



SIMBAPIRA SOUSILI KUHAMENA KO:

Yimenwa yegunda lyaNamibia

Sitambo sosimbabira esi si gave maruha gomasansekototo, kumwe nomaruha gowiza moNamibia.

ETWAROMO

Nampili ngomu asi sirongo saNamibia simwe sorukukutu koMbindakano zaSahara, kapi sa kara noruha rombundu zelike. Murokwa gomunene gomvura kutunda koUtokero gu yuke Upumezuva, ntani korwaMbindakano zi ze Muzogo ogu agu zedagwire egavero lyonontambo, ntani maruha goyimenwa mosirongo. Yimenwa yoyinzi moNamibia kuvhura kuyigwana mosirongo ya tatambera, unene po ruharowiza rambangako noMbindakano zosirongo, kombinga zoyitji ndi wiza koMuzogo gopokatji kosirongo ntani Muzogopumezuva gosirongo. Magunda gomoNamibia ga kara norunone romulyo kosirongo, nampili ngomu asi esesupo po lyayo kapi lina kudivikwa.

Kukwama mbunga za- FAO's kwa fwaturura asi sirongo saNamibia kwa kara ruha rwegunda lyonoperesenta 8.4%. Eyi kwa tunda momakonakono gonomvthurapita, aga gana pumbwa matarururo gomape gopwantani.



Efano 1: Emoneko lyoruha rowiza koMuzogopumezuva gwaNamibia (Mufaneki: M. Kabajani)

Mounene wegunda mosirongo, kwa lingunukira noperesenta 66% mevango, kwa liswika noyitjigona kumwe noyihwa, mavango goyitji kwa didilika mbunga za- FAO.

Egunda *“lina lya mena ndi lya kudumika yitji yonohektera/masunda 0.5 yokupitakana monaure wonometera 5 omu ya swika evango lyokupitakana noperesenta 10 % ndi yitji ya hepa yokupata”* (FAO, 2020).

Maruha gamwe gegunda *“kumena ndi kukudumika yitji ya kwatakana maruha gokusika 5 ndi 10%, nye yitji ya hepa kupitakana nometera 5, ndi yi sike ponometera 5 momusika ngoso”* ndi *“Etatambero lyoyitji likare monda zonoperesenta 5, nye elipakerero lyoyihwa, noyitji likare keguru lyonoperesenta 10, omu muna kwatere yihwa nye mwa ha kara si yitji”* (FAO, 2020).

Efwatururo lyauvali *“lyegunda lyoyitji”* lya liza kumwe noyimenwa yomoNamibia, unene po mokatji kosirongo eyi hambara unene yi vhure kurumbasana kumena kumwe noyihwa ngwendi Kankata ntani Mwege.

Ga kare mafwatururo gopasiruganakonentu, runone rwegundalyomoNamibia kwakaranomulyo monkarapamwe, yikwaeparu ntani mparukiso zoyinamwenyo, kukwafa yitumbukira yokulisiga-siga momavangoparukiro gonsitwe.

MARUDI GOYIMENWA NTANI NEPOMPEKO MONAMIBIA

Masingonono goyimenwa kwa kara nomulyo goyi na kugwanesa po mokunomena asi pakare egendeso lyokuyuka morunone royimenwagana. Momunene pakwatogano masingonono gomarudi goyimenwa mosirongo kwa ga rugene gedina Giess melima 1971, ntani kwa likida masingonono gokuyukilira. Mokukwama karata zosirongo kwa zi gaununa momaruha 14 goyimenwa. Ezi yizo karata ndi efano ava vhuru kuruganesa mokulikida maruha goyimenwa mosirongo, ano proyeka zangesi zina kara mondika noku zi wapeka yipo zi likide masingonono nomauzera gomarudi goyimenwa.

Ruhansitwe ronoMupapama

Yitji yangesi kwa kara mevhu lyoruhasingo Kunene ntani yiyo ya lihanena nomomaruhayirongo ngamoomu: Omusati, Oshana ntani Oshikoto. Kwa kara momarudi ngwendi:

Mupapama (*Colophospermum mopane*)

Ngumbati (*Sesamothamnus guerichii*)

Muwowo (*Commiphora species*)

Ruhansitwe royihwa yomega

Yimenwa ya tamera montjima-ntjima zosirongo saNamibia, kuyigwana unene po moruhasingo saOtjozondjupa yi tware moruhasingo saErongo naKhomas. Yimenwa eyi kwa yi singonona momarupe gokulisiga-siga, ngamoomu:

Munkudi (*Boscia albitrunca*)

Muramata (*Combretum apiculatum*)

Mukekete (*Ziziphus mucronata*), ntani yitji yomega ngwendi

Munyinda, Musu, Mugumbahambo, (*A. Hebeclada*, *A. Erubescens*, *A. Fleckii*, *Erioloba*)

Evango lyenene moruha oru royitji, rwa mena kulivhonga-vhonga noyitjigona ngwendi: Kankata (*Acacia mellifera detinens*) ntani Mwege (*Dichrostachys cinerea*).

Ruhansitwe ronondundu noyimenwa

Yitji yangesi kuyigwana moruhasingo Khomas ntani ya kwatakanesa noruha rwaKhomas Hoch land kumwe nondundu zaAvis. Moyimenwa eyi sinene po to gwana mo yitji ngwendi:

Muramata (*Combretum apiculatum*)

Mutjeketera (*Dombeya ratundifolia*)

Mutati (*Searsia mariathil*)

Simenwa sopomamanya (*Euclea undulata*)

Mundjaru (*Olea europea africana*)

Ruhansitwe ronondundu noyitjigona

Ayo kuyigwana montjima-ntjima zosirongo saNamibia, momaruhayirongo Otjozondjupa, naOshikoto. Amo to gwana mo yimenwa noyihungwa eyi ngamoomu: nondundu, yituntu ntani evhu lyomamanya eli lya kara noyimenwa yomarudi ngwendi:

Karandabuwomu (*Kirkia acuminata*)

Ukekete (*Berchemia discolor*)

Mungombe (*securiadaca longepedunculata*)

Mundjaru (*Olea europea africa*)

Muhongo (*Spirostachys africana*)

Ukuzu (*Ficus cordata, sycomarus and thoningii*)

Ruhansitwe rowiza noruhansitwe royitji

Yitji kwa lihanena kutunda ruha roMuzogopumezuva rosirongo moZambezi yi rete dogoro ruha rokuUpumezuva waWambo rambangako noruha rwa lyalyakana mokumena yitji noyimenwa yimwe. Kugwana ko yitji noyihwa yokulisiga-siga muna kara:

Mauhahe (*Baikaea plurijuga*)

Mauguva (*Pterocarpus angolensis*)

Mutundungu (*Burkea africana*)

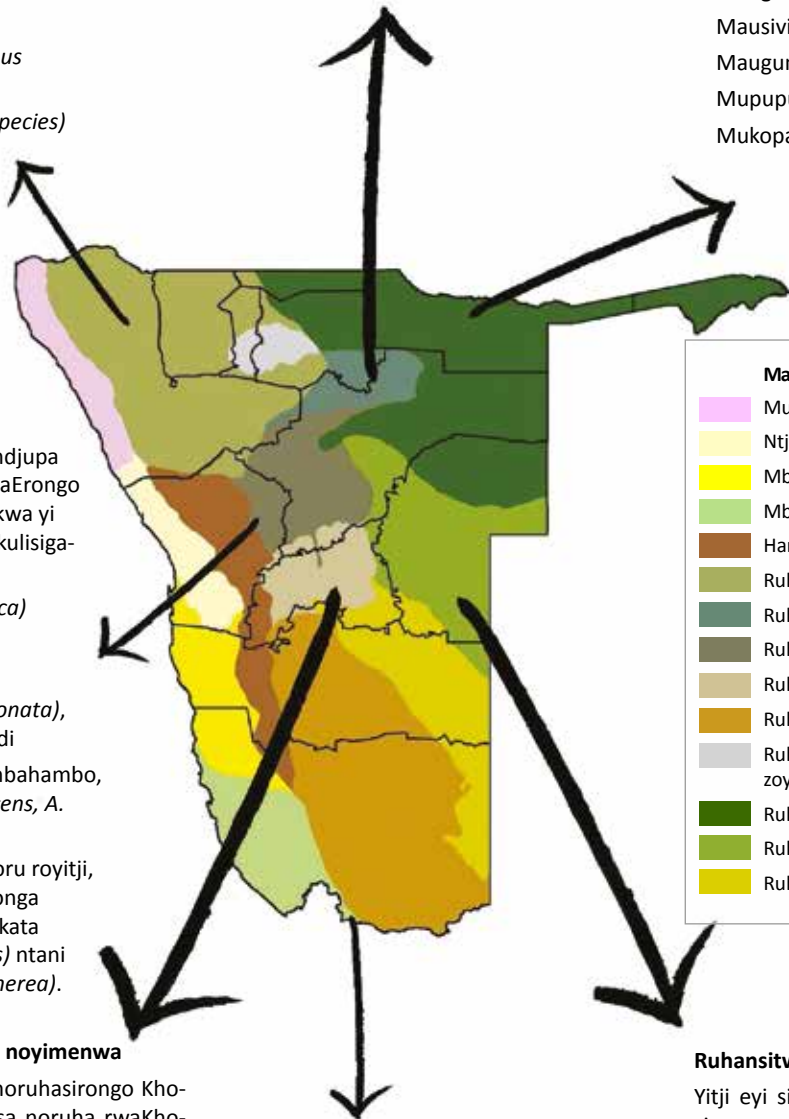
Maugongo (*Schinziophyton rautanenil*)

Mausivi (*Guibourtia coleosperma*)

Mauguni (*Strychnos coculoides and pungens*)

Mupupu (*Combretum species*)

Mukopa (*Grewia species*)



Maruhansitwe gokulisiga-siga kukwana mwa- Giess

- Muzogo gwaNamib
- Ntjima-ntjima zaNamib
- Mbindakano zaNamib
- Mburundu noyimenwa yoyitarara
- Harufamburundu nonsitwelisintango
- Ruhansitwe ronoMupapama
- Ruhansitwe ronondundu noyitjigona
- Ruhansitwe royihwa yomega
- Ruhansitwe ronondundu noyimenwa
- Ruhansitwe royihwa yoyisupi
- Ruhamburundu romungwa rwa kara nonsitwe zoyihwa yoyisupi
- Ruhansitwe rowiza noyitji
- Ruhansitwe ronoMusu
- Ruhansitwe royitji yokulivhonga noyihwa

Ruhansitwe romburundu, yimenwa yorukukutu kumwe noyihwa yoyisupi

Yimenwa yangesi kuyigwana koUtokero wosirongo kumwe noMbindakano zosirongo. Kumena tupu kombinga zeezi zimwe tupu zosirongo. Yitji yoyinene yisesu ya kara ko nokuparuka ko, omu no gwana:

Mwenyaepya (*Tamarix usneoides*)

Mpumutji (*Euclea pseudebenus*)

Edidime (*Catophractes alexandrii*)

Sitji somundwire (*Parkinsonia africana*)

Sinzi soyimenwa yemevhu lyomomburundu kwa kara nondandani zonde azi vhuru kuyiparura, ntani ayo kapi to yi gwana mevhu nkenye ntudi momburundu mwelike.

Ruhansitwe ronomusu

Yitji eyi sinzi sayo kuyigwana moruhasingo saOmaheke rambangako kumwe naOtjozondjupa naKhomas. Yitji yamo kwa kara:

Nomusu (*Acacia erioloba*)

Munyinda (*Acacia hebeclada*)

Nomugoro (*Terminalia sericea*)

Mukekete (*Ziziphus mucronata*).

Epompakano lyowiza kwa lihamesera komarudi goyimenwa ya kara mowiza. Elikwatakano lyomawiza koMuzogopumezuva gwaNamibia kwa lifana omu marudi goyimenwa kusika ko- 90% kukwama siviha sowiza. Mweyi yitatu, kuna kara Uguva, Uhahe ntani Mupapama. Yimenwa eyi kuyizangura unene morwa kwa kara noyipirangi yoyiwa yomulyo.

Mokugweda ko maruhasingononi goyimenwa ga tjanga Giess, magunda gompato ndi magcu gowiza kwa mena kukwamesa mukuro, ngamoomu: mukuro gwaZambezi, Kwando, Orange, ntani Kunene. Wiza/egunda lyokupata kwa lisiga nomawiza makwawo gomoNamibia. Elikambamo lyoyitji kwa fwaturura ukaro womarudi ngwendi Mugumbahambo (*Acacia nigrescens*), Musese (*Albizia versicolor*), Unyandi (*Diospyros mespiliformis*), Muhengeva (*Faidherbia albida*), Ushika (*Garcinia livingstonei*), Euyu (*Kigelia africana*), Uvhungu-vhungu (*Philenoptera violaceae*), Mukwe (*Syzygium cordatum*), ntani Murenga (*Syzygium guineense*).

ETUNGO LYOWIZA

Etungo lyowiza kwa lihamesera konsitwe zowiza, musika gwekudumiko, musika gwelikwatakano lyoyitjigona, mpato zoyitji, ruha rorunene royitji yoyinunu, sivaro sosiviha, nayimwe ngoso. Yangesi kwa kara nosikoda sompopazevhu morwa kukwama ewapekovhu, evhu lyene ntani murokwa, ntani kosikoda ayi vhuru kuhoroka omu ngwendi: Maulisiro, mundiro (mpire), ntani yirugana yovanamukunda ngamoomu kuzeresha epya. Mutungo gowiza koMuzogopumezuva gwaNamibia kwa gu singonona melihano lyoyitji yokudira kulikwatakana ya hana mudumiko gomure momusika, elikambamo lyoyitjigona kwa yuka ntani wayi kwa lyalyakana mokulikambama.

Marudi goyitji yemevhu lyetu kukura nakauke ntani kapi ayi livhukisa nawa-nawa, edi yido nokonda dimwe domonsitwe. Marudi gamwe goyitji ngwendi Mauguva (*Pterocarpus angolensis*) aga a ga vhuru kugwana nkedi zomuteku monontambo dokukura ngamoomu mokuhokera pena pomadi va teta ndi sa gwa sikwawo yipo simpe yi paruke. Kufa koyitji kuhoroka morwa kukwama kokupya kwayo komundiro gwankenye ruveze momavango gowiza. Mbutu zonsesu zomarudi gotji yimwe kwa zi didilika, yitji ngwendi Maugongo (*Schinziophyton rautanenii*) ntani Mauguva (*Pterocarpus angolensis*).

Sitafurafaneko 1: Ekamoyereko lyomutungohetekero goyimenwa komuzogomumezuva gwa Namibia (Mufaneki: De Cauwer et al., 2018)

Mutungo goyimenwa megunda lyoyitji komuzogopumezuva	
Unakatji kontunda DBH (cm)	29.9
Eyerekeru DBH (cm)	52.8
Unakatji woure wositji (m)	12.0
Usesu (m ² /ha)	5.6
Unene womahako/ nomarudi	Makuhako

DBH = Diameter at Breast Height - Diameta pantanteko noUre

MAUDIGU KUHAMA KOMARUDI GOYIMENWA

Yimenwa yomonomukunda kugwanekera nomaudigu nonokonda dokulisiga-siga. Maudigu gangesi ago kuguma napanye, nye gamwe kutamba po marudi gamwe goyimenwa.

Sitafurafaneko 2: Maudigu gomanene gosiponga koyimenwa moNamibia

Maudigu goyimenwa moNamibia	
Yihorokwa yoMundiro/ Mpire poyinema yorukukutu	Udigu wounene woyimenwa koMuzogopumezuva kukara siponga mokupira kulivhukisa, yitji ya kara nomulyo ngwendi yipirangi ngoso kuzonauka/ kusesupa, kupaka sikoda maruha gowiza ga lisinte kumena.
Muzangu gokupitakanena yitji yoyipirangi	Udigu wounene woyimenwa koMuzogopumezuva nako kukwama mpumbwe zoyitji yoyipirangi nomarunone gamwe ngwendi ekakata morwa ayo kuyizangura kupitakanene.
Ruteni nousesu womurokwa	Ruteni rosinema sosire, omu ya horokere siruwo sosire kwa hana mvhura moNamibia momumvho kutunda 2013 dogoro 2020, ya retete siponga sosinene nomaranga koyimeno.
Erandeso yimenwa pwa hana asi paveta	Udigu wangesi kuhoroka koMbindakano zosirongo saNamibia omu yimenwa ayi paruka momburundu mevhangu lyorukukutu kuyizangura kumwe noku yi randesa vantu pwa hana asi paveta.
Marudi gomalivhonga-vhongo yikorama noyimenwa	Udigu konsitwe nomukaro mosirongo, komarudi goyinamwenyo omu muna kwatere makanya, yindongi kumwe noyitwangenzo kuretesa po malivhonga-vhongo mokumena. Mokatji kosirongo noMuzogo kwa pata noyimenwa yomambali-mbali (<i>Opuntia species</i>).
Mauliro goyimuna/ yikorama	Mautjirwe goyimenwa yokoMuzogo gosirongo kuparuka noudigu morwa yimuna noyikorama kurwamena noku yi lya noku yi zonagura.
Ukaro womalisintompepo	Namibia sirongo sorukukutu sa kara noudigu womalisintompepo, wa kara mepopero lyonomurokwa dokuvhurumukira, dimwe dokudameka ntani dimwe nonsesu ngoso. Utjirwe wounene po koyimenwa noyikoma wou asi yimuna yimwe ya hepa kuyisesupika.
Ezonagwiso lyoyinamwenyo monsitwe	Epanuko lyomusitu/egcu lyomukuro kuyiretesa po pokututura mapya gounandima.

KUGAVA MAFWATURURO KUHAMENA MAUDIGU KOYIMENWA

Maudigu/Siponga sokoyimenwa kuvhura kugasesupika kukwama nongendeseso edi:

- Kugwana sivaro sorunone mokurugana evaruro kumwe nokudimburura maudigu gamo, kukwama ekuro lyomarudi mefanekogendeseso ntani marudimenwa noyinamwenyo ya lisiga.
- Pakuliko ntani pasirugana goyimenwa yokulisiga-siga, mulyo gefaneko ekandano muniro/mpire mosinema oso, parugururo, ntani pakupitakanena mokupya.
- Kunomena mokugusa mo yinamwenyo yimwe yipo asi evango lya ha kara si nosivaro sokupitakanena.
- Kutura nomurawo/noveta dina pama kuhamena eruganeso runone ntani kupaka po novetagenseso dezanguro marunone gowiza. Mokugweda ko, twa hepa kunomena asi egendesoveta lyokuhamena maruha gomarunone kuna kugakwama nsene vana ga tura moyirugana.
- Kutota po nonkedigendeseso maulisiro, ngwendi maulisiro gokurunduruka-runduruka yimuna, ntani twa hepa kuyereka sivaro soyikorama noyimuna si gwaneke mevango.
- Kurugana makonakono mokugwana ekuro lyoyimenwa kukwama ukaro womalisintompepo, yangesi kuwapa mokudimburura yimemwa yokumena poruveze rwina, unene po yimenwa yina yomulyo moruhansitwe.

Nampili ngano ngomu asi sirongo sorukukutu, mwa kara marudi goyimenwa momaruha gokulisiga-siga, ndi nampili ngomu asi ko ge li maudigu nonokonda dimwe, po di li nompito dokutwikilisa silyo sowiza si kare simwe somauwa govanamukunda, mokunomena egendeseso lyewa kumwe neruganeso runone rowiza monaruwa.

MAFWATURURONKANGO

Ezonaguronsitwe [Anthropogenic]:

Sirugana, elimbwambwakano, ndi yitundwamo lyoyihorokwadona ali retesa po erugano lyovarwana.

Sivarogwaneko [Carrying capacity]:

Unakati wosivaro somarudi gonsitwe ndi yimenwa mevango omu nayi vhura kuparuka korunone oro runa kara mo.

Evango/ Uvando [In Situ]:

Evango lyowiza omu ayi vhuru kuhorokera nayinye.

Rudipulisiro [Endemic species]:

Nkenye rudi rosimenwa oru rwa mena ndi aru paruka mevango olyo ya kara.

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Mutjangi: Miya Kabajani

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Mupiruli: Stefanus M Kudumo (Rukwangali)



MOKUZUVHA KO YOYINZI GWANEKERA NOPROYEKA ZA-NSFM:

Hanns Seidel Foundation (HSF) Namibia, House of Democracy
70-72 Dr Frans Indongo Street, Windhoek West; P.O. Box 90912, Klein Windhoek, Windhoek, Namibia

Tel: +264 (0) 61 237 373 Email: sustainability@hsf.org.na www.thinknamibia.org.na



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