



THINK NAMIBIA
Sustainable Forest
Management

MBAPIRA YAMAPUKURURO KUHAMENA:

Unandima Ghontjitwe Vimenwa Nowiya

Shitambo sho shimbapira shino kutapa mavuyukito kuhamena ukaro wo unandimagho ntjitwe vimennwa no wiya muNamibia ntani mpito damo mukuvaterra muyangu wo runonero muwiya.

NKE VINA KUTANTA UNANDIMAGHO NTJITWE VIMENWA NOWIYA?

Unandima ghontjitwe vimenwa nowiya ndjenditito yo kukeverera litulitopo, likuro, muhanguro ntani ukangure wo wiya. Vyavyo kwakarerapo unene po mukuwederera likuvhukito vitondo ndi runone ro muwiya, ngoli kuwapukurura ukalinawa wopantambo yopalivhu ntani pantambo yovikwarurone ropawiru viruwana uyowina mukukuna vitondo ndi mbuto yovitondo. Unandima gho ntjitwe vimenwa no wiya kwaviruwana veyenditi vo wiya ntani veyenditi litapayiko mukuviruwano vikareshi ku unangeshafa ndi viyeramo vyambuga. Vyavyo kuviruwana pantambo yokushetekera kaphishi pantambo yokuyeruka unene yira yolikungo wiya. Vyavyo kuviruwana kuvitondo vyokumena pavyene ndi vyokutapeka. Liruwano lyo unandimagho ntjitwe vimenwa no wiya muteku wawo kuhamitiramo likuwederero, kuvyikita maadi, kupangura ntani lishetakawito lyo lyolivhu pauteku.

Shitafura 1: Yiveramo vyo kuvhura uwaneunandima gho ntjitwe vimenwa no wiya

Ntambo ya ponta	Malihulitiro	Ntambo yo unantjitwe
Kuwapukurura maparu ghovatu mu uyanguro vitondo vyopampo.	Kuyitapo viyeromo nompito kutwara mu liulito lyo vikuni ntani norunone rumwe romuwiya. Viyeramo vyomaulitiro kuvha vipire kumoneka mpopo, ngoli mwayendo ruvede.	Vyakara nampito mu kuwapukurura viruwana vyarunone, ntani liyititapo vitondo mumavango gho vadjonaura.
Kuvititapo mpito do kunkundopeka vantu ntani kuvayita ko kuhomena unamweno wo runone romuwiya.		

MATIMWITITI GHO UNANDIMA GHO NTJITWE VIMENO NOWIYA MUNAMIBIA

Unandima gho ntjitwe vimeno no wiya kwatamikire muNamibia, womwaka wa1894 ruvede rolipangero lyo vandoveshe mwakaliro stasi murongo do wiya edi vatulitiro mwayendo sirongo kumwaka wa1910. Makuhamitiramo ghano unenepo kwahamenenine mukukuna vitondo varuwanevipirangi.

Kuviha vyamwaka wa1990 dogoro kumatamekero gho 2000 aliyako likukwamo vana kutwenya Namibia Finland namakukwatitoko gholipangero lyova Finish, kwatutitire pomakukwamo wokukorangeda litapayiko vitondo ntani liruwano runone romuwiya muunaruwa. Ndjenditito yino kwayititirepo mavango ghokutapekera vitondo pamberewa dolikungo wiya ntani proyeka do nkarapamwe. Ngoli

maudito kwakalireshi kwademinine panyango davamakuwa tupu yira vikwava, mango ntani malemone.

UYIVI WOKANDJITURE KUHAMENA UNANDIMA GHO NTJITWE VIMENWA NO WIYA

Unandima gho ntjitwe vimenwa no wiya, yino kaphisi ndjenditito yayiva nawa vantu ngoli mbyevishi kwakurwanita wiya mamakana mwaka ghanakapita vivende orughupira kutamburako nawa. Uyivi wopampo kuhamena unandima ghontjitwe vimenwa no wiya gho kwakara yira kaphi wamonekanga nawa. Ngoli, maghano gho kulipa noviviyauka vyapo kukorangeda uyivi gho unandima ghontjitwe vimenwa nowiya kupitira maungawo wo mapukururo:

- **Litapero lyomarudi nompito:** Vatungimo mumpongatano kutapa mapukururo kuhamena marudi ghovaruwanitanga novitambo, rambangako dimutondo, ndya, ntani kudikitako. Mapukururo ghano ghakara nomulyo mukufanayika unandima ghontjitwe vimenwa nowiya mukudimbura rudi rovitondo evi vavhura kudemenena.
- **Makutapero ghomaruha gho marudi:** Vakurona vopamukunda kutapa mapukururo kuhamena likutapero, mwaka dokuvyukilira, norupe rolukuro lyokuhomena vitondo vyopamukunda nopalivango. Mapukururo ghano mulyo unene mukunongonona rudi rovitondo munke mudemenena mukuruwana unandima gho ntjitwe vimenwa no wiya mundjenditito dopa undambo novinakugwanitapo. Shihonena, ntimba edi dakaro evi vyakaro kudimuhoko dimwe ndya dadiwa ano kuvamwe kuyita viyeramo, vimwe nka yira lighungu lyo miya, kaphi lyalyanga nawa mahako gho untu, ngoli kulyanka vitondo vimwe, vyayiviko kuvatungimo.

OPO GHUNAYIMANENE UNANDIMA GHO NTJITWE VIMENWA NOWIYA MUNAMIBIA

Namibia weno kaphi vanakara nontambo opo anayimanene kuhamena litulitopo lyo likuro no ukarogho ukanhuki gho wiya ntani visheshu yayivako kuhamena litulitopo lyo ukaro nolukuro lyo muhanguro no ukanguki ghoyiya unenepo mukuyendita vitondo vyopaundambo, mpili momu vyakarashi kwato vitondo vatapekanga mposhi vaviruwane kuvipirangi. Momu tupu vinakarashi liyanguro vitondo kuna kusheshupika muyangu gho vitondo, unenepo kwara mukuro upumeyuvha woshirongo.

Maghano ghakaropo weno

Vipataghona vimwe mumpongatano kuna kutameka kuno mashetayiko vitondo vya paundambo, nakuhamitiramo vitondo vyokuruwana vipirangi, ngoli vino kwameyeda maghudito momu tupu vyakarashi vyavyo maranga ghokukura, vyatininikango shingi shovantu vakuhamitire mukukuna vitondo vyo nyango, ntani vyo mundwire ntani vyokukura wangu. Evi kuvhura kuviwapukurura makuhamitiramo makona-kono kuhamena kukengurura vitondo vyokuvhura kuparuka ntani vyapulitiro mukurundurura kwavinema vyorukukutu.



Lifano 1: Shipata ghona shivitapayika muKatima Mulilo

Mpito dokuruwana makonakono kuhame-na unanimagho ntjitwevimenwa no wiya muNamibia

Kutwara mundjenditito yomakonakonogho wiya, shitambo shashinene younandima gho ntjitwe vimenwa no wiya muNamibia ntjo shino “mukuruwana makonakono kuyititapo vikunita vyo kuwapera ndi vyokuyika ghukaro mpepo ghorukukutu waNamibia”. Kuruwanita ndjenditito dokugiramo dokuvyukilira.



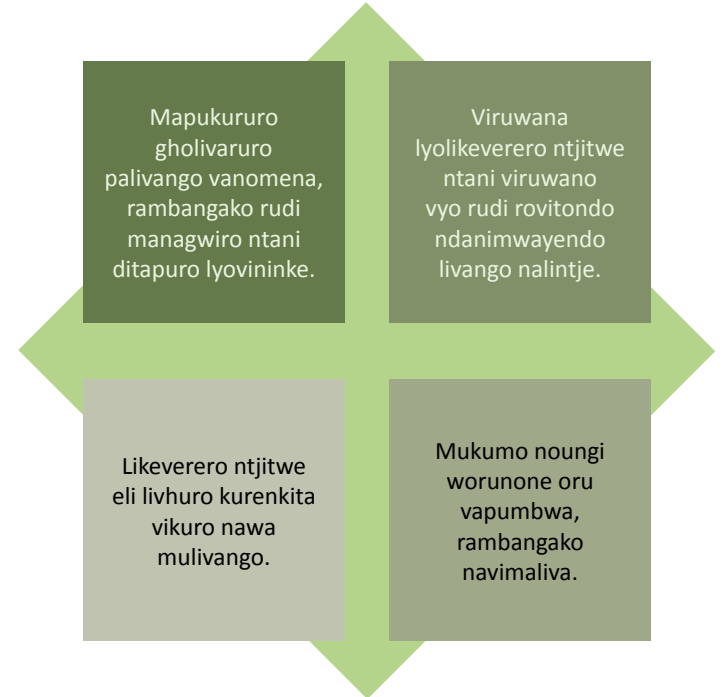
Shifanekwatjangwa 1: Ntambo dokutira muviruwana yomakoknakono ghokuyukilira gho wiya (MAWF, 2011)

Shinema sho vafanikilire ndjenditito dino shapita pashihana kutura muviruwana viviyaukavino. Ano mapukururo ghano anakara umbangi waushiri mukuyitita po projekta do unandima gho ntjitwe vimenwa no wiya pakudememena rudi rovitondo vyo paundambono mayenditito ghopa undambo.

MPITO DO KUHAKURA UNANDIMAGHO NTJITWE VINENWA NO WIYA MUNAMIBIA

Panakara muteku dongandi ku unandima ghontjitwe vimenwa no wiya, shingi shado kuvhura dikare udito mundjenditito daNamibia ntani no mpumbwe dinakaropo. Mpovinarerere mulyo unene mukunongonona muhaku dokuvhura kutura mu viruwana vivhure

kuliyenda no shiviha pa undambo ntani nauna ntjitwe ghoku shetekera. Vinakara mulyo unene likukwamo lino mukulipitira va vantu pamundinda ndi mponga tano mudima, rambangako makungo wiya mukukeverera liruwano marunone gho wiya munaruwa. Mukufanayika unandina gho ntjitwe vimenwa no wiya, ndjira yimwe yokudememena kukarashi mukukengurura kudemenena paunandima ghontjitwe vimenwa no wiya ndi walye kuwapukurura likuvhukito kutwara mulikuvhara tano lyo vitondo. Vinakara hepero unene mukvitura mumafayiko ntjene kuna kughayara unandima ghontjitwe vimenwa no wiya, panakara mapukururo gho kuvyukilira, mukutapa liyuvhoko nawa lyo maghano ghano.



Shifanekwatjangwa 2: Likengruro lyomapukururo vapumbwa mukufanayika unandima ghontjitwe vimenwa no wiya namaghanoyenditito

Ndambo doliwapukururo livhu mukuruwanita mundiro

Vino kuna kuhamitiremo liwapukururo mukushora livhu no mundiro ndopishi ndyambo dokushwakerera. Kushora matita vapulitira mukuviruwana pa ghuhura washinema sho murokwa (Nkurukudumo-Nkurupemba) mukutjilitira mundiro ghokuvhura kukuhanena ghushore nakudjona ura maufwandi. Rudi rwavitondo yira ma ughuva (*Pterocarpus angolensis*) paghuna ntjitwe kwahepa mundiro mukurengashi ghumene. Ngoli vyanongonoka ashi kapishi limonayikotupu ngoli limonayiko lyakehe ruvede kwakorangedanga likuvhukito rorudi rovitondo vino. Limonayiko lyokehe ruvede ro mudiro kudipagha mbuto vyavyonka kudjonaura unene nkondo do livhu.



Lifano 2: Wiya kunyima yo mundiro (Kwavipulitira: V. De Cauwer)

Nomadeuro ghokupama, vatungimo panamukunda kuvhura vature muviruwana ndjenditito dino momu tupu vukarasi vyakufna nandjenditito yo pampo yokuputura ghushore ndo rulimito varughanitango ghunenepo mumukunda dakavango na Zambezi. Panahepa tupu kukara likeverero mukurebkerwa mwasha shora mavango ghokukukarera.

Linkondopeko lyo likuno

Vino ndjenditito yokukuna vitondo muvipataghona vyokurera vitondo ntanikuvitapurura nakavitapeka pamavango gho vadimbura. Vino kuviruwana pamavango opo vyapira nga kumena vitondo pavyene ndi mukuwapukurura rudi romulyo evi vyakaro maranga mukukura. Yino kuvhura yikare mpito yo vitondo yira maughuva (*Pterocarpus angolensis*), mauhahe (*Baikiaea plurijuga*), ushivi (*Guibourtia coleosperma*), mautundungu (*Burkea africana*), navimwenka ngoli evi vyakaro mulyo ghopantu ndi pantambo yo maghulitiro.

Rudi rovitondo vyo kuvhura kunkondopeka mukutapayika kuneyeda mapungwito. Ndjenditito dokuvhura kukwama:

- Vitondo vyo viwa ndi vyakaro no nyango dodiswa domulyo ghu unene
- Kukura unene
- Kuyima mbya kehe ruvede nakuyima nyango
- Vyakara mwamunene pantambo ya viyeramo
- Vyatinka kughukaro gho vinka
- Vyatinta kughuli
- Unenepo vitondo vyo unamvharerwa, ndiposhi kuvhura kudemenena kuvitondo vyo vyakutundurukido livango oloyo, yira kunkenkera donukuro.

Kukuna kuvyukilira

Yino ndjenditito yokukuna mbuto ndikuyuvhita mbuto vavorowora kuvyukilira palivango oloyo vanakutapayika. Ndjenditito yino kuyiruwana tupu kumava ngo ghokumambo okukwakaroshi kapi kwamenenanga nawa vitondo. Yio ndje nditito yapumbwo kuruwanita kushora matita kughuhura washinema sho murokwa, mukukeverera likuro lyo kushetekera lyo vitondo.

Panahepanka kukara likeverero lyokugira liyuvhito lto mbutontani mbuto mukusheshupika mbuto naku tapa likeverero kulivango. Dimutayi domiya dayikwa ntani mukosho ghokushetekera kuvantu vatungo kumambo.

Kupangaura madi ndi kutongona

Livyukito lyovitondo kuvhuranka liruwana mukupangaura dimutavi. Ellighupoko dimutavi damupatji doshitondo mukupulitira likuro nawa lya madi gho vitondo.

Shitondo shokupangaura shinahepa kukara mudiro shitondo shokuvhura kutugana vipirangi, sikare shoshididi (Ure munaupatji nomunaure mumpatji udidi kutika kushetekera paudidi wokutika kuntji yo 20sm), vikarr nomadic ghokuvyukilira vikanguki mulikuro lyavyo. Mapukururo gho kuwedako kupangaura vitondo vyavyo viteke paruvete rorukukutu ntani nokuruwanita shi maliva morwa kuvhura vidjonaure vitondo. Lipangauro lyovitondo kuvhura kulitulitapo likare ndjenditito vyukito yokuruwanita kuvitondo vyakaro kare ntani nowiya ghokutapayika.

MASHETEKO GHOKUVHURA KUGWANEKERA NAGHO PAKURUWANA UNANDIMA GHONTJITWE VIMENWA NOWIYA MUNAMIBIA

	Ukali nawa ntani ntambo yomakushongo	Likevero lyotjitiwe
RUDI ROMASHETEKO	<ul style="list-style-type: none"> • Ruha rusheshu mushirongo pamavangoghokuvhura kuruwanita litulitopo lyolikuro noukaro ghokanguki ghowiya. • Mujuweda ko maruha masheshu ghokuvhura kuruwana makonakono gholitulitopo po lyolikuro noukaro ghomuhanguro noukanguki wowiya. 	<ul style="list-style-type: none"> • Limonayiko lyomundiro wakehe ruvede kuyita utjirwe kulitulitopo lyokuro noukaro ghomuhangu noukanguki ghowiyamorwa likuro lyombuto kuvhura litunge muwiya ghopantjitiwe. • Limonayiko ntambo donkondo lyolivhu ntani udidi ghomapungwiro ghomema mulivhu, shinenepo muwiya ghomukunda dokwara mukuro upumeyuva nawo masheteko nka ghamwe.
NTAMBO LYOLIWAPUKURURO	<ul style="list-style-type: none"> • Evi kuvhura kuyiwapukurura mukutapa mpito dadeura mulitulitopo lyolikuro lyokuro nomuhanguro gjoukanguki ghowiya kuvaruwani novatungi mo ghokumambo. • Mbrewa lyomakonokono kuruha ralikungu lyowiya vanhepa kuvapulitira varuwane nokutara muviruwana litulitopo lyolikuro noukaro ghomuhanguro ghokanguki ghowiya. 	<ul style="list-style-type: none"> • Kuyititapo maghano ghokudjiramo mukukeverera mundiro mukushupita madjonauro ghowiya nombuto. • Kukorageda litulitopo lyovitapayika lyovitondo lyovikuni vyonene nevi vyovidid mukupulitira litakamito noliyendito ntani likuhamitiro mo.

LISHAYERO

Litulitopo lyolikuro noukaro lyokuro nomuhangu noukanguki ghowiya lyakara nopito dokuwapukururo likuvhukito lyo vitondo ntani liruwana wiya munaruwa, unene pokuvantu vatungo kumambo. Mpili momu yakakara shi yino mpito yoyimpe kuvanamibia vovangi, vantu vanahepa kuvaronga kuhamena mpito doviyeramo kuvatungi mo vokumambo namuhoko nauntje. Lyakara amulyo kuruha romberewa yalkaliropo likungo wiya, nalikukwatakano nomaruha ghomakushongo gharuwanango makonakono ntani maruha ghamwe ghovaholi, vatameke kupititira nakuruwana makorangedo kuhamen litulitopo lyolikuro noukaro nomuhanguro ghokanguki ghowiya. Likukwato ukwawo uno lyahepa kutulitapo ruvede ntani runone makonakono gholitulitopo lyokuro noukaro ghokanguki ghowiyaliyuvho lyolinene kuhamena mpito ntani viruwana yokushongawira kuvhura virenkite muruwana matokoro ghohunga mulituro muviruwana lyolitulitopo lyolikuro noukaro nomuhanguro ghokanguki ghowiya.

LITOROKO LYONKANGO

Likuno lyokuyukilira [Direct seeding]:

Likuno lyombuto kuyukilira mulifuva.

Kukuna nouyivi [Enrichment planting]:

Kukuna mbuto dokutoworora dakaro nonkondo dokukura nawa mumavango ghomutompo.

Liwapakuro ukaro ghowiya [Stand tending]:

Ghano maviyauko ghano kutanto mukuwapukurura lifano noukaroghowiya.

Likuvhukito lyovitondo [Tree breeding]:

Liwapakuro lyovitondo yomulyo noukaro gholikuvhukito lyovitondo yomulyo evi vapumbwavantu.

Lipunguro lyomukumo ghomema [Water retention capacity]:

Mukumo gholivhu mukukuta nokupungura mema.

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