	4	29

3

34	11
6	4
29	6
0	2

46

S137

450	166	99	184
6	4	0	2

S137

468.8

686.9

702.2

48	59	63	170
136	182	199	517

M1

27	362
11	222
31	457
69	1041

1557

2

1422	733	214	475
633	197	214	222

2055

RIVER SHIRE

RIVER SHIRE

63	809	57	930
----	-----	----	-----

4

949	50	819	80
-----	----	-----	----

3998

50	1	54	105
579	305	1401	2285
485	169	945	1599
3	0	6	9

S137

M1

29	69	1066	690
3	23	263	359
26	191	1273	1986
58	283	2603	3043

4615

M1

5985

29	69	1066	690
3	23	263	359
26	191	1273	1986
58	283	2603	3043

CHILEKA RD

6414

1

321	155	108	59
2640	1449	174	1018
163	106	5	51
2330	1701	229	400

5454

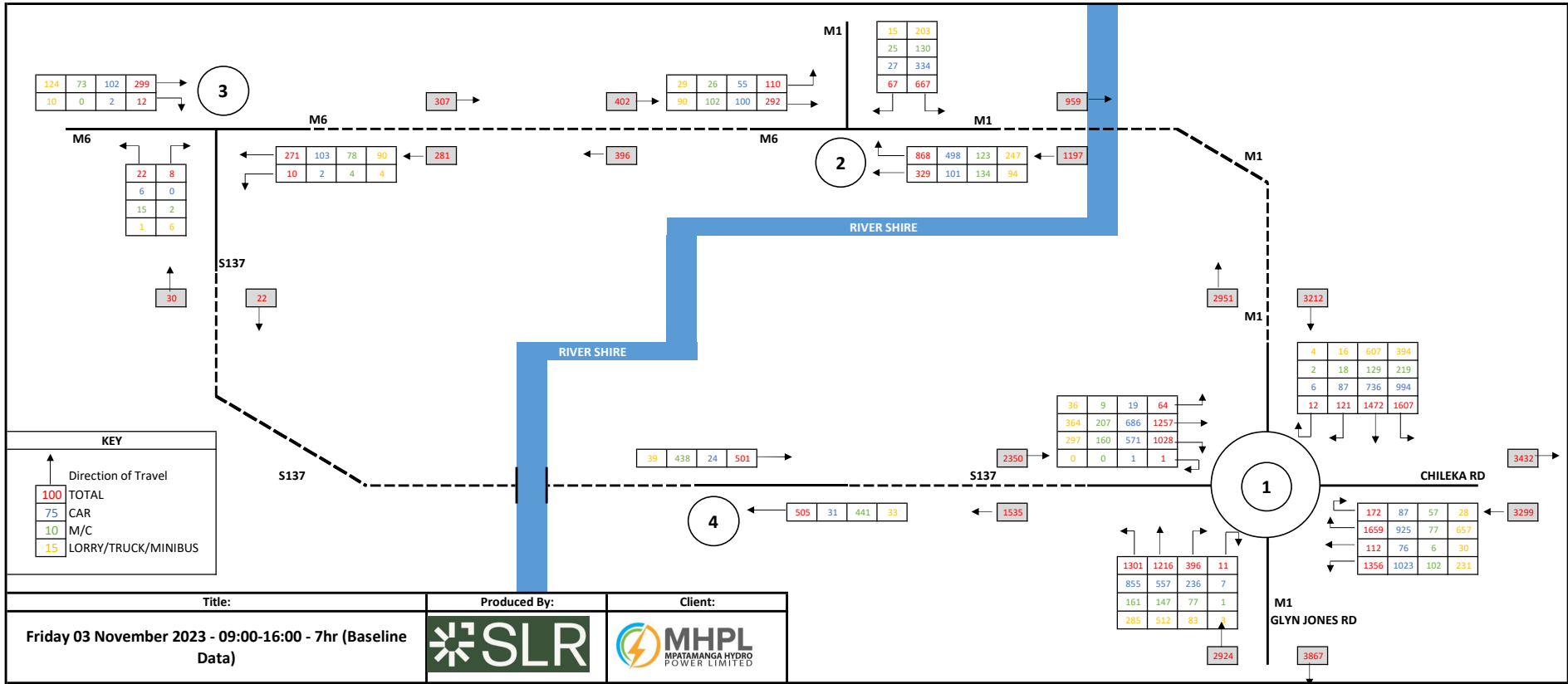
2074	1813	765	16
1271	813	483	13
319	238	126	0
484	763	156	

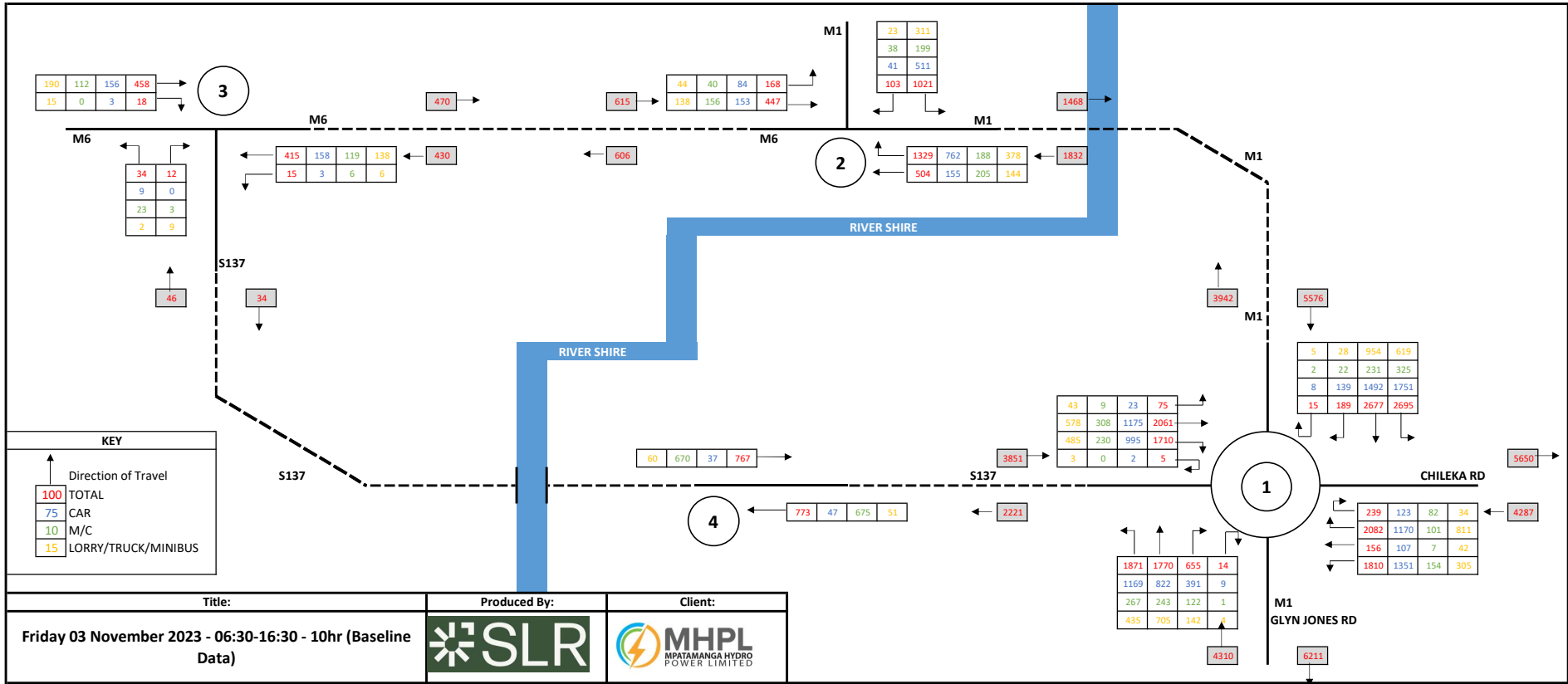
M1

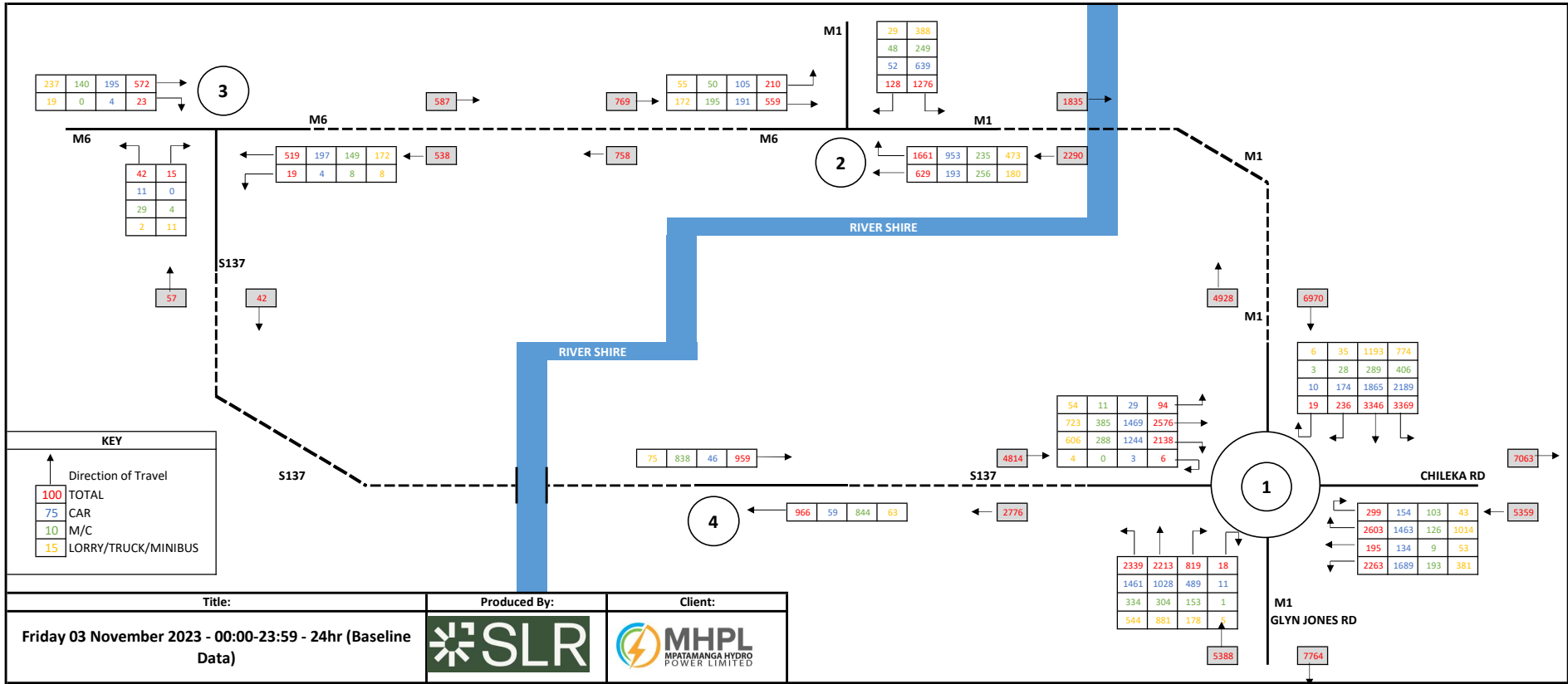
GLYN JONES RD

4668

6548







237	140	195	572
19	0	4	23

3

42	15
11	0
29	4
2	11

M6

519	197	149	172
19	4	8	8

587

758

55	50	105	210
172	195	191	559

M1

29	388
48	249
52	639
128	1276

1835

M1

2

1661	953	235	473
629	193	256	180

2290

RIVER SHIRE

RIVER SHIRE

S137

57

42

M1

M1

4928

6970

6	35	1193	774
3	28	289	406
10	174	1865	2189
19	236	3346	3369

54	11	29	94
723	385	1469	2576
606	288	1244	2138
4	0	3	6

75	838	46	959
----	-----	----	-----

4

966	59	844	63
-----	----	-----	----

2776

4814

S137

M1

CHILEKA RD

7063

299	154	103	43
2603	1463	126	1014
195	134	9	53
2263	1689	193	361

5359

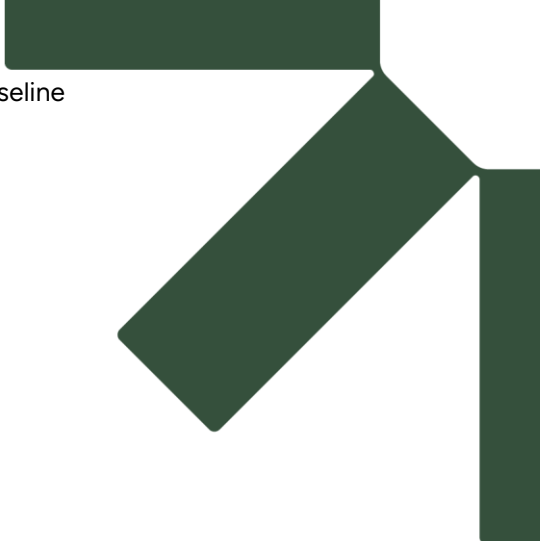
2339	2213	819	18
1461	1028	489	11
334	304	153	1
544	881	178	6

M1

GLYN JONES RD

5388

7764



Annex 5-27: Full Traffic Survey Data

- A M6 (E)
- B M1
- C M6 (W)



If no data collected for hours presented below please leave table blank.
 If data collected for additional hours (beyond those set out below) please use spare tables at bottom of sheet.
 Please do not modify the blue cells as they contain formulae.

SURVEY DATE - Tuesday 31st October 2023		SURVEY DATE - Tuesday 31st October 2023		SURVEY DATE - Tuesday 31st October 2023		SURVEY DATE - Tuesday 31st October 2023									
CARS		LORRY/BUS/CART		MOTORCYCLE		TOTAL									
TO		TO		TO		TO									
FROM	TOTAL	FROM	TOTAL	FROM	TOTAL	FROM	TOTAL								
A	0	0	0	A	0	A	0								
B	0	0	0	B	0	B	0								
C	0	0	0	C	0	C	0								
TOTAL	0	0	0	TOTAL	0	TOTAL	0								
A	46	12	68	A	0	A	0								
B	35	0	37	B	20	B	0								
C	15	4	21	C	5	C	0								
TOTAL	50	53	120	TOTAL	34	TOTAL	26								
A	27	0	30	A	0	A	0								
B	16	5	21	B	19	B	0								
C	48	0	58	C	9	C	0								
TOTAL	47	53	139	TOTAL	28	TOTAL	24								
A	30	17	47	A	0	A	0								
B	27	0	33	B	17	B	0								
C	13	4	17	C	11	C	0								
TOTAL	40	34	58	TOTAL	28	TOTAL	24								
A	45	7	52	A	0	A	0								
B	21	0	21	B	22	B	0								
C	11	4	15	C	7	C	0								
TOTAL	32	49	53	TOTAL	36	TOTAL	24								
A	10	15	25	A	0	A	0								
B	44	0	44	B	17	B	0								
C	7	2	9	C	5	C	0								
TOTAL	48	53	117	TOTAL	29	TOTAL	24								
A	0	51	51	A	0	A	0								
B	24	0	24	B	17	B	0								
C	16	5	21	C	7	C	0								
TOTAL	40	56	76	TOTAL	24	TOTAL	24								
A	42	0	42	A	0	A	0								
B	11	0	11	B	16	B	0								
C	53	42	95	C	18	C	0								
TOTAL	106	42	148	TOTAL	34	TOTAL	24								
A	0	47	47	A	0	A	0								
B	14	0	14	B	17	B	0								
C	24	2	26	C	16	C	0								
TOTAL	62	49	111	TOTAL	36	TOTAL	24								
A	0	0	0	A	0	A	0								
B	0	0	0	B	0	B	0								
C	0	0	0	C	0	C	0								
TOTAL	0	0	0	TOTAL	0	TOTAL	0								
SURVEY DATE - Tuesday 31st October 2023 (SPARE SHEET)				SURVEY DATE - Tuesday 31st October 2023 (SPARE SHEET)				SURVEY DATE - Tuesday 31st October 2023 (SPARE SHEET)				SURVEY DATE - Tuesday 31st October 2023 (SPARE SHEET)			
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL			
TO				TO				TO				TO			
FROM				FROM				FROM				FROM			
TOTAL				TOTAL				TOTAL				TOTAL			

A M6(E)
 B M1
 C M6(W)



If no data collected for hours presented below please leave table blank.
 If data collected for additional hours (beyond those set out below) please use spare tables at bottom of sheet.
 Please do not modify the blue cells as they contain formulas.

SURVEY DATE: Thursday 2nd November 2023		HOUR PERIOD: -06:00-07:00	
CARS			
TO			
	A	B	C
FROM	A	0	0
B	0	0	0
C	0	0	0
TOTAL	0	0	0
SURVEY DATE: Thursday 2nd November 2023			
HOUR PERIOD: -07:00-08:00			
CARS			
TO			
	A	B	C
FROM	A	0	25
B	20	0	1
C	9	0	0
TOTAL	29	25	12

A M6(E)
B M1
C M6(W)



If no data collected for hours presented below please leave table blank.
If data collected for additional hours (beyond those set out below) please use spare tables at bottom of sheet.
Please do not modify the blue cells as they contain formulas.

SURVEY DATE - Friday 3rd November 2023		SURVEY DATE - Friday 3rd November 2023		SURVEY DATE - Friday 3rd November 2023		SURVEY DATE - Friday 3rd November 2023	
HOURLY PERIOD - 06:00-07:00		HOURLY PERIOD - 06:00-07:00		HOURLY PERIOD - 06:00-07:00		HOURLY PERIOD - 06:00-07:00	
CARS		V/BUS/CAR/BUS		MOTORCYCLE		TOTAL	
TO		TO		TO		TO	
A	B	A	B	A	B	A	B
FROM	C	FROM	C	FROM	C	FROM	C
TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
A	0	A	0	A	0	A	0
B	0	B	0	B	0	B	0
C	0	C	0	C	0	C	0
TOTAL	0	TOTAL	0	TOTAL	0	TOTAL	0

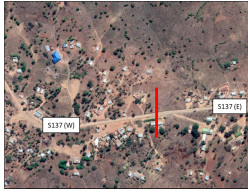
A M6 (E)
B S137
C M6 (W)



If no data collected for hours presented below please leave table blank.
If data collected for additional hours (beyond those set out below) please use spare tables at bottom of sheet.
Please do not modify the blue cells as they contain formulas.

SURVEY DATE: Tuesday 31st October 2023		SURVEY DATE: Tuesday 31st October 2023		SURVEY DATE: Tuesday 31st October 2023		SURVEY DATE: Tuesday 31st October 2023	
CARS		RY/BUS/CART		MOTORCYCLE		TOTAL	
TO		TO		TO		TO	
FROM	TOTAL	FROM	TOTAL	FROM	TOTAL	FROM	TOTAL
A	0	A	0	A	0	A	0
B	0	B	0	B	0	B	0
C	0	C	0	C	0	C	0
TOTAL	0	TOTAL	0	TOTAL	0	TOTAL	0
SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 06:00-07:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 07:00-08:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 08:00-09:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 09:00-10:00	
CARS		LORRY/BUS/CART		MOTORCYCLE		TOTAL	
TO		TO		TO		TO	
FROM	TOTAL	FROM	TOTAL	FROM	TOTAL	FROM	TOTAL
A	0	A	0	A	0	A	0
B	0	B	0	B	0	B	0
C	0	C	0	C	0	C	0
TOTAL	0	TOTAL	0	TOTAL	0	TOTAL	0
SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 10:00-11:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 11:00-12:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 12:00-13:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 13:00-14:00	
CARS		LORRY/BUS/CART		MOTORCYCLE		TOTAL	
TO		TO		TO		TO	
FROM	TOTAL	FROM	TOTAL	FROM	TOTAL	FROM	TOTAL
A	0	A	0	A	0	A	0
B	0	B	0	B	0	B	0
C	0	C	0	C	0	C	0
TOTAL	0	TOTAL	0	TOTAL	0	TOTAL	0
SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 14:00-15:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 15:00-16:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 16:00-17:00		SURVEY DATE: Tuesday 31st October 2023 HOUR PERIOD: 17:00-18:00	
CARS		LORRY/BUS/CART		MOTORCYCLE		TOTAL	
TO		TO		TO		TO	
FROM	TOTAL	FROM	TOTAL	FROM	TOTAL	FROM	TOTAL
A	0	A	0	A	0	A	0
B	0	B	0	B	0	B	0
C	0	C	0	C	0	C	0
TOTAL	0	TOTAL	0	TOTAL	0	TOTAL	0
SURVEY DATE: Tuesday 31st October 2023 (SPARE SHEET)		SURVEY DATE: Tuesday 31st October 2023 (SPARE SHEET)		SURVEY DATE: Tuesday 31st October 2023 (SPARE SHEET)		SURVEY DATE: Tuesday 31st October 2023 (SPARE SHEET)	
CARS		LORRY/BUS/CART		MOTORCYCLE		TOTAL	
TO		TO		TO		TO	
FROM	TOTAL	FROM	TOTAL	FROM	TOTAL	FROM	TOTAL
A	0	A	0	A	0	A	0
B	0	B	0	B	0	B	0
C	0	C	0	C	0	C	0
TOTAL	0	TOTAL	0	TOTAL	0	TOTAL	0
SURVEY DATE: Tuesday 31st October 2023 (SPARE SHEET)		SURVEY DATE: Tuesday 31st October 2023 (SPARE SHEET)		SURVEY DATE: Tuesday 31st October 2023 (SPARE SHEET)		SURVEY DATE: Tuesday 31st October 2023 (SPARE SHEET)	
CARS		LORRY/BUS/CART		MOTORCYCLE		TOTAL	
TO		TO		TO		TO	
FROM	TOTAL	FROM	TOTAL	FROM	TOTAL	FROM	TOTAL
A	0	A	0	A	0	A	0
B	0	B	0	B	0	B	0
C	0	C	0	C	0	C	0
TOTAL	0	TOTAL	0	TOTAL	0	TOTAL	0

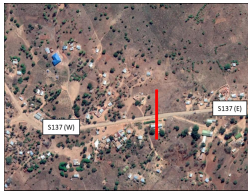
A 5137 (E)
B 5137 (W)



If no data collected for hours presented below please leave table blank.
If data collected for additional hours (beyond those set out below) please use spare tables at bottom of sheet.
Please do not modify the blue cells as they contain formulas.

SURVEY DATE: Thursday 2nd November 2023				SURVEY DATE: Thursday 2nd November 2023				SURVEY DATE: Thursday 2nd November 2023				SURVEY DATE: Thursday 2nd November 2023			
HOUR PERIOD: 06:00-07:00				HOUR PERIOD: 06:00-07:00				HOUR PERIOD: 06:00-07:00				HOUR PERIOD: 06:00-07:00			
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL			
TO				TO				TO				TO			
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL	
FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	FROM	A	0	0
	B	0	0		B	0	0		B	0	0		B	0	0
	TOTAL	0	0		TOTAL	0	0		TOTAL	0	0		TOTAL	0	0

A 5137 (E)
B 5137 (W)



If no data collected for hours presented below please leave table blank.

If data collected for additional hours (beyond those set out below) please use spare tables at bottom of sheet.

Please do not modify the blue cells as they contain formulas.

SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 06:00-07:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 06:00-07:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 06:00-07:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 06:00-07:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	
	B	0	0		B	0	0		B	0	0		B	0	0	
	TOTAL	0	0	TOTAL	0	0	0	TOTAL	0	0	0	TOTAL	0	0	0	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 07:00-08:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 07:00-08:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 07:00-08:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 07:00-08:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	4	FROM	A	0	6	FROM	A	0	61	81	FROM	A	0	71
	B	1	0		B	2	0		B	45	0	61		B	48	0
	TOTAL	1	4	TOTAL	2	6	6	TOTAL	45	61	106	TOTAL	48	71	119	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 08:00-09:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 08:00-09:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 08:00-09:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 08:00-09:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	1	FROM	A	0	5	FROM	A	1	45	45	FROM	A	0	52
	B	3	0		B	3	0		B	39	0	39		B	45	0
	TOTAL	3	1	TOTAL	3	5	5	TOTAL	39	46	85	TOTAL	45	52	97	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 09:00-10:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 09:00-10:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 09:00-10:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 09:00-10:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	2	FROM	A	0	4	FROM	A	0	51	61	FROM	A	0	67
	B	2	0		B	7	0		B	55	0	55		B	64	0
	TOTAL	2	2	TOTAL	7	4	11	TOTAL	55	61	116	TOTAL	64	67	131	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 10:00-11:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 10:00-11:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 10:00-11:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 10:00-11:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	3	FROM	A	0	4	FROM	A	0	87	87	FROM	A	0	94
	B	0	0		B	0	2		B	0	88		B	0	88	
	TOTAL	0	3	TOTAL	0	4	6	TOTAL	88	87	175	TOTAL	86	94	180	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 11:00-12:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 11:00-12:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 11:00-12:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 11:00-12:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	4	FROM	A	0	6	FROM	A	0	67	67	FROM	A	0	77
	B	1	0		B	1	0		B	12	0	12		B	86	0
	TOTAL	1	4	TOTAL	1	6	6	TOTAL	12	67	138	TOTAL	86	77	163	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 12:00-13:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 12:00-13:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 12:00-13:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 12:00-13:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	2	FROM	A	0	4	FROM	A	0	49	49	FROM	A	0	52
	B	2	0		B	4	0		B	49	0	49		B	55	0
	TOTAL	2	2	TOTAL	4	4	8	TOTAL	49	71	120	TOTAL	55	52	136	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 13:00-14:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 13:00-14:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 13:00-14:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 13:00-14:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	1	FROM	A	0	6	FROM	A	0	46	46	FROM	A	0	57
	B	1	0		B	6	0		B	45	0	45		B	52	0
	TOTAL	1	1	TOTAL	6	6	12	TOTAL	45	46	91	TOTAL	52	57	109	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 14:00-15:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 14:00-15:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 14:00-15:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 14:00-15:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	6	FROM	A	0	6	FROM	A	0	47	47	FROM	A	0	63
	B	5	0		B	6	0		B	58	0	58		B	69	0
	TOTAL	5	6	TOTAL	6	6	12	TOTAL	58	47	105	TOTAL	69	63	130	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 15:00-16:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 15:00-16:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 15:00-16:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 15:00-16:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	4	FROM	A	0	2	FROM	A	0	62	62	FROM	A	0	68
	B	1	0		B	2	0		B	21	0	21		B	79	0
	TOTAL	1	4	TOTAL	2	2	4	TOTAL	21	62	134	TOTAL	79	68	147	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 16:00-17:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 16:00-17:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 16:00-17:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 16:00-17:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	6	FROM	A	0	3	FROM	A	0	35	35	FROM	A	0	44
	B	9	0		B	3	0		B	50	0	50		B	62	0
	TOTAL	9	6	TOTAL	3	3	6	TOTAL	50	35	85	TOTAL	62	44	106	
SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 17:00-18:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 17:00-18:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 17:00-18:00				SURVEY DATE - Friday 3rd November 2023 HOUR PERIOD - 17:00-18:00				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	
	B	0	0		B	0	0		B	0	0		B	0	0	
	TOTAL	0	0	TOTAL	0	0	0	TOTAL	0	0	0	TOTAL	0	0	0	
KEY DATE - Friday 3rd November 2023 (SPARE SH HOUR PERIOD -)				KEY DATE - Friday 3rd November 2023 (SPARE SH HOUR PERIOD -)				KEY DATE - Friday 3rd November 2023 (SPARE SH HOUR PERIOD -)				KEY DATE - Friday 3rd November 2023 (SPARE SH HOUR PERIOD -)				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	
	B	0	0		B	0	0		B	0	0		B	0	0	
	TOTAL	0	0	TOTAL	0	0	0	TOTAL	0	0	0	TOTAL	0	0	0	
KEY DATE - Friday 3rd November 2023 (SPARE SH HOUR PERIOD -)				KEY DATE - Friday 3rd November 2023 (SPARE SH HOUR PERIOD -)				KEY DATE - Friday 3rd November 2023 (SPARE SH HOUR PERIOD -)				KEY DATE - Friday 3rd November 2023 (SPARE SH HOUR PERIOD -)				
CARS				LORRY/BUS/CART				MOTORCYCLE				TOTAL				
TO				TO				TO				TO				
A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		A	B	TOTAL		
FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	FROM	A	0	0	
	B	0	0		B	0	0		B	0	0		B	0	0	
	TOTAL	0	0	TOTAL	0	0	0	TOTAL	0	0	0	TOTAL	0	0	0	