

**Photo Guide to estimate Forage Availability
in Namibian Rangelands
Damara & Nama Version**

Dana marihuib mf-ao-i



ÄHûmarihuib mf-aon



Sîsenxa kai ran



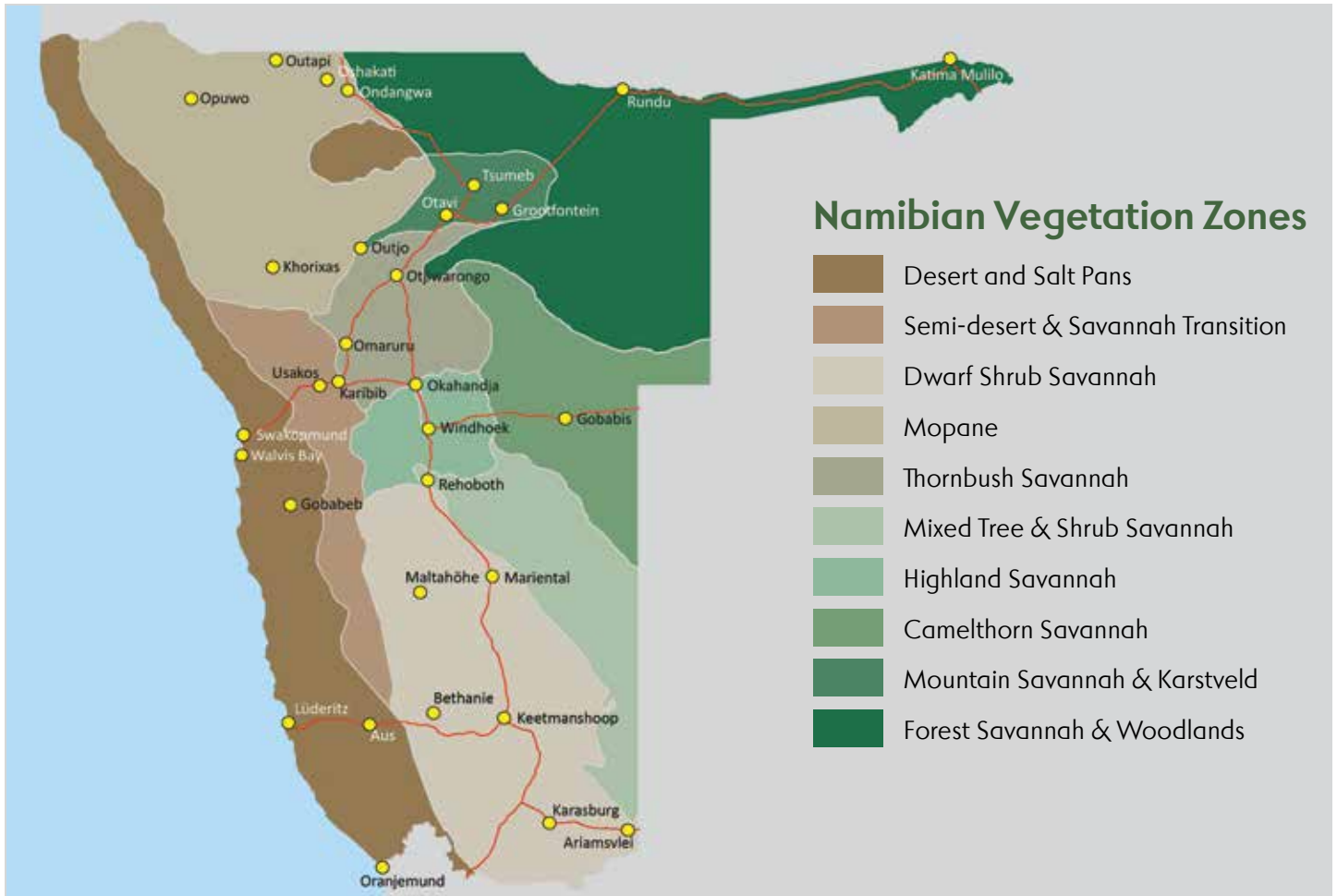
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ÆGui,uib tsî !AmÆareb: Mr Michael Degé • Kœ!gâs: Dr Pauline Lindeque • ,Nûi!khuni-aob: namtranslation.com

Table of Contents

!Gâ!hjb.....	2
Dwarf Shrub Savannah Zone	6
Semi-desert & Savannah Transition Zone.....	17
Mopane Zone	25
Thornbush Savannah Zone.....	34
Mixed Tree & Shrub Savannah Zone	45
Highland Savannah Zone.....	58
Camelthorn Savannah Zone.....	70
Mountain Savannah & Karstveld Zone	81
Forest Savannah & Woodlands Zone	90



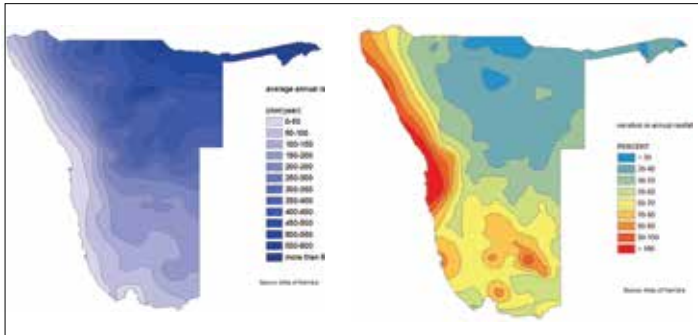


Namibian Vegetation Zones

- Desert and Salt Pans
- Semi-desert & Savannah Transition
- Dwarf Shrub Savannah
- Mopane
- Thornbush Savannah
- Mixed Tree & Shrub Savannah
- Highland Savannah
- Camelthorn Savannah
- Mountain Savannah & Karstveld
- Forest Savannah & Woodlands

!Gâ!hjb

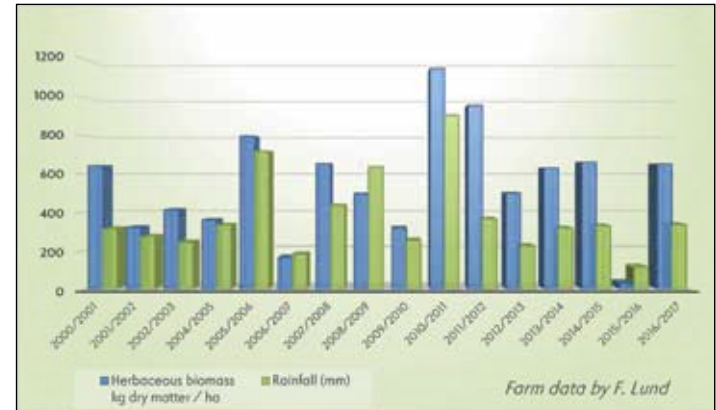
N# projeks “Omkhâis tsî !âis ,gari!hjb j!ÅkhÆEb di !oega hâ !nape!nape!nâs Ågaub Ågoa ,gari-aon Namibiab din Åkha hâb” ge ge !amÆarehe îb ,gae ,gui tsî !khœ ,homis ,gari!hjb dis !nâ !âÅhuru n# ,harugu!âba kœ!gâs di sîsen;xj;na mfs Åkha, hîa !nj;seba xu hœ!â ka ,an ,ui texnoloxib Åkha tsî dÆÅgauÆgau hâ !garob !nâ sîsen ,uiba jhâ !hara!âis dÆÅgaub ai !gao!gaosase. N# projeks ge marihuib 80% diba ge mf 10Æ! EDFs-marihuib saogub “,OaÅnanumâsib !Khunisens !oa Unusen tsî Supusupus, ÅGaiba !khœ ,gf hâse” tsî Agri Marisâ ,gae, GEF ,Khari Marimfdi Saogub tsî Agras Ltd ,harugub tsîdi xa hui!nâhe hâse. N# %osib DaoÆgaub !Û-ais di Hâs dis !garo!fs ai tamas ka io !û!hjb ais ge a n# projeks di sîsen ,uigu di Ågui.



Iro %osib: ÅNanub di !kharagasib Namibiab !nâ

Namibiab ge hoa !h;gu Saharab !naka Ægoegu !nâb Æîba hoagu xa a ,nâsa !h;ba hîa kaise Ågapi !kharagasiba Ånanuba hœs !nâ jhâba. ÆNf Iro %osib !nâb ge ÆareÅkhfb ai hâ

!h; ,haweba hoa!nâ-aixa ÆaeguÅnoeb di hœhe ra Ånanub di ÆnfÅgauba !khawagas huri ,oasa xu Åapas ai ,oas Æga hâse ra Ægau, tsib ge amÅkhfb ai hâ !h; ,haweba !kharaga!nâgusib Ånanub ÆnfÅgaub dib kurikamagu diba ra Ægau, ui. !Åubasenhe ras ge ,oaÅnanumâsib !khunisens Åkha i nî n# !kharaga!nâgusiba !aru!i !gfsa !khaisa.

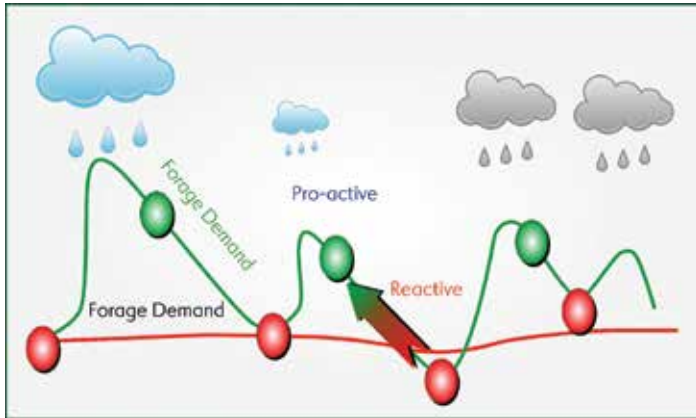


2Æ! %osib: !Kharaga!nâgusib kurigu di haixa j!ÅkhÆEb di ÅgopeÆnoes Ånanub ÅnfÅgaub Åkhas Kamombonde Ost !garo!fs ai

Ûn di ÅnanuÆaeb Åams ai hâs ge Ånanub di Ænfs tsî !û!hjb di mâsib Åkha Ågaisase a !gaeÆaresa. ÆNf 2Æ! %osib !nâ mâ ,ans ge ra Ægau, ui Ågaisa !kharagagusib ,ûn di hâs !nâ hâsa Ænf 2001 tsî 2016Æ! kurib di Ånanub kurikamagu Æaegu !Gs Lunds di !fs hîa !GuidiÆgams Åkharib !nâ Ægoes ai. Kaise Ågapi Ågui toni xa !nfsase mâ hektari hoab ais 2010/11 kurikamab disa xu kaise ,ams Æga 2015/16 !nâ. ÆNfs ge ra Ægau !û-aib di hœhes ra !khunisensa tsî i Ågui Ågaub ai ra hâhâ Ågoan di !gôaba hâsa.

ÆNf-amaga hâ hoan xa kai Ægoa,uis Namibiabi di Ågoa,gari-aon ra hœ!âs ge Æin di Ågoan di !gôaga Ågau kaisa ,ün di hœheÆkhsib mâsigu tawa, Æaeb mâ hîa.

!Gao!gaob ge ga ,ün di ,gaohes tsî hœhes hîra ÅguiÅguisa. ,ün di hœhes ga !gâise ,ün di ,gaohes Åkha !gûÆare, o i ge !gomsina !âubasenhe tide. % as ge !Ananub ga sao ra !AnanuÆaeb !nâ a Åoro, hâ a !gôab Ågoan dib a !khoeÅgarasase, tsî i ,üna Åoro hâ hîa, o i ge ,ün !nubusiba hâ Ækhf.



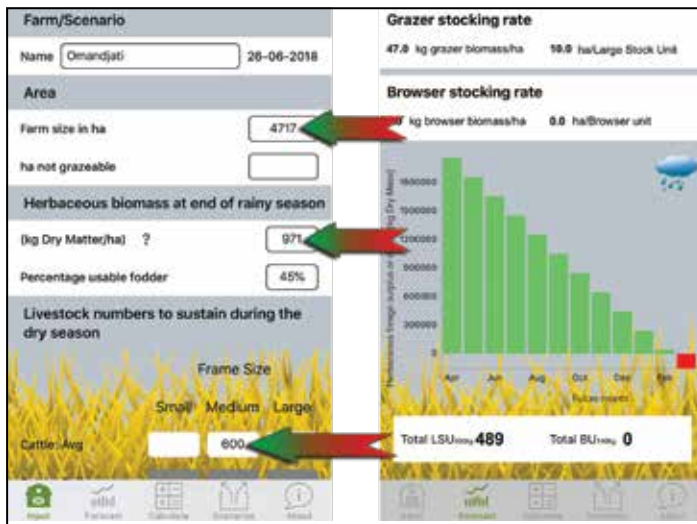
3Æî %osib: Saogubese hâ Ægau,uis !oega ra jhe mîÅguigu dis

Nþ !,ün HœheÆkhsib %osib DaoÆgaub ge Ænf-amaga !nî hâ !hae Ågaub ,gomhe Ækhf !gâi !haesa hœsa ra mf, aitsama soros Åkha !hao!hao tamase. Mâ kaise ra hœhe hai!nân Namibiabi !nâ hân ge !amÆaresa Çesigu hîa ra !kharaga

!û-ai!nôana Ægaugu !nâ ra mfhe. %osigu ge !ro !gôas Çesib Åkha ra tsoatsoa hîa kaise Åoro !û-aiba jhâba, tsî ra ÇÆkhf i as kœse ,âuna !û-aiba jhâb Ænf !kharib tawa ra Ågaub Åkha Åamse. Nþ Çesigu daoÆgauba sisenjs Åkha i ge kai !gôab !khain hîa Ænf !fs ai hân tamas ka io !û!hjba supuse Æib ra kai Åamma Ågau Çesib daoÆgaub dib Åkha ÅgopeÆnœhe Ækhf, Æaegu!nœb di !û-ai!gaib !œ-aisa !â!âb tamas ka io !garo!fs diba !gôa!gôas !aroma. %osi DaoÆgaub ge !oa !œ-aisa !khain Åkha !gaeÆaresa, î i ,hanu !hao!hao Æhûihe.

Aibe i ga hœhe Ækhf !û-ai!khsib hektari diba ÆapoÆapohetoo, o i ge a ÇÆkhf hoa!nf-aixase hâ a !û-ai!khsiba !haesa Ågoan !gôab Åkha ra ÅgopeÆnœse, !gôa!gôasa ,âuna ,ün hâ !khaisa. Xjna supusupus !aroma i ge ,Gari!hjb !Û-aib !GûÅgaub Huisenjs (Rangeland Fodder Flow App hîa Android tsî iOS huisenjsin dina) ge kuruhe hf!aro ra sisenjsise tsî mario!nâse a hœhe Ækhf. Nþ Huisenjs ge ,gari-aona ra ÇÆkhf kaiba in !garo!fs tamas ka io !û!hjb ai hâ !û-aib nî ,âunaba hâ a Ågoan tsî xamarin !gôaga !khaisa !hae Ækhf, tsî !kharaga ,âi,amhe ra mâsiga kœ!î-jhe Ækhf, 4sa xu 6s kœse hâ %osigu !nâ Ægau,uihe hâse. (!âis !nâ jhâ re nþ Çesigu ge iOS huisenjs ai dÇE! !khaisa, Android huisenjsa sisenjs tawa i ge Çesiga !kharase nî mûsen, xawe i ge Ækhf ,ansa nî mf!kharuhe.) Uuna kwa tengenekwa uwindji wiikulya yimuna ta yi adhika mehala lyuunene wohekita, nena aanafaalama otaa ka vula wo okutengeneke uwindji wiikulya yimuna ta wu adhika mehala lyawo lyuulithilo alihe nokuyelekanitha noku ingongosheka ngele iikulya mbyono oya gwana tuu okuhupitha iimuna yopelala nenge pofaalama mpoka. Opo elongitho lyomukalo nguno gwetengeneke lyiikulya yimuna mehala lyuulithilo li ningwe

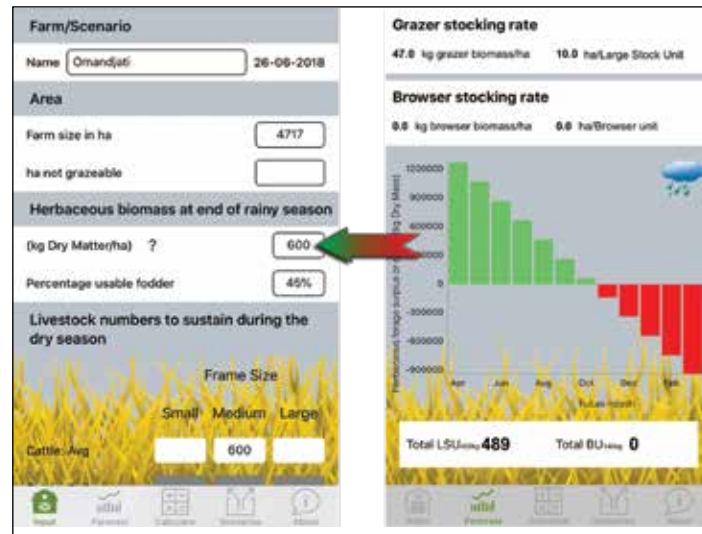
epu no li vule oku adha omuniimuna kehe, okwa totwa wo **okapoloholama komooselefona**, hoka omuntu kehe ta vulu oku ka tula nokulongitha kongodhi yopeke pwa na iifuta yasha. Ethano etine sigo etihamano ota li ulike nkene okapolohalama hoka ka li ka longithwa mongodhi yo iOS, no kwa tegelelwa wu ka mone omafano ga yooloka nge owa longitha oongodhi dhilwe, ihe uuyelegelele ota wu kala wumwe.



4Æî %osib: ,Gariba !gôa!gôas di Iro AiÆgaus

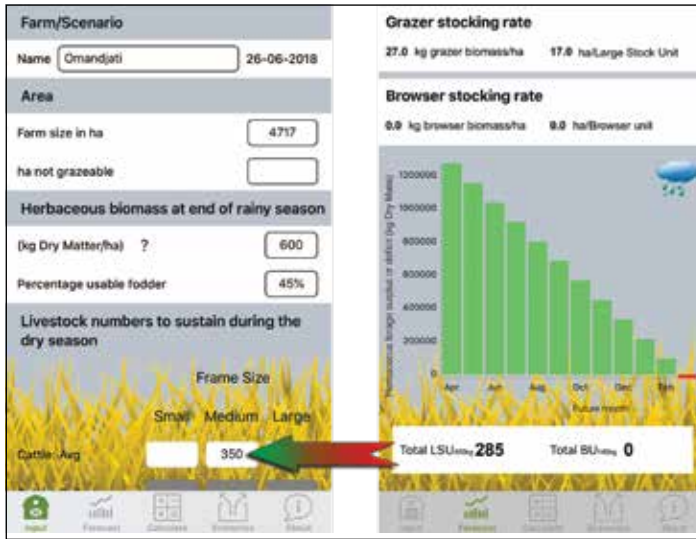
Nᄁ 4Æî %osib ge !nurigu !garo!fs hîa 4 717 hektarga kais di tsî !û-aib 971 kiloxramga/hektari ai jhâ, 600 ÆaeguÂnceb kurus â-i kaisib di gomana jhâ. Nᄁ aiÆgaus ge ra Ægau nᄁti Œ !garo!fs nî ,âuna !ûxûna sao ra kurib di !KhanÂgôab koesse jhâ !khaisa.

ÆNf-amaga i ge ,gari-ao-i nî Âgoana ÂoroÂoro !khais di ,hâsi-a Âkhai.



5Æî %osib: ,Gariba !gôa!gôas di 2Æî AiÆgaus

Nᄁ 2Æî AiÆgaus hîa 5Æî %osib !nâ hâs ge !nurigu Ækhf !garo!fs diga ra Ægau, ÆNf !û-aib di hoeheÆkhfsib ga 971 kiloxramga/hektari aisa xu 600 kiloxramga/hektari ais koesse ÂoroÂorohe !khaisa ra Ægau. ÆNf mâsigu !nâ i ge !ûxin !nubusiba ,NjÆnâiseba xu ra aimûÂgaruhe. ÂGoan !gôaba 350s koesse ÂoroÂoros, 6Æî %osib !nâ ra Ægauheses ge Âgaub hîa !ûxin di hâs tsî !ûxin di ,hâsib hâkha Æaegu hâba a Âguitikœ kai Ækhf, tsîb ge !û-aiba !KhanÂgôab sao ra kurib dib koesse nî ,âuna.

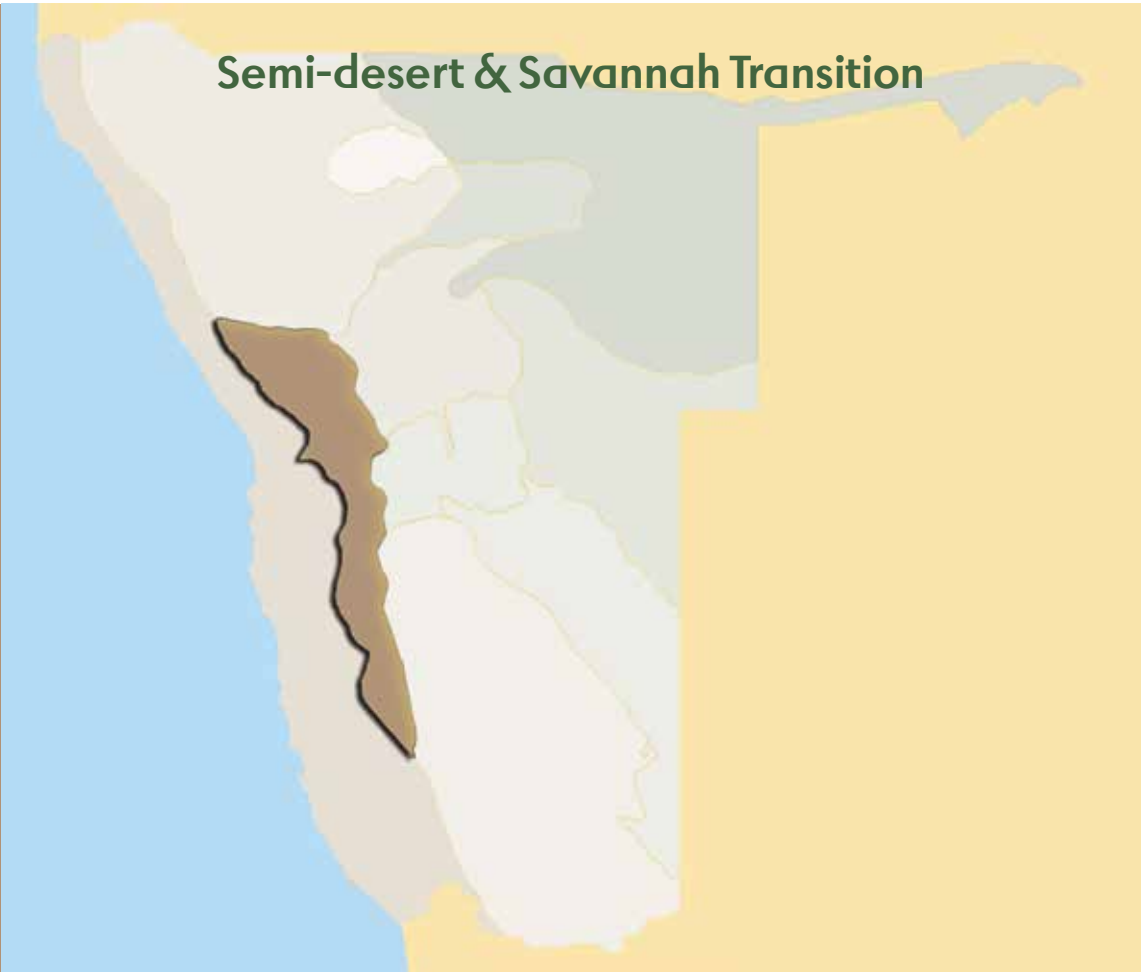


Nɛ̃ !amÆareb !nâ da ge ,khari, ÆaeguÅnœb tsî kai kurus â-i kaisiga ra sîsenj ,ûs (!ûs) ,gaoÅkhfde !gôa,uis !aroma. Sao ra surigu goman ge daoÆgaus ase mfsa, (,âis !nâ jhâ re mâ surib hoab !nâ i ge !kharaga!nâgusiga kurus kaisib !nâ hâ Ækhf):

- ,Khari kurus â-i kaisib, aiÆgause Ngunin/Sangan.
- ÆAeguÅnœb kurus â-i kaisib, aiÆgause Afrikanern, Bonsmaran, Beefmastern.
- Kai kurus â-i kaisib, aiÆgause Simmentalern, Simbran, Brahmänn.

6Æî %osib: ,Gariba !gôa!gôas di 2Æî AiÆgaus (Ånî hâ Ågaub)

Semi-desert & Savannah Transition





Semi-desert & Savannah Transition

%osib !Gôas 1

100 Kiloxramgu di ,nâsa xj-i / hektari ai





Semi-desert & Savannah Transition

%osib !Gôas 2

227 Kiloxramgu di ,nâsa xj-i / hektari ai



Semi-desert & Savannah Transition %osib !Gôas 3

284 Kiloxramgu di ,nâsa xj-i / hektari ai





Semi-desert & Savannah Transition %osib !Gôas 4

343 Kiloxramgu di ,nâsa xj-i / hektari ai



Semi-desert & Savannah Transition

50% sibir / Gôas 5

523 Kiloxramgu di „nâsa xj-i / hektari ai





Semi-desert & Savannah Transition

%osib !Gôas 6

554 Kiloxramgu di ,nâsa xj-i / hektari ai



Semi-desert & Savannah Transition

%osib !Gôas 7

645 Kiloqramgu di ,nâsa xj-i / hektari ai





Semi-desert & Savannah Transition

%osib !Gôas 8

1265 Kiloqramgu di ,nâsa xj-i / hektari ai



Semi-desert & Savannah Transition

%osib !Gôas 9

1372 Kiloxramgu di ,nâsa xj-i / hektari ai





Semi-desert & Savannah Transition

10% Sib

2244 Kilogram di /nâsa xj-i / hektari ai

Dwarf Shrub Savannah





Dwarf Shrub Savannah

%osib !Gôas 1

10 Kiloxramgu di ,nâsa xj-i / hektari ai



Dwarf Shrub Savannah

%osib !Gôas 2

100 Kiloxramgu di ,nâsa xj-i / hektari ai





Dwarf Shrub Savannah

%sib !Gôas 3

330 Kiloxramgu di ,nâsa xj-i / hektari ai



Dwarf Shrub Savannah

%sib !Gôas 4

430 Kiloxramgu di ,nâsa xj-i / hektari ai





Dwarf Shrub Savannah

%osib !Gôas 5

750 Kiloxramgu di ,nâsa xj-i / hektari ai



Dwarf Shrub Savannah

%osib !Gôas 6

800 Kiloxramgu di ,nâsa xj-i / hektari ai



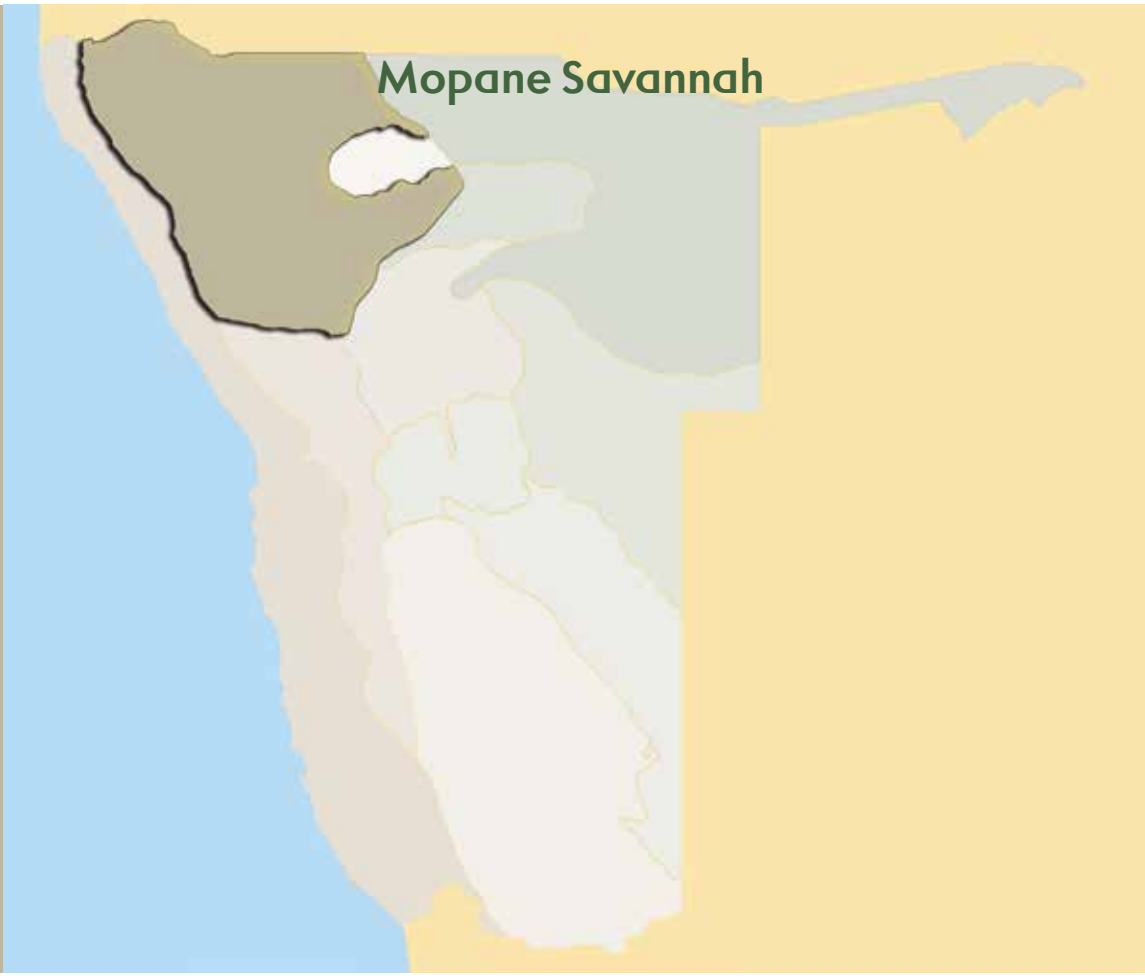


Dwarf Shrub Savannah

%osib !Gôas 7

950 Kiloxramgu di ,nâsa xj-i / hektari ai

Mopane Savannah





Mopane Savannah

%sib !Gôas 1

81 Kiloxramgu di ,nâsa xj-i / hektari ai



Mopane Savannah

%osib !Gôas 2

145 Kiloxramgu di ,nâsa xj-i / hektari ai





Mopane Savannah

%osib !Gôas 3

302 Kiloxramgu di ,nâsa xj-i / hektari ai



Mopane Savannah

%osib !Côas 4

578 Kiloxramgu di ,nâsa xj-i / hektari ai





Mopane Savannah

%osib !Gôas 5

774 Kiloxramgu di ,nâsa xj-i / hektari ai



Mopane Savannah %osib !Gôas 6

906 Kiloxramgu di ,nâsa xj-i / hektari ai





Mopane Savannah

%osib !Gôas 7

1022 Kiloqramgu di ,nâsa xj-i / hektari ai



Mopane Savannah

%osib !Gôas 8

2285 Kiloxramgu di ,nâsa xj-i / hektari ai



Thornbush Savannah





Thornbush Savannah

%osib !Gôas 1

30 Kiloqramgu di ,nâsa xj-i / hektari ai



Thornbush Savannah

%osib !Gôas 2

141 Kiloxramgu di ,nâsa xj-i / hektari ai



Thornbush Savannah

%osib !Gôas 3

190 Kiloxramgu di ,nâsa xî-i / hektari ai





Thornbush Savannah

%osib !Gôas 4

300 Kiloxramgu di ,nâsa xj-i / hektari ai



Thornbush Savannah

%osib !Côas 5

511 Kiloxramgu di ,nâsa xj-i / hektari ai





Thornbush Savannah

%sib !Gôas 6

900 Kiloxramgu di ,nâsa xj-i / hektari ai



Thornbush Savannah

%osib !Gôas 7

1000 Kiloxramgu di ,nâsa xj-i / hektari ai





Thornbush Savannah

%osib !Gôas 8

1203 Kiloqramgu di ,nâsa xj-i / hektari ai



Thornbush Savannah

%osib !Gôas 9

1950 Kiloqramgu di ,nâsa xj-i / hektari ai



Thornbush Savannah

%sib !Gôas 10

2200 Kiloxramgu di ,nâsa xj-i / hektari ai

Mixed Tree & Shrub Savannah





Mixed Tree & Shrub Savannah

%osib !Gôas 1

192 Kiloqramgu di ,nâsa xj-i / hektari ai



Mixed Tree & Shrub Savannah

%osib !Gôas 2

302 Kiloxramgu di ,nâsa xj-i / hektari ai



Mixed Tree & Shrub Savannah

%osib !Gôas 3

412 Kiloxramgu di ,nâsa xj-i / hektari ai



Mixed Tree & Shrub Savannah

%osib !Côas 4

618 Kiloxramgu di ,nâsa xj-i / hektari ai





Mixed Tree & Shrub Savannah

%osib !Gôas 5

690 Kiloxramgu di ,nâsa xj-i / hektari ai



Mixed Tree & Shrub Savannah

%osib !Gôas 6

832 Kiloxramgu di ,nâsa xj-i / hektari ai





Mixed Tree & Shrub Savannah

7% of the country

1032 Kilograms of dry matter / hectare



Mixed Tree & Shrub Savannah

%osib !Gôas 8

1132 Kiloqramgu di ,nâsa xj-i / hektari ai





Mixed Tree & Shrub Savannah

%osib !Gôas 9

1367 Kiloxramgu di ,nâsa xj-i / hektari ai



Mixed Tree & Shrub Savannah

%osib !Gôas 10

1459 Kiloqramgu di ,nâsa xj-i / hektari ai





Mixed Tree & Shrub Savannah

%osib !Gôas 11

1466 Kiloxramgu di ,nâsa xj-i / hektari ai



Mixed Tree & Shrub Savannah

%osib !Gôas 12

2021 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah





Highland Savannah

%osib !Gôas 1

240 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah

%osib !Gôas 2

290 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah

3 Gôas !sib %

390 Kiloqramgu di ,nâsa xj-i / hektari ai



Highland Savannah

%osib !Gôas 4

480 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah

%osib !Gôas 5

650 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah

%osib !Gôas 6

730 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah

%osib !Gôas 7

816 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah

%osib !Gôas 8

982 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah

%osib !Gôas 9

1100 Kiloxramgu di ,nâsa xj-i / hektari ai





Highland Savannah

%osib !Gôas 10

1500 Kiloxramgu di ,nâsa xj-i / hektari ai



Highland Savannah

%osib !Gôas 11

2150 Kiloxramgu di ,nâsa xj-i / hektari ai

Camelthorn Savannah





Camelthorn Savannah

%osib !Gôas 1

80 Kiloxramgu di ,nâsa xj-i / hektari ai





melthorn Savannah

%osib !Gôas 2

246 Kiloxramgu di ,nâsa xj-i / hektari ai



Camelthorn Savannah

%osib !Côas 3

287 Kiloqramgu di ,nâsa xj-i / hektari ai





Camelthorn Savannah

%osib !Gôas 4

620 Kiloqramgu di ,nâsa xj-i / hektari ai



Camelthorn Savannah

%osib !Côas 5

824 Kiloxramgu di ,nâsa xj-i / hektari ai





Camelthorn Savannah

%osib !Gôas 6

1009 Kiloxramgu di ,nâsa xj-i / hektari ai



Camelthorn Savannah

%osib !Gôas 7

1297 Kiloxramgu di ,nâsa xj-i / hektari ai





Camelthorn Savannah

%osib !Gôas 8

1430 Kiloxramgu di ,nâsa xj-i / hektari ai



Camelthorn Savannah

%osib !Gôas 9

1900 Kiloxramgu di ,nâsa xj-i / hektari ai



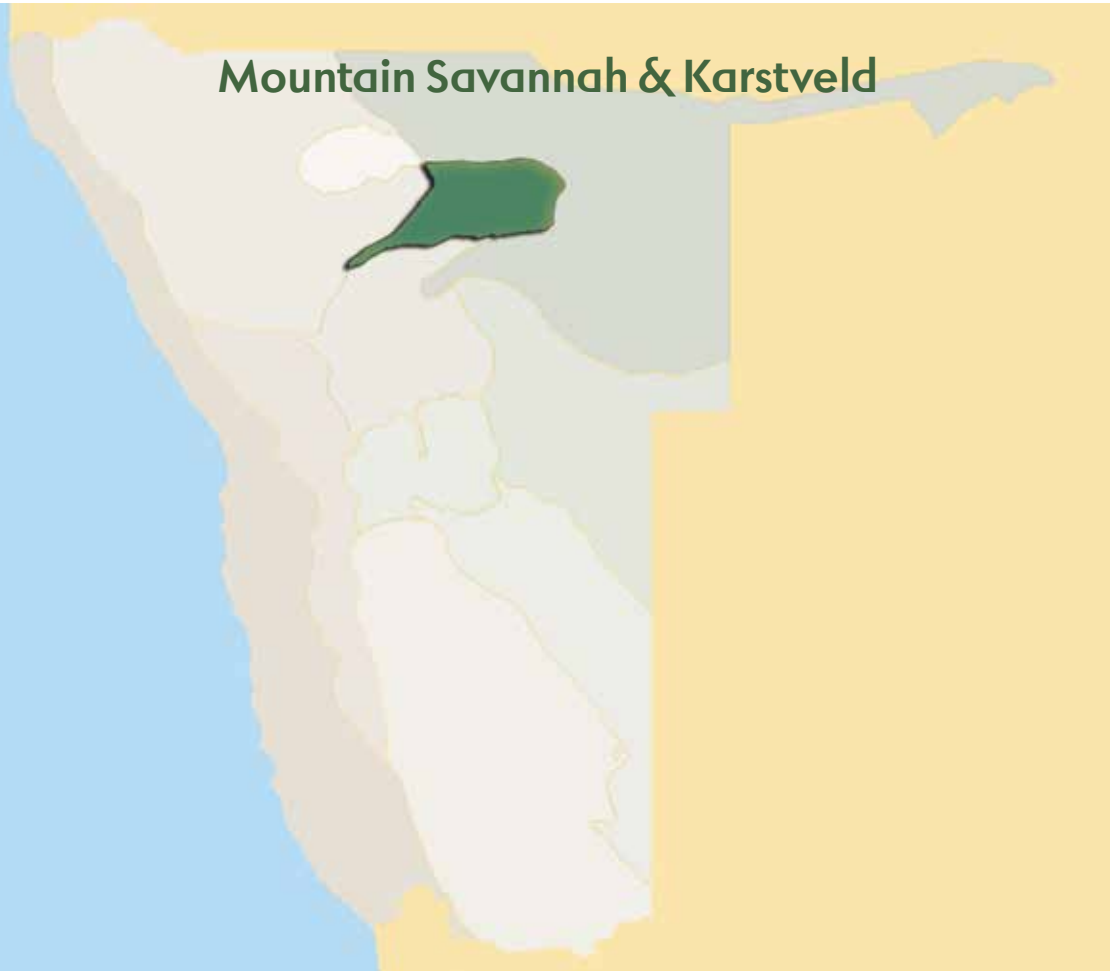


Camelthorn Savannah

%osib !Gôas 10

2523 Kiloqramgu di ,nâsa xj-i / hektari ai

Mountain Savannah & Karstveld





Mountain Savannah & Karstveld

%sib !Gôas 1

36 Kiloxramgu di ,nâsa xj-i / hektari ai



Mountain Savannah & Karstveld

ግዕዝ ስም 2

213 ኪሎግራም ስጦታ ገጽ / ኪሎካር ስጦታ



Mountain Savannah & Karstveld

!Gôas 3

539 Kiloxramgu di ,nâsa xj-i / hektari ai



Mountain Savannah & Karstveld

%osib !Côas 4

723 Kiloqramgu di ,nâsa xj-i / hektari ai



Mountain Savannah & Karstveld

%osib !Gôas 5

749Kiloxramgu di ,nâsa xj-i / hektari ai



Mountain Savannah & Karstveld

60% sisib !Côas

1092 Kiloxramgu di ,nâsa xj-i / hektari ai





Mountain Savannah & Karstveld

%osib !Gôas 7

1279Kiloxramgu di ,nâsa xj-i / hektari ai



Mountain Savannah & Karstveld

%osib !Côas 8

1662 Kiloxramgu di ,nâsa xj-i / hektari ai



Forest Savanna & Woodlands



Forest Savannah & Woodlands

%osib !Gôas 1

35 Kiloqramgu di ,nâsa xj-i / hektari ai





Forest Savannah & Woodlands

%osib !Gôas 2

397 Kiloxramgu di ,nâsa xj-i / hektari ai



Forest Savannah & Woodlands

%osib !Côas 3

591 Kiloqramgu di ,nâsa xj-i / hektari ai





Forest Savannah & Woodlands

%osib !Gôas 4

974 Kiloxramgu di ,nâsa xj-i / hektari ai



Forest Savannah & Woodlands

%osib !Côas 5

1205 Kiloqramgu di ,nâsa xj-i / hektari ai





Forest Savannah & Woodlands

%osib !Gôas 6

1404 Kiloxramgu di ,nâsa xj-i / hektari ai



Forest Savannah & Woodlands

%osib !Côas 7

1809 Kiloqramgu di ,nâsa xj-i / hektari ai





Forest Savannah & Woodlands

%osib !Côas 8

2921 Kiloxramgu di ,nâsa xj-i / hektari ai

