



THINK NAMIBIA
Sustainable Forest
Management

MBAPIRA YAMAPUKURURO KUHAMENA:

Litateko Lyaliyendito Wiya Munaruwa

Shitambo shashimbapira shino kuna kufaturura litateko lyaliyendito wiya munaruwa.

LITWAROMO

Namibia kwayura marunone ghamuwiya ghayingi kuruha rwamukunda kumukuro ntani na ku upumeyuva wamukuro, unenepo kwakara namayana ghamanene ghavitondo vyavinene navikwa vikuni muwiya [Kenga Mbapira Yamapukururo #2: Ufwandi wawiya muNamibia]. Wiya uno kwakarerapo maparu ghavantu narunone rovatungi mo vikareshi pantambo lyaliparu ndi paghunangeshefa.

Vantu vavangi kwatunga kudimukunda kwahuguvara, marunone ghavitondo, ngoli kapishi runone rwavikuni. Waronka, ruha rwarunone rwalikutapatano dimparukito rwavitondo navimenwa oro rwatapanga wiya kwakara mbinde yayinene kuvatungi mo padimukunda ntani na pa ntambo yoShirongo mulikutapatano lya liparu ntani naviyeramo vya shirongo [Kenga Lifano #1: Likutundakano Wiya na Mparukito Damo].

Mumwaka dadi yingi dina kapito mbindakano- ucuma waAfrika mumunene, rambangako Namibia kwagwanekera naliyeruko lyampumbwe davikwa vitondo. Viwanamo viyeramo vyakutundilira mulihanguro lyavitondo muNamibia kwavisheshupika morwa mulyo waghusheshu wandando ya pantambo ya pantateko mukuyishetakanita nandando ya pantambo yapaVirongo vyapandje, okuno runone rwavitondo vyaviyngi kwavihangura pahana likeverero. Ndjenditito da liyendito wiya munaruwa ndjo ndjira lyalikoshonono nalipopero lyaghunantjiwe naghutjiro wa Vikwaliparu wakutundilira kuliruwano vitondo mwamudona ntani litaturo lyakupira likeverero.

NKE NANI LIYENDITO WIYA MUNARUWA?

Liyendito wiya munaruwa ndjondjendito yakurawira litapo runone rwamuwiya pantantani ndi limona lyakumegho ntani kehe vino viruwana vanashana vanamukunda ntani, paruvade rwakukufana, kukeverera ukanguki wawiya. Yayo kwayivikwa ashi liyendito wiya munaruwa.



Mbunga ya United Nations (Muhoko dakukupakerera) kwafaturura liyendito wiya munaruwa “mutompo djuni ntani muntambo lyalikuhamitiro, eli lyatambo kukeverera nakunkondopeka **vikwaliparu, pantambo yaliparu ntani ntambo yaunantjewe** namulyo wamarudi ghawiya mukuwanena moghuwa muhoko wantantani naghuwakumeho”.



Liruwano wiya munaruwa kwashananga kushetakanita likaropo lyawiya nampumbwe darunone rwapantjewe rwamuwiya.

Likulito munaruwa kwalitambitira “liruwano kumwe mukuruwanita wiya nalivhu lyamuwiya mundjira yakurenkita mukukeverera likutapatano lyapaparu, muyangu, ntambo yalikuro lyalikuwederero, likaropo ntani nampito yakutikitamo, pantani na kumeho, ntambo yapaparu, ntani paviyeramo, pantambo yapalivhu, ntambo yashirongo, ntani pantambo yalikururongo, ntani evivipiro kuyititapo madjona ghuro kulitundakano lya mparukito yawiya navimenwa”.

Mavyukito ghamwe ghakuvhura kutura mumaghamo muku tikitamoliruwano wiya munaruwa. Kuwiya gho unene, mavyukito ghanokugha kona kona muyenditi wiya ndi munamberegho kurona. Munambereghokurona kwakara nashitumbukirwa shakuyendita nakushetakanita ntambo yamaghulitiro, unantjewe, ntani likuwapukururo lya wiya.

MAVYUKITO GHALIYENDITO WIYA MUNARUWA MUNAMIBIA

Liyendito Wiya Munaruwa ngo mavyukito ghamanene morwaghagho kuwapukurura mulyo muNamibia ghaghonka kuwapukurura mulyo wawiya nakuwapukurura litakamitoyo wiya. Mukuwedererako, yayo kukandanapo likuwederero lyaliruwano lya lidona lya wiya waNamibia.

Shitambo shoLiyendito wiya munaruwa muNamibia kkunakara ntjoshino:

- Mukukeverera wiya wamuNamibia nalikutundakano lya wiya lyakaromo, rambangako mparukito damo.
- Mukukorangeda liruwano munaruwa vikwa vitondo ntanina vimwe vyakaro muwiya vyahanashi vitondo.
- Kuyita viyeramo mushirongo pakughulita muyangu wa muwiya pantando yakuvyukilira.
- Kutwikira kutapa liruwano lya para na vikuni kuvatungimo.

NGUNDI NTATU DALIRUWANITO WIYA MUNARUWA

Ndjenditito ya Liruwano Wiya Munaruwa kwakara pa ngundi ntatu (3), mukuditwenya urantambo yo vikwaliparu, likungo ntjewe, ntani pantambo yamaghulitiro. Litikiliro mo lyaLiyendito Wiya Munaruwa lyahepa kupopera mukushetakanita ngundi dino ntatu mukushetakanita maghuwa gha kutundilira mumuyangu wawiya.



LITAKAMITO NAWA LYOMUTWARO:

- Viruwana vyo wiya vyokuvhura kukara nomulyo mukuyita viyeramo ntani kuvhura viwapukurure ntambo younangeshefa.
- Viruwana vyokuvhura kutapa mauwa kuvantu vakuvhura kuwanenamo mauwa mumutwaro.



LITAKAMITO NAWA LYOVIKWA LIPARU:

- Viruwana vyovikwaliparu kwavitamburako nokuvipulitira vawaninimo mauwa mumpongatano ntani vantu ava vyakundama.
- Viruwana evi varuwanitanga pambili novandambo ntani vamaparambo.



LITAKAMITO LYOLIKUNGO NTJITWE:

- Viruwana vyo kukeverera runone romuwiya liyendito lyorunone kuvantu pantantani ntani kumuhoko wokumeho mukuwanenamo mauwa.
- Viruwan vyokukeverera litwikiro likuro lyowiya nokukandana litetauro lyovitondo ntani liyanguro kupitakanena.

NTAMBO NTAMBIRI DOLIRUWANITO WIYA MUNARUWA

NDJENDITITO 1: Kutakamita ntani Kuwapukurura Runone Romuwiya ntani Liwederero lyovo kuudjoni mudima Mulikutapakano Mpepo Yoyidona

VINEYEDITO

- Livango nalintje lyowiya wopantjitwe.
- Vikwa vikuni navintje mundambo davitondo vyopantjitwe ntani vyokutapayika.
- Mukumo nauntje mumavango peke-napeke.



NDJENDITITO 2: Kutakamita Muyangu noUkorameno ghoWiya

VINEYEDITO

- Likuwederero lyorudi rowiya romulyo.
- Wiya wakaro nomafaiyiko muku ruwanita nawa muyangu wovitondo.
- Lighupomo lyakehe mwaka vitondo munaruwa mukudimburura muyangu.
- Mukumo wokehe mwaka lyovikwa vitondo vyomuwiya owo vaghupamo.
- Livango no peresenta yomuyangu wokukulira paundambo ntani rudi rovitondo vyokutapaika.



NDJENDITITO 3: Kutakamita Ukeverero Viruwana vyoWiya Rambangako Litakamito Lyolivhu ntani Runone Romema

VINEYEDITO

- Wiya wokare noliyendito mukutamita livhu ntani runone romema.
- Viruwana vyo liyendito wiya vyokunkondopeka litakamito wiya.
- Mavango vyakaro novineyedito lidjonauro livhu.
- Viruwana vyoliyendito wiya vyatikitomo ndjenditito dokutakamita runone romema.



NDJENDITITO 4: Litakamito ntani Litakamito IyoLikaro nawa Lyowiya ntani Vimwe Vikwa Vikuni Kulivhu

VINEYEDITO

Likaropo Iyo mparukito yontjitwe

- Mavango gholikungo ntjitwe nomarudi ghomparukito ghontjitwe, unamwene, ndi shivaka.
- Mavango gholikungo ntjitwe ghakaro mulitakamito.

Likaropo IyoMarudi

- Lidumba lyomuwiya.
- Shivaro shomarudi ghorutetenyi.
- Shivaro ntani ntambo yomarudi ghorutetenyi ghakaro mushiponga.
- Nkondo dolitakamito dademeneno kulikaropo lyomarudi.

Likaropo Iyalikandano

- Shivaro namaruha lyomarudi ghakaro mushiponga mukukombanita unankondo.
- Ntambo yomuhoko ghomarudi mukufaturura likaropo lyolikandano.
- Nkondo dolitakamito dademeneno kulikaropo lyomarudi.



NDJENDITITO 5: Litakamito Lyoukangiku ghoNtjitwe Mukukara Nomulyo

VINEYEDITO

- Livango lyowiya eli vyakundama udito vyolikururo yira yimbumburu nomarudi ghoulis peke-napeke.
- Loivango lyowiya vyakundama udito yira mundiro noruhandjo.



NDJENDITITO 6: Litakamoto nalipakero Mbili Mukuyita Maghuwa ghokutundilira Muntjitwe noVitondo Yomulivhu

VINEYEDITO

Kuyangura noKuruwanita

- Mulyo ntani mukumo ghovitondo ntani muyangu ghovitondo.
- Mulyo ghomuyangu ghomuwiya vapongaikanga wahanashi vitondo.
- Viyeramo vyokutundilira nateko yoviruwana vyo ntjitwe.
- Liruwanito lyo runone romuwiya rwahanashi vitondo vyakaro vikuni vyokulighudungurura vyomutampo.
- Liruwanito lyokuhulita lyomuyangu ghomuwiya wahanashi vitondo.
- Mulyo nomukumo wovikuni vyoghokulighudungurura vatwaranga pandje ndi munda yashirango.
- Mulyo gho mutwara ghopandje ntani munda yoshirango yahansi vitondo.
- Kutwara pandje vikare vikutapera ghorudi rovitondo ndi muyangu ghokuyangura, ntani viyeramo ntani likutapero vikuni novitondo evi varuwanitanga.



Kupungulita Mumakukwamo ghoWiya

- Mulyo gholipungulito lyomaliva ntani viruwanita muruha roliyendito lyowiya.
- Upungulito wakehe mwaka goviruwano muwiya noakonakono, liwedereroko, nomakushongo.
- Liyititopo viruwana muruha rowiya.
- Ntjontjo yokushetekera, viyeramo, ntani madjonauka ghomanene maruha rowiya.
- Litinto lyo viwanenamo vyo vatungimo muruha rowiya.
- Livango noperesenta edi varuwanitanga mukuparukiramo.
- Liyapero lyoviyeramo vyokutundilira liyendito lyowiya.



Likwapukururo ntani Udinguli

- Mavango ghowiya ghakaropo ntani vayenditanga noshitambo sho liwapukururo noudinguli.
- Sivaro, rudi, ntani litapero lyomauturo ghovadinguli ntani matungo ghoudinguli.
- Mavango vatakamitira morwa vikwampo, liparu ntani mulyo wopampepo.
- Mulyo ghowiya novantu.



NDJENDITITO 7: Veta, Mberewo dokushuva-shuva, Vikwa liparu, noNdjenditito yolipopero Wiya ntani Liyendito Munaruwa

VINEYEDITO

- Ntambo nondjenditito yokundkondopeka litakamito noliyendito munaruwalyowiya.
- Ntambo omu mberewodokushuva-shuva dankondopekanga liyendito munaruwa lyowiya.
- Ntambo omu vikwwa liparu lyankondopekanga liyendito munaruwa wiya.
- Unkondopeko nokushetakanita ntani udito gho ukeverero lyo liyendito munaruwa weiya.
- Lolinkondopeko mukuruwana makona-kono ntani makuliko ghokutambitira mukuwapukurura liyendito wiya nomukutapera muyangu noviruwana vyo muwiya.



KUSHETAKANITA LIYENDITO WIYA MUNARUWA

Viruwano vimwe vyakaropo mukushetakanita Liruwano Wiya Munaruwa. Viruwano vinokuyapona mavukito ntani manangwiro ghakaro na vinakugwanitapo vinakukwamoko:

- Likaropo na vitambo.
- Mulyo waghuyivi wa paghunandunge.
- Lishetakanito lyamarwameno gha liyendo kumegho ghopanaruwa.
- Lididiliko.
- Litikitomo lya manangwiro naghantje gha Liruwano Wiya Munaruwa.
- Litikitomo lyantambo dopa dimukunda ntani napa ntambo yashirongo.
- Likaropo lyamatokoro, likokona kono, ntani litapo vitundwamo.

Mapongo gha vigongi vimwe vyapantambo ya udjuni kwa ghayarera mukuruwanita ntambo (7) mukushetakanita Liruwano Wiya Munaruwa. Namibia kwatilitapo ndjenditito dina kukuyendo nedi dapa ntambo ya likururongo nalintje.

Mavukito nama na ngwiro kuvhura kughatura muviruwana pantambo yamukunda, pantambo yashirongo, ntani pantambo ya wiya. Dadonka waro kuvatera mukunkondopeka likukwatakano vakali nashinka kutapa mawapukururo gha ndjenditito, evi vyakaro mulyo mukutikitamo Liyendito Wiya Munaruwa.

LIPULITIRO NAYO NDJIRA YA LIYENDITO WIYA MUNARUWA

Lipulitiro lyawiya [Kenga Lifano #2: Lipulitiro lya Likungo Wiya muNamibia] lino kunakara shiruwano shamulyo muLiruwano Wiya Munaruwa shasho kuvatera kuyiritapo likushetakano lyopakatjiko paparu, maghulitiro, manangwiro gholiruwano ntjitwe munaruwa.

Lipulitiro kunkondopeka mutwaro wa runone rwa muwiya ntani mukuyerura manongonono ntani maghulitiro gha muyangu wa muwiya.

Vyakara mulyo unene ntjenesi Lipulitiro ali wana makwatitoko kumberegho dakukushuva-shuva. Evi kurenkitira ashi wiya vaghupakere shinka ano vawaninimo maghuwa mparukito davo damurunone gha muwiya ntani nava mwe nka vakaro nashinka vanongonona.

LIVARURO WIYA NAYO NDJIRA YALIYENDITO WIYA MUNARUWA

Ndjira yimwe yakuvhura kuruwana runone rwa muwiya kunakara mukunkondopeka runone oru runakaro po palivango lya wiya. Linkondopeko unenepo kwa liru wananga pa livaruro lya wiya [Kenga Mbapira Yamapukururo #3: Livaruro lyaWiya]. Lyalyo kuvatera mukunongonona lighurumuko lya wiya ntani litetaghuro lyavitondo okuno kuna kuwapukura liwanenomo maghuwa kuntjitwe na vantu. Liyendito wiya kapi livhure kukarapo pahana livaruro lya wiya mbyovyoshi kapi pakara mapukururo gha kuvyukilira mukufanayika nakuruwana. Mulyo wa livaruro kwakara ruha rumwe rwa Liruwano Wiya Munaruwa nakuvhurashi kuncenuna morwa rwaro kutapa mapukururo mbareru kughu na ndima wa vimenwa na vimuna [Kenga Mbapira Yamapukururo #5: Unandima wa ntjitwe Vimenwa Ntani naWiya] ntani liyanguro vitondo [Kenga Lifano #3: Liteto Maughuva muNamibia].

UNANDIMAPAKERERO VIMENWA NAVIMUNA NAYO NDJIRA YALIYENDITO WIYA MUNARUWA

Unandima pa kerero vimenwa na vimuna ndjo mpito yamen yakutikitamo Liyendito Wiya Munaruwa. Yayondjira ya kukeverera litulitopo, likuro, muhanguro, ntani na Ukanguki waWiya. Unandimapakere vimenwa navi muna wawo kutamba narutje mukuyeramuyangu wa vikuni namuyangu wamuwiya, ngoli kuwapukururanga mpumbwe dapaparu ntani viruwana vya unangeshefa muwiya. Evi, kuvhura virenkite lipiro kutikiliramo lyaliyendito wiya Munaruwa lipire kutikamo.

MAGHUDITO GHAMU LITURO MUVIRUWANA LIYENDITO WIYA MUNARUWA

Liyendito Wiya Munaruwa kukugwanekera namaghudito ghakuvhura kusheshupika lituro muviruwana ntani viyeramo vyakuvhura kutundamo. Mukukara namapukururo ghano kurenkita muvhure kukandana ma Udito ghamo.

Shitafura 1: Maghudito gha lituro muviruwana Liyendito wiya munaruwa (African Union Commission, 2020)

Ntambo	Maghudito
Mberewo dakukushuva shuva	<ul style="list-style-type: none">Usheshu wa uyivi wapa ntateko.Kupira linomeno lya viruwana kumberewo dakukushuva-shuva.Likuhamitiromo lyalisheshu kumbunga dapa umwene muviviaghuka vyakuhama muwiya.
Likuhamitiromo lya vantu	<ul style="list-style-type: none">Vinka vyalishetakano parudi vharwa.Udito wamagwanekero.Lipiro kuyuvhako lya Liyendito Wiya Munaruwa.Usheshu wamapukururo wa liwanenomo maghuwa.Likuro lyakukwangura lyamuhoko.
Vikwa unantjitwe	<ul style="list-style-type: none">Likuro lya kukuranga lyamarudi ghakuku shuva shuva.Likuwederero lya litetaghuro lya vitondono lidjonauro.Maghudito gha ukanguki wa wiya, rambangako mundero na ruhandjo.Madjonawito gha kutunda kulikutjindjo lya ukaro wampepo na likaropo lya ukaro mpepo.
Uyivi	<ul style="list-style-type: none">Lisheshupo ndi udidi walikeverero lya runone rwa muwiya.Lisheshupiko lya uyivi wapantateko mukuruwana livaruro na likeverero.Lipiro upungwiro wa mapukururo.
Ndjenditito no lipangero	<ul style="list-style-type: none">Litulitopo lya veta ndjenditito da Liyendito Wiya Munaruwa kwakara ndjenditito yayire unene.Maufuki ndjenditito dakupira kuwpera dapaveta.Usheshu wampito dakushana shana makwatitoko ghamaliva ghapa undambo mukukwatitako ruha shiruwana shino.Lipiro kuyiva unamwene gho marunone.

LISHAYERO

Ruha rwa wiya waNamibia shimpe kuna kutwikira kuliwapukurura kuhamena Liyendito wiya munaruwa. Shirongo shakaro na veta ntani ndjenditito [Kenga Mbapira Yamapukururo #8: Ndjenditito yapaveta yaliyendito Wiya muNamibia], ntani likwatitoko lya mberewo dakukushuva-shuva na ntambo dakukushuva shuva dakutura muviruwana Liyendito wiya munaruwa. Veta na ndjenditito

dinodinahepa kudi nkondopeka mukuhamitiramo likuto varuwani va litakamito wiya pamukunda ntani kuvankondopeka narunone rwakukushuva-shuva mukutikitamo vitumbukirwa vyavo. Panahepa kukara linkondopeko lya munda kuvaruwani vamberewo yalitakamito wiya, mberewo dakukushuva-shuva, ntani vawanenimo mauwa pa mukunda vahepa kuvinkondopeka, namashetakanito gha kughurumwita mpangero naviruwa nakuvantu.

Mukuwedako, namakukwamo yira likungo wiya [Kenga Lifano #4: Liyendito Likungo Ntjitiwe] ntani liyendito lyarunone rwa ntjitiwe pamukunda, vyavyo kwavivhongakana muliyendito lya wiya. Vino kwakara mulyo unene mbyovyoshi yayo kuvatera vatungimo mukutikitamo mpumbwe dapa ntateko mulikutundakano lya wiya namparukito damo, mukukulika litinto kulikutjindjo lya ukarompepo, ntani kutwikira kuwederera likuliko pavikwa liparu.

Mukuwedererako, mukufunda litetauro vitondo, Namibia vanahepa kuruwani litapayiko naliwederero lya vitondo [Kenga Mbapira Yamapukururo #4: Litapeko Na Liwederero Vitondo] makukwamo; pakaro marwameno ghakukufana muku tapayika vitondo vya viyingi palivango mukulishetakanita likare wiya Ntaninkawaro, unandima pakerero vimuna na vimenwa [Kenga Mbapira Yamapukururo #7: Unandima Walikwatakano] yayo ndjira yimwe yakunomena unene kupitakana likungo wiya ndi unandima wakulima rudi rwa mbuto yimwe tupu palivango limwe, kupitira mulipakerero vitondo, vimenwa ntani vimuna.

Mulikuhamitiro mo lya va takamiti wiya navantje nashinka sha wiya [Kenga Mbapira Yamapukururo #6: Vitumbukira vyaKukushuva-shuva vyavantu ovo vyaKundama muNamibia] muliyendito wiya munaruwa, kwakaramompito dadi nene dakuwapukurura liyendito runone rwamuwiya, rambangako kutapa manangwiroliyanguro nalighulito vitondo.

LITOROKO LYANKANGO

Ntambo yakuyendita runone rwa muwiya kudimukunda [Community Based Natural Resources Management]:

Mpito yakupulitira vatungimo vakuhamitiremo pakuvyukilira mulitakamito naliyendito lyarunone rwa ntjitiwe, mukukwatitako liyendo kuuto, kusheshupitapo ndjara, ntani kuyitapo viyeramo.

Ndjenditito [Criteria]:

Evi vina kugwanitapo vyakuruwanita mumakukwamo (paruno ruvede litakamito munaruwa) lya hepa kulikona-kona.

Litakamito na likaropo lya vinamwenyo [Ecosystem diversity]:

Eli likaropo lya vatungimo, mpongatano yavinamwenyo, ntani likutapatano lya liparu lyapa untjitiwe.

Vidimburulito [Indicators]:

Manongonono ndi likaropo eli vavhura kushetakanita ntani kuhamitira kundjenditito yangandi.

Likuno mbuto yimwe [Monoculture]:

Kulima ndi kukuna rudi rwa mbuto yimwe ndi rudi rwa shitondo palivango lyongandi.

Likaropo lya vitondo vyakukughudungurura [Roundwood equivalent]:

Lishetakanita lya mukumo gho madi (vitondo vya kukughudungurura) vyakuruwanita mukuruwana muyangu wavi kwa vipirangi (rambangako mapapi gho vitondo, mapepa, vikwa matjofa navishonga ura vyavitondo).

Likaropo lya marudi peke napeke [Species diversity]:

Likaropo lya marudi ghokukushuva shuva pamavango gha ngandi.

Likaropo lyadimuhanguro [Genetic diversity]:

Likaropo lyadimuhanguro da kuku shuva shuva mwayendo marudi peke napeke.

MAPUKURURO GHAKUWEDAKO

African Union Commission, 2020. *The sustainable forest management framework for Africa (2020-2030)*. Addis Ababa.

Canadian Council of Forest Ministers, 2008. *Measuring our progress: Putting sustainable forest management into practice across Canada and beyond*. Catalogue number: Fo4-26/2008E-PDF ISBN: 978-1-100-11167-4.

Dau, J. H., A. Mati, & S. A. Dawaki, 2015. Role of forest inventory in sustainable forest management: A review. *International Journal of Forestry and Horticulture* 1 (2), pp. 33-40.

DeBell, D. S., 1990. Sustainable forestry: Social, economic, and ecological considerations. *Are forests the answer?* Proceedings of the Society of American Foresters' National Convention. Society of American Foresters, Bethesda, pp. 307-12.

Directorate of Forestry, 2004. *Criteria and indicators for sustainable forest management in Namibia: Proposal for testing process*. Namibia Finland Forestry Programme, Windhoek.

FAO, 1995. *Unasylva No 181: Silviculture*. <<http://www.fao.org/3/v5200e/v5200e00.htm#Contents>>

'Promoting Sustainable Forest Management in the Kavango-Zambezi-Region in Namibia'



Hanns Seidel Foundation

This project is funded by the European Union



Enhancing decision making for sustainable development

Mutjangi: Miya Kabajani

Shitarara 2021

Mutoroki: Thomas Muronga (Rumanyo)



MBUDI DA KU WEDA KUDI WANA KU PROYEKA YANSFM:

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



facebook.com/thinknam



twitter.com/thinknamibia



instagram.com/thinknamibia/