



Council for Geoscience



XIVIKO XA LEMBE

2022 / 23

Ku tlangela
malembe ya 110

ka vukona na vukahle bya dyondzo ya sayense
ya misava (geoscience)



mineral resources
& energy

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

Xikongomelo xa Xiviko xa Lembe xa Huvo ya Dyondzo ya sayense ya misava xa 2022/23

“Dyondzo ya sayense ya misava i nseketelo wa nhluvukiso wa vanhu”

i xilogene lexi vuriweke hi CEO, Tanana (Mr) Mosa Mabuza na ku amukeriwa hi nhlengeletano ya 2019.



Xifaniso xa xa Khavhara:

Xiphemu-xa-Misava xi humesa swifaniso swo hambana swa dyondzo ya sayense ya misava tanahi xiphemu xa ku tlangela ka ‘110 wa malembe’ ya Huvo ya Dyondzo ya Sayense eka Nhlengeletano ya matiko ya CGS ya Dyondzo ya sayense ya misava ya 2022 (Geo-Sphere Designer): Manana [Ms] Jane Abraham).

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NXAXAMELO WA MINKOMISO YA MARITO NA YA MALETERE YO SUNGULA

2D	Two-dimensional
3D	Three-dimensional
AI	Artificial intelligence
APP	Annual performance plan
B-BBEE	Broad-based Black Economic Empowerment
BRICS	Brazil, Russia, India, China, and South Africa
CCUS	Carbon capture, utilisation and storage
CEO	Chief Executive Officer
CGS	Council for Geoscience
COVID-19	Coronavirus disease 2019
DBSA	Development Bank of Southern Africa
DDM	District Development Model
DGPS	Differential global positioning system
DMRE	Department of Mineral Resources and Energy
DSI	Department of Science and Innovation
DTIC	Department of Trade, Industry and Competition
EE	Employment equity
EMEs	Exempted micro-enterprises
ERP	Enterprise resource planning
ERRP	Economic reconstruction and recovery plan
EXCO	Executive Committee
F-REE	Fluorine rare-earth element
GIS	Geographic information system
GRAP	Generally Recognised Accounting Practice
GTP	Geoscience Technical Programme
HVAC	Heating, ventilation and air-conditioning
ICT	Information and communications technology
IEC	International Electrotechnical Commission
IMMP	Integrated and Multidisciplinary Geoscience Mapping Programme
IRMC	Integrated Research into Mine Closure
ISET	Innovation, Science, Engineering and Technology
ISO	International Organization for Standardization
ISPPIA	International Standards for the Professional Practice of Internal Auditing
JOGMEC	Japan Oil Gas and Metals National Corporation
KDD	Karoo Deep Drilling
KOSH	Klerksdorp–Orkney–Stilfontein–Hartebeesfontein
MEDP	Management and executive development programme
MEWMP	Mine and Environmental Water Management Programme

MPRDA	Mineral and Petroleum Resources Development Act
MQA	Mining Qualifications Authority
MTSF	Medium-Term Strategic Framework
NDP	National Development Plan
NMCS	National Mine Closure Strategy
NRF	National Research Foundation
NSTF	National Science and Technology Forum
OAGS	Organisation of African Geological Surveys
OEM	Original equipment manufacturer
PanAfGeo	Pan-African Support to the EuroGeoSurveys–Organisation of African Geological Surveys Partnership
PFMA	Public Finance Management Act
PPPFA	Preferential Procurement Policy Framework Act
PSHA	Probabilistic Seismic Hazard Assessment
QSE	Qualifying small enterprise
REE	Rare-earth element
SABC	South African Broadcasting Corporation
SAGA	South African Geophysical Association
SGS	Saudi Arabia Geological Survey
SP	Strategic plan
SSHAC	Senior Seismic Hazard Analysis Committee
UNISA	University of South Africa
USA	United States of America

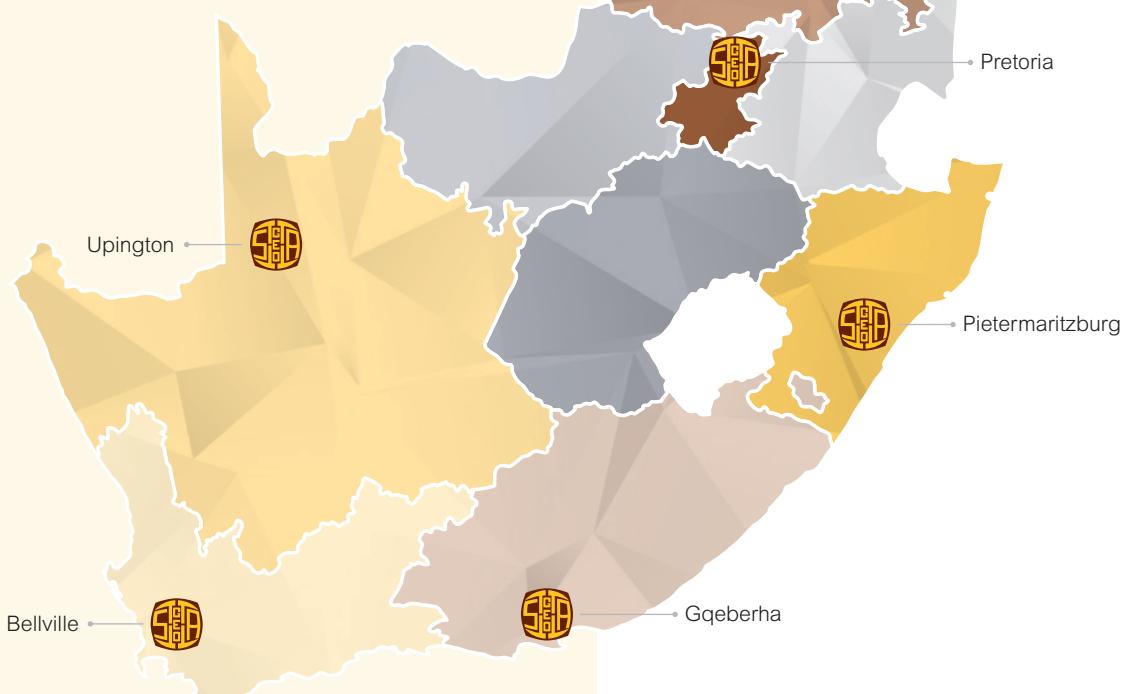


Nsonga wa Phiphidi wu khululeka
ehenhla ka maribye ya Sibasa

XIPHEMU XA A MARUNGULA YA MANI NA MANI

Marungula ya mani na mani ya Huvo ya Sayense ya Dyondzo ya Misava

Vito leri rhijisitariweke:	Huvo ya Dyondzo ya sayense ya misava
Xiyenge xa vaaki xa rixaka xa PFMA:	Xedulu xa 3A
Adirese ya ndhawu:	280 Pretoria Street Silverton, Pretoria South Africa
Adirese ya poso:	Private Bag X112 Pretoria, South Africa 0001
Nomboro ya riqingho:	+27 (0)12 841 1911
Adirese ya imeyili:	info@geoscience.org.za
Kherefu ya webusayiti:	www.geoscience.org.za
Van'watinkotai va le ndzeni:	N'watinkota-Jenerali wa Afrika Dzonga
Vabangi:	Nedbank na Absa le Silverton, Pretoria
Bodo ya matsalani:	Manana Nomkhosi Cele



Xifaniso 1: Tihofisi ta tsevu ta xifundza ta CGS eAfrika Dzonga

Huvo ya Dyondzo ya sayense ya misava

Nawu wa Dyondzo ya sayense ya misava (Nawu wa 100 wa 1993 tanahi leswi wu xinciweke), wu tumbuluxile Sayense ya Dyondzo ya Misava (CGS) tanahi, exikarhi ka swin'wana n'winyi wa rixaka wa datara ya xisayense xa dyondzo ya misava, marungula na vutivi eAfrika Dzonga.

CGS yi cincile kuva xiyenge xa mangualawa xa switirhisiwa swo hlawuleka, nhundzu na ntokoto. Tindhawu to langutisa eka xisayense ta nhlanguano ti nyika nhlamuselo ea ntlawa wa tindhawu ta nkoka leti katsaka Swicelwa na Eneji; Rihanyo, Mati yale hansi ka misava na Mbango; miako na Matirhiselo ya Misava; Vutshuri bya Dyondzo ya Sayense Misava na Vuxaka bya Dyondzo ya sayense ya misava. CGS yina tsevu wa tihofisi ta xifundzantsongo eAfrika Dzonga, kasi hofisi nkulu yi le Silverton, Pitori (Xifaniso xa 1).

1

RITO RO RHANGA RI MUTSHAMAXITULU WA BODO



Tatana Kelepile Dintwe
Mutshamaxitulu
Bodo ya Huvo ya
Dyondzo bya swa Misava

I nkateko eka mina na ku xiximiwa ku andlala xiviko xa lembe xa Huvo ya Dyondzo ya Misava (Council for Geoscience [CGS]) xa lembe ximali ra 2022/23. Nkarhi lowu wu kotlana na lembe ro sungula ra vutihlamuleri bya Vulawuri byo Tihlamulela na lembe ro hetelela ra nkarhi wa Huvo leyi hundzeke. Xiviko xi yisiwa tanihi xiphemu xa vutihlamuleri byo valanga bya Bodo leyi nkarhi wa yona wu fikeke emakumu, ya vuswikoti leyi rhangeriweke hi, Dokodela Humphrey Mathe. Nkarhi wa Bodo leyi sukaka wu hele hi Dzivamisoko (April) 2023. I swa nkoka leswaku ndzi kombisa ku tlangela ka mina eka Mutshamaxitulu loyi a fambaka na Bodo eka ku rhangela CGS eka ku humelela eku lawuleni sayense ya dyondzo ya misava ku lwisana na mitlhontlo ya vaaki. Ku fikelela loku ku endliwile hi ku vuyelerisa ka nhlangano ka leswaku sayense ya dyondzo ya misava i nkoka wa nhluvukiso wa vanhu. Hi ku angarhela, ndzi tiyisisa ku tiyimisela ka Bodo ya sweswi ku letela CGS eka ku hlongorisa ka hina eka ku kula, no engetela mphakelo.

Hi Nhlangula (October) 2022, CGS yi khome nhlengeletano wa Dyondzo ya misava eThekwini ku tlangela malembe ya 110 ya vukorhokeri bya yona eka vaaki. Nkhuvo wu kote ku nghenelela eka vanghenisi va xandla lava avenaleke mavonelo ya nkoka lama tekiweke eka swiviko na switsalwana swa nongonoko wa Nhlengeletano. Vayimeri vo tala ku suka eka swiyenge swo hambana swa Mfumo wa Riphabliki ra Afrika Dzonga (RSA), kasi leswi swi suka eka Ndzwawulo ya Swicelwa swa Eneji; na tindlu timbirhi ra Palamente (Palamente ya Rixaka na Huvo ya Rixaka ta Swifundzhankulu); Komiti ya Photifoliyo ya Palamente ya Swicelwa na Eneji; murhurheli Meyera wa Doroba ra eThekwini; na Tihosi ta Xintu ku suka eka tindhawu to hlaya laha tiphurojeke ta CGS ti nga le ku simekiwaka. Ku nghenelela ka khale ka varhangeri va CGS na vativi va sayense lava yeke ku wiseni, swin'we na vatirhisani vo hambana va swiyenge swa Mfumo va nkoka (ku katsa Masocha ya le matini ya Afrika Dzonga, Huvo ya Vulavisisi ya Vurimi, Nkwama wa le Xikarhi wa Eneji, Mbalango wa Afrika, Nhlangano wa Migodi na Timali, N'wamabindzu wa Dayimani wa Mfumo na Mulawuri wa Dayimani na Swicelwa swa Nkoka wa Afrika Dzonga), swi tekeriwe enhlokweni. Vatirhisani va hina va le Russia, swidyondzeki na vayeni va matiko ya misava vo yimela Nhlangano wa Mbalango wa swa Misava wa Afrika na vona va vile kona eka Nhlengeletano. Hakunene, nhlayo yo tala ya vangheneleri ku suka eka mune wa timeho ta misava va joyinile Nhlengeletano hi ndlela ya inthanete. Nhlengeletano yi tlangèle ntirho wa nkoka wa vativi va sayense ya misava lava ngheniseke xandla swinene eka ku antswisa vutivi bya huvo ya sayense ya swa misava. Eka leswi, masagwati ya nyikiwile Phrof. Morris Viljoen (la hundzeke emisaveni), Phrof. Richard Viljoen, Phrof. Nic Beukes na Phrof. Musa Manzi. Hi ku angarhela, Nhlengeletano yi tiyisise nkoka woya emahlweni na vunene bya sayense ya dyondzo ya swa misava eka vaaki. Eka tindhawu ta ntlhanu ta vutihlamuleri ta endlelo ra CGS na ndzingano wa ximakiwa wa nhlangano swi kombisiwile.

Vanhu va Afrika Dzonga na Mfumo va tshembhela eka CGS ku rhangela ndlela eku vumbeni nakambe eka mbalango wa swicelwa etikweni. Eka leswi, Holobye wa Swicelwa

na Eneji u veke leswi faneleke ku fikeleriwa ku kuma 5% wa minkavelo ya swicelwea swa misava eka nthhanu wa malembe. Ndzi tsakela ku lemuka ntirho wa masungulo wa CGS eku vumbeni Kungu ro Simekiwa ra Swicelwa, kunga ku vumba Nkwama Wutsongo wa Swicelwa na ku aka ntirhisano na vinyi va timfanelo lava nga kona eka vutivi bya swa misava eka tindhawu leti humelelaka swinene. CGS i ya nkoka ku vona leswaku vinyi va timfanelo leti va kuma nseketelo lowu faneleke eka vutivi, timali na switirhisiwa eka ku fikelela ku humelela eka ntirho wa nongonoko wa swicelwa. Phurojeke yo sungula ya masungulo yo rhangeriwa hi 100% wa Vantima va vinyi va timfanelo yi sungurile na swona yi le ku endleni ka ndzima ya kahle. Minkarhi yo valanga swicelwa yi antswisiwa hi ku tirhisiwa ka kahle ka mahungu ya swa misava na vutivi byo herisa mpfuneto hi swa timali eka phurojeke. Ku tinyiketela loku ku yisa emahlweni ajenda ya tiko yo cinca eka ku endla ikhonomi ya vaaki yiva ya kahle eka vaaki, leswi nga nkoka pholisi ya le xikarhi eka Mfumo wa RSA.

Ndzi ta tsakela ku amukela CGS eka ndzavisiso wa xiymo xa le henhla xo hunguta ku tirhisiwa ka swicelwa swa tiko eka nthyakiso wa mbango. Eka leswi, phurojeke yo Khoma Khaboni, Matirhiselo na ku Tekiwa (Carbon Capture, Utilisation and Sequestration [CCUS]) ya CGS, hi ku tirhisana na Mfumo wa Afrika Dzonga na Bangi ya Misava, i ku nghenelela ka nkoka ka xisayense eku seketeleni pholisi ya Mfumo to Cinca ka Eneji (Just Energy Transition). Loko swi tiviwa swinene kuri Afrika Dzonga yina swicelwa swa malahla swo tala na swin'wana, ku nghenelela ka ku Cinca ka Eneji ku lava ku valanga tindlela to fikelela ku hunguta ku tirhisiwa ka swicelwa ku ri hava ku herisiwa ka malahla eka leswi nga kona swa eneji ya tiko. Ku fika sweswi, ndzima ya nkoka yi endliwile eku kumeni nseketelo wa vanghenisi va xandla va nkoka eXifundzeninkulu xa Mpumalanga lava nyikeke ku nghenelela ka thekinoloji ya sayense eku laveni tindlela leti nga kona eka ku Cinca Eneji. Mhasipala wa Govan Mbeki wu nyikerile misava eka CGS ku seketela ndzavisiso lowu na xihlawulekisi xa nongonoko lowu laveka wo lavisia dyondzo ya misava wuya emahlweni kahle. Hi na ntshembho kuri leswikulu swa tiko swo humesa khaboni dayokisayidi (carbon dioxide) na tigese leti fanaka swi ta seketela ndzavisiso lowu hi ku tsakela swilo swa kahle swa tiko.

CGS yiya emahlweni ku tihlanganisa eku tirhsaneni na vatirhisani, a swi yi emahlweni no seketela vuxaka bya xikongomelo xa ndlela ya Dyondzo ya sayense ya misava ya nhlangano kambe swi tlhela swi engetela eka matshalatshala

yo endla mali. Ntirhisano wun'wana wolowo i wa Eswatini Geological Survey. Ntirhisano exikarhi ka CGS na muringani wa le Eswatini wu kongoma eka ku kurisa mikondzo yo nghenisa eka saysense ya dyondzo ya misava eAfrika Dzonga eka xiphemu xa tikonkulu ku seketela pholisi yo hlanganisa xiyege xa Mfumo wa RSA. CGS yi humelerile eku hetiseni Mepe wa swa Misava wa Malawi na Nongonoko wa Swicelwa. Xikongomelo xa nongonoko wa Malawi, lexi ku nga ntirhisano wa French Geological Survey (Bureau de Recherches Géologiques et Minières), GTK (Geological Survey of Finland) na CGS, ku vile ku simeka nongonoko wa mepe eka Mfumo wa Riphabliki ra Malawi. Ntirhisano wa CGS na Namibian Geological Survey na wona wule ku fambeni kahle. Xikongomelo xa ntirhisano wa Namibiya i ku fikelela ku engetela ku fikelela mepe wa Namibiya eka xikalu xa 1:50 000. CGS yi tlhela yi tiyisisa ntirhisano eAfrika hinkwako hi ku tirhisa ku nghenelela ka Nhlangano wa Vahleri va Misava va Afrika (Organisation of African Geological Surveys [OAGS]), laha wu fikelelaka ntirho wa Matsalwana wa Nkarhi hinkwawo. OAGS yi kume ku tekeriwa enhlokweni eka Nhlangano wa Afrikahi nkarhi wa lembe leri nga le ku langutiweni, nhluvukuko wa nkoka, ku nyika OAGS *mfanelo na nkateko* wo titumbuluxa tanahi nhlangano lowu nga bindzuriki.

CGS yi kume tinkota ta swa timali timbirhi ta kahle hi ku landzelelela ehansi ka vurhangi bya Bodo ya khale. Leswi swi tiyisisa leswaku swirho swa Bodo ya khale, leswi a swi rhangeriwe hi Dokodela Mathe, yi tshame yi tirha kahle eka vutihlamuleri byo valanga eku tirheni *ku fikelela rixaka ro cincka ro humelela eka switshunxo swa dyondzo ya swa misava*. N'watinkota Nkulu wa Afrika Dzonga u hetisile maendlelo laya faneleke yo tinkota eka xiviko xa lembe ximali lexi ta CGS naswona hi langutela mbuyelo ku tshama na mbuyelo wa kahle wa tinkota loko xiviko xa ximfumo xi ta kandziyisiwa hi Ndzati (September) lembe leri. Kutani, masungulo ya tumbuluxiwile eka matirhelo yo angarhela ya xiymo xa le henhla ya 86.4% eka lembe leri ra xiviko.

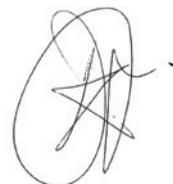
Bodo ya CGS yi hoyozela swirho hinkwaswo swa vatirhi swa nhlangano eku kumeni ka xiviko xintshwa ku sukela loko ku hetisiwile xiviko xa lembe leri hundzeke. Entiyisweni, ndzi tsakela ku hoyozela vatirhi kularhi hinkwavo lava landzelaka eku fikeleleni tidyondzo ta vona ta Vudokodela bya dyondzo ya ya swa misava: Dokodela Netshitungulwana, Mutivi wa Sayense Nkulu wa Jiyoloji ya Ikhonomi na Jiyokhemistri; Dokodela Lusunzi, Mutivi wa Sayense wa le Xikarhi wa Jiyoloji ya Ikhonomi na Jiyokhemistri; na Dokodela Malubisana,

Mutivi wa Sayense wa Injhiniyere na swa Nghozi. Ku fikelela loku hi vatirhi va hina hakunene ku kombisa mihadzhu leyifikeleriweke hi matshalatshala yo tiyisela na ya vuvekisi bya hina eka vantshwa, eku lulamiseleni ko vumba ndzhaka ya Mfumo wa vuswikoti eka rixaka leri taka.

Bodo yi hundzisa ku chavelela eka vatirhi kolorhi lava lahlekeriweke hi swirho swa ndyangu na vanghana eka lembe leri. Ku tsana ko lahlekeriwa ku tshikilela ndyangu wa CGS ngopfu-ngopfu swinene hi ku hundza emisaveni ka Manana Refilwe Nkokha, loyi a ri Mininjhere wa Nhluvukiso wa Mabindzu eka nhlangano wa hina.

Xo hetelela, ndzii tsakela ku hundzisa ku tlangela eka Muchaviseki Holobye wa Swicelwa na Eneji, Tatana S.G Mantashe, eka ntshembho lowu a wu vekeke ehenhla ka mina na Bodo, ku rhangela nhlangano wa nkoka hi ndlela leyi wa RSA. Ndzi langutela ku tirha na Muchaviseki

Mutshamaxitulu wa Komiti ta Photifoliyo ya Palamente ya Swicelwa na Eneji, Nkul. S Luziphlo na Komiti ta Photifoliyo ya Palamente ya Swicelwa na Eneji. Ndzi khensa vurhangeri bya CGS swin'we na vatirhi va sayense na vapfuneti hinkwavo eka ku tiyimisela no tirha hi ku chivirika eka ntirho wa CSG.



Tatana Kelepile Dintwe

Mutshamaxitulu

Bodo ya Huvo ya Dyondzo bya swa Misava

31 July 2023

2

MBALANGO WA MUOFISIRI NKULU WA VUFAMBISI



Tatana Mosa Mabuza
Muofisiri Nkulu wa
Vufambisi

Inkateko wa mina ku andlala xiviko xa lembe xa Huvo ya Dyondzo ya sayense ya misava (CGS), yo koxemeta migingiriko ya nhlangano eka lembe ximali ra 2022/23. Lembe leri nga le ku hleriweni ri fungha lembe ra vunharhu ra Rimba ra Mafambiselo ra Nkarhi wa le Xikarhi (Medium-Term Strategic Framework [MTSF]) ra nkarhi wa 2019–2024 swin'we na lembe ro hetelela ra nkarhi wa Bodo leyi heleriwaka hi nkarhi. Swa ringanelo, xosungula, ku tlangela eka ku nyikela ka ha un'vee kumbe hi ku hlanganelo ka mafambiselo ya CGS na vatirhi hinkwavo eka ku ya emahlweni va tiyimisela eka nhlangano ku vona mphakelo wo humelela wa ntirho wa CGS.

Lembe ximali ra 2022/23 ku vile ra nkoka swinene eka CGS na Afrika Dzonga hi ku fana, tanihi leswi CGS yi tlangeleke 110 wa malembe yiri kona ku sukela loko yi tumbuluxiwe hi 1912. Ku tlangela loku ku fungha nhlengeletano wa hina wo sungula wo hlangana hi xiviri wa khamphani ya dyondzo ya sayense ya misava ku sukela loko ku sungule ntungu wa COVID-19 emasunguleni ya 2020. Hi October 2020, tanihi ku tlangela loku, CGS yi khome Nhlengeletano ya matiko ya Dyondzo ya sayense ya misava ehansi ka nhlokomhaka ya 'Vutshuri bya ya Dyondzo ya sayense ya misava ya Kahle' eDurban, eXifundzeninkulu xa KwaZulu-Natal. Nhlengeletano ya varhangeri va misava yi kombise ku nghanisa xandla lokukulu ka dyondzo ya tisayense ta misava eka nhluvukiso wa vanhu. Eka leswi, CGS yi tekele enhlokweni vativi va sayense na lava nghaniseke xandla lava, eka nkarhi lowu hundzeke, va nghaniseke xandla eka nhluvukiso wa dyondzo ya sayense ya misava swin'we nan lava yaka emahlweni va nghanisa xandla xa nkoka eku yiseni emahlweni ka dyondzo ya sayense ya misava eAfrika Dzonga, Afrika na le kule. Nhlengeletano ya varhangeri va misava ya dyondzo ya sayense ya misava yi nyikela CGS hi inkateko wo sungurisa swikongomelo swa Endlelo ra Vuxaka bya Vatirhisani leri pasisiweke hi Bodo ya CGS hi 2020. Ku tlula 450 wa varhumiwa va nghenerile Nhlengeletano ya varhangeri va matiko ya dyondzo ya sayense ya misava, hi xiviri kumbe hi ndlela ya inthanete. Leswi a swi katsa, exikarhi ka swin'wana, Ndzwawulo ya Switirhsiva swa Swicelwa swa Minirali na Eneji (DMRE), na Ndzwawulo, Mutshamxitulu wa Vatshamxitulu va Huvo ya Tiko ya Swifundzankulu, swirho swa Komiti ya Photifoliyo ya Palamente, Tindzwawulo ta Tiko ta Mfumo, varhumiwa va Mhasipala wa eThekwini Metropolitan (doroba ro rhurhela), vayimeri va Timhasipala ta Xifundzantsongo na va Muganga na Tindlu ta Varhangeri va Xintu na Khoi San, Nhlangano wa Mfumo wa Muganga wa Afrika Dzonga (SALGA), ti-CEO ta swiyenge swa vaaki swo hambana na vumaki, Ejensi ya Nhlangano wa Rhashiya

ya Switirhisiwa swa Swicelwa, Nhlangano wa Vahleri va Sayense ya Xivumbeko xa Misava (OAGS) na vayimeri va swidyondzeki. Hi ku landza Nhlengeletano ya varhangeri va matiko ya CGS ya Dyondzo ya sayense ya misava, **70** wa maphepha ya nhlengeletano, swiletelo swinharhu na vholumu ya ndzimana swi kandziyisiwile.

CGS yi vekisile switirhisiwa swa nkoka na ntalo eka nseketelo wo antswisa vulemukisi bya ximakiwa, vukorhokeri na swimakiwa. Leswi ku ve vumbhoni byo engetele ko tsakela no angarhela ntirho wa CGS eka swiyenge swo hambana swa vuhami. Tlhandlakambirhi, Nhlengeletano ya varhangeri va matiko ya CGS ya Dyondzo ya sayense ya misava yi koke rinoko ku suka eka swiyenge swa vateki va mahungu swo hambana mayelana na ntirho wa CGS. Eka lembe leri hleriwaka, **48** wa switsalwana swa mahungu swi kandziyisiwile, loko hile tlhelo vito ra CGS ri kombisiwile eka tichanele to hlaya, ku katsa minkombiso, tibilibodo, swihangalasa mahungu, phodikhasiti, xiyanimoya na thelevhixini. Ku engetela, mpimo wo eneriseka ka vatirhisani wu vone ku antswa ka **79.4%** - ku tlakuka ku suka ea 66.4% ku rhekhodiwile eka lembe ximali leri hundzeke.

Ku vumba no hlayisa ntirhisano wa mafambiselo na vanghenisi va kwala tikweni na va matiko ya tinxaka ku antswisa vuxaka bya dyondzo ya sayense ya misava hi xin'wana xa mimbuelo ya mafambiselo ya CGS. Hi 2022/23, nhlangano wu tiplanganise no tirhisana na varingani va Afrika na kava sukaka eka swiphemu swin'wana swa matiko ya misava. Ku seketela matshalatshala yo katsa swifundza swa tiko, CGS yi tiplanganise na Central African Republic, Ivory Coast, Niger, South Sudan, Uganda, Botswana na Eswatini. Kwalaho, CGS yi tlhele yi tiplanganisa na Nhlangana wa Matiko ya Yuropa, Saudi Arabia, USA, Japana na Russia. Matshalatshala lawa ya endiwa hi ku seketela Xikongomelo xa 7 xa MTSF ya tiko lexi kongomaka ku vumba "Afrika yo antswa na matiko ya misava". Tlhandlakambirhi, xa nkoka swinene eka lembe ximali leri hundzeke ku vile ku sayiniwa ka ntwanano wa ntirhisa exikarhi ka OAGS na Nhlangano wa Matiko ya Afrika etlhelo ka Nhlengeletano ya Migodi ya Afrika leyi a yi khomiwe eCape Town hi February 2023.

CGS yi yile emahlweni ku simeka mafambiselo laya pasisiwele, Nongonoko wa Mimepe ya Tidyondzo ta Dyondzo ya sayense ya misava yo Hlanganisiwa (IMMP), leyi kongomaka ku nghenisa xandla eka Kungu ro Aka hi vuntshwa Ikhonomi ya Afrika Dzonga no Pfuxeta (ERRP) hi ku kuma minimamu ya 5% ya minxavo ya swicelwa swa matiko ya misava hi tirhisa

marungula ya dyondzo ya sayense ya misava na vutivi. Eku humeleriseni ka Nongonoko wa Xithekiniki xa Dyondzo ya sayense ya misava, CGS yi tiyimisele ku pfula vuswikoti bya swicelwa swa minirali na ejeni swa Afrika Dzonga no nghenisa xandla eku fikeleleni ka ku cinca ka tiko kuya eka ikhonomi leyi nga thyakisiki mbango. GTP eka lembe leri hleriwaka a yi langutise eku humeleriseni ka 1:50 000-wa xikalua eka mimepe ya dyondzo ya sayense ya misava ya le henhla na le kusuhi na lwandle. Mepe wo angarhela dyondzo ya sayense ya misava kusuhi na lwandle wu engetelekile kusuka ehansi ka 5% ku nga si sunguriwa IMMP, kuya eka **12%**. Ku fika sweswi, **230** eka nhlayo ya **1 916** ya 1:50 000 xikalua mepe swi kandziyisiwile, leswi 25 wa 1:50 000 wa xikalua xa mimepe ya le kusuhi na lwandle ya dyondzo ya sayense ya misava lexi kandziyisiweke hi 2022/23. Mepe wo angarhela dyondzo ya sayense ya misava vuandlalo bya misava yi engetelekile ku suka eka 0.05% leyi vikiweke eka malembe laya hundzeke kuya eka **0.11%**. Ku antswa loku eka mepe wa angarhela dyondzo ya sayense ya misava kusuhi na lwandle swi endlekile hi ku kandziyisiwa ka 3318CD eCape Town ka mepe wa le kusuhi na xifundzantsongo xa Table Bay. Datara ya xiymo xa le henhla leyi humelerisiweke yi katsa tibiminyingi ta bathymetry, exivindzini xa misava, na mimepe yo kombisa swifanisa swa le ndzeni ka misava. Swimakiwa leswi swi nyika marungula etshakwini ra mbango wa le kusuhi na malwandle eAfrika Dzonga naswona swi ta pfuna ku hluvukisa ekusuhi na lwandle, ku katsa ku ndlandlamuxa evuyima swikepe na hluvukiso wa miako ya le kusuhi na lwandle. Hi ku hlanganisa swiyenge swa datara yo hambana ya dyondzo ya sayense ya misava, mimbuelo ya dyondzo ya sayense ya misava yo engeteleka leyi nghenisaka xandla eka timinirali, swicelwa, mati ya le hansi ka misava, nhluvukiso wa miako na ku tirhisiwa ka misava, swi humelerisiwile.

Hi ku landza ntirho lowu endliweke eka phurojeke yo khomiwa ka nthyakiso, matirhiselo no hlayisiwa (CCUS) ya CGS eka malembe laya hundzeke, nhlangano yi cince ku kongoma ka yona ku kuma tindhawu ta kahle eAfrika Dzonga, kuya hi datara leyi nga kona ya michini yo bhorhiwa ka mati. Ku hlela loku, swa nakrhi wo sungula, ku kume leswaku Afrika Dzonga yi na vuswikoti bya kahle bya CCUS ku tlula hilaha a swi ehleketiwa ha kona. Ngopfu-ngopfu, kuna swo tala leswi kumiwaka ya nkoka eSwifundzenkulu swa Mpumalanga na Gauteng. Leswi i swa nkoka leswi kumiweke tanahi leswi swi nga ta cinca swinene vumundzuku bya eneji ya Afrika Dzonga. Ku ya emahlweni, ku simekiwa ka ku tirhisiwa ka xiphemu xa CCUS swi vula leswaku ka ha ri na switshunxo

swin'wana swo tshula leswi nga seketelaka ntirho lowu. Hi nkarhi wa 2022/23, ndzavisiso wu langutise eku hetiseni ka xihlawulekisi xa xivumbeko xa misava xo ringanyeta ndhawu eka Mhasipala wa Govan Mbeki, eXifundzeninkulu xa Mpumalanga. Ntirho lowu endliweke wu hetisisa mimepe ya xivumbeko xa misava, xivumbeko xa xihlovo, vulavisisi bya miako, na masungulo ya tidyondzo ta mbango wa swa mati. Ku engetela, swiviko swimbirho swo hlanganisiwa eka dyondzo ya maribye ya xihlovo na ya le henbla ya ndhawu leyi kunguhatiweke ku humelerisiwa. Ku kumiwa loku ku ringanyeta leswaku hakunene xihlovo xi nga seketela ku nganensiwa ka moyo wo thyaka emisaveni.

CGS yiya emahlweni na ku simeka phurojeke ya Hlelo ra Khombo ro Ninginika ku tlula Mpimo (PSHA) hi ku yimela Eskom, eku seketeleni xiviko eka Mulawuri wa Nyutliliya wa Rixaka, yi lava ku engetela layisense yo tirha ya Xitici xa Gezi ra Nyutliliya xa Koeberg hi 20 wa malembe. Ntirho lowu wu tlhela wu seketela xihlawulekisi xa ndhawu ya nkoka na mgingiriko yo hlengelata datara ku nyika marungula laya faneleke ya xisayense ya dyondzo ya misava eka ku langutiwa eka mgingiriko yo aka nyutliliya yintshwa eDuynefontein. Emakumu ka lembe ximali leri hlierwaka, CGS yi hetisile swihlawulekiso swa mgingiriko yo tala ndhawu, hetisile masungulo ya vuheri bya PSHA, no endla ndzima yo twala eka Komiti ya Vuhleri ya Khombo ro Ninginika ku tlula Mpimo leri nga vaka kona (SSHAC) tsalwa ra Levhele 2 – leri katsaka Tidyondzo Mafambelo ya le Hansi na Xivumbeko xa Xihlovo xo Hundza Mpimo. Ku yisa ka swiviko swa Levhele 2 swa PSHA swo hetelela swa SSHAC swi languteriwe ku hela emakumu ka Lembe Ximali ra 2023/24, swi vumba xilaveko xa nkoka eku langutiseni ku engetela layisense ya matirhelo ya Xitici xa Gezi ra Nyutliliya xa Koeberg, no nganisa xandla eka vukona bya gezi ra tiko hi ku angarhela.

GTP yi yile emahlweni ku langutisa eka ku langutisa vukona bya swicelwa swa nkoka, ngopfu-ngopfu hi ku langutisa vukona na xihlawulekisi bya leswi vuriwaka 'swicelwa swa nkarhi lowu tako' eSwifundzeninkulu swa Kapa N'walungu na Limpopo. Swiviko swimbirhi leswi hlanganisiweke swa chemistri ya misava endhawini ya Steelpoort eEastern Bushveld Complex (maphepha ya 2429BD, 2430AC, 2429DB na 2430CA) eka xikalu xa 1:50 000 swin'we na vukona bya tidyondzo ta sayense to tala to hlanganisiwa swa tiphayiphi to khomana eEastern Bushved Complex swi endliwile eka lembe leri hlierwaka. Eka nkoka wo karhi ku vile kuya emahlweni ka ndzavisiso wa dyondzo ya misava

wa Insizwa Complex, leyi kumekaka Swifundzeninkulu swa Kapa Vuxa na KwaZulu-Natal. Ndzavisiso lowu wu tekiwa tanihi leswi humelelaka swa Ni-Cu-PGE eka ku koteka ka ntalo wa ikhonomi.

Eka lembe leri hlierwaka, CGS yi hetelele yi pfale phurojeke eka ku hlela masungula ya mbango wa misava leyi endliweke tanihi xiphemu xa Nongongoko wo Cela ku Enta eKaroo (Karoo Deep Drilling Programme.) Eka ku hlanganisiwa ka swiphemu hinkwaswo swa datara, xiviko xo engetela nkoka eka gasi ya ntumbuluko exifundzenintsongo xa Karoo no yisiwa eka Holobye wa Swicelwa swa Minirali na Eneji ku langutisiwa hi Khabinete. Dyondzo yi paluxe nsusumeto lowu nga vaka kona wa gasi yale hansi ka misava endhawini. Hi ndlela yeleyo, dyondzo yi ringanyeta ku susiwa ka ku yirisiwa ka gasi ya le hansi ka maribye ku pfumelela ku valanga ku tiyisisa vukona bya ikhonomi bya gasi ya le hansi ka maribye endhawini. Leswi swi ta humelelala endzhaku ka rimba ro lawula kuya hi sayense yo tiya leri seketeriwaka hi swikumiwa swa xithekiniki swa hlelo ra masungulo ya mbango wa misava. Tibhorho timbirhi ta mati leti nga entangiki ti ve kona leti kombiseke kuva ta xiyimo xa le henbla yi nyikeriwile eka Mhasipala wa Beaufort West hi February 2018. Hi nkarhi wolowo, Kapa Vupeladyambu a yi hlasele hi dyandza ro tika eka matimu ya sweswi. Tibhorho timbirhi ta mati, leti loko tihlanganisiwa hi n'hweti ti kotaka ku humesa 33 wa mamiliyon ya mati tiya emahlweni ti tisa ku pfuneke emugangeni. Ku sukela hi August 2022, mhasipala wu hakute no phakela mati yo tlula 840 wa mamiliyon ya tilitara, leswi ringanaka na 10% wa ntalo wa n'hweti wa mhasipala.

CGS hi ku tirhisana na GTP ya yona, yiya emahlweni yi simeka tiphurojeke ta Miako na nkoka wa Matirhiselo ya Misava eku seketeleni swikongomelo swa 5 swa MTSF (Vutshamo bya kahle, vutshamo bya vanhu na mfumo wa muganga) na 6 (ku hlanganisa ka vaaki na miganga yo hlayisekeke). Minonganoko leyi yi tlhela yi lava ku antswisa ku hangalasiwa ka manghenelo laya ya tekiweke ya Mojulu wa Nhluvukiso wa Xifundza xa Kungu Rin'we. Hi ku landza ntungu wo mbundzuka ka misava na ndhambhi hi April na May 2022 eXifundzeninkulu xa KwaZulu-Natal, CGS yi endle vuheri byo hambana ku rhekhoda na ku humelela ka ku mbundzuka ka misava ku pfuxeta timojulu eka xifundzantsongo. Mbuyelo wa ntirho lowu i ku antswa ka xivumbeko xa swifundzantsongo lowu tshamaka wu hlangana na ku mbundzuka ka misava. Ntirho wu endle kuri kuva na nxaxamelotu pfuxetiweke wa ku humelela ka ku

mbindzumuka ka misava ka khale na ka sweswi no vumba hi vuntshwa xifundzantsongo xa eThekwini Metropolitan. Ku engetela, xiphemu xa misava eka tindhawu ta Mhasipala wa Muganga wa Port St. Johns ti hleriwile, hi ku landza ku tihlanganisa na varhangeri va muganga. Nhluvukiso- vuheri bya xithekiniki bya misava bya xikalu xa masangulo byi endliwile, leswi tirheke tanahi xitirhisiva xa kahle eka ku kunguhata ka matirhiselo ya misava eka nkarhi lowu taka na mafambiselo ya miako ya sweswi na nhluvukiso. Ndhawu leyi ya nkoka yi antswisiwile hi ndzavisiso woya emahlweni wa xikalu xitsongo xa mpfuneto wa misava leyi rhandzaka hi maribye ya dolomayiti no fikelela swihlovo swa ku ningnika na leswi swi fambelana na swona swa makhombo.

Ehansi ka Nhlokohaka ya Vuxaka bya Matiko eka Dyondzo ya sayense ya misava, CGS yi yile emahlweni ku simeka tipurojeke ta nkoka eSwatini, Namibiya na Malawi. Swiyenge swo hambana swa datara swo hlanganisa swa dyondzo ya sayense ya misava ku seketela swiboho swa nhluvukiso wa swicelwa na eneji eka matiko lawa ya humelerisiwile. Ku engetela, Nongonoko wa Vuxaka bya Dyondzo ya sayense ya misava wu vone ku vekiwe nseketelo wa xithekiniki eka mhaka ya swikongomelo swa ntirhisano wo hambana eSouth Sudan, Ivory Coast na Niger, hi xikongomelo xo kuma tindhawu ta mbuyelo wo fana no tirhisa vutshuri bya tithekiniki ta dyondzo ya sayense ya misava ku hatlisisa nhluvukiso eAfrika.

Mhaka ya nkoka ya CGS tanahi vun'winyi bya tiko eka datara na marungula swa dyondzo ya sayense ya misava na marungula yi lava ku fikelela marungula ya dyondzo ya sayense ya misava na sisitimy a mafambiselo ya vutivi, leyi pfumelelaka ku teka swiboho eka, exikarhi ka swin'wana, mafambiselo yo tiyiseleka ya swicelwa swa tumbuluko na ku hunguta ntshikilelo wa makhombo ya misava. Datara na ya dyondzo ya sayense ya misava na xivandla xa marungula, leyi simekiweke hi 2021/22, yi ya emahlweni ku nyika datara ya dyondzo ya sayense ya misava na tirhekhodo ta marungula leswi kandziyisiweke hi CGS hi xivumbeko xa mimepe, matsalwa na tidatara. Marungula lawa ya kumeka eka vatirhisani na tikhaisimende emisaveni hinkwayo. Ku tlula 22 000 wa tidawunilodi ti rhekhodiwe eka lembe leri hleriwaka, hi swikombelo ku suka eka mimepe leyi kandziyisiweke kuya eka swihungwahungwana, tinhlamuselo ta mimepe na tifayili ta xivumbeko xa misava.

Eku susumeteni ko hatlisisa migodi leytisongo na ku tumbuluka ka migodi eAfrika Dzonga, DMRE yi sungule ntirhisano

na Mabindzu ya Nhluvukiso wa Tifeme ku tumbuluxa nkama wo valanga wa R500 wa mamiliyoni. Nkwama wu ta seketeriwa hi vukona bya marungula ya dyondzo ya sayense ya misava ku herisa vuxaka bya mgingiriko ya swiyenge swa timali na tikhaisimende no engetela nkateko wo humelela. Xiphemu xo sungula xo simekiwa ka nkama lowu xi endliwe xiva lexitsono ntsena ku kombisa nkoka wa marungula ya xivumbeko xa misava eku hatlisiseni ku kuma nkoka wa ndlela ya nxaxamelo wa ku languta ku tirhiseka ka xiyenge. Tlhandlakambirhi, Bodo ya CGS eka lembe leri hleriwaka yi pasise Rimba ra Vukona bya Vukorhokeri bya Dyondzo ya sayense ya misava mayelana no tiyisisa matirhelo, ndzavisiso lowu languteriwaka na mgingiko leyi fanaka eka xiyenge xa minirali, kuya hi Nawu wa Dyondzo ya sayense ya misava (Nawu wa 100 wa 1993), tanahi leswi wu cinciweke. Rimba leri ri lava ku khutaza vuvekisi lebyikulu eka swicelwa eAfrika Dzonga no seketela endlelo ra swicelwa ra Afrika Dzonga na kungu ro simeka.

Xiyimo xa Xitatimente xa Timali ta CGS xi kombisa nhundzu hinkwayo ya ntsengo wa R610.9 wa mamiliyoni, lowu vumbiawaka hi nhundzu ya nkarhi wo leha na nhundzu yo ringana R381.1 wa mamiliyoni na R229.8 wa mamiliyoni, hi ku landzelana. CGS yi antswisa matirhelo ya kahle swinene, ngopfu-ngopfu hi ku langutisa xiyimo xo tika xa ikhonomi, lexi nga na mbuyelo wa R564.1 wa mamiliyoni na nkayivelwa R86.8 wa mamiliyoni. Xiviko xo twisiseka kahle xa marungula ya timali xi kumeka eka Xiphemu xa F xa xiviko.

Ku tiyiseleka i xiphemu lexi bohaka xa ntirho wa CGS na bindzu eka swiyimo swa timali/ikhonomi, vaaki, vatirhisani na mbango. Ku tiyiseleka ku kumeka eka ku langutisa eka ku languta eka xisayense na vutshuri swa le nhlanguano na CGS i nkateko kuva na ntwanano na vatirhi vo hambana lava vonaka nhlanguano tanahi muthori wo hlawuriwa. Ndzi tsakela ku amukela ka kahle eka swirho swintshwa swa xipanu xa CGS. Eka lava nga hi sukela, ndza mi khensa eka ntirho wa n'wina no mi navelela ku humelela eka vumundzuku.

Ndzi nga tsakela ku tlangerisa Dokodela (Dr) Thifhelimbilo Faith Mulabisana na Dokodela Rudzani Lusunzi eka ku hetisa tidigiri ta vona ta vudokodela. Hi tlhela hi hoyozela eka Manana Mpumelelo Dube, Tatana Rames Chauke, Manana Corlien Cloete na Tatana Sithule Xanga eku paseni ka tidigiri ta vona ta Masitasi.

Lembe na lembe ri funghiwa hi leswi fikeleriweke na ku hluleka. Eka lembe leri hleriwaka, CGS yi lahlekeriwe hi van'wana va titalenta, ku katsa switivi swin'wana swa ntiyiso

swa dyondzo ya sayense ya misava, hi kuya eku wiseni. Hi tlangela ku nghenisa xandla ka nkoka eka vatirhikulorhi lava tirheke kahle eka nhlangano. Vavanuna na vavasati lava landzelaka hi van'wana lava nyiketeleke vutomi bya vona swinene eka nhlangano:

- Tanana Frederik Daniel Jacobus Stapelberg – 37 wa malembe a ri Mutivinkulu wa Sayense eka Yuniti ya Bindzu ya Miako na Matirhiselo ya Misava.
- Dokodela Robert James Thomas – nhungu wa malembe a ri Mutivi wa Sayense wa Ntokoto eka Yuniti Bindzu ya Swicelwa na Eneji.
- Tanana Nicholas Baglow – 31 wa malembe a ri Mutivinkulu wa Sayense eka Yuniti ya Bindzu ya Swicelwa na Eneji.
- Manana Alfreda Bekker-Bonnet – 10 wa malembe a ri Mininjhere eka Yuniti ya Bindzu ya Mafambiselo ya Timali.
- Tanana Abram Msiza – 36 wa malembe a ri Muofisiri wa Vufambisi eka Yuniti ya Bindzu ya Vutivi bya Mafambiselo.
- Manana Ramadimetja Cathrine Mana – ntlhanu wa malembe a ri Mubasisi eka Yuniti ya Bindzu ra Mafambiselo ya Switirhisiwa.
- Manana Fetakgomo Letta Makofane – ntlhanu wa malembe a ri Mubasisi eka Yuniti ya Bindzu ra Mafambiselo ya Switirhisiwa.
- Manana Mahloma Salome Magaela – ntlhanu wa malembe a ri Mubasisi eka Yuniti ya Bindzu ra Mafambiselo ya Switirhisiwa.

Hi wele hi gome elembeni hi ku hundza emisaveni ka xirho xa nkoka xa xipanu, Manana Refiloe Jeannie Nkokha, Mininjhere: Nhluvukiso wa Mabindzu. Ndzi hundzisa ku chavelela ka malwandla eka varhandziwa va yena.

Eka vatirhi kulorhi lava nga le ku holeni eka mavabyi, hi langutela ku mi amukela ku nga ri khale.

Ku khensa ka mina ko hlawuleka eka swirho swa Bodo, ehansi ka vurhangeri bya vulawuri bya mutshamaxitulu, Dokodela Humphrey Mathe, eka ntewla vusiwana, ku hlela hi vuenti ntirho wa CGS na nseketelo wa vona na vuleteri elembeni hinkwaro. Ndzi tlhela ndzi ri na tale ku khensa eka Komiti ta Photifoliyo ya Palamente eka Swicelwa swa Minirali na Eneji na Holobye na vatirhi va DMRE eka nseketelo wa vonan, ku tinyiketela, ku valanga na vuleteri.

Ndzi hetisa mbalango wa mina eka vutivi bya leswaku hi vumbe masungulo yo tiya eka CGS laya nga tiya no kongoma eka mphakelo, kaswi sweswo swi kombisa xiyanje xa Mfumo xa vuswikoti. Swa fanele ku vuyelerisa leswaku ku fikelela loku ka koteka ntsena hikuva hi yime emakatleni ya swihontlovila hi xivumbeko xa vakokwana wa hina hinkwavo.



Tatana Mosa Mabuza

Muofisiri Nkulu wa Vufambisi
Huvo ya Dyondzo ya sayense ya misava

31 July 2023

3

XITATIMENTE XA VUTIHLAMULERI NA KU TIYISISA KU HETISEKA EKA XIVIKO XA LEMBE

Kuya hi vutiva bya hina byo antswa na ntshembho, hi tiyisisa leswi landzelaka:

Marungula hinkwawo na mintsengo leyi boxiweke eka xiviko xa lembe swi fambelana na switatamente swa timali leswi hleriweke hi N'watinkota-Jenerali.

Xiviko xa lembe xi helerile, no kongoma no pfumala swihi na swihi leswi nga tluriweke.

Xiviko xa lembe xi lulamisiwile kuya hi swiletelo swa swiviko swa lembe, tanihi leswi humesiweke hi Ndzawulo ya Timali ta tiko.

Switatamente swa timali swa lembe (Xiphemu xa F) swi lulamisiwile kuya hi swiyimo swa Matirhelo ya Tinkota laya Amukeriwaka Hinkwako (GRAP) laya fambelanaka na xiyenge xa mfumo.

Bodo ya CGS yina vutihlamuleri byo lulamisa switatamente swa timali swa lembe na vuahluri lebyi endliweke eka marungula lawa.

Bodo ya CGS yi na vutihlamuleri byo tumbuluxa no simeka sisitimi ra malawulelo ya le ndzeni laya endliweke ku nyika ku tiyisisa ko twala eka vunene na ku tshembha eka marungula ya matirhelo, vatirhi ma switatamente swa timali swa lembe.

Vahleri va tinkota va le handle va thoriwile ku nyika vonelo ro tiyimela ra switatamente swa timali swa lembe.

Kuya hi mavonelo ya hina, xiviko xa lembe xi kombisa kahle mafambiselo, marungula ya matirhelo, vatirhi na timhaka ta timali ta xiyenge xa mfumo eka lembe ximali leri heleke hi 31 March 2023.

Wa n'wina eka vukorhokeri,

Tatana Mosa Mabuza

Muofisiri Nkulu wa Vufambisi
Huvo ya Dyondzo ya sayense bya misava

31 July 2023

Tatana Kelepile Dintwe

Mutshamaxitulu
Bodo ya Huvo ya Dyondzo ya swa Misava

31 July 2023

4

MBALANGO WA VUFAMBISI

Nkoka wa xikongomelo wa CGS wu kumeka eka matsalwa ya masungulu. Xivono, xikongomelo na minkoka ya nhlangano swi kumeka eka nhlamuselo, tanihi leswi andlariweke eka Nawu wa Dyondzo ya sayense ya misava (Nawu wa 100 wa 1993 tanihi leswi wu cinciweke), hi ndlela leyi:

Xivono

Xivono xa CGS i:

Ku humelela no cinca vaaki loku kotisiwaka hi switshunxo swa dyondzo ya sayense ya misava.

Xikongomelo

Xikongomelo xa CGS i ku nghanisa xandla eka Afrika Dzonga hi:

- Ku tisa ku hlanganisa, ka kahle eka vuxaka bya mimepe no endla ndzavisiso eka dyondzo ya misava le henhla ka misava na le kusuhi na le kusuhi na Iwandle eAfrika Dzonga, tanihi leswi yi lerisiweke, ku:
 - Kondletela minirali, eneji na nhluvukiso wa vurimi;
 - Nghanisa xandla eka vuheri na mafambiselo yo tiyiseleka ya minirali, switirhisiva swa dyondzo ya mati ya le hansi ka misava na dyondzo ya maribye; na
 - Nseketelo wa nhluvukiso wa miako.
- Tirha tanihi vulawuri bya vuleteri bya tiko eka nthyakiso wa mbango wa maribye.
- Nyika ndhawu yo hlayisa marungula na ya mphakelo leyi kondletelaka swiboho leswi tekiwaka na ku fikelela ka marungula laya fanelaka hi vatirhisani lava fanaleke.
- Endla mitirho hi ndlela yo seketela ku cinca na swiboho swo hluvukisa tiko.

Minkoka yale xikarhi

Minkoka yale xikarhi ya nhlangano i:

- **Mianakanyo Leyintshwa:** Vutumbuluxi no simekiwa ka miehleketo na magoza yo vumba nkoka.
- **Hambana:** Katsa ndzhaka yo angarhela leyi hlayisaka ku cinca no amukela ku tinyiko ku suka eka vatirhisani hinkwavo.
- **Vutswatsi:** Ku lwela ku humelela eka mhaka yin'wana na yin'wana ya bindzu.
- **Ku tirha hi ku tiyimisela:** Vumba ku tshembheka no tinyketela, ku teka vutihlamuleri na vun'winyi.
- **Ku dyondza:** Yisa emahlweni hi ku vumba vutivi.
- **Hlayiseka, rihanyo, na mbango:** Rhangisa rihanyo na vuhalayiseki bya vatirhi hinkwavo na vatirhisani eka ku tiyimisela ka vurhangeri bya swa mbango.
- **Tirha swi va erivaleni:** Nyika vukorhokeri hi ku ringana, vukahle, ndzingano na kuva erivaleni.

5

MILAWU NA MITIRHO YIN'WANA

Nawu wa Mafambiselo ya Timali ta tiko (PFMA) (Nawu wa 1 wa 1999) wu longoloxa CGS tanihi Xedulu 3A xa Xiyenge xa Mfumo.

Nawu wa Dyondzo ya sayense ya misava (Nawu wa 100 wa 1993) na Nawu wo landzela wo Cinciwa ka Dyondzo ya sayense ya misava (Nawu wa 16 wa 2010) lowu tumbuluxiweke hi CGS. Ntirho wa CGS wu katsa, wu nga pimiwi eka:

- a) **Endlelo ra le henhla ka misava na le kusuhi ka Iwandle** ra dyondzo ya sayense ya misava ya Afrika Dzonga.
- b) **Endla ndzavisiso wa dyondzo ya sayense ya misava** na nhluvukiso wa thekinoloji leyi fambelanaka.
- c) **Hlengeleta no hlayisa datara hinkwayo** ya dyondzo ya sayense ya misava no tirha tanihi vuhlayiseri bya dyondzo ya sayense ya misava ya tiko.
- d) **Hlengeletiwa na nhluvukiso wa vutivi byo hlanganelo byo twala bya dyondzo ya sayense ya misava** na marungula, yo fana na xivumbeko xa misava, tifiziki ta misava, khemisitri ya misava, injhiniyere ya misava, ikhonomi ya xivumbeko xa misava, landzelelana ka misava, dyondzo ya matimu ya misava, tisisitimi ta dyondzo yo khoma maribye, dyondo ya xivumbeko xa misava endzeni ka misava, ku khomana ka misava, dyondzo yo ninggingika ka misava, makhombo ya misava, dyondzo ya xivumbeko xa mbango wa misava, na tidyondzo tin'wana leti fanaka.
- e) **Yisa eka Holobyne marungula wahi na wahi mayelana na ku swicelwa swa minirali leswi nga languteriwa na migodi**, leswi nga tirhisiwaka ku vuyerisa Riphabliki.
- f) Tlakusa ndzavisiso wa no kambela timinirali tihi na tihi eRiphabliki.
- g) Dyondza (i) **ku hangalasiwa no hletela timinirali ta ntumbuluko** no (ii) kuma timhaka ta mbango wa timinirali ta misava wa khale, wa sweswi na ta nkari lowu taka.
- h) Dyondza matirhiselo ya le henhla na le **hansi ka misava na tshaku ra Iwandle**, na vonelo ra xisayense ra

xivumbeko ro lemukisa swiyenge swa mfumo na vaaki hi ku angarhela eka vuahluri byinene na matirhiselo ya kahle kwalaho hi xivonelo xo kondletelela nhluvukiso wo tiyiseleka.

- i) Vumba no hlaysia **layiburari ya dyondzo ya sayense ya misava ya tiko**, senthara ya marungula ya dyondzo ya sayense ya misava ya tiko, **Vuhlayiseri bya Nkoka bya Tibhorho ta Tiko, swivumbeko swa misava ya tiko na tindhawu to kambela khemikali ya misava, muziyamu ya dyondzo ya sayense ya misava ya tiko**, netiweke yo ningnika ka misava ya tiko na xitirhisiwa xo hlela dyondzo ya sayense ya misava xa tiko.
- j) Endla vulavisi no nyika vukorhokeri lebyi vekiweke eka swiyenge swa vaaki na leswi nga riki swa mfumo.
- k) Nyika vukorhokeri bya vutivi bya dyondzo ya sayense ya misava no **tsundzuxa Mfumo**.

Kuya hi ku cinca loku endliweke eka Nawu wa Dyondzo ya sayense ya misava, swiyenge swa 4(c), 4(eA), 4(f), 5(b) na 8 leswi tirhanaka na, eka swin'wana vun'winyi bya marungula ya dyondzo ya sayense ya misava, ku pfuxeta no hlela swiviko swa xithekiniki bya misava, ku hlayisiwa ka switirhisiwa swin'wana swa dyondzo ya sayense ya misava na ku thoriwa ka Komiti ya Swivilelo ya Xithekiniki ya misava swi vekiwe ethelo. Hi nkari wun'we, Nawu wa Nhluvukiso wa Minirali na Switirhisiwa swa Mafurha (MPRDA) wu nyika swi va erivaleni CGS ku amukela, tiyisisa no hlayisa marungula ya misava eka ku vuyeriwa na vakhomi va timfanelo ta migodi tanihi xiphemu xa xilaveko xo landzelela vulawuri. Ku cinca loku ku vumba ku vuyeriwa loku kulaka no andlala ko twala eka mitirho ya CGS.

Ntirho wa pholisi: Pholisi ya Timinirali na Migodi ya Afrika Dzonga (1998) yi tiyisisa CGS tanihi huvo ya sayense leyi seketalaka ndzavisiso na nhluvukiso swa nhluvukiso wo tiyiseleka eka mabindzu ya migodi. Leswi swi hlamusela Vumbiwa, tanihi leswi hlamuseriweke hi vuenti eka swihlawulekisi swa masungulo ya CGS.

5.1 Tipholisi tin'wana ta ta vuleteri

Hi xivaleko xa xihatla ku lulamisa swiboho swa tiko, CGS yi vona leswaku mojulu ya bindzu ra yona na mgingiriko hinkwayo ya yona yi lulamisa mimbuyelo ya tiko ya mafambiselo ku fambelana na Xivono xa Kungu ra Nhluvukiso wa Tiko (NDP) 2030:

- Ntirho wa kahle hi ku kula ka ikhonomi yo angarhela:** Ku phakela marungula ya ndhawu ya dyondzo ya sayense ya misava na vukorhokeri lebyi kokaka rinoka eka vavekisi va laha kaya na va matiko ya misava ku hluvukisa swicelwa no tlakusa mafurha.
- Vatirhi va ntokoto na vuswikoti vo seketela ndlela yo kurisa ku angarhela:** Ku vumba ntalo mayelana na sayentifiki ya misava, mafambiselo na swikili swa vufambisi loko hi le tlhelu ku vumbiwa vutshuri bya leswi humelerisiwaka, tisisitimi na vukorhokeri.
- Netiweke ya kahle, ya mphikikizano no hlamula eka miako ya ikhonomi:** Ku nghenisa marungula ya dyondzo ya sayense ya misava na vukorhokeri eka nhuvukiso wa miako eku seketeleni ka nhuvukiso wa ikhonomi ya Afrika Dzonga ya switirhisiwa swa minirali na ku hluvukisa swicelwa no tlakusa mafurha.
- Miganga ya matikoxikaya ya nkhinkhi, ndzingano no tiyiseleka eka swakudya swo ringanelo eka hinkwavo:** Mphakelo wa marungulo ya sayentifiki wa misava lowu pfumlelaka nhluvukiso wa vurimi na ku valanga mati ya le hansi ka misava, eka swin'wana.
- Nhundzu ya mbango na switirhisiwa swa ntumbuluko leswi sirheleriwaka kahle no antswisiwa kuya emahlweni:** Ku endla ndzavisiso eka, exikarhi ka swin'wana, ku tsonga esidi ya migodi na ku khoma nthyakiso no hlayisa tithekinoloji no tumbuluxa masungulo ya mbango eka nhluvukiso wa gasi ya le ndzeni ka misava eka nkarhi lowu taka.
- Vukorhokeri bya vaaki byo tirheka, byo kahle byo susumeta hi nhluvukiso na vuakatiko bya matimba ya kahle byo angarhela:** Ku tiyisisa CGS eku hatlisiseni mphakelo wa ntirho wa yona no susumeta nononoko wo cinca eka Mfumo wa Afrika Dzonga.

Handle ka NDP na MTSF, swikongomelo swa CGS swi tumbuluxiwe ku seketela swikongomelo swa DMRE, leswi khokho ri langutisaka eka milawu, ku cinca no tlakusiwa ka swiyenge swa timinarali na eneji swin'we na mphakelo wo tiyiseleka na eneji yo fikelelaka eku kuriseni na nhluvukiso wa Maafrika Dzonga.

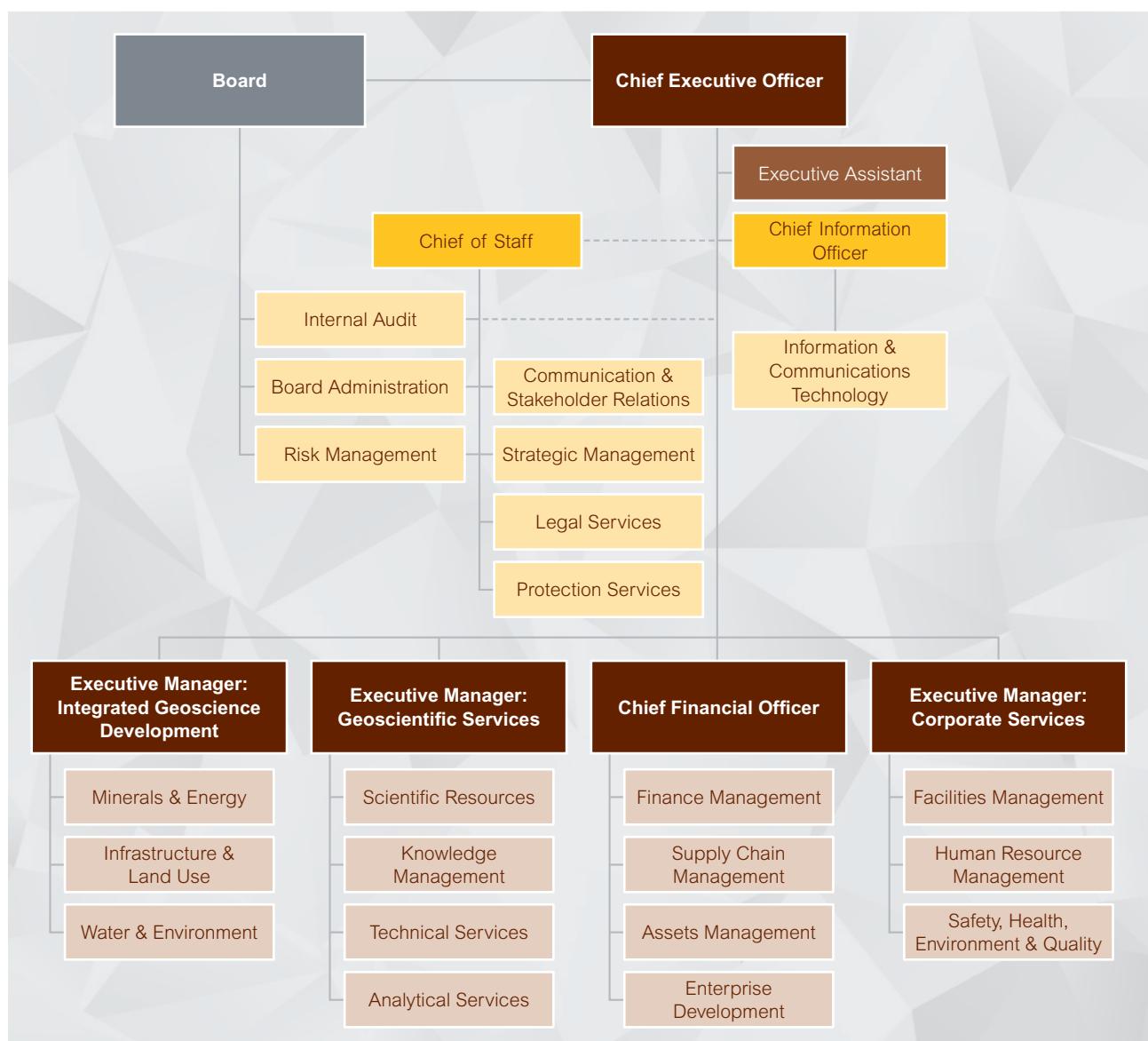
Swikongomelo swin'wana swa DMRE, hi ku seketeriwa hi CGS naswona leyi mgingiko ya yonan yi fambelanaka, ku katsa ku nghenisa xandla eka ku cincela eka ikhonomi ya nthyakiso wutsongo; ku pfula eka vuswikoti lebyikulu bya Afrika Dzonga bya minirali na switirhisiwa swa eneji; ku endla swo hambana na mphakelo wa switirhisiwa swa minirali eku seketeleni swiyenge hi swimbirhi swa migodi na eneji; ku engetela vuvekisi eka xiyenge xa minirali na mafurha, vuandlalo bya misava na kusuhi na lwandle; ku engetela nkavelo wa Afrika Dzonga wa timinirali ta misava na makete wa eneji; ku engetela nkavelo wa mpimanyeto wa mphakelo wa Afrika Dzonga; ku andlala swihlovo swa eneji hi ku simekiwa ka Kungu ro Hlanganisa Swihlovo ra 2019; ku engetela vuvekisi eka miako eka swiyenge hi swimbirhi swa mfumo na leswi nga riki swa mfumo; mphakelo wo angarhela na swikili leswi faneleke eka xiyenge xa migodi na eneji. CGS yi teka masungulo ya mafambiselo ku suka eka MTSF ya mfumo ya 2019 kuya eka 2024, Xiboho xa Vatirhisani eka Endlelo ro Tiyiseleka ka ku Kula na ku Cinca ko Twala eka Mabindzu ya migodi bya Afrika Dzonga bya DMRE, na Xiviko xa Ndzavisiso xa 2019 xa Sayense, Thekinoloji na Vutshuri xa Ndzwawulo ya Sayense na Vutshuri (DSI).

6

XIVUMBEKO XA NHLANGANO

Xivumbeko xa CGS (Xifaniso xa 2) xi hlamusela xivumbeko xo vika xa nhlangano. Xivumbeko xi tumvuluxiwe ku seketela ku tirha kahle, ka kahle na nsusumeto wa nhlangano na ku longoloxa mavumbekelo ya Bodo ya Valawuri na vufambisi nkulu. Xipanu xa vufambisi nkulu xa CGS xi rhangeriwa hi Muofisiri Nkulu wa Vufambisi (CEO) loyi a rhangeriwaka hi Mulawuri wa

vutihlamuleri (Bodo ya CGS – langutisa Xiphemu xa C xa xiviko lexi). Xipanu xa vafambisi nkulu, hi le tlheloo, xi languta ntlhanu wa tihofisi ta vufambisi: Nhluvukiso wo Hlanganisa Sayense ya Dyondzo ya Misava, Vukorhokeri bya Xisayense bya Dyondzo ya Misava, Hofisi ya Timali, Hofisi ya CEO na Vukorhokeri bya Khamphani (langutisa Xiphemu xa A, xiyenge xa 7).



Xifaniso 2: Xivumbeko xa nhlangano wa CGS

7

XIPANU XA VUFAMBISI NKULU BYA CGS



Tanana Mosa Mabuza

Muofisiri Nkulu wa Vufambisi



Dokodela Thuli Khumalo

Murhangeri wa Vatirhi*
Mininjhere Nkulu wa Vukorhokeri bya Dyondzo ya sayense ya misava (Mukhomeri) Mitirho



Tanana Thabo Molikoe

Muofisirinkulu wa Timali (Mukhomeri)



Tatana Willem Meintjes

Mininjhere Nkulu wa Nhluvukiso wa Dyondzo ya sayense ya misava yo Hlanganisiwa (Khomela)



Manana Zodwa Mbhatha

Mininjhere nkulu wa Vukorhokeri bya Khamphani

* Murhangeri wa Vatirhi u tlhela a tiviwa tanihu Mininjhere nkulu eka Hofisi ya CEO.



XIPHEMU XA B MARUNGULA YA MATIRHELO

Xiyenge lexi xa xiviko xi nyika marungula ya matirhelo laya kombisaka mphakelo wa vukorhokeri lowu fikeleriweke hi CGS. Marungula laya kumekaka laha ya pfumelelana na mafambiselo ya kahle ya nhlangano, makungu, mpimanyeto, ku simekiwa, mbalango no hleriba ka migingiriko. Mitshikilelo na mimbuyelo swi suka eka makungu yo hlanganelo, mavonelo ya vafmbisi na migingiriko ku fikelela mimbuyelo leyi lavekaka.

Marungula ya matirhelo ya tiyisisa ku fambelana ka mitshikilelo na mimbuyelo eka kungu ra endlelo (SP), mintshovelo ya nongonoko lowu fambelanaka, swikombiso swa mintshovelo na leswi vekiweke ku fikeleriwa eka kungu ra matirhelo ya lembe (APP) na matsalwa yo hambana yo fambelana mpimanyeto. Xiyenge lexi xi tlhela xi kombisa leswi fikeleriweke swo pimiwa ehenhla ka swikombiso swa matirhelo na leswi vekiweke eka SP, na APP na matswalwa ya mpimanyeto.

1

XIVIKO XA N'WATINKOTA-JENERALI: SWIKONGOMELO LESWI VEKIWEKE

N'watinkota-Jenerali wa Afrika Dzonga u tirha tindlela to hlela leti faneleke eka matirhelo ya marungula kuya hi leswi kumiweke hi tindlela to tihlanganisa ta AGSA. Ku tihlanganisa loku a hi ko tiyisisa. Kahle-kahle, AGSA a nyiki mavonelo yo tiyisisa kumbe yo hetiseka. Vuhleri byi hetisise eka matirhelo ehenhla ka swikongomelo leswi vekiweke byi katsiwile eka xiviko xa vufambisi nkulu, na leswi kumiweke swi vikiweke

ehansi ka nhlokomhaka ya Swikongomelo leswi Vekiweke eka xiviko eka swilaveko swa nawu na vulawuri swa xiviko xa muhleri.

Xiviko xa N'watinkota-Jenerali, kandziyisiweke tanihi Xiphemu F: Marungula ya Timali, ya le tipheji ta 123 ku fika eka 128.

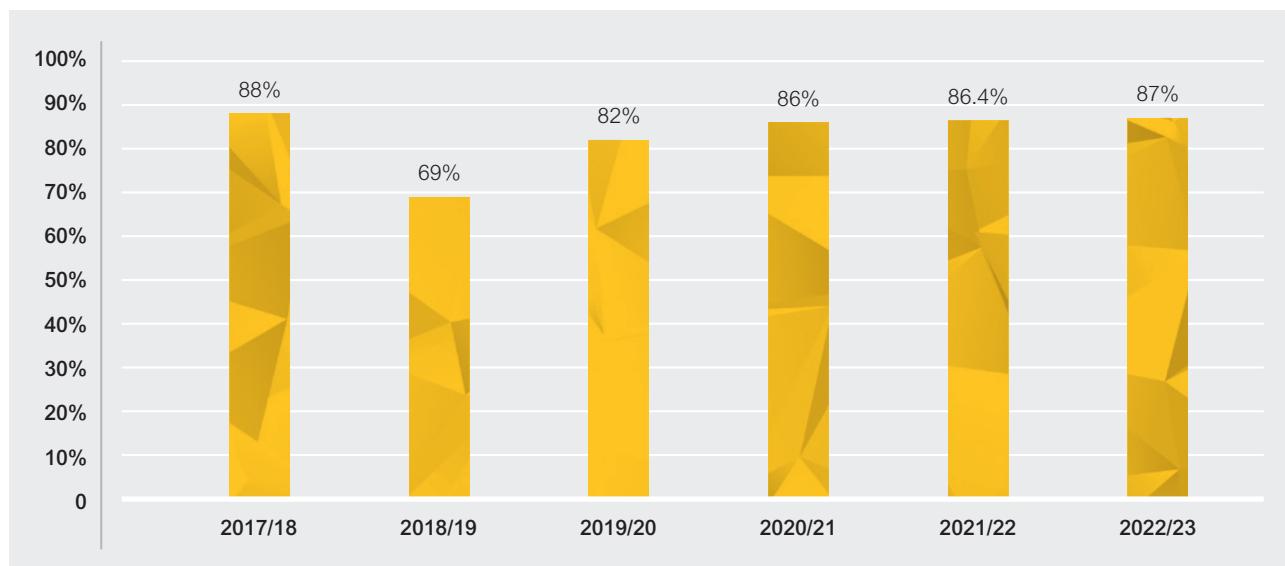
2

MBALANGO WA MATIRHELO

2.1 Mbango wa mphakelo wa vukorhokeri

Makumu ya nkari wa xiviko wu yimela lembe ra vutsevu ro yisa emahlweni ku simekiwa xiphemu xa sweswi xa IMMP tanihi xitirhiswa xo phakela dyondzo na kambe ya mafambiseloa CGS, leyti langutiseke eka ku simekiwa ka ntirho, leswi kumekaka eka nawu, Nawu wa Dyondzo ya sayense ya misava, (Nawu wa 100 wa 1993 tanihi leswi wu cinciweke).

Leswi swi katsa ku hlengeletiwa, ku endla, ku humelerisa, ku hlamusela no hangalasa datara ya nkoka wale henhla wa dyondzo ya sayense ya misava, marungula na vutivi bya Afrika Dzonga. IMPP yi langutisa eka ntlanu wa minkoka leyti longolixiweke laha na le ka matirhelo laya kombisiweke. CGS yi fikelerile swo tala leswi a swi kunguhatiwile swa APP eka lembe leri langutisiwaka no kuma minkutlunyo ya matirhelo ya 87%. Xifaniso xa 3 xi komisa matirhelo hinkwawo ya CGS ku sukela eku sunguleni ko simekiwa ka IMMP.



Xifaniso 3: Matirhelo yo angarhela ya nhlangano ku sukela eka ku simekiwa ka IMMP

Nhlokohaka 1: Dyondzo ya sayense ya misava ya Switirhisiwa swa Minirali na Eneji

Mfumo wa Afrika Dzonga wu tivisile kungu ra wona ro tiya ku fikelela 5% ya mpimanyeto wo kambela wa kwalomu ka US\$10 wa mabiliyon i hi lembe eka ntlhanu wa malembe kuya eka ntlhanu. CGS yi na nkateko wo va eku rhangeleni ko pfuxeta no endleka kahle mbalango wo kambela wa tiko, kuya hi nkoka wa xivumbeko xa misava lexi hlamuselaka leswaku tiko ri tshama riri emahlweni eka ku kambela. Kahle-kahle, CGS yi nyika nseketelo wa sayentifikasi/xithekiniki xa misava eka matshalatshala laya rhangeriweke hi DMRE yo fana na EERRP ya Afrika Dzonga, tidyondzo ta masungulo ta mbango wa misava ta nhluvukiso wa gasi ya hansi ka maribye eKaroo, Nongonoko wa Mafambiselo ya Migodi na Mbango wa Mati (MEWMP) tanahi Endlelo ro Kambela.

Ku nghenisa xandla ka CGS eka vukona bya eneji ya tiko na ku cincela eka eneji ya kahle swi suka eka masungulo tiphurojeke to tala leti endlaka GTP. Xikombiso, CGS yile ku lavisesi vuswikoti bya ndzavisiso wa nkoka wa misava eAfrika Dzonga wa nongonoko wo pfuxetiwa hi vunthswawo tiyiseleka eka nkarhi wa le xikarhi na wo leha swin'we no ya emahlweni ku langutisiwa eka swihlawulekisi swa tisisitimi ta migodi ta 'tibetir ta minirali' na 'timinirali ta vumundzuku'. CGS yi tlhela yiva ejensi yo simeka ya phurojeke ya CCUS, leyi kambelaka ku hunguta thyaka na ku tirhisiwa eAfrika Dzonga tanahi ku nghenisa xandla ka nkoka eku tiyisesi ka ku tiyimisela ka tiko eka eneji yo basa na ku cincela eka ku cinca ka maxelo.

Ndzima eka ku simekiwa ka mhaka ley iya CGS GTP, hambileswi swi nga le ka xiyenge xa masungulo, yi nyika ntshembho wo enerisa leswaku ku kula ka ikhonomi yo angarhela ley i lavekaka na nhlaviseko wa swilaveko swa eneji ya tiko swi ta hatlisisa ku fikeleriwa.

Nhlokohaka 2: Dyondzo ya sayense ya misava eka Rihanyo, Mati ya le hansi ka misava na mbango

Ku kambela minirali na mgingiriko ya kambela swi cinca ku kongoma eka ku engetela ko tiyisisa eka vurhangeri bya mbango. Ku vumba ndzingano exikarhi ka nhluvukiso wa migodi na nsirhelelo wa mbango swi hundzuke yin'we ta tindhawu ta masungulo ya ndzavisiso wa CGS. Kuya hi leswi, mhaka yo hanya swin'we ya timhangu letimbirhi to kwetlembetana i nhlokohaka ya ndzavisiso lowu lavaka

ku tisa ku twanana eka ku balansa ku hanya swin'we hi ndzavisiso wa xisayense. Ku ya emahlweni, ku twisia swihlovo swa mati, ngopfu-ngopfu eka vonelo ra mhaka ya leswaku Afrika Dzonga i tiko ro pfumala mati, i ndhawu ley i rhangisiwaka ya ndzavisiso ehansi ka nhlokohaka ley i. Datara na marungula leswi hlengeletiweke ku suka eka nhlokohaka ley i swi endleriwe ku twisia tisisitimi ta maribye yo hlayisa mati ta laha tikweni na le xifundzeni ku letela ku tiyiseleka ka ku tirhisiwa ka swihlovo swa mati ya le hansi ka misava na ya le henhla.

Nhlokohaka 3: Dyondzo ya sayense ya misava ya Miako na Matirhiselo ya Misava

CGS yi na matimba ya xinawu ku nyika vuleteri bya xiphurofexini na xithekiniki eka nhluvukiso wa miako, ngopfu-ngopfu eka tindhawu ta maribye. Ntirho lowu wu ndlandlamuxihihi Nawu wa Dyondzo ya sayense ya misava (Nawu wa 16 wa 2010) ku hlanganisa vuheri no pfuxeta ka tindhawu hinkwato ta miako leti tekiwaka tiri na makhombo yo onha misava swinene. CGS yi yisa emahlweni ku tihlanganisa na Ndzwawulo ya Tiko ya Mfumo wa Ntirhisano na Timhaka ta Xintu na timhasipala tingaringari ku kuma tindlela to tirhisa dyondzo ya sayense ya mati ku ringanya matirhiselo yo ringanelia ya misava na nhluvukiso wa miako ya mojulu wa nhluvukiso wa xifundzantsongo (DMM). CGS yiya emahlweni ku endla ntirho wa yona yo hlayisa netiweke yo ninginika ka misava ya tiko, leyi yaka emahlweni ku kuma ku ninginika ka misava ka ntumbuluko na ko vangiwa hi migodi eAfrika Dzonga.

Nhlokohaka 4: Ku Kambela Dyondzo ya sayense ya misava

CGS hi switsongo yile ku tiyisiseni ntalo wa tshula wa xisayense eka tidyondzo to hambana na switirhisiwa eka tidyondzo ta dyondzo ya sayense ya misava. Thekinoloji ya dironi ya tirhisiwa ku fikelela ntirho wa CGS na ku nyika ndlela yintshwa ley i nga si ku endliwaka yo kuma datara ya dyondzo ya sayense ya misava ku kuma mavonelo ya Misava ku pfuneta switirhisiwa swa mangavulawa. Eku fikeni ka ku Cinca ka Thekinoloji ka Vumune (4IR), CGS yi tinyiketile eka ndzavisiso eka ku tirhisa vutlharhi lebyi nga riki bya ntumbuluko (AI) eka dyondzo ya sayense ya misava hi ku vumba switirhisiwa ku fikelela, eka swin'wana, sisitimi ya migodi ya ndhawu yo tika na mitlhontlo yo kuma mati ya ehansi ka masiva.

Nhlokohaka 5: Vuxaka bya Dyondzo ya sayense ya misava

CGS yi lemuka no simeka ntirho wa yona tanahi xitirhisiwa xa sayense xa dyondzo dyondzo ya sayense ya misava eka pholisi ya matiko mambe ya hi ndlela yin'wana eka Riphabliki ra Afrika Dzonga. Eka lembe leri hleriwaka, minonganoko ya mimepe ya dyondzo ya sayense ya misava ya xiymo xa le henhla eSwatini, Namibiya na Malawi yi yile emahlweni. Leswi swi katsa ku vumbiwa ka mitlawa ya datara yo hambana yo hlanganisiwa ya dyondzo ya sayense ya misava eku seketeleni swikongomelo swo hluvukisa timinirali na eneji. Tilhandlakambirhi, nonganoko lowu wu tlhela wu nyika nseketelo wa xithekiniki eka swikongomelo swa vuxaka swo hambana leswi tekiweke hi South Sudan, Ivory Coast, na Niger, hi ku langutisa eku kumeni tindhawu tin'wana to engetela to vuyerisa no tirhisa tithekiniki ta vutshuri ta CGS ku hatlisisa nhluvukiso wa dyondzo ya sayense ya misava. CGS yi sungule ntirho wa Vumatsalana wa nkarhi hinkwawo wa OAGS, lowu tlakusaka vuxaka exikarhi ka swirho swa mifumo ya Afrika eka mhaka ta ndzavisiso wa dyondzo ya sayense ya misava. OAGS yi yimela ku tsakela ka vuheri bya xivumbeko xa misava eAfrika no tirhisana swinene na, exikarhi ka swin'wana, Vuheri bya xivumbeko xa misava bya Europa ku simeka PanAfGEO (Nseketelo wa Matiko ya Afrika eka Mindzavisiso ya Xivumbeko xa Europa-Ntirhisano wa Mindzavisiso ya Xivumbeko xa misava ya Nhlanguwa Afrika etikweni nkulu ra Afrika.

Bindzu ra CGS

Eku simekiweni ka ntirho wa yona, ku tirhisana exikarhi ka CGS na vatirhisani va nkoka ku katsa, ku nga pimiwi eka:

- Tiphrojeke ta mafambiselo ta tindzawulo tin'wana ta Mfumo/swivandla na swiyenge swa mfumo.
- Tiphurojeke ta xiyege lexi nga riki xa mfumo.

Tanihi leswi bohiweke hi nawu, CGS yi yile emahlweni ku simeka tiphurojeke leti bohaka na mitirho leyi hlamsueriwaka eka (Nawu wa 100 wa 1993 tanahi leswi wu cinciweke). Leswi swi katsa, eka swin'wana, leswi landzelaka:

- Netiweke yo ninginika ka misava ya tiko, yi tlhela yi fambelana na tinetiweke ta matiko ya misava, leyi langutisaka ku mingiriko yo ninginika ka misava etikweni;
- Ku langutisa gingiriko wa mpfumawulo wa matiko ya misava i xiphemu xa ntirhisano wa yona na Nhlanguwa wo Twala wa Ntwanano wo Yirisa ku Kamberiwa ka Nyutliliya;

- Vuhlayisi byo Nkoka ku Hlayisi Tibhorho ta Tiko, byi na xikene lexi nga na vyswikoti byo hlayisa kwalomu ka 850km wa nkoka wa tibhorho na switirhisiwa swin'wana swa nkoka swa xivumbeko xa misava;
- Vuhlayisi bya Muzyamu ya Dyondzo ya sayense ya misava ya Tiko, leyi nyikaka marungula no hlayisa leswi nga tolovelekangiki, tisampulu ta nkoka na ta xivumbeko xa xa ndzhaka ya misava;
- Layiburari na Vhengele ra tibuku ta Dyondzo ya sayense ya misava ya Tiko, leyi nyikaka minkandziyiso ya swivumbeko swa misava na mimepe eka vaaki.
- Xitirhisiwa xa Vuhleri bya Dyondzo ya sayense ya misava ya Tiko, lexi kumekaka ku hlela, exikarhi ka swin'wana, tisampulu ta xivumbeko xa misava, tisampulu ta mati na switirhisiwa mbisi swa vumaki.

Ku ofuxetiwa ka Xitirhisiwa xa Vuhleri bya Dyondzo ya sayense ya misava ya Tiko

Ku sukela loko ku tumbuluxiwire Vuhleri bya Xivumbeko xa misava (leyi rhangeleke CGS) hi 1912, Yuniti yo Vukorhokeri byo Hlela ('Laboretari') yi ve na nkoka ku vona ku humelela ka ntirho wa CGS. Ku suka hi 2018, makhombo ya swo biha ya humelerile eka laboretari, yi boheka ku pfala hikwalaho ka nthiyakiso wa le henhla. Mhaka leyi nga tsakisiki yi nyanyisiwe hi ku sindzisiwa ku tshama emakaya etikweni ka COVID-19 hi 2020. Ku nghanisiwa ka sisitimi yo hisa, fambisa moya, na yo lawula moya (HVAC) na yona yi tlhele yi khumbha ku sungula ku tirha na vukorhokeri lebyi a byi nyikikiwa hi laboretari. Hi ku famba ka nkarhi, swiyenge swin'wana swa laboretari swi pfuriwile kambe swi nyika vukorhokeri byo pimiwa hikwalaho ka swipimelo leswi a swi ringanele ntsena vutshamo na mbango.

Vufambisi bya CGS byi thorile ku pfuxetiwa ka Vukorhokeri byo Hlela bya nhlanguwa eka lembe leri hleriwaka. Masungulo lawa ya sungurile hi ku tumbuluxiwa ka xiringanyeto xa nkoka ku pfuxeta laboretari. Nkoka wa xiringanyeto wu pasisiwile eka kotara ya 4 ya 2022/23. Hi nkarhi wo fana, mitirho ya xihatla ya laboretari a yiri eku lunghisiweni. Xiphemu lexi ringanyetiweke xi ta tirha hi ku hetiseka eka lembe ximali lerintshwa kasi na tindlela to pfuxeta ti ta katsa ku vumbiwa ka swiyimo swo hunguta mbango na tindlela tanahi loko nhlanguwa wu tilulamisela ku amukeriwa eka Swiyimo swa Nhlanguwa Matiko (ISO). Eka humelela, laboretari yi ta boheka ku landzelela eka sisitimi ya matirhelo leyi fuxetiweke tanahi xiphemu xa ku antswisiwa ka yona no simeka vulawuri bya nkoka na milawu yo lawula vuheri ku kombisa ku landzelela

swilaveko swa maendlelo ya sweswi ya nkoka na swipimelo leswi vekiweke hi ISO. Leswi i ku vona leswaku vukorhokeri bya nkoka wa kahle na maendlelo swi tshamisekile eka ku tirheka no tiyiseleka eka laboretari leyi heleleke.

Ku pfuxiwa ka laboretari kuta hi nkarhi wa kahle – ngopfungopfu sweswi leswi Holobye wa Swicelwa swa Minirali na Eneji a nyikeke swiyenge swa leswi nga le hansi ka vurhangeri bya yena xileriso xo nghenisa xandla ku fikekela minimamu ya 5% eka nkavelo wa kambela wa misava. Leswi a swi nge pfuni ntsena laboretari ku tirhisa ndhawu ya yona, kambe ku tlhela yi katsa eka ku nghenisa xandla ka CGS eka swiboho swa nhluvukiso swa Afrika Dzonga. Leswi swi katsa ku kula ka ikhonomi, ku tumbuluxa mitirho, ku herisa vusweti na vutomi bya kahle eka hinkwavo.

Hi ku languteriwa ka ku tlakuka ka micingiriko yo kambela ematikweni ya misaveni, matiko yo tala ya lava ku kurisa tiikhonomi no vumba vutomi byo antswa eka vaakatiko va vona hi ku hangalasa minonganoko ya swicelwa swa minirali, laboratari ya CGS yi lava ku antswisa matirhelo ya yona hi ku seketela swilaveko hinkwaswo swa matirhelo ya mitoloveloo hinkwayo ya laboretari ya kahle. Entiyisweni, laboretari yi ta tekela enhlokweni Kungu ro Simeka ku Kambela leri pasisiweke hi DMRE. Nkoka wo hatlisisa vukorhokeri byo hlela eka tinhlokohmaka ta nkoka to hambana eka CGS a ti nge languteriwi ehansi. Xilaveko lexi xi katsa ku seketela minonganoko ya tiko ya eneji, mati, na swakudya swo ringanelo swin'we na nhluvukiso wa miako hi vutshuri na vukorhokeri byo fambelana lebyi endleriweke vatirhisani va nkoka. Datara na mahungu leswi kumiweke ku suka eka vukorhokeri bya laboretari i xiphemu xa datara ya mphikizano leyi endleriweke ku antswisa ku titshembha ka vavekisi no endla Afrika Dzonga kuva ndhawu yo koka rinoko eka ku kambela, tanihi leswi swi veke khumbe ra malembe laya hundzeke. Tanihi le ka nkarhi lowu hundzeke, laboretari yi nga tlhela nakambe yiva ndhawu yo rhangela vukorhokeri eka tikonku ra Afrika.

Ku xava michini yimbirhi yo cela swihlovo

Emakumu ya 2021/22, CGS yi kume mpfumelelo wo sungula ku xava michini yimbirhi yo cela swihlovo. Kuya hi PFMA, leyi i nhundzu ya nkoka. Ku xava loku swi langutele ku antswisa ku simekiwa ka GTP na ku kuma datara ya dyondzo ya sayense ya dyondzo eku tirhisiweni eka swihlawulekisi swa maribye na ku ringanyeta swihlovo swa minirali na mati ya le hansi ka misava. Eku sunguleni ka 2022/23, ku thoriwa ka muphakeri wa vukorhokeri na muendli wa xitirhisiwa xidzi (OEM) xa michini yimbirhi yo cela va sungule ku cela. Ejensi ya Mabindzu ya Timali Titsongo yive ya nkoka eku

nyikeni nseketelo wa timali eka ku nyika vukorhokeri ku sungula hi phurojeke. Hambileswi swiphemu swin'wana swi odiweke ku suka entsungweni wa malwandle, swi tisa ku hlwela, tinsimbhi ti endliwe kwala tikweni. Hambiswiritano, swivangelo swo tala swi tshikilele ku dilivhariwa ka tinsimbhi timbhiri kasi CGS yi kume ntsena nsimbhi yo sungula yo cela hi February 2023 – hi ku rindzela ku nghenisiwa ka tilekitirinoki eka xitirhisiwa.

Ku tisiwa ka muchini wo cela wo sungila, loku a ku languteriwe hi 31 January 2023, ku hlwerile. Ku tisiwa ka muchini wo cela, xikan'we na tilorhi to famba na wona na khompiresa, swi hetelele swi humelerile hi ti 22 February 2023. Xo biha, muchini wo cela a wu nga tirhi eku sunguleni, hikwalaho ka swiphemu swo hambana leswi a swi nga tirhi swa mekhenikhalii na elekitironiki. Hambi ku ringetiwe ku tihlanganisa na OEM, ku lunghisa loku a ku laveka a ku nga endliwi hi nkarhi. Kuya hi leswi, a swi kotekangi ku yisa muchini wo cela eka tiphurojeke tanihi leswi a swi languteriweke ha kona. Muchini wo cela wu languteriwe ku tirha hi ku hetiseka eka lembe ximali lerintshwa. Ku tisiwa ka muchini wo cela wa vumbirhi na kona ku languteriwe eka lembe ximali lerintshwa.

Loko michini yo cela yi tirha kahle, CGS yi ta rhangisa ku yisiwa ka michini kuya hi ku nghenelela ka CGS eka Kungu ro Simeka ku Kambela.

2.2 Mbango wa nhlangano

Eka lembe ximali leri hundzeke, timininjhere nkulu timbirhi ta xisati ti thoriwile – un'we eka Hofisi ya CEO kasi un'wana eka Xiyenge xa Vukorhokeri bya Khampani.

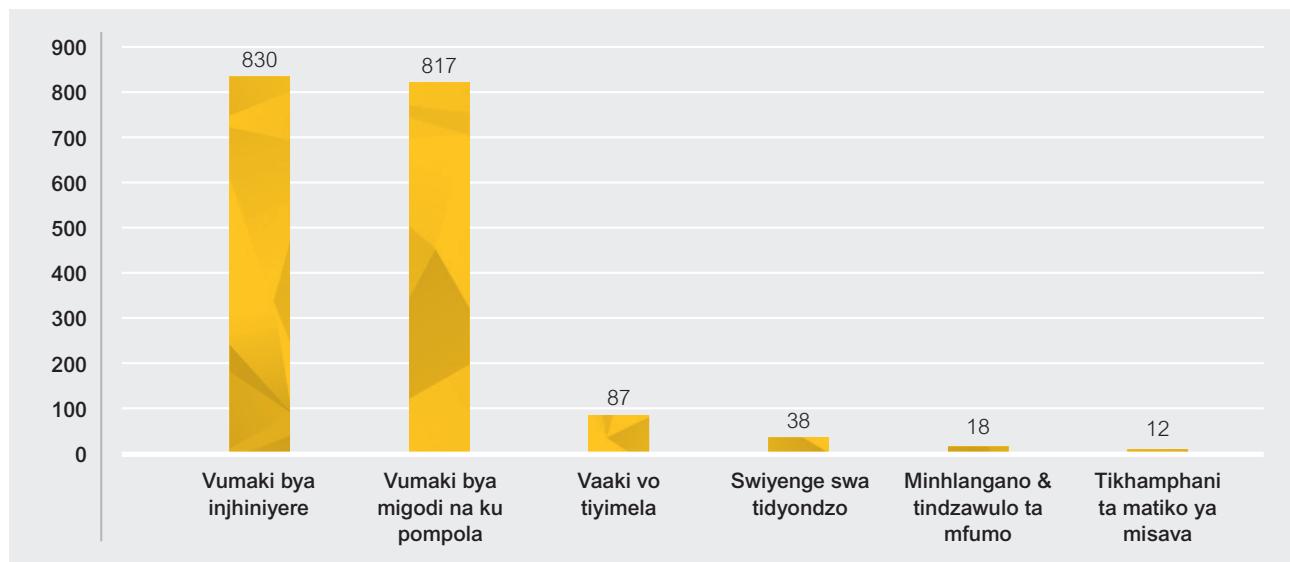
Ku kavanyetiwa ka nkarhi wo leha ka mphakelo wa gezi ka nkarhi na nkarhi (ku nga, ku timiwa ka gezi hi ku siyerisana) kuya emahlweni ku tshikilela tindhawu ta ntirho ta CGS. Eku sunguleni ka lambe ximali leri hleriwaka, CGS a yi tirhisa tijenaretara ta dhizele leti tirheke ku hundza nkarhi wa tona. Kuya hi xivangelo, vatirhi va kombise swivilelo swa mbango leswi vangiweke hi musi lowu humeya enerisiwaka hi xitirhisiwa. Kutani, ku hunguta tshikilelo lowu, CGS yi yile emahwени ku rhenta tijenareti ta nkarhi wa xihatla tanihi xitshunxo xa nkarhinyana, ku nyika vufambisi nkateko wo tumbuluxa ndlela ya eneji ya nkarhi wo leha kuya hi mphakelo wa eneji wo tiyiseleka. Ku engetela, sisitimi ya mphakelo wa gezi yo kavanyetiwa yi nghenisiwile ku nyika gezi ro pfuneta na antswisa nsirhelelo hi nkarhi wo kavanyetiwa ka gezi.

Tanihi vinyi va datara ya vuandlalo bya misava na le hansi ka lwandle na vutivi eAfrika Dzonga, CGS yiya emahlweni

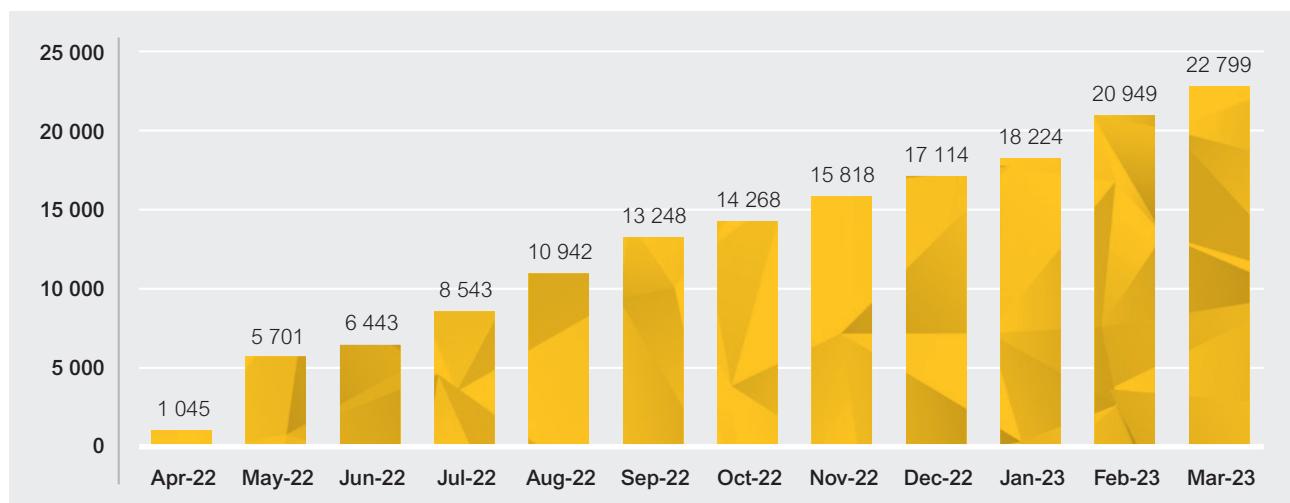
ku hangalasa datara na marungula swa dyondzo ya sayense ya misava eka vatirhisani na vatirhisi hi ku tirhisa Hofisi ya Marungula ya Vaaki. Marungula na datara swa dyondzo ya sayense ya misava swi hangalasiwile hi le ka data@geoscience.org.za na info@geoscience.org.za eka vatirhisani vo hambana, ku katsa vaakatiko, tifeme ta migodi, tikhamphani ta Mfumo, swiyenge swa dyondzo yale henhla na tikhamphani ta matiko ya misava (Xifaniso xa 4). Datara na marungula swa dyondzo ya sayense ya misava yi katsa datara ya tibhoro ya xivumbeko xa misava/cela, mimepe ya minirali, mimepe ya xivumbeko xa misava xa tindhawu to hambana, minkandziyiso, maribye ya dolomayiti na swiviko swa xithekiniki xa xivumbeko xa misava, swivumbeko swa

misava, khemikhali ya misava na datara yo ningingika ka misava na yale ndzeni ka mati.

Ndhawu ta datara ya dyondzo ya sayense ya misava na ndhawu ya marungula, yi simekiwe hi 2021/22, yiya emahlweni ku nyika tirhekbedo ta datara ya dyondzo ya sayense ya misava leti kandziyisiweke hi CGS hi xivumbeko xa mimepe, matswalwa na tidatara. Marungula lawa ya kumeka eka vatirhisani na tikhaisimende emisaveni hinkwayo. Ku tlula 22 000 wa tidawunilodi (Xifaniso xa 5) ti rhekhodiwile ehansi ka lembe leri hleriwaka hi swikambelo ku fana na mimepe ya xivumbeko xa misava, switsalwana, tinhlamuselo ta mepe, minkandziyiso/swiviko na tifayili ta xivumbeko xa xivumbeko xa misava.



Xifaniso 4: Nhlayo ya swikombelo hi ku tirhisa info@geoscience.org.za na data@geoscience.org.za kuya hi vumaki bya 2022/23



Xifaniso 5: Tidawunilodi ta datara hi ku tirhisa ndhawu ya mafambiselo ya dyondzo ya sayense ya misava, April 2022–March 2023

2.3 Ku tumbuluxiwa ka pholisi ya nkoka na ku cinca ka milawu

A ku vangi na ku cinca ka pholisi ka nkoka eka Nawu wo cinciwia wa Dyondzo ya sayense ya misava (Nawu wa 16 wa 2010) ku sukela loko wu sungule ku tirha hi July 2012.

Ku fikelela Swinawana swa Nawu wa dyondzo ya sayense ya misava i swa nkoka eka vun'winyi lebyi nga le nawini bya datara na marungula swa dyondzo ya sayense ya misava swa le henbla ka misava na le kusuhi ka lwandle. I vutihlamuleri bya CGS ku vona ku hlayiseka ka kahle no hlawula ka datara na marungula swa dyondzo ya sayense ya misava tanahi ndzhaka wa mafambiselo wa Afrika Dzonga. Hi 2022/23, CGS yi yile emahlweni ku tihlanganisa na vangheni va xandla vo hlaya eku nyikeni marungula eka Swinawana leswi gazetiweke no hlamusela swi va erivaleni maendlelo laya faneleke ku landzeleriwa eku nghaniseni datara eka nhlangano. Hi 2023/23, CGS yi ta nghanela eka pfhumba ra vulemukisi ku hlamusela leswi yisiweke swa datara na marungula swa dyondzo ya sayense ya misava. Ku simekiwa ka Swinawana swa Nawu wa dyondzo ya sayense ya misava ku sungula hi March 2022, ku tshembhela eka ku vona kuri kuna marungula yo ringanelo yo helela na miako ya thekinoloji ya vuuhlanganisi (ICT). Entiyisweni, CGS yi kume ndhawu yo hlayisela na miako (ku katsa miako yo kuma makhombo) ku kondletela ku nghanisa ka dijitali eka datara na marungula swa dyondzo ya sayense ya misava. Eka lembe ieri hleriwaka, CGS yi tumbuluxe ndhawu ya dijitali yo yisa datara na marungula swa dyondzo ya sayense ya misava (Xiphemu xa 1) hi ku tirhisana na vatirhisani va le handle vo hambana. Xiphemu xa 1 xi hetisiwile naswona xi ta sungula ku tirha emasunguleni ya 2022/23. CGS yi tlhele yi endla xiringanyeto eka tindlela eku simekiweni ka datara na marungula swo vonaka swa dyondzo ya sayense ya misava leswi nga hetisekaka eka tindhawu leti vekiweke eka miako ya CGS. Hi 2022/23, 50 wa switsalwana swi yisiwile hi le ka tindhawu leti nga kona, ku katsa marungula laya fambelanaka na matirhelo yo humelela na swikombiso swo tiyimisela ku endla ndzaviso wa dyondzo ya sayense ya misava.

Xiphemu xa 2, lexi kongomeke ku nghanisa hi ndlela ya dijitali datara na marungula swa dyondzo ya sayense ya misava no yi humelerisa endzeni, xi sungule hi lembe ieri hleriwaka naswona xi languteriwe ku hetisiwa emakumu ka xiphemu xa 1 xa 2023/24. I swa nkoka ku lemuka kuri CGS yina xiboho xo hlayisa swiyimo swa le henbla swa mpimo

ya xihundla na vunene kuya hi datara na marungula swa xisayense xa misava leswi nghanisiweke (swiviko, tisampulu, datara yimbisi, sw.sw).

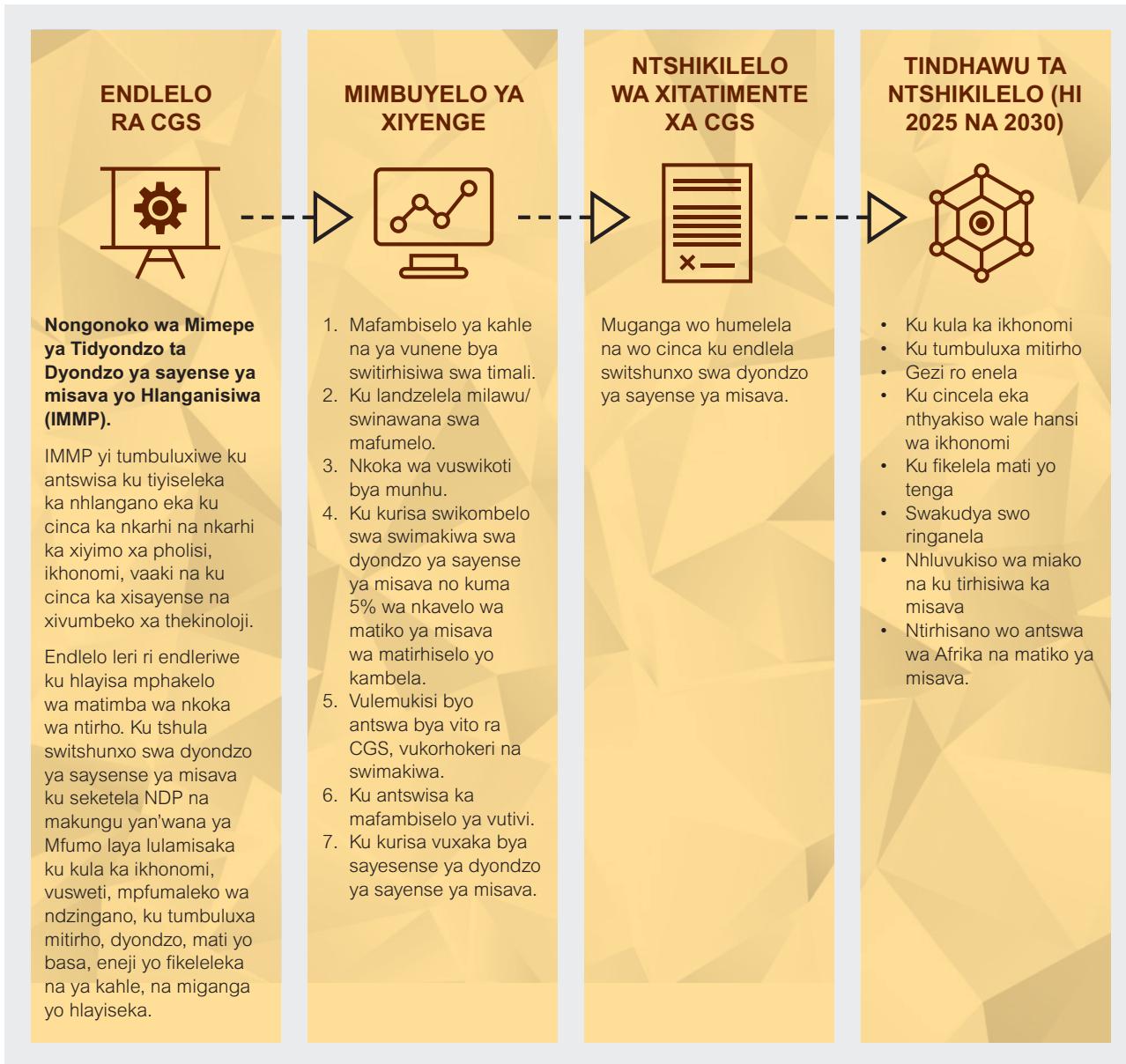
MPRDA ya 2008 yi hlamusela ntirho wa CGS kuya hi marungula ya xivumbeko xa misava laya hlaneletiweke hi micingiriko yo kambela eAfrika Dzonga. Kuya hi manghenelo yantshwa ya mafambiselo, CGS yi fambisana na micingiriko ya swilo swa masiku lawa eka ku cinciwia ka MPRDA, Nawu wa Mafambiselo ya Mbango wa Tiko (Nawu wa 107 wa 1998) na Nawu wo Kunguhata Vutshama na Mafambiselo ya Matirhiselo ya Misava (Nawu wa 16 wa 2013).

DDM yi lava ku tiyisisa ntalo wa mphakelo na vuswikoti bya timhasipala. Kuya hi leswi, CGS yi tihlanganisile swinene na nhlayo ya timhasipala ta swifundzantsongo na ta swifundzankulu swa Kapa Vupeladyambu, KwaZulu-Natala, Limpopo na Mpumalanga ku sungula ku nghanisa xandla eka xisayense xa misava eku fikeleleni xikongomelo lexi vekiweke xa DDM.

2.4 Ndzima eku fikeleleni ntshikilelo wa xiyenge na mimbuyelo.

SP 2020–2025 ya CGS yi hleriwile ku vona leswaku kuna ku fambelana na swipimelo swa minimamu swa Rimba ro Pfuxetiwa ra Makungu ya Mafambiselo na APPs, 2020. Swikombiso swa mbuyelo swi cinciwele ku landza manghenelo ya makungu hi ku landza mimbuyelo laya tekiweke hi Mfumo wa Afrika Dzonga. Kutani, SP 2020–2025 ya CGS yi andlariwe ePalamente hi March 2021 na APP ya yona ya 2022/23 yi andlariwe hi March 2022.

Ntshikilelo wa xitatimente xa CGS wu suka eka xitatimente xa xivono xa yona: "Muganga wo humelela no cinca ro pfumelela switshunxo swa dyondzo ya sayense ya misava". Endlelo ieri pasisiweke ra CGS (IMMP) ri seketela ku tiyiseleka ka nhlangano exikarhi ka ku cinca ka miehleketo, ikhonomi yo cinca na ku cinca ka swivumbeko swa thekinoloji. Endlelo ri tiyimisele ku vona leswaku mphakelo wo twala wa ntirho wa le xikarhi no nyika switshunxo swa dyondzo ya sayense ya misava ku seketela NDP 2030 na makungu yan'wana ya Mfumo laya lulamisaka ku kula ka ikhonomi, vusweti, mpfumaleko wa ndzingano, ku tumbuluxa mitirho, dyondzo, mati yo basa, eneji yo fikeleleka na ya kahle, na miganga yo hlayiseka eAfrika Dzonga. Xifaniso xa 6 xi kombisa ndlela ya ntshikelelo ya endlelo ra CGS, mimbuyelo ya yona na tindhawu ta ntshikilelo.



Xifaniso 6: Mbalango wa mafambiselo na Ndlela ya ntshikilelo wa CGS

Tafula ra 1 ri kombisa ndzima leyi endliveke hi nhlangano eka ku fikelela swikongomelo swa ntlhanu wa malembe ehenhla ka mbuyelo wa swikombiso swa SP ya yona swa 2020–2025.

Tafula ra 1: Ndzima leyi endliveke hi CGS eku fikeleleni 2020–2025 ya yona

Mimbuelo	Mbuyelo wa swikombiso	Masungulo	Xikongomelo xa ntlhanu wa malembe	Ndzima eku fikeleleni ka xikongomelo xa ntlhanu wa malembe
Swikongomelo swa MTSF	Xikongomelo xa 1: Mfumo wo hluvuka, wa matikhomelo na vuswikoti			
Mafambiselo ya kahle na ya vunene bya switirhisiwa swa timali	Mpfumaleko wa leswi kumiweke swa matirhiselo ya kahle ya timali	0	Matirhiselo ya swa timali ya kahle hi 2025	CGS ku yi kume mbuyelo wa kahle wa swa timali ku ri hava leswi kumiweke swi nga fambeki kahle (matirhiselo ya kahle ya timali) hi 2021/22 na 2022/23. Ku yiwa emahlweni ku tiyisisiwa malawulelo ya le ndzeni ya kahle ku kuma vuheri bya matirhiselo ya timali bya kahle.
Ku landzelela milawu/ swinawana swa mafumelo	Nhlangano wu landzelerisa milawu leyi faneleke	Xikombiso xintshwa	Nhlangano wo landzelela 100% hi 2025	CGS yiya emahlweni ku tshama yiri 100% ku landzelela PFMA. Ku engetela mune (4) wa nxaxamelo wo landzelela wu endlivile eka lembe leri hleriwaka naswona wu katsile Nawu wo Tlakusa no Fikelela Marungula, Nawu wa Vuxaka bya Vatirhi, Nawu wa Swiyimo swa Nkoka swa Vatirhi na Tindhawu ta Nkoka ta Tiko/Nawu wa Miako ya Nkoka. Kwalomu ka 31 wa swilo leswi nga landzeleriwangiki swi kumekile hi nkarhi wo hlerawa wa nxaxamelo wa 4 wa leswi kamberiwaka. Ufambisi bya CGS byi tiyimiserile ku lulamisa timhaka leti naswona magoza ya matirhelo ya endlivile naswona ya ta landzeleriwa kotara yin'wana na yin'wana ku fikela swi lulamisiwa.
Swikongomelo swa MTSF	Xikongomelo xa 3: Dyondzo, swikili na rihanyo			
Nkoka wa vuswikoti bya munhu	Rimba ra mafambiselo ya talente ku vumba, ku hletela no tiyiseleka ka vatirhi va vuswikoti ra simekiwa	Xikombiso xintshwa	Vatirhi lava nyikiweke matimba, vo cinciwa, khutaziwa na ntalo hi 2025	Rimba ra mafambiselo ya talenta ri tumbuluxiwile naswona sweswi ri le langutisiweni ku pasisiwa na ku simekiweni.

Mimbuyelo	Mbuyelo wa swikombiso	Masungulo	Xikongomelo xa ntłhanu wa malembe	Ndzima eku fikeleleni ka xikongomelo xa ntłhanu wa malembe
Swikongomelo swa MTSF	Xikongomelo xa 2: Ku cinca ikhonomi no tumbuluxa mitirho Xikongomelo xa 5: Vutshamo bya kahle, vutshamo bya vanhu na mfumo wa muganga Xikongomelo xa 6: Ku hlanganisiwa ka vaaki na miganga leyi hlayisekeke			
Ku hatlisisa swikombelo swa marungula ya dyondzo ya sayense ya misava na vutivi ku fikelela 5% wa minimamu ya minkavelo ya ku tirhisiwa eka ku kambela ematikweni ya misava	Ku engetela ku katsa mepe wa dyondzo ya sayense ya misava vuandlalo bya misava	Xikombiso xintshwa	16%	Kuya emahlweni u langutisiwa eka mepe wa sayense ya dyondo ya dyondzo ya sayense ya misava swi kombise ku engeteleka ka nkoka eku fikeleleni vuandlalo bya misava ku suka ehansi ka 5% ku nga si sungula IMMP, kuya eka 12%. Ku fika sweswi, 230 wa nhlayo ya 1 916 1:50 000-mimepe ya xikalui yi kandziyisiwile.
	Ku engetela ku fikelela ka mepe eka dyondzo ya sayense ya misava kusuhi na lwandle	Xikombiso xintshwa	0.6%	Mimepe ya dyondzo ya sayense ya misava kusuhi na lwandle yiya emahlweni hi ku kandziyisiwa ka mimepe yimbirhi ya e kusuhi ka lwandle, yi yisa ku fikelela ka 0.11% eka nhlayo leyi ringanyetiweke ya 1 828 wa mimepe.
	Ku simekiwa ka GTP eka timinirali, eneji, mati yale hansi ka misava, miako, matirhiselo ya misava, vutshuri na mbango	Xikombiso xintshwa	Swikombelo swa vutivi bya dyondzo ya sayense ya misava eka nhluvukiso wa vaaki	CGS yiya emahlweni ku tirhisa no vuyerisa marungula ya dyondzo ya sayense ya misava ku suka eka mitlawa ya datara na lava yi hlengeletaka no yi hlamusela ku suka eka IMMP ku nghanisa xandla eka xihlawulekisi xa minirali na eneji lexi kongomeke ku koka rinoko ra 5% ya ku tirhisiwa ka timali eka ku kambela eAfrika Dzonga eka malembe manharhu kuya eka ntłhanu laya taka. Nkoka lowu engeteriweke eka dyondzo ya sayense ya misava wu endliwile ku nghanisa xandla eka mati ya le hansi ka misava na nhluvukiso wa miako, na ku hlayiseka na matirhiselo ya xinawo ya misava.
Vulemukisi byo antswa bya vito ra CGS, vukorhokeri na swimakiwa	Vun'we bya Vuhlanganisi na ku Simekiwa ka Endlelo ra Vuxaka bya Vatirhisani	Xikombiso xintshwa	Vatirhisani va enerile hi nkoka wa vukorhokeri bya CGS na swimakiwa	CGS yi vekise switirhisiwa na ntalo ku pfuneta eku antswiseni vulemukisi bya vito, vukorhokeri na swimakiwa. Tindhawu to hambana ta swiyenge swa vateki va mahungu Thandlakambirhi, Nhlengeletano ya varhangeri ya sayense ya CGS, leyia yi khomiwe tanihu xiphemu xa u tlangela 110 wa malembe, yi vone tindlu ta swa vuhangalasi bya mahungu lava teke enkhubyeni ku vika leswi humelelaka na minkanelo. Hi lembe leri hleriwaka, 48 wa switsalwana swa vahalangasi va mahungu swi kandziyisiwile, loko vito ra CGS ri kombisiwile eka tichanele to tala, ku fana na minkombiso, tibilibodo, swiyenge swo hangalasa mahungu, tiphodikhasiti, na thelevhixini. Ku engetela, mpimo wo eneriseka ka vatirhisani wu vone ku antswa ka 79.4% - ku tlakuka ku suka ea 66.4% ku rhekhodiwile eka lembe ximali leri hundzeke.

Mimbuyelo	Mbuyelo wa swikombiso	Masungulo	Xikongomelo xa ntłhanu wa malembe	Ndzima eku fikeleli ka xikongomelo xa ntłhanu wa malembe
Dyondzo yo antswa ya dyondzo ya sayense ya misava hi mafambiselo ya kahle ya vutivi	Ku tirhisiwa ka sisistimi ya mafambiselo ya dyondzo ya sayense ya misava yo katsiwa	Xikombiso xintshwa	Ku lawula kahle datara na marungula swa dyondzo ya sayense ya misava hi 2025	<p>Mitlhontlho yo fikelela vukorhokeri tanhi xiphemu xo hlanganisa vuxokoxoko bya datara yi khumbhile swinene ndzima eka nonganoko lowu. Minonganoko yinharhu ya thendara yi tlherisiwile naswona a yi humevelangi. I 66.7% ntsena wa ndzima leyi fikeleriweke. Kungu ro vuyeriwa ri ta simekiwa eka lembe ximali leri rintshwa.</p> <p>CGS yiya emahlweni na minonganoko ya malembenyingi yo dijitali ya datara, yo hundziseriwa na vuheri bya tinkota. Ku fika sweswi, CGS yi fikelele 53.4% (ehenhla ka 60% wa leswi a vekiweke ku fikeleriwa eka lembe ra vumbirhi) eka ku hleriveni ka vuxokoxoko bya datara; 60% (ehenhla ka 60% wa leswi a vekiweke ku fikeleriwa eka lembe ra vumbirhi) ku hlela datara. Ku hundzusiwa ka datara ku hundze loku a ku vekiwile hi 72% (ehenhla ka 100% leyi a yi vekiwile) hikwalaho ka ku ya emahlweni ku sikeniwa mimepe ya sayense misava yo engetela.</p> <p>Makumu ya le mahlweni ya ndhawu yo sunguriwa ka datara na marungula swa dyondzo ya sayense ya misava hi ku landza Swinawana swa Nawu wa Dyondzo ya sayense ya misava ya hetisiwile. Makumu ya le ndzhaku ya ta hetisiwa hi 2023/24. CGS yi ta ringeta ku fikelela xikongomelo xa ntłhanu wa malembe.</p>
Swikongomelo swa MTSF	Xikongomelo xa 7: Afrika ya kahle na matiko ya misava			
Ku kurisa vuxaka bya sayesense ya dyondzo ya sayense ya misava	Ntirhisano wa maendlelo wa matiko ya tinxaka wu tumbuluxiwile	Xikombiso xintshwa	Dyondzo ya sayense ya misava yi ngohenise xandla eka ku tiyisisa "Afrika ya kahle na matiko ya misava" hi 2025	CGS yi hatlisile nonganoko wa ntirhisano ku tiyisisa na varingani va matiko ya misava hi nkarhi wa MTSF. Eka lembe leri hleriwaka, CGS yi sayinile ntwanano wa maendlelo na Vuhleri bay Misava bya Saudi Arabia (SGS) na Gasi ya Oyili ya Japana na Ntirhisano wa Tiko wa Tinsimbhi (JOGMEC) Ntirhisano lowu wa maendlelo wu langutela ku endla ndzavisiso wka tidyondzo hi ku tirhisa tithekiniki ta sisitimi ya marungula ya le nuhetele ya le kule na ya ndhawu (GIS) (na JOGMEC) swin'we na ntirhisano eka tindhawu to hambana ta dyondzo ya sayense ya misava eka ku tsakela ko fana (SGS).

Xiya: Matirhiselo ya kahle ya timaliya ya kombisa i vonelo leri nga ku kumangiki swihoxo. Vonelo ra matirhiselo ya kahle ya timali ri nyikiwa laha leswi kumiweke swi lulamisiweke hi nkarhi wo hlela matirhiselo ya timali.

Ku fikela mbuyelo wa kahle na mafambiselo yanene ya swihlovo swa timali no fikelela matirhiselo ya timali ya kahle kuya hi SP ya sweswi ya 2020-2025, CGS yi ya emahlweni u vumba no hlayisa tisisimi swi va erivaleni, yi veka malawulelo ya le ndzeni no lawula makhombo laya nga vaka kona. CGS yi taya emahlweni yi tsakela ku fikelela matirhiselo ya timali ya kahle. Switatamente swa timali ku ta yiwa emahlweni swi lulamisiwa uya hi GRAP na swilaveko swa PFMA. Swo lawula swi ve swi simekiwile ku vona mafambiselo ya kahle ya nhundzu, mbuyelo wa timali, matirhiselo na swikweleti. Ntirho wa vufambisi bya nxaxamelo wa maxavelo lowu tumbuluxiweke wu ta vona leswaku maxavelo laya fanaleke na sisitimi leri nga kona a ri voyameli tlhelo, ra ringana, ri le rivaleni, ra mphikizano no va ri nga durhi. Hi ku tirhisa vuheri bya tinkota bya le ndzeni na malawulelo ya makhombo, CGS yi valanga matirhelo ua kahle ya le ndzeni, malawulelo ya mafambiselo yo hlela timali no hunguta matikhomelo ya swa timali ku fana vukungundzwana, vukhamba, matirhiselo ya timali laya nga pasisiwangiki, na matirhiselo laya nga fanelengiki na yo tlangisa timali.

Ku landzelela milawu ya mafumelo, swinawana na milawu yin'wana i swa nkoka ku endlela CGS yi nghanisa xandla eku fikeleleni ka Xikongomelo xa 1 xa MTSF, ku nga ku fikelela no hlayisa "Mfumo wa vuswikoti, wa matikhomelo na nhluvukiso". Ku fikelela mpimo wo landzelela lowu amukelekaka, CGS yi tiyimisele ku antswisa no yisa emahlweni ku vumba ku kula eka vufambisi byo landzelela hi ku veka tipholisi leti faneleke no humelerisa leswi nga kona ku fikelela leswi vekiweke swa nhlangano wo landzelela hi xiheri hi 2025. CGS yi tirha hi ndlela yo tika, yo hambana na le ka mbango wo enta na leka matiko laya lawuriwaka, naswona yi landzelerile swinawana swo tala. Ku landzelela swi ta fikeleriwa hi ndlela leyti vekiweke ya nxaxamelo ku vona ku hlanganisa loku heleleke eka matirhelo ya yona.

Nkateko wa kona eka CGS wu kumeka vuswikoti bya vatirhi va yona. Ku koka rinoko, ku hlayisa, ku tihlanganisa no vumba mfanelo wa talenta eka mfanelo wa swiyimo, sweswi CGS yile ku vumbeni rimba ra mafambiselo ya talenta yo fambelana na endlelo ra yona. Rimba leri ri kongoma eka ku aka, ku hletela no tiyiseleka ka vatirhi va vuswikoti emakumu ka nkarhi wa MTSF. Rimba ra mafambiselo ya talente ri ta hlamlula eka ku nghenelela ka nkarhi wo koma, wa le xikarhi na wo leha wa bindzu lowu yaka hi kungu ra vatirhi.

Endlelo ra IMMP ri kongoma ku nghanisa xandla eka ERRP hi ku kuma minimamu ya 5% ya minxavo ya swicelwa

swa matiko ya misava hi tirhisa marungula ya dyondzo ya sayense ya misava na vutivi. Eku endleni ka GTP ya yona, xitirhisiwa xo simeka endlelo ra masungulo ra CGS, nhlangano wu tiyimisele ku tshunxa vuswikoti bya switirhisiwa swa Afrika Dzonga swa minirali na eneji no nghanisa xandla eku fikeleni ku cincela ka ikhonomi leyti nga thyakiseki. Ndhawu leyti langutisiwaka hi CGS yo sungula yiya emahlweni yi humesa 1:50 000-xikalua eka mimepe ya dyondzo ya sayense ya misava ya le henhla na le kusuhi na lwandle, hi ku tirhisa vutivi bya nkoka lebyi endliweke. Ku tiyimisela loku ku kongoma ku funungula vuswikoti bya rifumo ra minirali ra Afrika Dzonga. Mimbuyelo ya nkoka ya mimepe ya dyondzo ya sayense ya misava yi tlhele yi vuyerisa no susumeta nseketelo wa nhluvukiso wa miako wo hlayiseka no tiyiseleka, matirhiselo ya misava hi vululami na vurhangeri bya mbango. Eku sunguleni ka ku Cinca ka Thekinoloji ka Vumune, tithekinoloji leti a ti sungula kuva kona ku fana na michini yo dyondza na tithekiniki ta Al swa antswisiwa ku tumbuluxa vutivi bya dyondzo ya sayense ya misava. Eka lembe leri hlieriwaka, 25 wa mimepe yintshwa ya 1:50 000-ya xikalua dayondzo ya sayense ya mati yi tumbuluxiweke, leswi tiseke 12% yo fikelela ya mepe wa tiko. Ku fikelela loku ku fungha ku antswa ka nkoka ku suka ehansi ka 5% ku nga si sungula IMMP. Mimbuyelo yo engetela nkoka ya dyondzo ya sayense ya misava yo nghanise xandla eka timinirali, eneji, mati ya le hansi ka misava, nhluvukiso wa miako na matirhiselo ya misava, swi kandziyisiwile. Entiyisweni, CGS yi endle dyondzo ya xivumbeko xa misava na xihlawulekisi xa le tshakwini eXifundzeninkulu xa Mpumalanga, ku fikelela eka ntirho wa masungulo wa CCUS, lowu languteriweke ku tisa ku nghanisa xandla eka ku cincela ka ikhonomi leyti nga thyakisiki eAfrika Dzonga. Ku yiwa emahlweni ku langutiwa mimepe ya masungulo na swicelwa swa nkoka, ngopfungopfu mayelana na mimepe na hlawulekisi leswi vuriwaka 'timinirali ra vumundzuku' eXifundzeninkulu hinkwaxo xa Kapa N'walungu. Kutani CGS yile ku endleni ka ndzima eku kumeni 5% ya minxavo ya swicelwa swa matiko ya misava.

Ku antswisa vulemukisi bya vito ra CGS, vukorhokeri na swimakiwa, Vuhamanganisi byo hlanganeli na Endlelo ra Vuxaka bya Vatirhisani swi simekiwile eka lembe leri hlieriwaka. CGS yi simekile endlelo hi xihatla naswona yi sungurile ku tshovela mimbuyelo yo vumba ku engetela ka vulemukisi, leswi tiseke ku kula ka phurofayili ya yona. Nhlangano wuya emahlweni ku valanga ku kula ka vito ra wona hi ku tirhisa switirhisiwa swo fana na vuheri bya vatirhisani.

Tanihi vinyi va datara na marungula swa dyondzo ya sayense ya misava va tiko, CGS yi hetisile Xiphemu xa 1 marungula laya nga karhateki yo fikelela na sisitimi ya mafambiselo ya vutivi leswi nga ta pfumelela vaendli va swiboho eka mafambiselo yo tiyiseleka ya swicelwa swa ntumbuluko no sivela mintshikilelo ya makhombo ya misava, exikarhi ka swikombelo swin'wana. Ntirho lowu wu katsa makumu yale mahlweni ya ndhawu ya dijitali. Sweswi vakhomi na vinyi va datara va nga dipozita datara na CGS eka ndhawu ya yona. Swa koteka ku yisa datara hi wexe leyi fikelelaka swipimelo leswi vekiweke. Ku hunguta ku tirhisiwa ka sisitimi ya mafambiselo ya marungula swa hari mhaka ya nkoka eku simekiweni ka Swinawana swa Nawu wa Datara na dyondzo ya sayense ya misava na Pholisi ya Marungula na Dyondzo ya sayense ya misava. CGS yi vona leswaku kuna mimpimo leyi fanekeke ya vutshembheki ya datara eka vun'winyi bya yona. Ku rhurhisiwa ka datara swa malembenyingi (xidijitali) na vuheri bya minonganoko na vuheri tindhawu to hambana to hlayisela, ku katsa tiborho, ku Nhlengelatano na masalelwemaribyeni swi ya emahlweni, eka swin'wana, swi endle ndzima.

CGS yi kongoma ku antswisa ku simekiwa a ndhawu ya vuxaka bya Dyondzo ya sayense ya misava ku seketela xikongomelo xa pholisi ya matiko mambe ku vumba vuxaka bya ikhonomi na ku seketela minonganoko eku nghaniseni xandla eku vumbeni Afrika Dzonga **yo antswa Afrika ya kahle na matiko ya misava**, swi fambelana na Swikongomelo swa Nhluvukiso swo Tiyiseleka swa Nhlangano wa Matiko 2030 na Ajenda 2063 eka Nhlangano wa Afrika. Minonganoko ya dyondzo ya sayense ya misava yi langutisa eka timhaka ta nhluvukiso wa ximunhu, ku cinca xiyenge, mafambiselo na mafambiselo/vufambisi na ku simekiwa ka minonganoko leyi ku pfumeleriwanekha yona. Eka lembe leri hleriwaka, CGS yi sayinile ntwanano wa maendlelo na SGS na JOGMEC. Tindlela leti to tirhisana ti tiyimisele ku endla vulavisisi hi ku tirhisa rhimoti yo nuhetela na tithekini ta GIS (na JOGMEC) xikan'we na ku tirhisana na tindhawu to hambana ta dyondzo ya sayense ya misava hi ku twanana ka kahle (SGS).



3

MARUNGULA YA MATIRHELO YA NONGONGOKO WA XIYENGE

Kuya hi endlelo ra CGS, ndlela ya mikutlunyo ro ringana ri tirhisiwa ku hlamusela matirhelo yo angarhela ya nhlangano. Mikutlunyo yo ringana yi tala ku pima matirhelo ya CGS eka levhele ya khampahni na le ka munhu. Minonganoko ya ntlhanu ya endlelo yi katsa tikhaisimende ta CGS, endlelo ra mabindzu yale ndzeni, ku humeleta ko dyondza na ku kula na

timali (Xifaniso 7). Minonganoko leyi yi hlamula eka nkombo wa mimbuyelo ya xiyenge, tanhi leswi hlamuseriweke hi SP ya CGS ya 2020–2025 no fambelana na swikongomelo swa MTSF swa Mfumo. Minonganoko ya mafambiselo yi tlhela yi hlamusela tindhawu to fana na vaMan, vantshwa na vanhu lava hanyaka na vutsoniwa.

Xitamente xa Ntshikilelo xa CGS; Muganga wo humeleta no cincra ro pfumelela switshunxo swa				
	MINONGONOKO YA CGS	MIMBUYELO YA CGS	SWIKONGOMELO SWA MTSF	KHADI RA MIKUTLUNYO RA BINDZU RA CGS
1	Ku Tiyiseleka eka swa Timali	1. Mafambiselo ya kahle na ya vunene bya switirhisiwa swa timali	1. Mfumo wo hluvuka, wa matikhomelo na vuswikoti	Mavonelo yo Kula ya Ikhonomi/Timali
2	Matirhelo ya Kahle na Lamanene ya Nhlangano	2. Ku landzelela mafumelo	3. Dyondzo, swikili na rihanyo	Mavonelo ya Tisisitimi ya Kahle (Nhlangano)
3	Vatirhi lava Nyikiweke Matimba, vo Cinciwa, Khutaziwa na Ntalo	3. Nkoka wa vuswikoti bya munhu	4. Antswisa swikombelo swa marungula na vutivi na ku kuma minimamu ya 5% ya nkavelo wa minxavo ya swicelwa swa matiko ya misava	Mavonelo ya Vanhu va Xiyimo xale Henhla
4	Mphakelo wa Ntirho	4. Antswisa swikombelo swa marungula na vutivi na ku kuma minimamu ya 5% ya nkavelo wa minxavo ya swicelwa swa matiko ya misava	5. Vutshamo bya kahle, vutshamo bya vanhu na mfumo wa muganga	Mavonelo ya Makete (Vatirhisani/Khasimende)
5	Switsundzuxo, ku Tihlanganisa na Vatirhisani na Mafambiselo ya Vutivi	5. Ku kurisa vuxaka bya sayesense ya dyondzo ya sayense ya misava	6. Ku hlanganisiwa ka vaaki na miganga leyi hlayisekeke	
		6. Vulemukisi byo antswa bya vito ra CGS, vukorhokeri na swimakiwa	7. Afrika ya kahle na matiko ya misava	
		7. Dyondzo yo antswa ya dyondzo ya sayense ya misava hi mafambiselo ya kahle ya vutivi		

Xifaniso 7: Nkomiso wa minonganoko ya CGS no fambelana na swa nkoka swa MTSF 2019–2024 na khadi ra mikutlunyo ya khamphani

Marungula ya matirhelo ya CGS ya hlamusela vuxokoxoko bya mphakelo wa vukorhokeri bya mbango, tdyondzo ta mphakelo wa vukorhokeri byo angarhela, na tikhasingende na vatirhisi lava korhokeriwa. Ku hlela matirhelo ya khamphani ya CGS, nhlangano yi vumbe swikombiso swa matirhelo, leswi, xikan'we na swikongomelo swa matirhelo swa 2022/23, swi komisiwaka eka Tafula ra 2. Ku fikelela ka swikongomelo swa swikombiso eka nongonoko ha wun'we wa mafambiselo eka lembe ximali leri heriwaka swi koxometiwe eka Tafula ra 2.

3.1 Xiviko xa Matirho ya Khamphani eka 2022/23

Tafula ra 2: Xiviko xa matirhelo ya khamphani ehenhla ka APP leyi andlariweke ya 2022/23

Mavonelo yo Kurisa Ikhonomi/Timali						
Nongongoko wa 1: Ku Tiyiseleka eka swa Timali						
Xikongomelo: Ku vona leswaku vukorhokeri bya kahle no koteka bya mafambiselo ya timali, ku kuma mpfuneto wa timali eka ku kambela migingirinko ya ntirhisano na vuxaka xikan'we no pfuneta nkwanama hi timali						
Mbuyelo	Humelerisa	Xikombiso xa swo humelerisawa	Ku hlela matirhelo yanene 2020/21	Ku hlela matirhelo yanene 2021/22	Swikongomelo swa lembe leswi kunguhatiweke 2022/23	Leswi fikeleriweke 2022/23
Swiviko swa timali leswi heriweke	1. Phesente ya tihakelo leti yaka emahlaweni eka tihakelo hinkwato	63.00%	54.90%	66%	60.65%	Ku hava*
Swiviko swa timali leswi heriweke	2. Phesente ya tihakelo ta vatirhi eka tihakelo hinkwato	64.03%	57.18%	70%	52.41%	Ku hava*
Swiviko swa timali leswi heriweke	3. Bindzulo ku suka eka migingirinko ya ntirhisano/ xinghana	R23.2m	R107.9m	R122.3m	R133.6m	+R11.3m
Swiviko swa timali leswi heriweke	4. Mpfuneto wa timali eka mbhindzulo	R486.2m	R464.3m	R355.7m	R420.3m	+R64.6m

* Ku hava: Xikongomelo lexi a xi kunguhatiwe xi vile kule ku tlula ntisengo wo karhi.

Mavonelo ya Tisisitimi ya Kahle (Nhlangano)

Nongongoko wa 2: Matirhelo ya kahle na lamanene ya nhlangano

Xikongomelo: Ku tumbuluxa no simeka kahle no landzelela tipholisi, tindlela na maendlelo ya bindzu eku seketeleni ka mojulu ya CGS ya mphakelo wo hlanganisiwa, landzelela matirhelo ya kahle ku fikelela mafumelo yo tiyiseleka xikan'we na ku nyika switchunxo swa ICT swo firha kahle, swo ndlandlamuka na swo sirheleleka

Mimbuyelo ya xiyege ya nongonoko wa 2: Mafambiselo ya kahle na ya vunene bya switirthisiwa swa timali no landzelela milawu/swinawana swa mafumelo

Mbuyelo	Humelerisa	Xikombiso xa swo humelerisa	Ku hela matirhelo yanene 2020/21	Ku hela matirhelo yanene 2021/22	Swikongomelo swa lembe leswi kunguhatiweke 2022/23		Leswi fikeleriweke 2022/23	Ku hambuka eka swikongomelo leswi kunguhatiweke eka leswi fikeleriweke 2022/23	Swivangelo swo hambuka
	Xiviko xa timali lexi hleriveke	5. Nhlayo ya swiviko swo hlerive	0	0	0	0	0	0	Swikongomelo swi fikeleriweke. Mbuyelo wa kahle wa swa timali ku ri hava leswi kumiweke swi nga fambeki kahle (ku nga, matrhise lo ya kahle ya timali) swi fikeleriwele hi 2022/23. Matshalatshala yo hlanganela ya le ku endliweni eka ku antiswa ko ya emahiweni.
	Mafambiselo ya kahle na ya vunene bya switirthisiwa swa timali	6. Phesente ya ntsengo hinkwawo wo xava eka nhundzu na vukohokeri ku suka eka mabindzu lamatsongo, ya le xikarhi na matsongo swinene (QSE na EMEs), kuya hi PPPFA ya 2017	40.75%	42.48%	35%	49%	Ku hava*		Swikongomelo swi fikeleriweke. Matirhelo lawa ya hi xivangelo xo kongoma xo tyimisela na leswi languteriawaka ku xava ku suka eka EMEs na QSEs.
Vukona bya xiviko	7. Vukona bya vukohokeri bya mabindzu ya nkoka		100%	99.89%	99%	99.62%	+0.62%		Swikongomelo swi tlule mpimo. Hi kuya emahilveni ku antiswisiwa eka swo lawula swa nsirelelo wa swa intanete na vuvekisi bya thekinoloi hi nkahi wa xiviko, nhlayo ya 99.6% ya vukohokeri bya nkoka leby kumekaka yi fikeleriwe.

* Ku hava: Xikongomelo lexi a xi kunguhatiwele xi vile kule kutlula ntsengwo karhi.

Mavonelo ya Vanhu va Xiyimo xale Henhla

Nongongoko wa 3: Vatirhi lava nyikiweke matimba, vo cincawi, khutaziwa na ntalo

Xikongomelo: Ku koka rinko no hlaysia vatirhi va vuswikkoti bya le henhla eka vumaki bya dyondzo ya sayense ya misava; Ku vumba ntalo kuya hi xisayense xa misava, swikili swa vufambisi na vafambisi/vurhangeri loko hile thelo ku tumbuluxiwa vutshuri bya swimakiwa, tisitisiti na vukorhokeri; ku tlakusa no vekisa eka ku cinca ka vatirhi na ku hambana

Mimbuyelo ya xiyenge ya nongonoko wa 3: Nkoka wa vuswikkoti bya munhu

Mbuyelo	Humelerisa	Xikombiso xa swo humelerisiwa	Ku hela matinheyo yanene 2020/21	Ku hela matinheyo yanene 2021/22	Swikongomelo swa lembe leswi kunguhatiweke 2022/23	Leswi filikeriweke 2022/23	Ku hambuka eka swikongomelo leswi kunguhatiweke eka leswi filikeriweke 2022/23	Swiengelo swo hambuka
	Swiviko swa xiyenge xa vatirhi	8. Pherente ya vatirhi lava hierweke kura na tidjiri ta Masitasi na ta Vudokodela	40.47%	41.22%	40%	48.51%	+8.51%	Swikongomelo swi tluje mpimo. Vufambisi bya CGS byi ya emahlweni byi vekisa eka matshalatshala ya dyonozo na nhluvukiso. Kuya hi leswi, kuna nxaxamelo wa lava kumeke tibasari lava sweswi va dyondzelaka tidyondzo ta Masitasi na PHD.
	Swiviko swa xiyenge xa vatirhi	9. Pherente ya tihaeelo ta vuleteelo to hakerisa nsengo wa vatirhi	1.20%	2.33%	1%	1.93%	+0.93%	Swikongomelo swi tluje mpimo. Vufambisi bya CGS byi ya emahlweni byi vekisa eka dyondzo ya vatirhi na mingirikro ya nhluvukiso.
	Swiviko swa xiyenge xa vatirhi	10. Mpimo wa vatirhi lava nga kona	5.48%	4.99%	10%	7.89%	Ku hava*	Swikongomelo swi fileleriweke. Vufambisi bya CGS byi ya emahlweni byi tirhisa ku ngahenelja ko koka rinoko eka vatirhi ku fana na ku dyondzo ya vatirhi na mingirikro ya nhluvukiso.
	Swiviko swa xiyenge xa vatirhi	11. Pherente ya vatirhi lava hanyaka na vutsoniwa	2.25%	1.86%	1.6%	1.84%	+0.24%	Swikongomelo swi tluje mpimo. Vufambisi bya CGS byi ya emahlweni byi khutaza vatirhikulori ku paluxa vutsoniwa bya vona na ku va seketela eka leswi.
Nkoka wa vuswikkoti bya munhu	Swiviko swa xiyenge xa vatirhi	12. Tinhayonhlayo ta EE, vatirhisani va xisayense (Vuyimeri bya xisati)	39%**	39%	46%	42.57%	-3.43%	Swikongomelo leswi nga fileleriwegi. Endielo ro thola eka swiyimo swinwana leswi a swi fanele ku siviwa eka nkathi lowu vikiweke a swi si hetisiwa.
	Swiviko swa xiyenge xa vatirhi	13. Tinhayonhlayo ta EE, Varhangeri nkulu (Vuyimeri bya xisati)	Mpimo wunshwa	50%	41.18%	-8.82%		Swikongomelo leswi nga fileleriwegi. Vavasati vanharu va sukele switulu swa vona hi ku tsnika mitirho kumbe ku tlakusiwa, swi vanga ku hunguteka ka tinhayonhlayo.
	Swiviko swa xiyenge xa vatirhi	14. Tinhayonhlayo ta EE, Varhangeri vale henhla*** (Vuyimeri bya xisati)	20%**	20%	40%	50%	+10%	Swikongomelo swi tluje mpimo. Vavasati vambirhi va thorwile eka swiyimo swa vurhangeri bya vuminirihere eka kotara leyi hundzeke eka lembem ximali leru hleniwaka ku pfala swiyimo leswi püleke.

* Ku hava: Xikongomelo lexi a xi kunguhatiwele xi vile kule ku tlula ntsengo wo karhi.

** Marungula laya hlamuseriwe nakambe ya hierweke ya 2020/2021 ya hlamsueriwe tanhi phesente.

*** Varhangeri vale henhla eka matinheyo ya vuheri bya 2020/21 na 2021/22 na 2020/21 na 2021/22 va kombisiwe tanhi swirho aswa Komiti ya Vufambisi bya CGS (EXCO).

Mavonelo ya Makete (Vatirhisani/Khasimende)

Nongongoko wa 4: Mphakelo wa ntirho

Xikongomelo: Endla Nongonoko wo Hlanganelia na Mepe wa Tidyondzonyingi ta Dyondzo ya sayense ya misava

Mimbuyelo ya xiyege ya nongonoko wa 4: Antswisa swikombelo swa marungula na vutivi na ku kuma minimamu ya 5% ya nkavelo wa minxavo ya swicelwa swa matiko ya misava xikan'we na ku antswisa vuxaka bya dyondzo ya sayense ya misava

Mbuyelo	Humelerisa	Xikombiso xa swo humelerisa	Ku hela matihelo yanene 2020/21	Ku hela matihelo yanene 2021/22	Swilkongomelo swa lembe leswi kunguhatiweke 2022/23	Leswi fikeleriweke 2022/23	Ku hambuka eka swilkongomelo leswi kunguhatiweke eka leswi fikeleriweke 2022/23	Swilvangoelo swo hambuka
Antswisa swikombelo swa marungula na vutivi na ku kuma minimamu ya 5% ya minxavo ya swicelwa swa matiko ya misava no Kurisa vuxaka bya dyondzo ya sayense ya misava	Mimepe ya sayense ya vuandaloo bya misava	15. Ma andielelo ya mepe ya sayence ya misava hiku angafela	9.03%	10.7%	12%	12%	0	Swilkongomelo leswi nga fikeleriwangiki. Mepe wa Cape Town wa 33-18CD wa mpumawulo wa le ndzeni ka mati wu kandziyiswile eka kotara ya vumune ya lembe leni hleniwaka. Xo biha, maxelo ya lwendle laya nga riki kahle a ya pfumelelangi ku hlergeleta datara yo ringaneta no katsa eka swiyenge swa mepe leswi saleke swa False Bay. Ku engetela, ntirhisano lowu nga kona na vatirisan i va nkoka vale handle a wu nge tifrisiwi sweswi, hikvalaho ka mitirho leyi va nga na yona sweswi.
	Mimepe ya sayense ya vuandaloo bya misava	16. Yuandaloo bya mepe ya misaya ya sayense ya le ribuweni ra lwendle	0.05%	0.05%	0.2%	0.11%	-0.09%	Swilkongomelo swiftule mpimo. Matirheo lawa ya vangija hi ku hatisisa ko simekiwa ka tiphuromeke ta GTP, ngopfu-nkopfu phurojeke ya CCUS, xikanwe na ku kandziyisawa ka xiviko xo engetela lexi endlwieku suka eka ntirhisano wa matshalashaha ya BRICS-NRF-CGS.
	Ntshovelo wa dyondzo ya sayense ya misava wo engetela nkoka ku fana na swivilo swo hlanganelia, timojulu ta 3D, switshunxo swa vutsuri, tsitsitimi ta minrali na timojulu ta xivumbeko	17. Tifrisa dyondzo ya sayense ya misava eka timinrali na enejj	7	4	6	7	+1	Swilkongomelo swiftule mpimo. Matirheo lawa ya vangija hi ku hatisisa ko simekiwa ka tiphuromeke ta GTP, ngopfu-nkopfu phurojeke ya CCUS, xikanwe na ku kandziyisawa ka xiviko xo engetela lexi endlwieku suka eka ntirhisano wa matshalashaha ya BRICS-NRF-CGS.
	Ntshovelo wa dyondzo ya sayense ya misava wo engetela nkoka ku fana na swivilo swo hlanganelia	18. Ntshovelo lowu tifrisiwa wa dyondzo ya sayense ya misava eka miako, matirhisel yo misava, rihany, maiji ya le hansika misava na mbargo.	10	7	6	6	0	Swilkongomelo swi fikeleriweke hi simekiwa ka GTP.

Mavonelo ya Makete (Vatirhisani/Khasimende)

Nongongoko wa 5: Switsunduxo, ku tiħlanganisa na vatirhisani na mafambiselo ya vutivi

Xikongomelo: Ku antswisa vuxaka bya vatirhisani hi nirtħisano wo fambelana na swiengħe swa vutambisi, xiyeġe lexi nga riki xa mfumo na vaaki hi ku angarhela
Mimbuyelo ya xiyeġe ya nongonoko wa 5: Vulemukisi byo antswa bya vito ra CGS, vukorħokeri na swimakiwa xikan'we na ku dyondzo yo antswa ya dyondzo ya sayense ya misava hi mafambiselo ya kahle ya vutivi

Mbuyelo	Humelerisa	Xikombiso xa swo humeleriwa	Ku hlela matihelo yanene 2020/21	Ku hlela matihelo yanene 2021/22	Swikongomelo swa lembi leswi kunguhatiweke 2022/23	Leswi fikeleriweke 2022/23	Ku hambukta eka swikongomelo leswi kunguhatiweke eka leswi fikeleriweke 2022/23	Swivangelu swo hambukta
Vulemukisi byo antswa bya vito ra CGS, vukorħokeri na swimakiwa ndavissoso wa vatirhisani	Switsalwana swa vateki va mahungu	19. Nħlayo ya switsalwana leswi kandzyswie eka xiyeġe swa vutangalasi mahungu	25	24	28	48	+20	Swikongomelo swi titlu leswi a swi vekiwile kuya hi vuxaka bya kahle bya mfumo ja vuħaxi lebji kumiweke eka Nhengaletano ja Mgodi.
Xiviko xa ndavissoso wa vatirhisani	Xiviko xa ndavissoso wa vatirhisani	20. Mpimo wo enerisek wa vatirhisani	88.48%	66.4%	70%	79.4%	+9.4%	Swikongomelo swi titlu leswi a swi vekiwile hi xivangelo xo tinhengaletano to kongoma no antswa ta vatirħisani.
Switsalwana leswi hlerwei kandzyswie eka tijenali ta sayense, tindzimana ta tibku na tivholu lu leti hlerwei	Switsalwana leswi hlerwei kandzyswie eka tijenali ta sayense, tindzimana ta tibku na tivholu lu leti hlerwei	21. Nħlayo ya switsalwana leswi hlerwei kandzyswie	33	30	32	40	+8	Swikongomelo swi titlu mpimo. Matihelu ja vile hi xivangelo xa mangħenelo yo susumeta laya tirħisiweke ku vumba datara na marungu eka tipħuroje.
Dyondzo yo antswa ya dyondzo ya sayense ya misava hi mafambiselo ya kahle ya vutivi	Swikombiso: swiħiġo, tibuletini, tibku na tħalli li	22. Nħlayo ya minkandżiżi so CGS	10	8	8	12	+4	Swikongomelo swi titlu mpimo. Nħlayo ja 12 wa minkandżiżi so yale ndżeri yi humeswi. Swinwana swa leswi ku vile hi xivangelo xa Nhengaletano ya varhangen ja matikko ja Dyondzo ya sayense ya misava ya CGS.
Swikombiso: switsalwana, switsalwana swo engetela na maphephe ja nhengaletano na swivikkonku, swsw.	Swikombiso: switsalwana, switsalwana swo engetela na maphephe ja nhengaletano na swivikkonku, swsw.	23. Nħlayo ya maphephe laya kandzyswie eka makanelwa ja nhengaletano	66	32	70	126	+56	Swikongomelo swi titlu mpimo. 126 wa maphepha ja kandżiżiwe eka makanelwa ja nhengaletano ja 2022/23 Swikongomelo swi hundze hi 56 hikwalha ka tinhengaletano leti veke kona endzħaku ka COVID-19.

Tafula ra 3: Matirhelo laya fambelana na mpimanyeto

Nongonoko/gingiriko/xikongomelo	2022/23			2021/22		
	Mpimanyeto	Mali leyi tirhisiweke	Mali leyi tirhisiweke/ (Tala/Yitsongo)	Mpimanyeto	Mali leyi tirhisiweke	Mali leyi tirhisiweke/ (Tala/Yitsongo)
	R'000	R'000	R'000	R'000	R'000	R'000
Nongonoko wa 1: Ku Tiyiseleka eka swa Timali	65 013	73 513	(8 500)	67 038	66 640	398
Nongonoko wa 2: Matirhelo ya kahle na lamanene ya nhlangano	102 080	115 427	(13 347)	105 260	104 635	625
Nongonoko wa 3: Vatirhi lava nyikiweke matimba, vo cinciwa, khutaziwa na ntalo	14 557	16 461	(1 904)	15 011	14 922	89
Nongonoko wa 4: Mphakelo wa ntirho	386 418	436 941	(50 523)	398 456	396 089	2 367
Nongonoko wa 5: Switsundzuxo, ku tihlanganisa na vatirhisani na mafambiselo ya vutivi	15 631	17 675	(2 044)	16 118	16 022	96
Ntsengo	583 699	660 017	(76 318)	601 884	598 308	3 576

Ndlela yo hlula eka tindhawu leti nga tirheki kahle

Tindlela to hlula eka tindhawu leti nga tirheki kahle ti katsa:

- 1) Ku hetisiwa ka maphephe mambirhi (2) ya mepe wa le kusuhi na lwandle ra False Bay ku ta hatlisisiwa hi 2023/24, kuya hi swivangelo swa maxelo ya kahle na vukona bya xitirhisiwa. Ku engetela, CGS yi taya emahlweni yi tihlanganisa ku hatlisisa migingiriko yo hlengeleta datara (ngopfu-ngopfu eka swa tikonkulu na mimbango ya le xidziveni xa lwandla).
- 2) Ku hetisiwa ka ku thola loku nga le ku endliweni sweswi ku ta fambelana na ku langutisa ntlawa wa sayense (ku langutisiwa vuyimeri bya vaMan).
- 3) Matshalatshala ya ta endliwa ku fikelela nhlayo leyi vekiweke ya vafambisinkulu (vayimeri va xisati) hi ku thola loku nga kona swin'we na ku siviwa ka vanharhu lava nga kona.

4

LESWI FIKELERIWEKE SWA MATIRHELO

4.1 Nongonoko wa Xithekiniki wa Dyondzo ya sayense ya misava

Manghenelo yo hlanganisiwa ya tidyondzonyingi ya CGS i khokho ra GTP ya yona naswona ya kongoma eka ku nghanisa xandla eka tindhawu ta tidyondzo leti landzelaka: Timinirali na Eneji; Rihanyo, Mati yale hansi ka misava na Mbango; Miako na Matirhiselo ya Misava; Vutshuri bya Dyondzo ya sayense ya misava na Vuxaka bya Dyondzo ya sayense ya misava. Sweswi IMMP yi le ku simekeni ka GTP, eka yan'wana ya mapfhumbha, no katsa ku hlengeletiwa ka ndzaviso wa xiyimo xa le henhlwa xisayense xa misavana tiphurojeke ta mimepe. Eka lembe leri hleriwaka, GTP yi vumbiwa hi xilaveko na tiphurojeke ta miako. Leswi fikeleriwaka eka ndzima ya GTP hi 2022/23 swi kaneriwile eka swiyenge leswi landzelaka.

4.1.1 Sayense eka Timinarili na Switirhisiwa swa Eneji

Sayense ya Timinirali na Dyondzo ya Eneji ya CGS i xiyenge xa nkoka xa ntshovelo wa nhlangano wa lembe. Nkoka wa kona wu kombisiwa eka xiphemu xa nkoka xa switirhisiwa swa CGS leswi kumekaka eka Dyondzo ley, xikongomelo nkulu lexi i ku hlanganisa mitlawa ya datara ya sayense ya dyondzo yo hambana eka xihlawulekisi no hlela sisitimi ya minirali yintshwa na ley nga kona. Ku ya emahlweni, Dyondzo ya sayense ya misava ya Timinirali na Dyondzo ya Eneji swa vuyeriwa ku suka eka ndzhaka yo tlula 110 wa malembe ya ku hlengeleta datara ya dyondzo ya sayense ya misava, marungula na vutivi. Mitlawa ley iya ndzhaka, xikan'we na datara yintshwa ley kumiweke, swi le ku katsiweni hi tindlela ta vutshuri, xikombiso hi ku tirhisa tinxaka to hambana ta michini ya tindlela to dyondza na mojulu wa sisitimi ya minirali ley iku kongomiweke eka yona. Xa nkoka, ku tirhisiwa ka swifaniso swa sathelayiti swi vumba xivumbeko xo hlanganisa datara. Xivangelo xa nkoka eka manghenelo lawa xi kongoma eka ku tlakusa mbaulango wa matirhiselo ya timali wa Afrika Dzonga na ku hatlisisa ku nghanisa xandla ka timinirali na enejo eka CGS kuya eka nhluvukiso wa ikhonomi ya vaakatiko.

Masungulo ya nkoka ya Mhaka ya Sayense ya Timinirali na Eneji ya CGS hi leswaku xivumbeko xa misava xa Afrika Dzonga na vuswikoti bya minirali swi tekeriwa ehansi sweswi hi xivangelo xo va swi nga tirhisi ngopfu. Ku nghanisa xandla

eka ku humelela ka swikongomelo swa ikhonomi ya vaakatiko swi tekeriwa ehansi. Afrika Dzonga i murhangeri ematikweni ya misava ley i nga na swicelwa swo tala swa nkoka, ku fana na timinirali ta tibetiri swo fana na lithium, vanadium na cobalt, swicelwa swa nkoka ku fana na golidi na ntlawa wa swicelwa swa pulatinamu, na swicelwa swa eneji swo fana na malahla, uraniyamu, na gasi ya ntumbuluku. Mimepe yo hlanganisiwa ya dyondzo ya sayense ya misava eka nkarhi lowu hundzeke yi ndlandlamuxe vutivi hi swicelwa leswi loko swi pfuneta ku hlamusela ku engeteriwa ka timinirali tintshwa leti lava vulavisisi byin'wana. Swikumiwa leswi swi ringanyeta leswaku timinirali na vumaki bya eneji swa Afrika Dzonga swi nghanisa xandla xa nkoka eku pfuneni ku fikelela ka swikongomelo swa nhluvukiso wa ikhonomi ya vaaki ya Afrika Dzonga.

Xa nkoka, kungu na nhluvukiso wa Xikongomelo xa Sayense ya Misavi ya Timinirali na Eneji ri fambekana swinene na Xivono xa NDP 2023 ya Afrika Dzonga na vuyimeri byo hlaya bya xifundza na miganga eka kungu leri, ku katsa swifundza swo ka rhi na tiDDM etikweni hinkwaro. Tindhawu leti ku langutiswaka tonati hlawuriwa no languteriwa kuva na ntshikelelo wo kongoma eka swikongomelo swo nhluvukiso wa nkoka. Thandlakambirhi, tisisitimi ta timinirali na eneji tile ku lavisisiweni no hluvukisiwa swi le ka xiyimo xa laha tikweni na matiko ya misava, kuya hi mphakelo, xilaveko, na endlelo ra vavuyeriwa. Leswi swi katsa timinirali ta nkoka leti tekewaka tiri ta nkoka eka vumaki bya vumundzuku na nhluvukiso wa thekinoloji. Tiphuroje ta nkoka tin'wana eka Xikongomelo xa Dyondzo ya sayense ya misava ya Timinirali na Eneji swa CGS swi katsa mimepe ya sayense ya vuandlalo bya misava, tshaku ra mimepe ya masungulu, mimepe ya swicelwa swa nkoka, ku cincela eka eneji ya kahle, CCUS, tindhawu ta xikambelo xa sayense ya xivumbeko xa misava ya tiko na sayense ya maribye na tiphurojeke ta databasezi ya khemikali ya xivumbeko xa misava.

Hi nkarhi wa 2022/23, ku nghanisiwa ka xandla eka swa nkoka ku endliwile eka ku navela ka nhluvukiso wa Afrika Dzonga eka minirali na eneji. Leswi swi katsa:

- Ku ndlandlamuxa xikalua Afrika Dzonga xa 1:50 000 xo angarhela mimepe ya dyondzo ya sayense ya misava ehandle ka misava ku fika eka 12%.
- Ku engeteleka ka ku hlengeleta datara ya le kusuhi na

Iwandle leyi kongomaka ku hatlisisa ku fikeleta xikalua xa le kusuhi na iwandle xa 1:50 000.

- Ku humelerisiwa ka ntshovelo wa vunkombo wa nkoka wo katsa timinarili na eneji ngopfu-ngopfu hi ku langutisa eka swicelwa eSwifundzeninkulu swa Limpopo na Kapa N'walungu, gasi ya ntumbuluko eKaroo na ndzaviso eka CCUS.
- Xo hetelela, mimbuyelo ya ndzaviso ya timinarili na eneji yi kandziyisiwile eka tijenali to hlaya to hleriwa no andlariwa eka tinhlengeletano ta matiko ya misava.

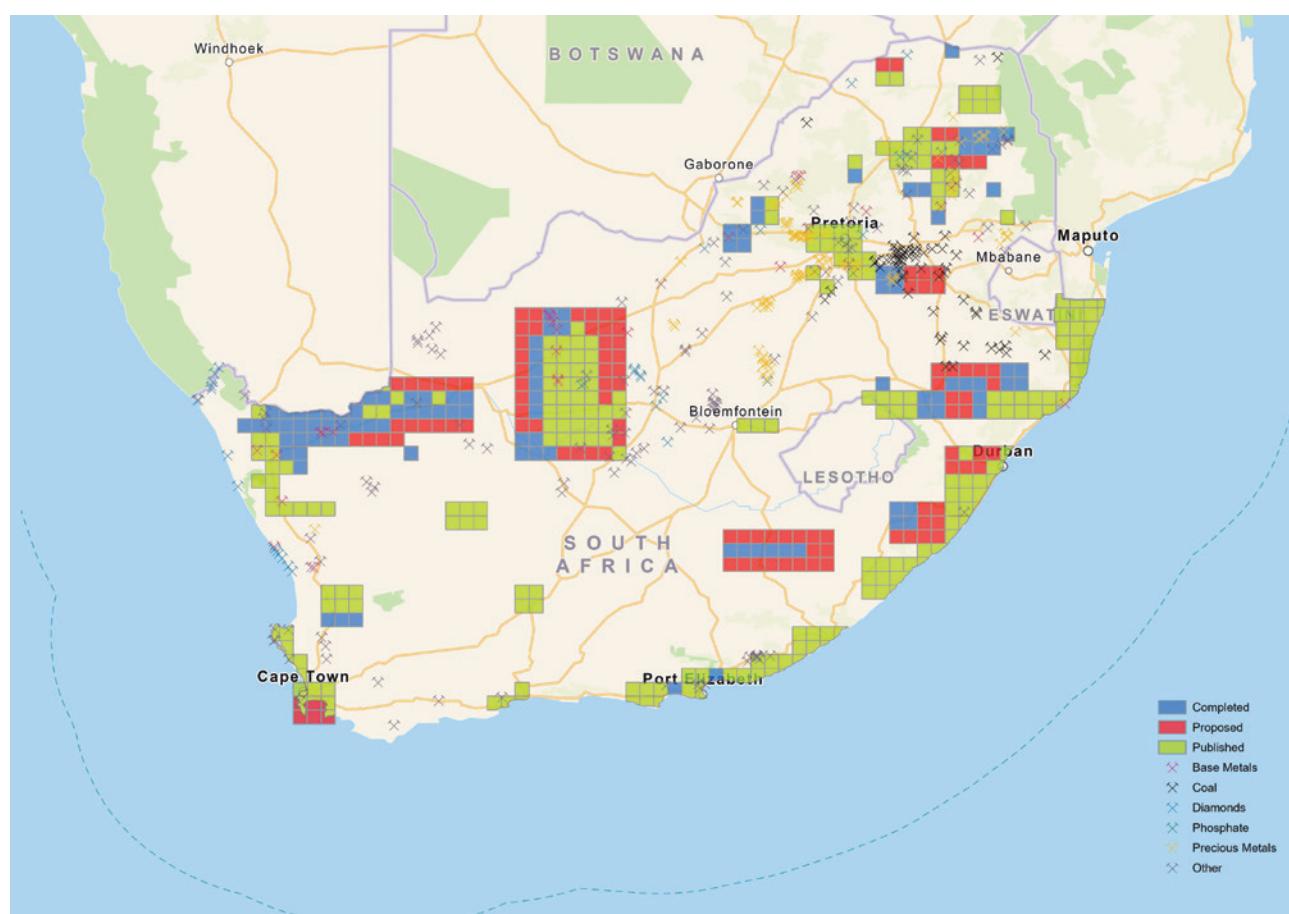
4.1.1.1 Mimepe ya Dyondzo ya sayense ya misava Vuandlalo bya misava

Nonongoko wa Mimepe ya Dyondzo ya sayense ya misava Vuandlalo bya misava yi kongoma eku tlakuseni ka ku fikeleta ehenhla ka xikalua xa 1:50 000. Hi nkarhi wa 2022/23, ku fikeleta vuandlalo bya misava ku engetelekile ku fika eka 12% (Xifaniso xa 8). Nonganoko wu kumeka eka minkandziyiso ya mimepe ku suka eka swiphemu swo hambana swa Afrika Dzonga, ku katsa Swifundzankulu swa KwaZulu-Natal, Kapa Vuxa, na Kapa N'walungu. Lexi tsakisaka, mimepe leyi yi angarhela tizoni ta nkoka ta migodi, ku katsa leyi tekiwaka

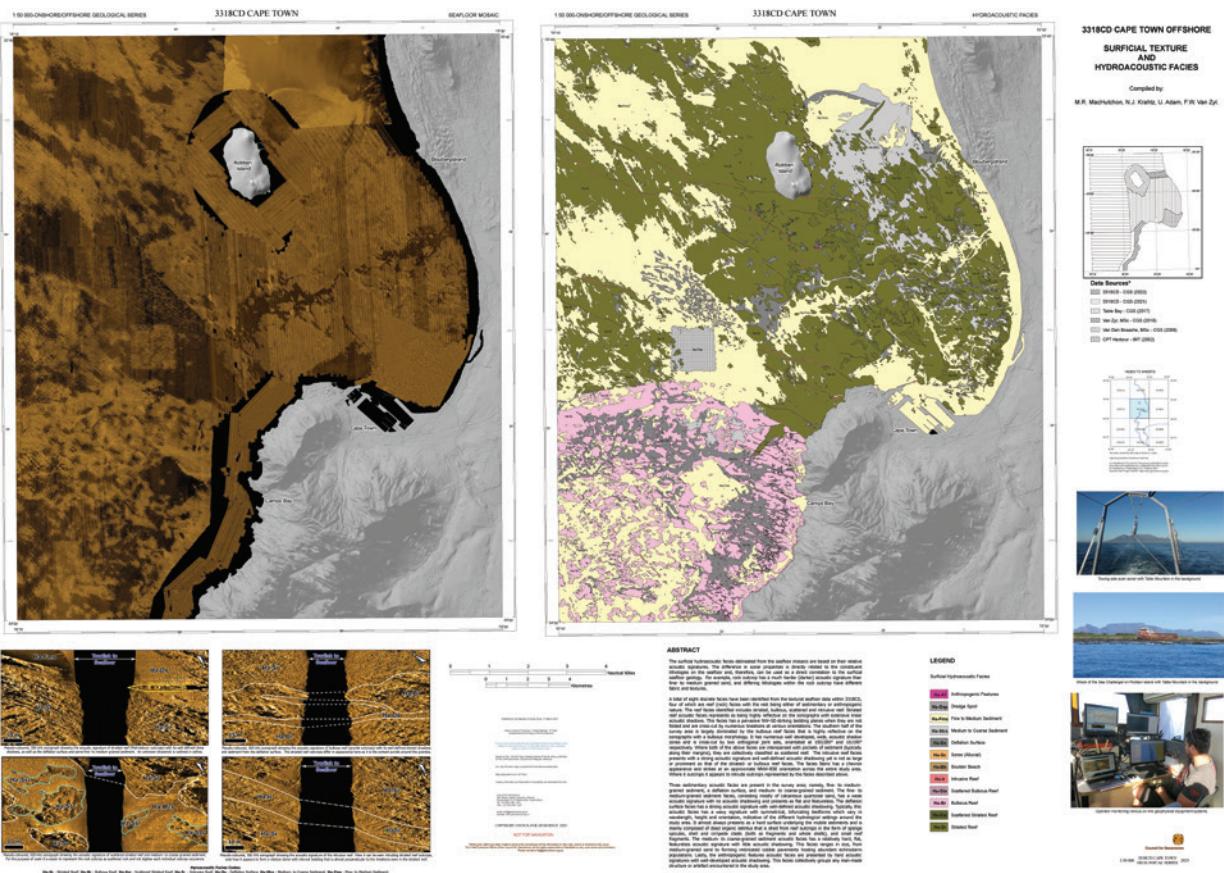
yiri ya nkoka ku fikeleta ka timinirali na eneji ya Afrika Dzonga na swikongomelo swa nhluvukiso lowukulu wa miako.

4.1.1.2 Mimepe ya sayense ya vuandlalo bya misava

Nonganoko wa Mimepe ya sayense ya vuandlalo bya misava ya CGS yi kongoma ku katsa vandlalo bya ndhawu ya Afrika Dzonga bya le henbla (1:50 000 wa xikalua) ku seketela nhluvukiso wa ikhono yo sirhelela mbango wa le matini wa tiko. Ndhawu yo hlawuleka ya ikhonomi ya vuandlalo bya Afrika Dzonga i yikulu swinene nova yi nga valangiwi. Ku valanga lokukulu ka laveka ku tlantilha ndhawu leyi kuva yi hlavutela swilaveko swa makungu ya nhluvukiso. Kutani CGS yi ngenene pfumbha rikulu ku mepa ndhawu leyi. Tindhawu ta nkoka leti kumiweke ti katsa ndhawu ya vuandlalo bya ribuweni, tikonkulu, na ndhawu ya le xidziveni xa mati. Ku fika sweswi, ntirho wu langutile eka tshaku ra iwandle na le kusuhi na rona. Ku pompola tindhawu ta le henbla ka iwandle a swi langutisa eku hlamuseleni tshaku ra iwandle hi ku tirhisa rivoni ra mpfumaluwo, nchumu wo pompola ehansi na wo buluka. Datara leyi kumiweke yi humelerisiwa hi ku tirhisa tikhodi na ndlela yo hlayela leyi langutisaka ehansi ka iwandle swinene.



Xifaniso 8: Ndzima leyi endliweke eka ku pompola ehandle ka iwandle ra tiko ko angarhela emakumu ka 2022/23



Xifaniso 9: Ku angarhela kusihu na lwandle i xikalu xa 1:50 000 xo ndhawu ya Cape Town

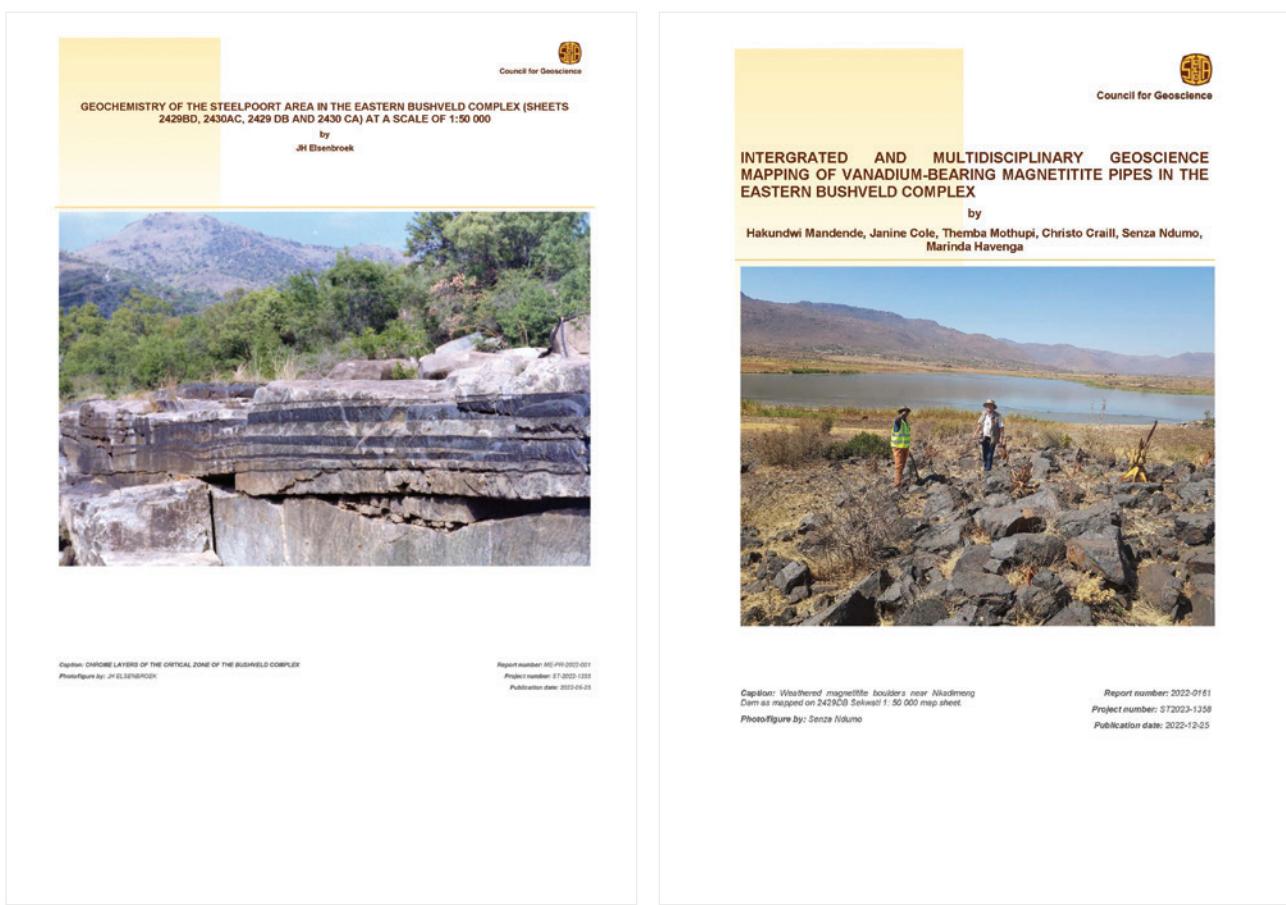
Hi nkarhi wa 2022/23, ku angarhela ka le kusihu na lwandle ku engetelekile kuya eka 0.11% (ku suka eka 0.05% loku vikiweke eka malembe laya hundzeke). Ntirho wu langutise swinene eka nkandziyiso wa le kusuhi na Cape Town wa 3318CD (Xifaniso xa 9) eka xifundzantsongo xa Table Bay. Datara ya xiymo xa le henhla leyi katsa biminyingi ya mpimo wa vuenti bya mati, swilo leswi nga le henhla ka misava, no pompola nkhuluko wa ntshikilelo. Swimakiwa leswi swi nyika marungula eka tshaku ra lwandle eka mbango wa vuandlalo bya Afrika Dzonga naswona swi ta pfuna nhluvukiso wa le kusuhi na lwandle, ku katsa ndlandlamuxo wa le ribuweni na wa miako ya le kusuhi na lwandle.

4.1.1.3 Ku Pompola Swicelwa swa le Hansi

Nongonoko wo Pompola Swicelwa swa le Hansi wa CGS wu kongoma ku vumba datara na marungula swa dyondzo ya sayense ya misava ya nkoka ku seketela xihlawulekisi na nhluvukiso wa swicelwa eAfrika Dzonga. Xa nkoka, datara leyi yi langutisa eku engeteleni ka ku tirhisa mali yo valanga eka minirali eAfrika Dzonga eka tisisitimi ta minirali ku fana na kopora na zinki, koporo-nikeli-khobaliti, nikeli-khiromi, nsimbhi-vhanadiyamu-titaniyamu, lithiyamu-RREs (swicelwa leswi nga

tolovelekangiki) na fosfeti-fulurayiti. Swicelwa leswi swi tirhisa thekinoloji yo tala na nhluvukiso wa vumaki, laha tikweni na le matikweni ya tinxakaxaka. Tindhawu ta nkoka eka lembe ximali leri hleriwaka ku vile Swifundzankulu swa Kapa N'walungu, N'walungu Vupeladyambu, Gauteng, Limpopo, KwaZulu-Natal na Kapa Vuxa. eXifundzeninkulu xa Kapa N'walungu, ntirho wo hlanganelia a wu langutise eka Namaqualand, na ngopfu-ngopfu eka kopora na zinki eka ndhawu ya Aggeneys, nikeli-khiromi eKenhardt na fusetiti-RREs endhawini ya Kakamas. Ntirho eXifundzeninkulu xa N'walungu Vupeladyambu nikeli-khiromi na ntlawa wa swicelwa swa pulatinamu lowu fambelanaka na ku landzelelana ka maribye ya Bushveld Complex. Tindhawu tin'wana ta nkoka ti katsa kopora-nikeli-khobaliti eXifundzeninkulu xa Kapa Vuxa na swicelwa leswi nga vaka kona swa nikeli-REE eXifundzeninkulu xa Limpopo.

Eka lembe leri hleriwaka, tileyara to hlaya ta nkoka ti endliwile ku nghenisa xandla eka swihlawukisi swa swicelwa swa minirali na ku antswisa ku twisia tisisitimi ta timinarili ta xifundzantsongo. Ntshovelo wu katsa timojulu to hambana ta 3D, mimepe ya swicelwa na swiviko leswi hlanganisiweke (Xifaniso xa 10) na nkandziyiso wa swiviko eka Fe-TiV, mimepe ya Sn, F, REE na PGE.

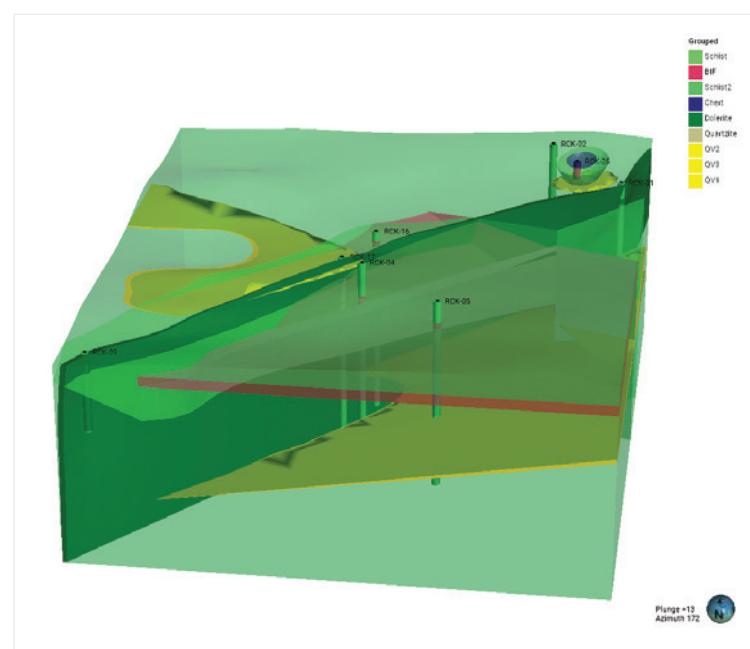


Xifaniso 10: Swikombiso swa swiviko swo hlanganisiwa leswi humesuweke hi Nongonoko wo Pompola Swicelwa swa CGS eka Bushveld Complex

4.1.1.4 Ku Pompola Swicelwa swa Nkoka

Nongonoko wo Pompola Swicelwa wa CGS wu kongoma eka ku endla ndzavisiso wa nkoka eka swicelwa swa nkoka leswi hlawuriweke eswifundzeninkulu swa Afrika Dzonga. Hi nkarhi wa 2022/23, ntirho lowu wu langutisa eka swicelwa swa nkoka eSwifundzeninkulu swa KwaZulu-Natal, Limpopo na Mpumalanga.

Tileyara to hlaya ta nkoka ta dyondzo ya sayense ya misava, ku katsa timojulu ta masungulo ta 3D ku twisia ku antswa malawulelo ya xivumbeko na ku fambelana ka maribye, mimepe ya timinarili, na swiviko swo hlanganelo, swi humesiwile ku fikelela xivumbeko xa swicelwa leswi (Xifaniso 11). Xa nkoka, mindzinganyeto leyi pfuxetiweke ya swicelwa swo sungula swa golidi eGiyani Greenstone Belt swi endliwile na ku ndlandlamuxiwa ka mugodi wa Sabie-Pilgrim's Rest swi swi hlamuseriwile.



Xifaniso 11: Mojulu wa 3D wo twala ya xivumbeko xa misava ya ndhawu ya Khakhala eGiyani Greenstone Belt

4.1.1.5 Ku Cincela eka Eneji yo Tenga

Nongonoko wo Cincela eka Eneji yo Tenga wa CGS wu kongoma eka ndzavisiso lowu bohaka hi vonelo ro seketela ku cincela ka eneji yo tengya Afrika Dzonga kuya eka ikhonomi ya nthyakiso wutsongo.

Nongonoko wo Cincela eka Eneji yo Tenga wa CGS wuya emahlweni ku vumba datara na marungula swa dyondzo ya sayense ya misava leyi bohaka ku seketela xihlawulekisi no vumba swicelwa swo fambelana na eneji eku seketeleni ku cincela eke eneji yo tengya Afrika Dzonga. Phurojeke yi katsa khaboni ya mati na tigasi tin'wana ta ntumbuluko endhawini ya Karoo swin'we na switirhisiwa swintshwa swa eneji, ku fana na tisisitimi to hisa misava.

Hi 2022/23, ntirho a wu langutisa eka tisisitimi to fambelana na eneji eSwifundzeninkulu swa Kapa Vuxa, KwaZulu-Natal, Kapa N'walungu na Mpumalanga. Tileyara to tala ta nkokka ta sayense ya xivumbeko xa misava ti humesiwile kuya hi xikongomelo lexi xa tiko. Leswi a swi katsa tisisitimi ta timojulu ta migodi yo hambana ya swicelwa swa eneji, ku fana na khaboni ya mati na timinirali ta tibetiri na switirhisiwa swintshwa swa eneji swo fana na tisisitimi ta eneji yo hisa misava. Xa nkoka, leswi swi tlhele swi katsa nkandziyiso wa xiviko xo engetela eka gasi ya ntumbuluko eKaroo (Xifaniso xa 12).

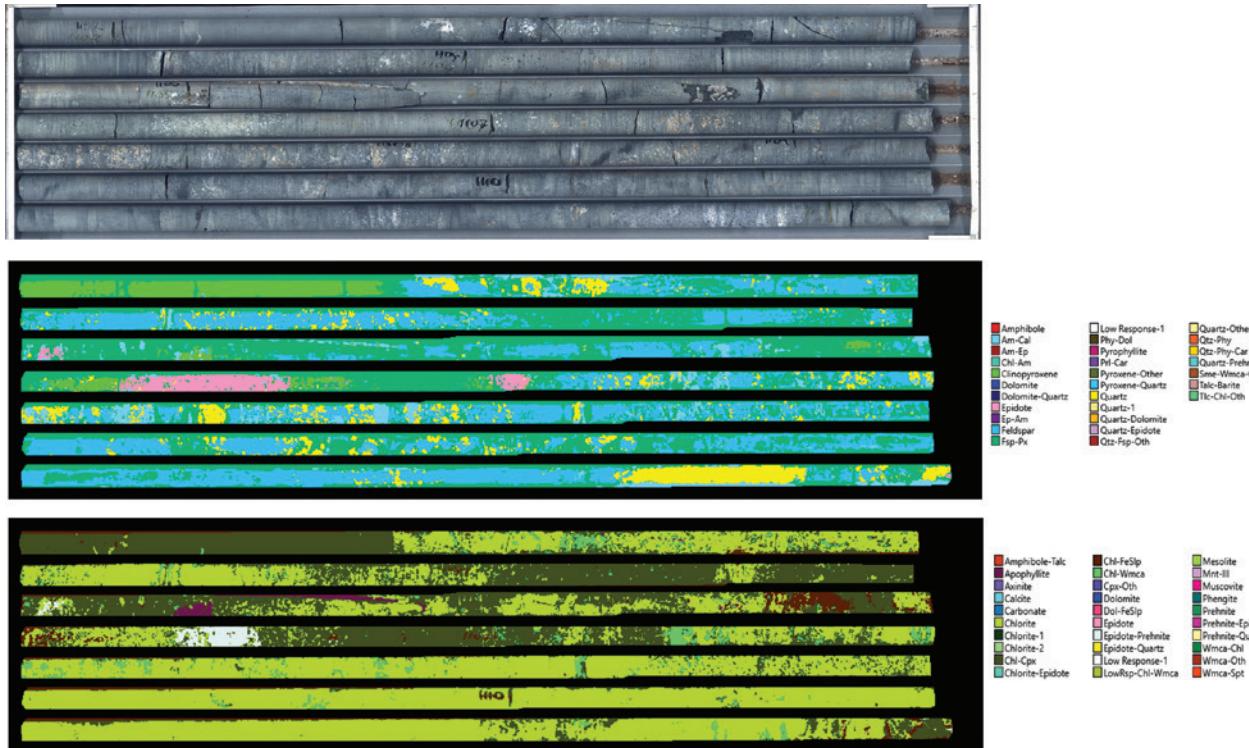


Xifaniso 12: Xiviko xa Karoo Deep Drilling na Geo-environmental Baseline xo engetela nkoka xi kandziyisiwile hi 2022/23

4.1.1.6 Ku Khoma Khaboni, Tirhisiwa no Hlayisa

Kuya emahlweni ka nhluvukiso eAfrika Dzonga swi tshembhela swinene ena vuswikoti bya tiko byo tumbuluxa mphakelo wo tiyiseleka wa eneji ku fikelela xilaveko xa tiko. Khale ka Afrika Dzonga, na sweswi, yi tumbuluxa mphakelo wa eneji ku suka eka mafurha ya masalelwa, ngopfu-ngopfu malahla. Tiko rina nkoka wa malahla ya kahle kasi hi rin'wana ra vahumelerisi lavakulu va malahla. Ku ya emahlweni, malahla yana nkoka eka nhluvukiso wa ikhonomi ya vaaki va Afrika Dzonga. Vumaki bya malahla, hi byin'wana bya vathori lavakulu eka migodi ya malahla na vanghenisi va xandla lexikulu eka timali ta tiko. Tlhandlakambirhi, eka mhaka yo vuyisela ka ikhonomi endzhaku ka COVID-19, malahla ya ve nchumu lowu nghenisaka xandla lexikulu eka ikhonomi ya migodi ya Afrika Dzonga. Afrika Dzonga yi tiyimiserile ku hunguta nthyakiso wa gese emoyeni, kambe leswi malahla ya nga na xiave lexikulu eku thyakisani ka moyo, Mfumo wu kombele switshunxo swa nhluvukiso wa vutshuri byo pfuna Afrika Dzonga ku cincela eka ikhonomi ya nthyakiso wutsongo. Ku cinca loku ku suka eka malahla a ku nge humeleti ntsena, kuna xilaveko xo cincela eka ejeni leyi nga thyakiseki. Leswi i swa nkoka ku vona leswaku miganga leyi tshembelaka eka malahla evuton'wini bya yona a yi khumbheki hi ku cinca loku. Tlhandlakambirhi, ku cinca ka eneji a ku nge vi ka xihatla, kutani xitshunxo xa kahle xa laveka. Ematikweni ya misava, CCUS yi tekiwa tanihi xitshunxo lexi. Eku seketeleni ka phurojeke leyi ya tiko, CGS yi ta endla ndzavisiso wo tumbuluxa ndhawu ya masangulo yo hlayisela thyaka ra gezi, ku endlela leswaku eneji ya Afrika Dzonga na ya swilaveko swa tiko swi fikeleriwa, loko tiko ra ha nghenisa xandla kahle eku lwisaneni na ku cinca ka maxelo.

Eka malembe ximali laya hundzeke, CCUS a yi langutisa eku kumeni tindhawu eAfrika Dzonga, kuya hi datara ya laha ku ceriweke. Vuhleri lebyi, eka nkarhi wo sungula, byi kume leswaku Afrika Dzonga yina vuswikoti byo tala bya CCUS ku tlula leswi a swi tekisiwa xiswona. Ngopfu-ngopfu, kuna vuswikoti lebyikulu eSwifundzeninkulu swa Mpumalanga na Gauteng. Leswi kuve mhaka ya nkoka leyi kumiweke tanihi leswi swi nga ta cinca swinene vumundzuku bya eneji eAfrika Dzonga. Ku ya emahlweni, ku simekiwa ka ku tirhisiwa ka xiphemu xa CCUS swi vula leswaku kuna switshunxo swo tala leswi nga seketelaka ntirho lowu. Hi nkarhi wa 2022/23, ndzavisiso wu langutise eku hetiseni ka xihlawulekisi xa xivumbeko xa misava xo ringanyeta ndhawu eka Mhasipala wa Govan Mbeki, eXifundzeninkulu xa Mpumalanga. Leswi swi katsile ku hetisiwa ka ku pompola xivumbeko xa misava, xivumbeko, milavisiso ya xivumbeko,



Xifaniso 13: Mepe wa timinirali eka tiyuniti ta tshaku ra maribye ehansi ka misava wa Klipriviersberg Group basalt ku suka eka tiborho ta tisampulu ta CCUS

na tidyondzo ta masangulo ta mbango wa mati. Nakambe leswi katsiweke ku vile nkandziyiso wa swiviko swimbirhi swa migodi na tinxaka ta maribye eka swihlovo na maribye laya siveke swicelwa eka ndhawu leyi nga nghenisiwaka moyo wa thyaka (Xifaniso xa 13). Ku kumiwa loku ku ringanyeta leswaku hakunene xihlovo xi nga seketela ku nghenisiwa ka moyo wo thyaka emisaveni.

4.1.2 Dyondzo ya sayense ya misava ya Muako na Matirhiselo ya Misava

Xikongomelo xa Sayense ya miako na Matirhiselo ya Misava xi nyika mpopolo na xihlawulekisi xa makhombo ya xivumbeko xa miako eka swiyenge swo hambana etikweni. Marungula ya dyondzo ya sayense ya misava ya hleriwu ku tiva tindhawu to hlaysia no tiyiseleka ta vutshamo bya vanhu, matirhiselo ya misava yo tiyiseleka no nyika vumbhoni byo seketela eka nhluvukiso wa tlakusa miako. Eku yeni emahlweni ku seketeriwa ku fikeleriwa swikongomelo leswi, Vumbiwa bya Afrika Dzonga na xiyenge xa 5.1(eA) bya Nawu wo Cinciwa wa Dyondzo ya sayense ya misava (Nawu wa 16 wa 2010) wu na vonela ra leswaku CGS yi fanele “ku pfuxeta no hlela swiviko hinkwaswo swa xithekiniki xa xivumbeko xa misava leswi nga khumbhaka nhluvukiso wa miako eka tihakelo leti vekiweke”.

Kuya hi Xivono xa NDP xa 2030, xikongomelo i ku kondletela miako ya kahle na nhluvukiso wa misava. Nhlayo ya ku hluvuka ka milawu na tiejensi, ku fana na Ejensi yo Seketela Miako ya Mhasipala, Nawu wa Mafambiselo ya Makhombo, Nawu wa Makungu ya Vutshamo na Mafambiselo ya Matirhiselo ya Misava, Nawu wo Aka Swinawana swa Tiko na Swipimelo swa Miako na Nawumbisi wa Miako ya Nkoka, swi tlhela swi vumba mbango hi xikongomelo xo seketela swiboho swa tiko. Xikongomelo lexi a xi nyika ntsena marungula ya sayense misava na vonelo ra nhluvukiso wa miako, kambe xi tlhela xi seketela nhluvukiso wa ikhonomi ya Afrika Dzonga ya swicelwa swicelwa swa minirali, mafurha yo sungula (ku nga oyili na gasi) na mati swin'we na DDM. Exikarhi ka makhombo ya ntumbuluko ya tiko (xivumbeko xa misava) ya katsiweke eka khombo ro hunguta tindhawu ta dolomati, ku onhaka hikwalaho ka ku ninginika ka misava, ku mbundzuka na ndhambhi, leswi hinkwaswo swi nga vaka na ntshikilelo wa kahle eka ikhonomi, nhundzu, vutomi bya vanhu na nhluvuiso wa miako ya nkoka. CGS yi tiyisisa vuswikoti bya tiko ku lawula ntshikilelo wa makhombo ya ntumbuluko (xivumbeko xa misava) hi ku hlengeleta marungula ya sayense xivumbeko xa misava na ku aka tisisitimi to lemukisa hi nkarhi na vutivi bya xisayense xa misava. Leswi fikeleriweke swa phuroje swi seketela miako na makungu ya matirhiselo ya misava swi hlamsueriwa hi vuenti laha hansi.

4.1.2.1 Nongonoko wo pompola makhombo ya misava ya tiko

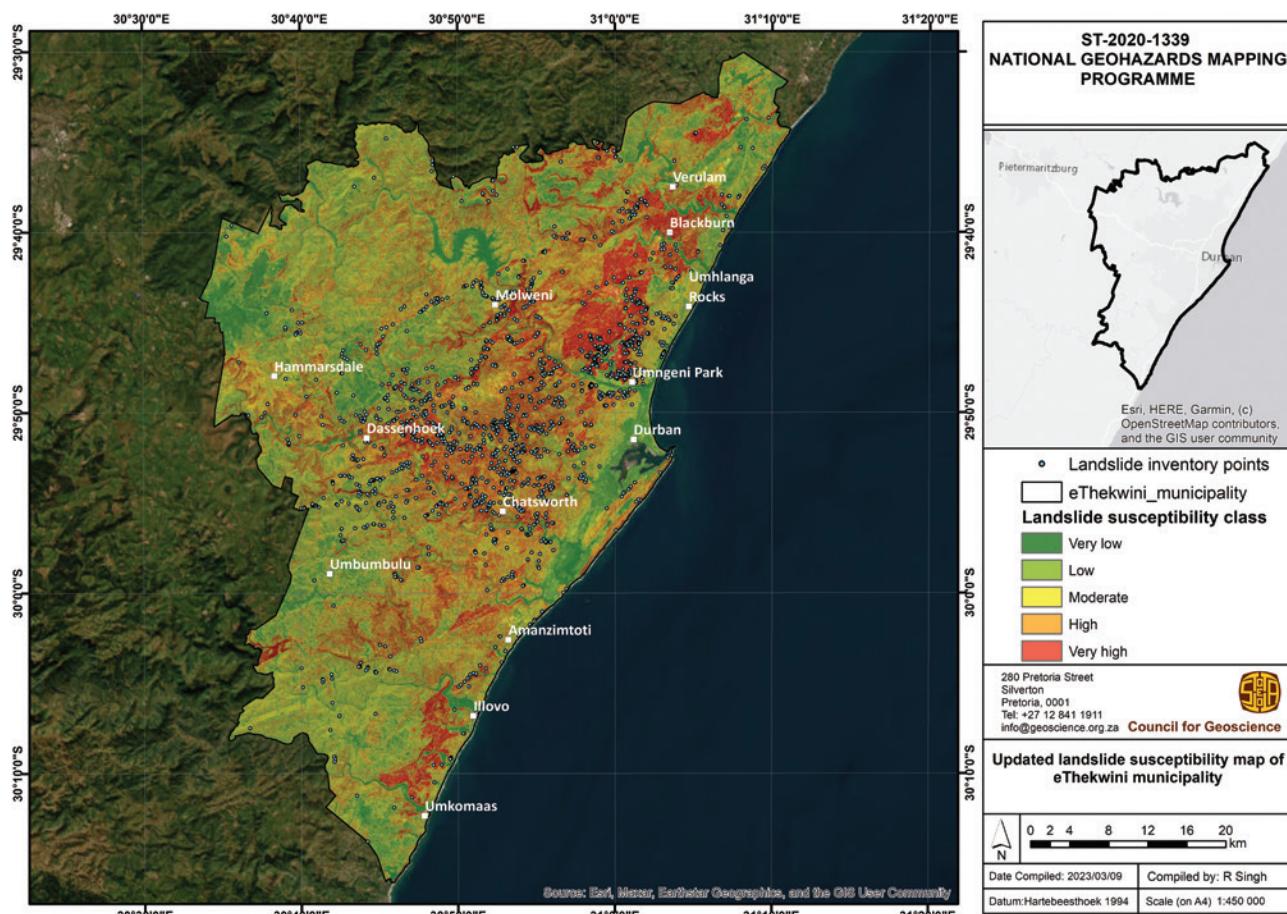
Nongonoko wo Pompola Makhombo ya Misava ya tiko i pfhumba ra malembenyingi leri kongomeke eka ku hlanganisa ku nghenisa xandla eka tidyondzo to hambana ku antswisa ku twisia ka hina eka makhombo ya misava na ntshikilelo eka miako, matirhiselo ya misava na ku hlaysiaka ka miganga eAfrika Dzonga.

Ntirho hi 2022/23 eka phurojeke leyi wu endliwile ehansi ka tinhlokomhaka ta ntlhanu:

1. Khombo ro ninginika na tidyondzo to fambelana na nghozi (mojulu wa khombo ro ninginika ka Doroba ra Joni, tidyondzo ta matimu na ku ninginika ka misana na ku n endhawini ya Tugela na Karoo Basin, ku fambafamba ka misava na tidyondzo ta ku ninginika ka migodi).
2. Makhombo ya dolomayiti na tidyondzo to fambelana na nghozi (khombo ra dolomayiti ro pompola eGauteng).

3. Hlelelo ra Khombo ro mbindzumuka (KwaZulu-Natal [eThekwini] ri hlamuseriwa hi vuenti no pfuxeriwa eka mojulu endzhaku ka makhombo ya April 2022).
4. Ku pompola ka xithekiniki ka misava (ku pompola ka xithekini ka misava ka tindhawu leti werike hi khombo ra April 2022 eKapa Vuxa).
5. Ku hlela ka khombo ra Tsunami (ku tumbuluxa tindlela to hlela khombo ra ndhawu eka vuheri bya makhombo ya tsunami).

Hi ku landza ku mbindzimuka ka April na May na makhombo ya ndhambhi eXifundzeninkulu xa KwaZulu-Natal, CGS yi endle vuheri bya tidyondzo to hambana ku rhekhoda no hlamusela ku mbindzimuka ku pfuxeta timojulu ta ndhawu ku antswisa tindhawu leti nga vaka emakhombyeni yo mbindzimuka. Ntirho lowu wu vange ku pfuxetiwa ka nxaxamelo wa khale na wa sweswi wa ku mbindzimuka loku humelelaka, na endla mojulu hi vuntshwa exifundzeni xa eThekwini Metropolitan (Xifaniso xa 14), ku nghenisiwa



Xifaniso 14: Nxaxamelo wa ku mbindzimuka ka misava (mathonsi yo basa) na xiymo xa mojulu endhawini ya doroba ra eThekwini hi ku landza makhombo ya ku mbindzimuka ka misava ka April 2022, ku hlanganisiwa marungula ya xivumbeko xa vundlalo bya misava xa 1:50 000

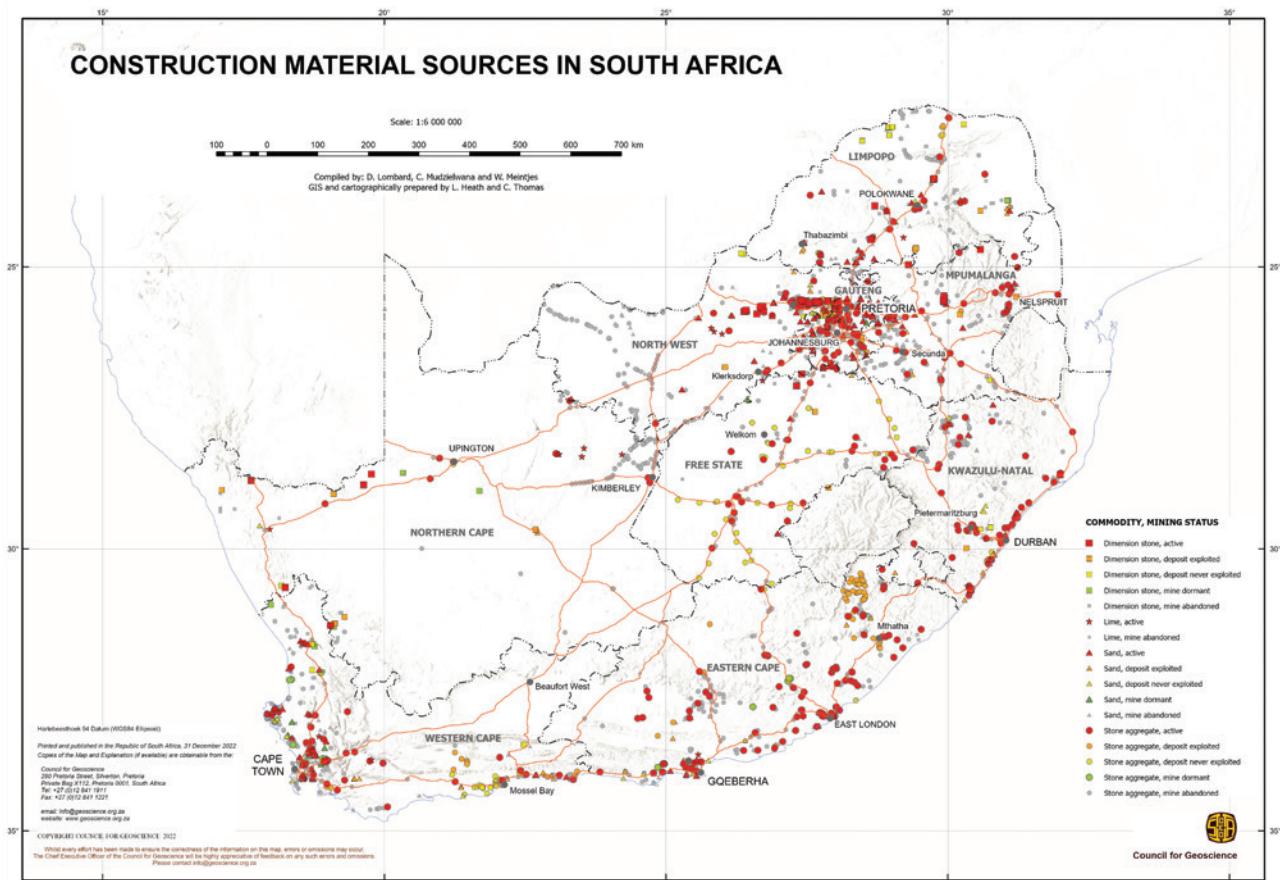
mimepe yintshwa leyi hlengeletiweke ya le henhla ka misava ya xikalua 1:50,000. Ku engetela, nxaxamelo wo sungula wa xiymo xa ku mbindzimuka ka misava a ku fananisiwe na ndhawu ya Mhasipala wa Muganga wa Ndwedwe thwii en'walungu wa eThekwini. Hi swimbirhi, ntirhisano exikarhi ka ku fananisa ku mbindzimuka ka tindhawu ta misava no rhekhodiwa ku humelela ka ku mbindzimuka a ku ri leswi enerisaka. Ntirho wun'wana wu sungurile ku kuma ku fambafamba ka ndhawu leyikulu ku nga si va ku fambafamba lokukulu hi ku tirhisa thekinoloji ya sathelayiti ya InSAR. Ndlela yi le ku tumbuluxiweni ku fikelela leswi, leyi nga ta simekiwa ku nga si hela malembe mambirhi laya taka.

Kuya emahlweni, ku pfuna valawuri va muganga hi ku sungula va kunguhata nhluvukiso wa misava ku nga si va na nhluvuko no papalata ku humelela ka makhombo eka vumundzuku, CGS byi le ku tekeni ka ku pompola ka xithekiniki xa misava xa 1:10 000 eka tindhawu to karhi ta mhasipala wa muganga. Hi nkarhi wa lembe ximali leri

hleriwaka, xiphemu xa misava etindhawini ta Mhasipala wa Muganga wa Port St. Johns xi hleriwile, hi ku landza ku tihlanganisa na valawuri va muganga na makhombo ya April 2022. Nhluvukiso-vuhleri bya xithekiniki xa xikalua xo sungulo xi endliwile leswi tirhaka tanihixiwa xa nkoka eka makungu ya nkoka ya matrhisel ya misava na mafambiselo ya miako ya sweswi na nhluvukiso. Ndhawu leyi ya nkoka yi tlhela yi antswisiwa hi kuya emahlweni ka ndzavisiso eka xivumbeko xa tindhawu leti nga le nghozini ya misava ya dolomayiti, na xihlawulekiso xo antswisiwa xa swivangelo swo ninginika na swiboho swa khombo leri faneleke.

4.1.2.2 Switirhisiwa swa nhluvuko wa miako

Phurojeke leyi yi langutisa eku hleleni ka ku humelela ka swa ntumbuluko ka switirhisiwa swa maribye yo tika ku tirhisiwa eku hatlisiseni ka ku aka swiporo na vumaki bya magondzo hi konkhirete. Ku ya emahlweni, ndzavisiso wu endliya ku teka xiboho xa vuswikoti bya maribye yo hlantiwa hi misava eAfrika Dzonga tanihixiwa makete ya vumaki leyi hlukaka.



Xifaniso 15: Dabesi ya maribye laya pfuxetiweke ya Afrika Dzonga (pfuxetiweke/datara leyi hleriveke ku suka eka Databeyisi ya Timinirali ta Afrika Dzonga CGS), DMRE, SANRAL, ASPASA, ku pompola CGS, NA swifaniso swa Google Earth)

CGS yi kondletele databeyisi ya switirhiswa swa vumaki bya tiko kuya hi vuheri bya swihlovo swa datara leyi nga kona yi kandziyiwiweke, matsalwa laya kandziyiwiweke, ku nuhutela ka le kule, na ku pompola ka misava na ku tiyisisa. Mepe wa tiko wo hlanganisiwa no pfuxetiwa lowu nga kona na misava leswi kombisiwiweke eka Xifaniso xa 15. Ku engetela, xivumbeko xa misava, hi ku hlanganisiwa na vuheri bya laboretari ya xithekiniki ya misava leyi endliweke hi CGS hi xikongomelo xa xicelwa xa vumaki, swi komisiwile eka Swifundzankulu hinkwaswo eTikweni. Mbuyelo wu ta tirha tanihi masungulo ya xivumbeko xa misava eka ku pompola ka switirhiswana swo aka na nhluvukiso wa xihlovo, hi ku hlangaisiwa na mepe ya maribye ya tiko. Kuya emahlweni ka xikalua laboretari eka miako leyi akiwaka hi xithekiniki xa misava, ku kambela ko engetela ku endliwile ku antswisa ku engeteleka ka nkoka wutsongo wo amukeleka. Vuheri byo sungula byo kumeka ka mimbuelo ya xikambelo xo hlanganisiwa byi kombisa ku hambana ka swihlawulekisi, leswi tekelaka ehansi ka tinxaka ta maribye na tindhawu. Mimbuelo ya sweswi yi kombisa leswakuu tindhawu to tala to tsakeriwa ku antswisa ku engeteleka ka nkoka wutsongo wo amukeleka, ku fana na ndhawu yo tontswa, ku tsongwa mati, matimba yo tshikilela, na ntshikilelo wo ala.

4.1.2.3 Ku valanga ka ku ninginika ka misava na ku hlayisa netiweke

Tanihi xiphemu xa endla ntirho wa milawu ku vumba no hlayisa netiweke ta ndhawu ta girafu yo ninginika ka misava, CGS yiya emahlweni ku hlela ku ninginika eAfrika Dzonga hinkwayo. Mimbuelo ku suka eka ku valanga ndlela yo ninginika ku endliwile tanihi xiphemu xo hlela ku vumbiwa ka magandlati ku suka eka Tinetiweke ta Girafu ya ku Ninginika ya Tiko ya Afrika Dzonga (tinetiweke ta ndhawu, swiyenge swa migodi na ta vaxavi) exikarhi ka January 2022 na February 2023 leswi endleke kuva ku pfuxetiwa eka bangi ya datara ku engetela ka switshunxo swa le xikarhi swa 4 039 na 5 501, hi ku landzana. Swikoweto swo tala swa ku ninginika ka misava swi suka eka tindhawu ta migodi leswi pfulekeke eRiphabliki (ku suka eka tinetiweke ta ndhawu) na le kule eRhandi Vuxa (82% wa minkhuvo yo fambelana na migodi). Xivumbeko xa ku tsekatsea ka misava emindzilekano ya Afrika Dzonga na tindhawu ta kle ribuweni ku fike eka 674.

Nhlayo ya 'ku tsekatsea ka misava loku tweke' ku tlhele ku vikiwa hi nkarhi wa lembe ximali, laha CGS yi lavisiseke ntalo kuya hi ku tihlanganisa na miganga ya vaaki. Ku antswisiwa ko antswa ku endliwile eka ndlela ya maendlelo ya vuheri ku katsa vuheri byo rheta hi xihoxo (ku nga tindlela to kongoma). Lexi lemukiweke eka lembe ximali leri hlieriwaka, CGS yi yile emahlweni ku tirhisana na tindhawu to hambana ta migodi eku hleleni ku ninginika ko fambelana na migodi, ku langutisiwa ngopfu eka databeyisi yo ninginika ko hlaganelo.

4.1.3 Rihanyo ra Dyondzo ya sayense ya misava, Mati yale hansi ka misava, na Mbango wa Migodi

Migodi i xiyenge lexu vupfuke lexu nga na matimu yo nghenisa xandla eka ikhonomi ya Afrika Dzonga kambe, ku fika sweswi, yi siye mitlhontlo ya ndzhaka eka mbango leyi faneleke ku langutisiwa. Vunene ya vaaki na ikhonomi eka miganga swi fambelana thwii na rihanyo na mbango wa laha va tshamaka kona, ku tshovela swakudya swa vona no tirha. Xikongomelo xa migodi emisaveni hinkwayo ku cincela eka ku pompola no kambela, laha ntshikilelelo wu vekiwaka eka vurhangeri bya mbango. Tanhi tiko ra nkayiveloo wa mati, Afrika Dzonga yi langutane na mitlhontlo ya nkoka mayelana na vukona no hlayisiwa ka mati, leswi nyanyisiwaka hi ku twisia ku tsongo ka swihlovo swa mati. Ku hluvukisiwa ka miganga, vurimi na switirhiswa swa minirali na eneji swi tshembhela eka vukona bya na vutivi bya swihlovo swa mati.

Rihanyo ra Sayense ya xivumbeko xa misava, Mati ya le hansi ka misava na Xikongomelo xa Mbango swi tlakusa vurhangeri bya mbango, ngopfu-ngopfu eka tindhawu leti nga na ngzozi ya nthiyakiso hi migingiriko yo fana na ku pompola no kambela. Ehansi ka xikongomelo lexu, swihlovo swa mati ya le hansi ka misava swa kumeka ku tirhela miganga, tifeme na vurimi. Ku nghenelela ko fana na ku pfuxeta ka mati ya le hansi ka misava loku nga riki ka ntumbuluko ka langutisiwa tanihi dyondzo leyi yaka emahlweni ya ndzavisiso wa xisayense. Xikongomelo lexu xi vumbiwa hi tiphuroje to tala, ku katsa MEWMP na mafambiselo ya vutihlamuleri bya Mfumo bya xirindzamhangu mayelana na migodi leyi nga ha tirhisiwei na yo pfumala vinyi – sweswi swi vuriwaka Ndzavisiso wo Hlanganelo wo Pfala Migodi (IRMC).

4.1.3.1 Nongonoko wa Mafambiselo ya Migodi na Mati ya Mbango

MEWMP yi tumbuluxiwile ku nghenisa xandla eka mafambiselo yo tiyiseleka ka mati laya thyakisiwaka hi migodi. Nongonoko wu endla ndzavisiso no simekiwa ka tindlela to sivela to langutisa ngopfu ku lawula no lulamisa tithekinoloji ku katsa sisitimi ro basisa mati hi ku nonoka. Hi ku landza ku simekiwa ko humeleta ka mugerho wa Van Ryn, datara yo hlela yi kombisile leswaku migerho yi swivela migodi ku humesa mati kuya Eastern Basin, loko hile tlhelo Western na Central Basin ti veke no humesa mati hi nguva wa timpfula wa 2022/23. Ku ringanyetiwa leswaku ku nghanisa ka mugerho wa Van Ryn kuri koxe ku nghanise xandla eku siveleni ka ku thyakisiwa ka mati ka kwalomu ka 40ML/siku, laha ku languteriweke ku hlayisa tihakelo ta lembe ta kwalomu ka R59 wa mamiliyonu ku suka eka vonelo ra ku basisa mati ya migodi. Eka lembe ximali leri taka, migerho yinharhu yo engetela swi hlieriwile eka ku lulamisela ku simekiwa ka Central Rand eka lembe ximali leri taka.

Ndzavisiso wo Hlanganelo eka Migodi yi Pfariwa

Xikongomelo xa phurojeke ya Ndzavisiso wo Hlanganelo eka Migodi yi Pfariwa (IRMC) xi hi kambirhi: nseketelo wa Ndlela yo Pfala Migodi ya Tiko (NMCS) na ndzavisiso eka kungu ro pfariwa ri nga si endlifa na ra le ndzhaku. Hi ku landza ku gazetiwa ka NMCS, kungu ro simekiwa ri hetisiwile, ku tekeriwa enhlokweni mimbuyelo na mavonelo swi tisaka endlelo ro tihlanganisa. Xiyenge xa ndzavisiso ya phurojeke xi kongoma ku hlela vuswikoti bya tindhawu to tirhisa migodi endzhaku ka nkarhi. Vulavisisi byi le ku endlifi eka nkoka wa misava, moyo na mati na swin'wana swo fana na ku tiya ka misava. Eka lembe ximali leri hlieriwaka, ku mbindzimuka ka migodi ku kamberiwile endhawini ya Klerksdorp–Orkney–Stilfontein–Hartebeesfontein (KOSH) na le Xifundzeninkulu xa Mpumalanga. Leyi i phurojeke leyi yaka emahlweni na swimakiwa swo hlanganelo swi ta andlariwa eka malembe ximali laya taka.

Vuhleri bya Mati ya le hansi ka misava na Mafambiselo

CGS yi endle ku pompola ka mati ya le hansi ka misava hi xikongomelo xo twisia swihlovo sa mati ya le hansi ka misava eka tindhawu leti nga vaka na tiphurojeke ta timinirali na eneji. Ku twisia swihlovo swa mati ya le hansi ka misava swi ta pfuna eku voneni ku valanga ka kahle na nsirhelelo hi nkarhi wo pompola timinarili na mgingiriko yin'wana ku fana no tlhavela nthyakiso endzeni ka misava na ku hlayisa.

Eka lembe ximali leri hlieriwaka, ku pompola a ku langutisiwa eka Swifundzankulu swa Mpumalanga na KwaZulu-Natal, laha tindhawu hi timbirhi a ti fambelana na phurojeke ya CCUS. Mimepe yinharhu ya xikalua 1:50 000 yi endlifi eka ndahwu ya Delmas, Jozini na Evander.

Ku tirhisiwa ka mati ya le hansi ka misava i ndlela ya dyondzo yintshwa eka CGS no kuma nhlamuselo eka tiphurojeke to hambana tanihi vuheri bya mati ya le hansi ka mati na IRMC. Ku kambela ko engetela kule ku endlifi na switirhisiwa swi le ku vumbiweni ku antswisa ntshembho eka mimepe ya khombo na vuswikoti bya mimepe ya mati ya le hansi ka misava kuya hi Al. Kuya hi ku engeteleka ka mpfumaleko wa mati na makhombo laya fambaka na swona, vulavisisi bya xisayense bya misava eka ku lawula maribye laya nga mati swi ya emahlweni ku langutisa eka ku kuma tindhawu laha maribye laya nga na mati ya vaka kona.

4.1.4 Ndzavisiso wa Dyondzo ya sayense ya misava na Vutshuri

Nongonoko wa Ndzavisiso wa Datara na marungula ya dyondzo ya sayense ya misava wa CGS wu kongoma ku vumba vtshuri na nkhulukwa kahle ku longoloxa endlelo na ku hlamusela datara ya dyondzo ya sayense ya misava eku seketeleni swikongomelo swa ntirho wa CGS na minongonoko ya ndzavisiso.

Xikongomelo xa Dyondzo ya sayense ya misava na Vutshuri xi hlanganisa ku cinca ka miehleketo kuya eka switshunxo leswi nga endlifiwa ku ololoxa mitlhontlo yin'wana yo tala ya tiko, ku fana na nkayivelwa mati, vusweti na nhlayseko wa nhluvukiso wo tiyiseleka. Databeyisi (xivumbeko xa misava, na swivumbeko, khemisitri ya maribye sw.sw) yi le ku hlengeliwi no vuyeteriwa eka swo tala swa tidyondzo ta sayense ya miava hi rivilo lerikulu, ku vumbiwa xilaveko xa xihatla xo ta na miehleketo yintshwa na switirhisiwa swo kuma marungula yo tirhiseka (vutivi). Xikongomelo xi tlhela xi lavisia matirhiselo ya tithekinoloji ta manguvalawa ku fana na Al na michini yo dyondzo thekinoloji eka vutivi byo cela. Hakunene endlelo leri ri ta antswisisa xihatla, ku tirheka na ku kongoma ka endlelo ra ku kuma vutivi.

Hi nkarhi wa 2022/23, Nongonoko wa Ndzavisiso wa Dyondzo ya sayense ya misava na Vutshuri wu langutisa eka nhluvukiso wa softiwere ku seketela endlelo ra databeyisi yo hambana ya tindhawu, ku fana na ku ninginika na ku tumbuluxiwa ka mojulu ra tidjitali timbirhi ta mbango wa dyondzo ya sayense ya misava leti hlawuriweke ta Afrika Dzonga.

4.1.5 Vuxaka bya Dyondzo ya sayense ya misava

Xivumbeko xa misava loku a ngu languteriwangiki ka vuandlalo bya misava ku swi veke ku hundza eka mindzilekano na vulawuri bya Mfumo wihi na wihi kumbe xiyenge. Tanihi Matsalana wa nkarhi hinkwawo wa OAGS, CGS yi tirhisia Xkongomelo xa Vuxaka bya dyondzo ya sayense ya misava tanihi nchumu wa nkoka ku vumba vuxaka bya matiko ya misava, ngopfu-ngopfu eTikweninkulu ra Afrika, eku vumbeni ntalo no pfumelela ntirhisano. Kuya hi xin'we xa swikongomelo xo titshembha xa vufambisi bya vutsevu bya '**yo antswa Afrika ya kahle na matiko ya misava**', CGS yina matimu yo tirhisana na matiko ya Afrika yo hambana hi ku pompola ka dyondzo ya sayense ya misava, ku cinca swiyenge, ku hlengeleta mepe na vukorhokeri by'i'wana.

Xikongomelo xa Vuxaka bya Sayense ya matimu xi vumba mbango wo koteka ku fikelela swiboho swa tiko. Swiyenge swa nkoka swa xikongomelo i ku vumba ntalo wa ximunhu hi nhluvukiso wa xisayense wa misava, swikili swa vufambisi na mafambiselo/vurhangeri na ku vumba ka swimakiwa swa vutshuri, tisisitimi na vukorhokeri. Ku tumbuluxiwa ka ndhawu

ya nxaviselano wa mahala wa tikonkulu, matshalatshala ya Nhlangano wa Afrika, ku nyika mikateko ya kahle ku veka Afrika Dzonga eka ndlela ya vuvekisi na ntirhisano na matiko yan'wana ya Afrika ku vumba ntalo wa yumaki bya tikonkulu.

Dyondzo leyi yi seketela swikongomelo swa nhluvukiso wa xisayense xa matiko ya misava na swilaveko, ngopfu-ngopfu emigangeni ya Afrika. Nongonoko wa Vuxaka bya Dyondzo ya sayense ya misava wa CGS wu kongoma eku endleni ndzavisiso wa hlanganelo na tidyondzinyingi na nhluvukiso eAfrika hi ku seketela swiboho hinkwaswo swa minhluvukiso yo fambelana.

Hi nkarhi wa 2022/23, ntirho wu langutisa eku hetiseni ka minonganoko Eswatini, Namibiya na Malawi, ku katsa ku humelerisiwa ka databeyisi yo hambana yo hlanganisiwa ku seketela swiboho swa nhluvukiso swo hambana swa minirali na eneji. Tihandlakambirhi, nonganoko lowu wu vone nseketelo wo hambana wa xithekiniki eka mitirho ya vuxaka leyi tekiweke hi South Sudan, Ivory Coast na Niger, hi vonelo ro kuma mbuyelo wo fana no tirhisa tithekiniki ta xisayense xa vutshuri bya misava ku hatlisisa nhluvukiso.

5

VUTIVI BYA DYONDZO YA SAYENSE YA MISAVA NA VUKORHOKEKERI BYA MAFAMBUSELO YA MARUNGULA

Mafambiselo yo hatlisisa ya vutivi bya sayense, ku katsa ku hliasiwa ka minirali hi CGS na ku hlengeletiwa ka masalelwa, dijitalayiza ka tirhekhodo ta analogo na ku hangalasiwa ka datara yo fambalana na marungula, yiya emahlweni kuva matirhelo ya nkoka ya nhlangano. Ku simekiwa ka GTP ku tshembhela eka datara na marungula ya sweswi na ya khale ya xiyimo xa le henhla. Kutani, i swa nkoka ku vona kuri datara i ya nkoka no hliasiwa kahle naswona swa kumeka loko swi laveka. Leswi hlengeletiweke swo tala swa ehansi ka vuhlayisi bya CGS i xiphemu xa nkoka xa mgingiriko yo karhi ta phurojeke ya nhlangano. Marungula lawa ya fanele ya pfuxetiwa ku suka eka vonelo ra xisayense na ra ndzhaka.

Nongonoko wa dijitali wu antswisiwile swinene (fikelela 172% eka 100% leyia yi vekiwile) hi ku hatlisisa eka nongonoko lowu voneke ku engetela ka mimepe ya xidyondzo ya sayense ya misava ya 2 158 leyia nga le tihofisini ta muganga. Xo biha, vuheri bya vuhlayiseri bya xisayense xa misava a byi tisangi mbuyelo lowu lavekaka hikwalaho ka vatirhi lava tshikeke ntirho. Eku heteleleni 53.4% yi fikeleriwile ehenhla ka nhlayo leyia yi vekiwile ya 60%. Hambiswiritano, hlelelo ro hlengeletiwa ka xitirhisiwa xa dyondzo ya masalela ya leswitsongo na ya swimilana ri endliwile. Switirhisiwa leswi swi hlengeletiwile kahle ku suka eka ku landza ka

Phanerozoic lithostratigraphic no dipozitiwa eAfrika Dzonga hinkwayo na le mabuweni ya Iwandle. Ku hlengeletiwa loku ku nghenisa xandla xa nkoka eka minonganoko yo vuyerisa ikhonomi eAfrika Dzonga, tanihi leswi masalelwa ya fambelanaka na datara ya nkoka eka tindhawu leti nga na vuswikkoti byo thyakisa mbango. Swin'we, datara yi nga tirhisiwa ku hunguta ku fambelana ka vuxaka bya maribye na ku twisia ku antswa swicelwa na tindhawu to hlaysia, eka vuandlalo bya misava na kusuhi na Iwandle.

Ku ya emahlweni ku nghenisiwa xandla eka vutivi bya miri wa dyondzo ya sayense ya misava ya tiko, CGS yiya emahlweni ku simeka mapfhumba yo kuma tiborho ta nkoka. Entiyisweni, swa nkoka swi sikeniwile hi ku tirhisa xikenara xa swifaniso no hliasiwa eka Vuhalayisri bya Nkoka bya Tirborho ta Rixaka hi 2022/23. Nkoka lowu wu hlengeletiwe ku suka eka Nongonoko wo Dirila hi Vuenti wa CGS Karoo (KDD), Nongonoko wa CGS na le ka tindhawu leti hliasiweke kahle taMoodies Group eBarberton Mountainland. Hambiswiritano, pfurojeke yi fikelela 66.7% ku hela eka lembe ximali kuya hi mitlhontlo leyia fambelanaka na ku kuma muphakeri wa vukorheki a pfuna. Kungu ro vuyeleta ri le ku endliweli eka lembe ximali rintshwa leri ku fikelela ku antswisa mbuyelo wa mafambiselo ya vutivi.

6

THEKINOLOJI YA MARUNGULA NA VUHLANGANISI

Hi nkarhi wa 2022/23, micingiriko ya ICT ya nkoka leyi landzelaka yi endliwile ku antswisa matirhelo ya kahle ta CGS.

6.1 Vukona bya vukorhokeri bya mabindzu ya nkoka

Nkoka wa ICT wu vumbiwa hi ku nyika muganga marungula yo hlanganelo kahle no fikeleriwa hi ku olova eka marungula na vukorhokeri bya dyondzo ya sayense ya misava. Eka lembe leri hleriwaka, switshunxo swo hambana swa ICT, ku hlayisiwa, vuheri na swipimelo swo valanga swi ngenise eka ku fikelela, ka kwalomu ka, 99.62% wa vukorhokeri lebyi nga kona, leswi nga le henhlanyana ka 99% leyi vekiweke.

Ku fikeleriwa hi ku olova ka kahle ka CGS ku antswisiwile eka swin'wana, ku nyikiwa ka switirhisiwa swa vatirhisi (tikhomphyuta na tilepithopo).

6.2 Vusirheleri bya vugevenga bya inthanete no antswisa thekinoloji

6.2.1 Vusirheleri bya vugevenga bya inthanete

Hi nkarhi wa 2022/23, tipholisi to hambana na tindlela to sirhelela vugevenga bya inthanete bya ha ri kona ku sirhelela nhundzu ya CGS naswona CGS yiya emahlweni ku hlayisa no atswisa vusirheleri bya vugevenga bya inthanete. Ku tiyisisa ko hambana ka vusirheleri bya vugevenga bya inthanete ku fana na Senthara ya Ejensi ya Vuhlori bya Vusirheleri bya Tiko byi ya emahlweni ku tirha vuheri eka miako ya CGS ICT na tisisitimi ku hunguta ku hlaseriwa.

Ku ya emahlweni ku tiyisisa vusirheleri bya vugevenga bya inthanete bya CGS, vuvekisi byo engetela byi endliwile eku tirhiseni ka thekinoloji ya ximanjhemanjhe ya inthanete, ku fana na ku sirhelela marungula na ku rhumela tifayili letikulu, ku tiyisisa nsirhelelo wa datara leyi nga le ku fambafambeni. Vusirheleri byo engetela byi simekiwile etihofisini ta swifundzantsongo (xikombiso Polokwane) ku endlela ku valanga ka ximanjhemanjhe eka ndhawu ya inthanete no ngenisa leyara yo sirhelela yo engetela

ehenhla ka nxungeto wa inthanete. Nongonoko wa vusirheleri bya vugevenga bya inthanete eka mutirhisi wu endliwile ku dyondzisa vatirhi va CGS eka mixungeto ya inthanete na ntirho wa xirho xa vatirhi ha xin'we eku hlayiseni ka xiyimo xa vusirheleri bya vugevenga bya inthanete bya CGS.

6.2.2 Ku antswisa thekinoloji

Vusirheleri byo engetela byi xaviwile ku antswisa vusirheleri bya vugevenga bya inthaneteeka tindhawu tinharhu (Gqeberha, Polokwane na National Borehole Core Depository). Netiweke ya ndhawu ya softiwere yi vekiwile ku hlanganisa hofisinkulu ya CGS na tindhawu ta Polokwane na National Borehole Core Depository.

Netiweke yo antswisiwa yi fikeleriwile ku antswisa matirhelo ya nhlangano hi ku hunguta tihakelo ta mafambiselo (xikombiso mpfuneto wa ndhawu, ku hlanganisa ka datara na mafambiselo ya netiweke eka tindhawu ta le handle to hlaya) tanihi leswi tindhawu to hambana ti kotaka ku tirhisa vuheranisi bya inthanete bya hofisi nkulu na ta ndhawu ya vumbirhi yo vuyisela khombo. Kwalaho, matirhisel ya ICT ya antswisiwile hi xitirhisiwa lexi eka tindhawu to tala. Netiweke ya CGS yi antswisiwile hi ku engeetela ndhawu ya vumbirhi yo vuyisela khombo. ndhawu ya vumbirhi yo vuyisela khombo.

Hi nkarhi wa mali xilembe leri hleriwaka, ku simekiwa ka kungu ra xihlovo ca bindzu ku yile emahlweni hi vufambisela bya nxaxamelo wa maxavelo; e-procurement; mafambiselo ya swofamba; mafambiselo ya kontiraka; mafambiselo ya vuxaka bya khasimende; timojulu ta mafambiselo ya nxaxameto na nhluvukiso wo fambelana wa bindzu lowu hetisiweke no sayiniwa hi muganga lowu yi tirhisaka. Ku hetisiwa ka timojulu leti swi vumba xiphemu xa matshalatshala ku ya emahlweni ku atswisa matirhelo ya kahle ya CGS. Ku simekiwaka ka ha r ntirho lowu yaka mahlweni.

Hi nkarhi wo hlela, CGS yi tlhele yi pfuxeta webusayiti na inthiranete ya yona. Webusayiti ya CGS ya masikulawa yi katsa, eka swin'wana, ku antswisa ku xavisa swilo swa

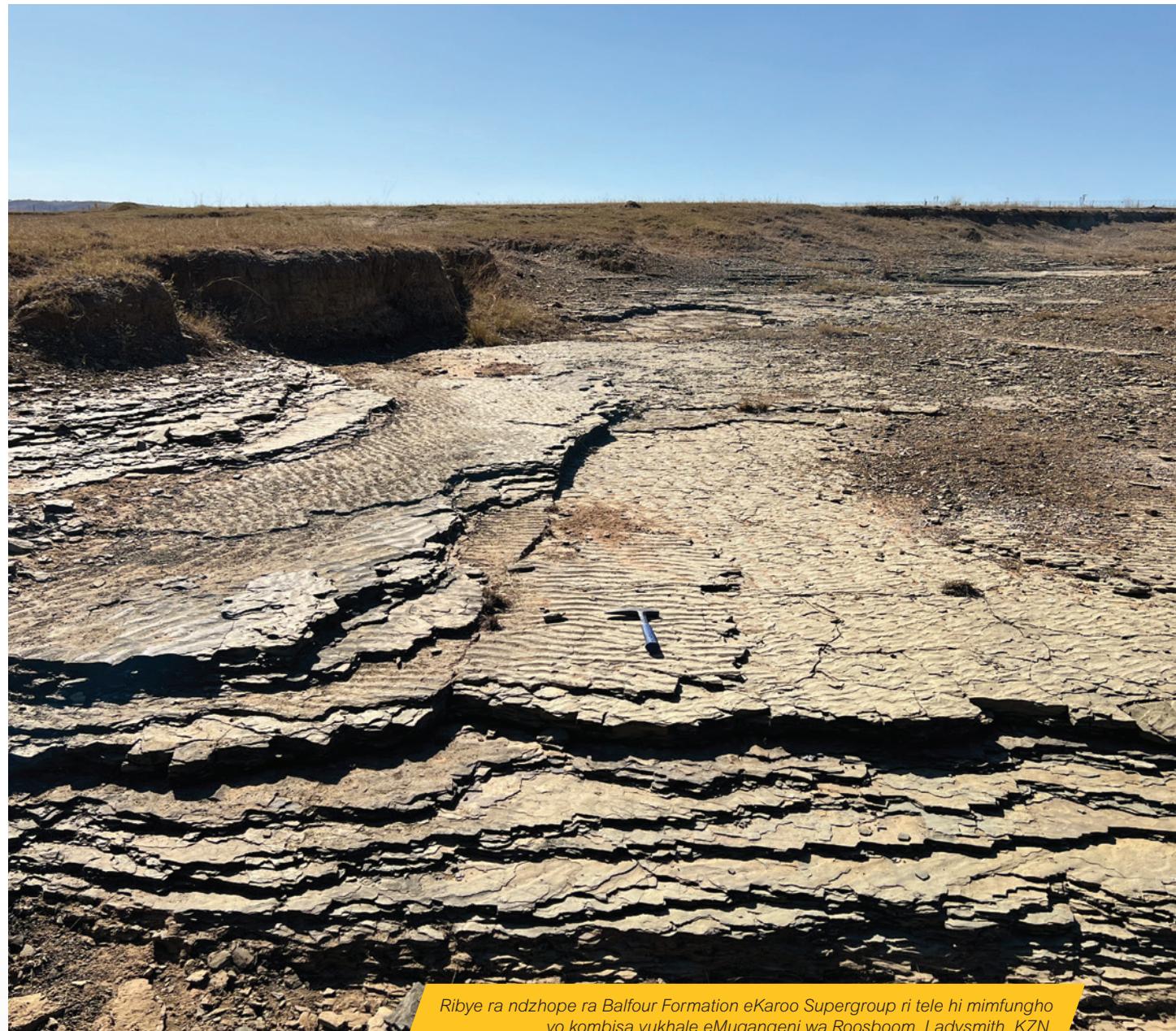
ilekitroniki eka inthaneta no hangalasa swimakiwa leswi nga na vinyi (xik mimepe) swa CGS. Leswi swi fambelana na xiphemu xa n'we xa matirhiselo ya Nawu wa Xinawana wa dyondzo ya sayense ya misava mayelana na ku h langeletiwa ka sayense ya datara na marungula. Ku engetela, CGS yi vumbe xitirhisiwa xa riqingho ku antswisa vukandiyisi eka marungulo ya dyondzo ya sayense ya misava. Ku simekiwa ka webusayiti yintshwa, inthanete ya le ndzeni na xitirhisiwa xa riqingho swi tava kona hi 2023/24.

Ku endliwa ka xitirhisiwa xa riqigho, ku pfuxetiwa ka webusayiti na inthanete ya le ndzeni swi ta endla kuri na CGS

yo tirheka ya kahle. Webusayiti yo pfuxetiwa na xitirhisiwa xa riqingho i swa nkoka eka ku cinca dijitali ya mphakelo wa vukorhokeri bya vaaki wa CGS na ku kondletela ka ku hangalasa marungula exikarhi ka CGS na muganga wa dyondzo ya sayense ya misava.

6.3 Kuya emahlweni ka bindzu

Hi nkarhi wa 2022/23, CGS yi endle swikambelo swo hambana swo vuyetela bindzu ro hambana tanihi xiphemu xa endlelo ra xona ku vumba vulemukisi no tiva tindhawu to antswisiwa no lulamisiwa. Kungu ro vuyelela ri pfuxetiwile.



Ribye ra ndzhope ra Balfour Formation eKaroo Supergroup ri tele hi mimfungho yo kombisa vukhale eMugangeni wa Roosboom, Ladysmith, KZN.

7

MINTSHOVELO YA NDZAVISISO WA DYONDZO YA SAYENSE YA MISAVA

CGS yi hangalasile mimbuyelo ya ndzavisiso wa yona eka vatisani hi endlelo ra minxaxamel ya vukandziyisi, ku katsa swihungwana, tibuletini, swihlamuselo, swiviko swa lembe, sSwitsalwana swa vateki va mahungu, makanelwa ya nhlengeletano na mimepe. Swimakiwa leswi swi kumeka eka swiyenge swa 7.1 kuya eka 7.3. Hi ku langutisa eka ntirho na ku kumiwa ka datara ya tidyondzonyingi, CGS yi yisa emahlweni ntirhisano no kota ku humesa minkandziyiso yo engetela.

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7.3 Makanelwa ya nhlengeletano

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Mutivi wa masalelwaa teka swifaniso swa xiyimo xa le henhla swa swivumbiwa swimbirhi



Mutivi wa masalelwa a teka swifaniso swa xiyimo
xa le henhla swa swivumbiwa swimbirhi

XIPHEMU XA C VULAWURI

Mafambiselo ya khamphani eka tisisitimi ta endlelo ra CGS, miako na tindlela leswi xiyenge xi kongomeke eka swona, lawuriwa no va na vutihlamuleri. Mafambiselo ya tirha kuya hi Nawu wa CGS, Nawu wa Dyondzo ya sayense ya misava (Nawu wa 100 wa 1993 tanahi leswi wu cinciweke), PFMA (Nawu wa 1 wa 1999), Swinawana swa Nkwama wa Tiko, Endlelo wa Mafambiselo ya Khamphani eka Xiyenge xa Vaaki, na tipholisi ta nhlangano. Xiphemu lexi xa xiviko xi hlamusela hi vuenti tisisitimi ta mafambiselo ya nhlangano, miako na maendlelo.

- **Bodo na tikomiti ta yona** – xivumbeko xa Bodo na tikomiti, Dyondzo ya bodo yintshwa, tihakelo ta Bodo na matikhomelo, ntirho na vutihlamuleri bya Bodo.
- **Ku landzelela milawu na swinawana** – xiyimo xo landzelela ka swiboho swa nawu hi CGS.
- **Malawulelo ya le ndzeni na mafambiselo ya makhombo** – rimba ra mafambiselo ya khombo leri simekiweke na vukahle bya swo lawula swa le ndzeni eka nhlangano.
- **Vuxisi na vukungundzwana** – swipimelo swo kuma no sivela migingiriko ya vuxisi.
- **Vuhleri bya tinkota bya le ndzeni** – migingiriko ya ntirho wa vuhleri bya tinkota ta le ndzeni.
- **Ku tiyisisa nkoka** – xiyimo xo tiyisisa nkoka.
- **Timhaka ta rihanyo, vuhlayiseki na mbango** – ku landzelela swipimelo swa vuhlayiseki, rihanyo, mbango na nkoka.

1

VULAWURI NKULU

Holobye wa Swicelwa swa Minirali na Eneji (Holobye), hi ku tirhisu Bodo ya CGS, u na vutihlamuleri eka vulawuri, mafambiselo na mafambiselo ya matirhelo ya CGS. Hakunene, nhlangano wu yisa swiviko swa kotara na swa lembe na

lembe kuya hi swipimelo swa Swinawana swa Nkwama wa Timali ta tiko (26.1) eka DMRE, hi ti 30 April, 31 July, 31 October na 31 January, handle ka loko va lerisiwile hi Nkwama wa Timali ta tiko.

2

BODO YA HUVO YA DYONDZO YA SAYENSE YA MISAVA

2.1 Xivumbeko xa Bodo na mitirho

Holobye u thole Bodo ya CGS leyi heleriweke hi nkarhi ku sukela hi 1 May 2020, kuya hi xiyenge xa 4 xa Nawu wa Dyondzo ya sayense ya misava (Nawu wa 100 wa 1993 tanahi leswi wu cinciweke) ku fikela hi 30 April 2023. Bodo

yi vumbiwile hi khumen'wewa swirho leswi nga riki swa vufambisi, mune wa swirho swo cincana, na xirho xin'we xa vufambisi, CEO. Mutshamaxitulu wa Bodo i wo tiyimela, xirho lexi nga riki xa vufambisi kasi mitirho ya Mutshaxitulu na CEO yi hlamsiwiyle yi va erivaleni.

Ku vumbiwa ka Bodo ku suka hi 1 May 2020 ku fika 30 April 2023 a kuri loku landzelaka:



Dokodela Humphrey Mathe
Mutshamaxitulu wa Huvo

Dokodela Mathe u thoriwe tanihi Mutshamaxitulu wa Bodo hi ti 1 May 2020. I thwasele vutivi bya misava hi MSc (Pompola Timinirali) ku suka Yunivhesiti ya Rhodes, PhD (Matirhelo ya Vutivi bya misava) ku suka eYunivhesiti ya Natal, Durban na Nongonoko wa Mafambiselo wo Antswisiwa ku suka elnsead, Fontainebleau, eFurhwa. Dokodela Mathe i CEO wa Tranter Resources Pty Limited. Khale, a ri CEO ya Scinta South Africa Pty Limited, khamphani ya swicelwa swa malahla; Mininjhore Jenerali Nkulu: Vukorhokeri bya Khamphani e Exxaro Resources Limited. Ekusunguleni a ri Muofisirinkulu wa Vufambisi na Mulawuri Nkulu wa Eyesizwe Coal Pty Limited. Dokodela Mathe u tirhe emigodini vutomi bya yena hinkwabyo kasi u na ntokoto wo tlula 45 wa malembe. A ri eka nxaxamelo wa vahlari eka Sagwati ra Lembe ra Varhangeri (Boss of the Year Award) hi 2008 Dokodela Mathe u tirhe eka tibodo ta of Talent10 Holdings Pty Limited, Scinta South Africa Pty Limited (Mutshamaxitulu la nga riki ka Vufambisi), Tranter Holdings Pty Limited, Tranter Resources Pty Limited (CEO), CGS (Mutshamaxitulu la nga riki ka Vufambisi), Handa Mining Corporation (TSX listed), Cape Copper Oxide Company (Mutshamaxitulu la nga riki ka Vufambisi), Empowerment Capital Investment Partners (Mutshamaxitulu la nga riki ka Vufambisi) na Wescoal Holdings Limited [(JSE listed) Mutshamaxitulu la nga riki ka Vufambisi]. U thele a tirha eka Investment Committee of Acrux Resources Pty Limited. Dokodela Mathe a xirho xa Swidyondzeki eka Vaaki va Vutivi bya Xivumbeko xa Misava eAfrika Dzonga no titsarisela tanihi mutivi wa sayense eka Huvo ya Tiphurofexini ta Vativi va Sayense ya Ntumbuluko eAfrika Dzonga.



Tatana Mosa Mabuza
Muofisiri Nkulu wa Vufambisi

Tatana Mabuza i Mutivi wa tidyondo ta xivumbeko xa misava loyi a nga na digiri ya Honasi ya Bachula eka Tidyondzo ta xivumbeko xa misava na Dipuloma endzhaku ko thwasa ya Mafambiselo ya Bindzu. U thoriwe thoriwile ku va xirho xa Bodo hi ti 1 May 2020. Sweswi Tatana Mabuza i CEO ya CGS laha a thoriwehi ti 15 July 2017. Kontiraka ya yena yi pfuxetiwile ku sukela hi ti 15 June 2022, ku ringana nkarhi wa ntlhanu wa malembe. Tatana Mabuza u tirhe na le ka De Beers tanihi Valangi, Mutivi wa misava eka Laboretari na Muhleri Nkulu wa Bindzu, eka DMRE a ri Mulawuri Nkulu wa Nhluvukiso wa Minirali; eAnglo American Platinum tanihi Nhloko ya Vuxaka bya Mfumo; na le ka DMRE tanihi Xandla xa Mulawuri Jenerali wa Pholisi ya Minirali na Nhluvukiso.



Tatana Xolisa Mvinjelwa
Xandla xa Mutshamaxitulu
wa Bodo

Tatana Mvinjelwa u na Bachula ya Sayense eka Khemistri ku suka eka Yunivhesiti ya Cape Town, digiri ya Masitasi eka Mafambiselo ya Bindzu na Xitifikheti eka Minonganoko ya Mafambiselo yo Antswa ya Bindzu ku suka eka Xikolo xa Bindzu xa Yunivhesiti ya Witwatersrand. Tatana Mvinjelwa u na Dipuloma ya Mafambiselo yo Humelerisa ku suka eka Production Management Institute of South Africa. U thoriwe tanihi xirho na Xandla xa Mutshamaxitulu wa Bodo hi yi 1 May 2020 na 27 May hi 2021, hi ku landzana. U na ku tlula 30 wa malembe ya ntokoto a tirha eka vumaki bya migodi, a sungurile ntirho wa yena eVereeniging Refractories (xiphemu xa Anglo American) tanihi Muofuni wa Xithekiniki eka Ndzwawulo ya R&D loko a ri karhi a tlakuka ekhamphanini. U tirhe eka swivandla swo hambana tanihi Mulawuri wa Vuhumelerisi, Murhangeri wa Nkoka, Mininjhore ya Ndhwu, Muhleri wa Timakete na Muyimeri wa Vaxavisi va Xithekiniki. Endzhaku u joyinile Rhino Minerals (xiphemu xa ANGLOVAAL) tanihi Mupfuni wa Mininjhore wo Maketa wa Xithekiniki laha a ri na vutihlamuleri byo tumbuluxa timakete tintshwa ta matiko ya misava. U tirhe eka IMERYS South Africa (xiphemu xa IMERYS) eka 20 wa malembe laya hundzeke no va eka swiyimo swo hambana eka maleme lawa, ku katsa Mininjhore wo Xavisa & Maketa; Mulawuri: Tiphurojeke to Hlawuleka; Nhloko ya HR, Pholisi & Endlelo; Nhloko ya Endlelo & Vukorhokeri bya Khamphani na Matsalana wa Bodo. Sweswi i Mulawuri Nkulu: Matikhomelo & ku Cinca eka IMERYS South Africa na Mutshamaxitulu wa Komiti ya Vaaki na Matikhomelo ya Bodo. N'wamabindzu, nkul Mvinjelwa u tirhe eka tibodo to tala ta tikhamphani ngofu eka vumaki bya migodi na leswi fambelanaka. I Mutshamaxitulu wa Coastal Fuels, leyi nga khamphani yitsongo ya migodi ya malahla leyi nga na nhundzu ya malahla. U tħħela a ri Mutshamaxitulu wa Ticamode, khamohani ya B-BBEE na mutirhisani eka IMERYS.



Tatana Beewen Gerryts
Xirho xa Bodo

Tatana Gerryts i Muinjhiniyere wa Mekhenikali loyi a nga Masitasi ya Vufambisi bya Injhiniyere (vufambisi bya thekinoloji na vutshuri) ku suka eYunivhesiti ya Pitor. U thoriwe thoriwile ku va xirho xa Bodo hi ti 1 May 2020. U tirha eka Ndzawulo ya Sayense na Vutshuri tanihi Mulawuri Nkulu eka Thekinoloji ya Swimakiwa swa laha Tikweni, ku Vuyeriwa na ku Antswa. Tatana Gerryts u na ntokoto lowukulu eka mafambiselo ya ndzavisiso na vutshuri, ICT na swimakiwa swo karhi swaa ICT swa sisitimi, nhluvukiso wa pholisi, na mutsari wa tibuku eka ndzavisiso na nhluvukiso na nhluvukiso wa vumaki.



Manana Rosalind Mdubeki
Xirho xa Bodo

Manana Mdubeki thoriwe thoriwile ku va xirho xa Bodo hi ti 1 May 2020. U na National Diploma na digiri ya Bachula eka Vuhleri, na Xitifikheti xa Mafambiselo ya Phurojeke. U tirhe eka Eskom tanihi Muhleri wa Xithokiniki na Miinjhiniyere eka vuleteri kasi sweswi u tirha tanihi Muhleri Jeneral: Bloemfontein (laha a nga na vutihlamuleri eFree State na Kapa N'walungu) eka Ndzawulo ya Vurimi, Mpfxetlo wa Misava na Nhluvukiso wa Matikoxikaya.



Manana Deborah Mochothli
Xirho xa Bodo

Manana Mochothli u thoriwe thoriwile ku va xirho xa Bodo hi ti 1 May 2020 no va na digiri ya Masitasi eka Mbango na Vaaki, digiri ya Btech ya Mbango wa Rihanyo, vuthwasi bya Onasi ya BA eka Vufambisi bya Vaaki na digiri ya BA ya Sayense ya Ximunhu. U tirhe eka Ndzawulo ya Mati na Mbhasiso tanihi Mulawuri Nkulu wa Swinawana na Matirhiselo ya Mati, eka South African National Parks tanihi Minijhere: Vuhleri bya Tinkota bya Mbango na Muofisiri Nkulu wa Mbango ya Rihanyo eXifundzheni xa Mafikeng.



Manana Lebogang Madiba
Xirho xa Bodo

Manana Madiba u thoriwe thoriwile ku va xirho xa Bodo hi ti 1 May 2020. U na digiri ya Onasi ya Bcom eka Ikhonomiki ku suka eka Yunivhesiti ta Pitor, digiri ya Masitasi eka Timali eka Ikhonomi ya Pholisi ku suka eka Yunivhesiti ya London (SOAS) na vuthwasi bya Vurhangeri Nkulu ku suka eUnisa School of Business Leadership. Sweswi Manana Madiba u tirha tanihi Mulawuri Nkulu: Vukorhokeri bya Ikhonomiki eka Timali ta Vaaki eka Ndzawulo ya Timali ta tiko na Murhangeri wa Ntlawa eka Matirhelo ya Nhluvukiso wa Ikhonomi la nga na vutihlamuleri bya timhaka leti fambelanaka na moimanyeto eka tindzawulo leti hlawuriweke ta mfum na swiyenge swa tona swa mfumo. Sweswi, Manana Madiba u tirha tanihi Mulawuri wa Bodo ya Dayimani ya Afrika Dzonga na Vulawuri bya Swicelwa swa Maribye. Swiyimo leswi a tirheke eka swona swi katsa Xandla xa Mukhomii wa timali: Front Office and Structured Finance for Transnet SOC Ltd na Mulawuri: Khombo ra Tiko eka Xiyenge xa Nhundzu na Vuhlamuleri xa Timali ta tiko. Manana Madiba u tlhele a ri xirho xa Komiti ya Mafambiselo yo Hlayisiwa eka Bangikulu ya Afrika Dzonga ku fikela 2018.



Manana Adila Chowan

Xirho xa Bodo

Manana Chowan u thoriwe thoriwile ku va xirho xa Bodo hi ti 1 May 2020. I Chartered Accountancy no va na vuthwasi bya LLB. Manana Chowan i Muyimeri wa nawu loyi a tirhelaka eDuma Nokwe Chambers. U tirha eka tibodo ta mfumo na leti nga riki ta mfumo tanihi Mulawuri la nga riki na vufambisi na tanihi irho xa Komiti ya Tinkota.



Qgweta. Ntika Maake

Xirho xa Bodo

Gqweta Maake u thoriwe thoriwile ku va xirho xa Bodo hi ti 1 May 2020. U na tidigiri ta B.Luris na LLB, dipuloma ya Mafumelo ya Khamphani (UNISA), dipuloma ya Mafambiselo ya Phurojeke (Executive College) xitifikheti endzhaku ko thwasa xa ku Cinca ka Maxelo na Nawu wa Eneji, xitifikheti endzhaku ko thwasa xa Nawu wa Mati (Yunivhesiti a Witwatersrand) na digiri ya Masitasi ya Milawu eka Vumaki byo Enta eAfrika. Gqweta Maake u Pase LLB eka Nawu wa Nhundzu (Xinawana xa Nhundzu) (Yunivhesiti ya Pitor). U tirhile eka swiyenge swa mfumo, ku katsa na Eskom Holdings, Doroba ra Tshwane na Ndzaawulo ya Vululami ns Nhluvukiso wa Vumbiwa. Sweswi Gqweta Maake a ri Mutshamaxitulu wa Vuahluri bya Mati eka Ndzaawulo ya Vutshami bya Vaaki, Mati na Mbhasiso. U thela a ri Xirho xa Komiti yo Tshinya eka Premier Soccer League.



Dokodela Jennifer Mirembe

Xirho xa Bodo

Dokodela Mirembe u hlawuriwe ku va xirho xa Huvo hi siku ra 27 May 2020. U na Vudokodela bya Makunguhatelo ya Doroba, digiri ya Masitasi eka Makungaheto ya Dorobankulu na nhlayo ya minthwaso ya mafambiselo. U tirhe eka swiyimo swo tala swa le henhla, ku katsa na ntirho wa yena sweswi wa Mulawuri wa Mafambiselo ya Chanele ya Mphakelo na Mukunguhati Nkulu wa Dorobankulu eka Ndzaawulo ya Vutshami bya Vaaki, Mati na Mbhasiso.



Dokodela Patience Gwaze

Xirho xa Bodo

Dokodela Gwaze u hlawuriwe ku va xirho xa Huvo hi 3 March 2022. U nga PhD eka Nhundzu ya Fizikisi na Khemikali ya Nhundzu ya Swilo swa Aerosol, digiri ya Masitasi ya Fizikisi ya mati, na BSc Onasi ya Fizikisi. U turhe eka swiyenge swo hambana tanihi mutivi wa sayense a nga si joyina Ndzaawulo ya Swihlahla, Vuphasi bya tihlampfi na Mbango hi 2010. Sweswi i Mulawuri Nkulu: Muheri wa Marungula ya Moya, na Muofisiri wa Tiko wa Marungula ya Moya.



Tatana Andries Moatshe

Xirho xa Bodo

Tatana Moatshe u hlawuriwe ku va xirho xa Huvo leyi Fumaka eka Ms Malie hi 1 May 2020. Tatana Malie u tshike ku huma eka xiyimo xa yena. Tatana Moatshe u na digiri ya Masitasi eka Mafambiselo ya Mbango na Dipuloma ya le Henhla ya Rihanyo ra Vaaki. Sweswi u tirha eka DMRE tanahi Mulawuri Nkulu wa Mafambiselo ya Mbango wa Migodi naswona u nghanise xandla eka nhluvukiso ya pholisi ya ndzawulo.



Tatana Paul Nel

Xirho xa Bodo

Tatana Nel u hlawuriwe ku va xirho xa Huvo leyi Fumaka eka Manana D Mochotlihi hi siku ra 1 May 2020. U na digiri ya BCompt Honours naswona i muhakelaxibalo wa akhawunti na mahungu. U tirhile tanahi Mulawuri Nkulu eka Ndzawulo ya Mati na Mbasiso, tanahi Mulawuri wa Vufambisi byo Lawula Bindzu ro Hlanganelo, Afrika Dzonga, tanahi Muofisiri Nkulu wa Timali eka swiyenge swo hlaya swa tibangi na Mininjhhere wa Tinkota eka Deloitte.



Tatana Sabelo Malaza

Xirho xa Bodo

Tatana Malaza u hlawuriwe ku va xirho xa Huvo leyi Fumaka hi 1 May 2020. U na digiri ya Masita eka Mafambiselo ya Bindzu, digiri ya Bphil eka Mafambiselo ya Vutivi na Marungula, Bachula ya digiri ya Sayense no thwasela Nhluvukiso wa Mafambiselo ku suka eka Gordon Institute for Business Science. I Mutirhi wa Mafambiselo ya Mbango la nga na ku tlula 18 wa malembe ya ntokoto eka xiyenge xa mfumo. Tatana Malaza u tirhe eka Ndzawulo ya Mati na Mbasiso na Ndzawulo ya Swihlahla, Vuphasi bya tihlampfi na Mbango eka swivandla swo hambana. Sweswi u Mulawuri Nkulu la nga na vutihlamuleri byo humelerisa vuheri bya ntshikilelo wa mbango eka Ndzawulo ya Swihlahla, Vuphasi bya tihlampfi na Mbango.



Manana Pontso Tsotetsi

Xirho xa Bodo

Manana Tsotetsi u hlawuriwe ku va xirho xa Huvo leyi Fumaka eka Manana D Mochotlihi hi siku ra 1 May 2020. U na Bachula eka Vuhleri bya Misava, Dipuloma ya Vuhleri bya Misava na Xitifikheli xa Nongonoko wa Nhluvukiso wo Antswisa Mafambiselo. Sweswi u tirha tanahi Xandla xa Muhleri Jeneral: Gautenge eka Ndzawulo ya Mpfxeto wa Misava ya Vurimi na Nhluvukiso wa Matikoxikaya.

2.2 Bodo ya sweswi – 1 June 2023 ku fika 30 May 2026

Bodo ya sweswi yi thoriwe hi Holobye ku sukela hi 1 June 2023. Bodo yi katsa Mutshamaxitulu (tiyimela), kumbe ra swirho swo pfumala vufambisi, swirho swin'wana swimbirhi na CEO (xirho nkulu).



Tatana Kelepile Dintwe
Mutshamaxitulu wa Huvo

Tatana Kelepile Dintwe u ni malembe yo tlula 25 a ri na ntokoto eka vuhumelerisi bya nsuku. U thoriwe tanihi Mutshamaxitulu wa Bodo ya CGS hi ti 1 June 2023 Sweswi Tatana Dintwe u rhangela Ku Antswisiwa ka Bindzu na Thekinoloji loku humelelaka e Harmony Gold Ltd. Harmony Gold Ltd. Ntirho wa yena eka Harmony Gold Ltd wu sungule hi 2021. Tatana Dintwe u na btokoto wa 13 wa malembe hi ku angarhele eka swivandla swo hambana swa xithekiniki na vufambisi bya le xikarhi AngloGold Ashanti Ltd (AGA). U na 10 wa malembe ya ntokoto hi ku angarhela eka vufambisi bya le henhla byo hambana eka AGA, ku katsa kuva Xandla xa Phresidente eka swiyenge swo hambana swa Mabindzu ya Khamphani; Makunguhatel oya Khamphani; Vuxaka bya Vuvekisi; Vuxaka bya Vufambisi na Miganga; na Mafambiselo ya Mbango. U tlhele a va na malembe yanharhu a komberiwe ku tirha tanihi mutirhi wo tlherisela vaakatiko eka ntirho wa Xandla xa Phresidente eka bindzu ra AGA eAfrika Vupeladyambu, Riphabliku ra Ghana. Vurhangeri bya Tatana Dintwe bya mafambiselo ya vuhumelerisi tanhi Mininjhhere Jeneral biyi katsa swiyimo swo tala ehansi ka migodi yo hlaya, ku paletela mitirho ya migodi na tindhawu to hambana ta sayense ya swicelwa. Ntirho wa yena wu kombise xiyenge xa le handle xa migodi ku katsa mitirho ya vurhangeri eka Altron Group (Willard Batteries) na vutihlamuleri bya Mininjhhere wa Vuinhiniyera eka phurojeke ya Xitici xa Gezi xa Eskom xa Grootvlei Power RTS. Ntokoto wa vurhangeri eka vufambisi bya bodo ku katsa ku thoriwa ka Bodo eka xiphemu xa AGA Ghana Ltd na sweswi tanihi Mutshamaxitulu wa Bodo ya Bigen Africa Group Holdings eAfrika Dzonga. U na BSc. Digiri ya Injhiniyere ya llekitrikali ku suka eka Yunivhesiti ya Witwatersrand na vuthwasi bya Nongonoko wa Vurhangeri Nkulu eka Yunivhesiti ya Pitoru hi ntirhisano na Mugodi wa Harmony.



Tatana Mosa Mabuza
Muofisiri Nkulu wa Vufambisi

Tatana Mabuza i Mutivi wa tidyondo ta xivumbeko xa misava loyi a nga na digiri ya Honasi ya Bachula eka Tidyondzo ta xivumbeko xa misava na Dipuloma endzhaku ko thwasa ya Mafambiselo ya Bindzu. U thoriwe thoriwile ku va xirho xa Bodo ya CGS hi ti 1 June 2023. Sweswi Tatana Mabuza i CEO ya CGS laha a thoriweke hi ti 15 July 2017. Kontiraka ya yena yi pfuxetiwile ku sukela hi ti 15 June 2022, ku ringana nkarhi wa ntlanu wa malembe. Tatana Mabuza u tirhe na le ka De Beers tanihi Valangi, Mutivi wa misava eka Laboretari na Muhleri Nkulu wa Bindzu, eka DMRE a ri Mulawuri Nkulu wa Nhluvukiso wa Minirali; eAnglo American Platinum tanihi Nhloko ya Vuxaka bya Mfumo; na le ka DMRE tanihi Xandla xa Mulawuri-Jenerali wa Pholisi ya Minirali na Nhluvukiso.



Tatana Xolisa Mvinjelwa
Xandla xa Mutshamaxitulu wa Bodo

Tatana Mvinjelwa u na Bachula ya Sayense eka Khemistri ku suka eka Yunivhesiti ya Cape Town, digiri ya Masitasi eka Mafambiselo ya Bindzu na Xitifikheti eka Minonganoko ya Mafambiselo yo Antswa ya Bindzu ku suka eka Xikolo xa Bindzu xa Yunivhesiti ya Witwatersrand. Tatana Mvinjelwa u na Dipuloma ya Mafambiselo yo Humelerisa ku suka eka Production Management Institute of South Africa. U thoriwe thoriwile ku va xirho xa Bodo ya CGS hi ti 1 June 2023. U na ku tlula 30 wa malembe ya ntokoto a tirha eka vumaki bya migodi, a sungurile ntirho wa yena eVereeniging Refractories (xiphemu xa Anglo American) tanihi Muofuni wa Xithekiniki eka Ndzwulo ya R&D loko a ri karhi a tlakuka ekhamphanini. U tirhe eka swivandla swo hambana tanihi Mulawuri wa Vuhumelerisi, Murhangeri wa Nkoka, Mininjhhere ya Ndhawu, Muhleri wa Timakete na Muyimeri wa Vaxavisi ya Xithekiniki. Endzhaku u joynile Rhino Minerals (xiphemu xa ANGLOVAAL) tanihi Mupfuni wa Mininjhhere wo Maketa wa Xithekiniki laha a ri na vutihlamuleri byo tumbuluxa timakete tintshwa ta matiko ya misava. U tirhe eka IMERYS South Africa (xiphemu xa IMERYS) eka 20 wa malembe laya hundzeke no va eka swiyimo swo hambana eka maleme lawa, ku katsa Mininjhhere wo Xavisa & Maketa; Mulawuri: Tiphurojeke to Hlawuleka; Nhloko ya HR, Pholisi & Endlelo; Nhloko ya Endlelo & Vukorhokeri bya Khamphani na Matsalana wa Bodo. Sweswi i Mulawuri Nkulu: Matikhomelo & ku Cinca eka IMERYS South Africa na Mutshamaxitulu wa Komiti ya Vaaki na Matikhomelo ya Bodo. N'wamabindzu, nkul Mvinjelwa u tirhe eka tibodo to tala ta tikhamphani ngofu eka vumaki bya migodi na leswi fambelanaka. I Mutshamaxitulu wa Coastal Fuels, leyi nga khamphani yitsongo ya migodi ya malahla leyi nga na nhundzu ya malahla. U tlhela a ri Mutshamaxitulu wa Ticamode, khamohani ya B-BBEE na mutirhisani eka IMERYS.



Qgweta Ntika Maake
Xirho xa Bodo

Gqweta Maake u thoriwe thoriwile ku va xirho xa Bodo ya CGS hi ti 1 June 2023. U na tidigiri ta B.Luris na LLB, dipuloma ya Mafumelo ya Khamphani (UNISA), dipuloma ya Mafambiselo ya Phurojeke (Executive College) xitifikheti endzhaku ko thwasa xa ku Cinca ka Maxelo na Nawu wa Eneji, xitifikheti endzhaku ko thwasa xa Nawu wa Mati (Yunivhesiti a Witwatersrand) na digiri ya Masitasi ya Milawu eka Vumaki byo Enta eAfrika. Gqweta Maake u Pase LLB eka Nawu wa Nhundzu (Xinawana xa Nhundzu) (Yunivhesiti ya Pitor). U tirhile eka swiyenge swa mfumo, ku katsa na Eskom Holdings, Doroba ra Tshwane na Ndzaawulo ya Vululami ns Nhluvukiso wa Vumbiwa. Sweswi Gqweta Maake a ri Mutshamaxitulu wa Vuahluri bya Mati eka Ndzaawulo ya Vutshami bya Vaaki, Mati na Mbhasiso. U tlhela a ri Xirho xa Komiti yo Tshinya eka Premier Soccer League.



Tatana Andries Moatshe
Xirho xa Bodo

Tatana Moatshe u thoriwe thoriwile ku va xirho xa Bodo ya CGS hi ti 1 June 2023. Tatana Malie u tshike ku huma eka xiymo xa yena. Tatana Moatshe u na digiri ya Masitasi eka Mafambiselo ya Mbango na Dipuloma ya le Henhla ya Rihanyo ra Vaaki. Sweswi u tirha eka DMRE tanhi Mulawuri Nkulu wa Mafambiselo ya Mbango wa Migodi naswona u ngenise xandla eka nhluvukiso ya pholisi ya ndzawulo.



Dokodela Mayshree Singh
Xirho xa Bodo

Dokodela Mayshree Singh u thoriwe thoriwile ku va xirho xa Bodo hi ti 1 June 2023. U na digiri ya Bachula ya Fiziki na Masitasi ya Fizikisi ya sayense ya xivubeko xa misava, PhD ya Vuxaka bya maribye U na khamphani ya yena, Maya Geophysics leyi tokotaka hi makhombo ya ku tsekatkseka ma misava na ndzavisiso wa makhombo laya fambelanaka, no lavisia eka tindhawu. Dokodela Singh u na ku tlula 20 wa malembe ya ndzavisiso no tokota eka vumaki, madamu laya kulu eka dyondzo ya ku ningingiki ka misava. U tirhe eka tiphujojeke ta vumaki bya nyutliya na tiyisisa mindzindzakhombo, madamu lamakulu, na switici swa gezi. U dyondzisile eYunivhesiti ya KwaZulu-Natal no tirha tanhi mulavisisi eka Council for Geoscience. U dyondzisa no hlela machudeni ya le thwaseke no dyondzisa tidyondzo to boha ta sayense eyunivhesiti. Dokodela Singh u vumbe ntirhisano na valavisisi eka swiyenge swa tidyondzo no ngenelela eka matshalatshala ya ndzavisiso leti langutisaka eku twisiseni ka miako leyi nga le khombyeni ra misava leyi nga tsekatkseka no antswisa ku twisisa ku tsekatkseka etshakwini ra misava na miako ya swihoxo.



Dokodela Siyanda Mngadi
Xirho xa Bodo

Dokodela Siyanda Mngadi u na PhD eka Fizikisi ya sayense ya xivubeko xa misava ku suka eYunivhesiti ya Witwatersrand. U kandziyisile maphephe yo hlela eka tijenali ta matiko ya tinxaka. Dokodela Mngadi u thoriwe thoriwile ku va xirho xa Bodo ya CGS hi ti 1 June 2023. U sungule ku tirha tanhi xichudeni lexi thwaseke eka Senthara ya CSIR eka Vutshuri bya Migodi kutani a ya tirha eka mafambiselo ya nhundzu tanhi muhleri wa nkoka na vuvekisi leyi bohaka yo angarhela swiyenge swa migodi na eneji. U tirhe eka swiyimo swo hambana, ku katsa tanhi Mininjhore Nkulu wa vutihlamuleri bya hlanganisa no xava eka khamphani vuvekisi hi ku tsakela eka migodi na eneji. U tirhe tanhi mulawuri lexi nga riki xa vufambisi eka minhlanganao yo tala ku katsa Anglo American Inyosi Coal, Inyosi Coal, UJU Mining na bodo ya tikomiti ta CGS. Dokodela Mngadi i mulawuri wa vufambisi eka Ntuthuko Resources, la tirhanaka na ku pompola minirali, vumaki bya migodi na eneji. Sweswi Ntuthuko Resources yi khumbheka eka ku pompola REE, lithium, nsimbhi, manganisi na nikeli.



Manana Ntombifuthu Nxumalo

Xirho xa Bodo

Manana Nxumalo u thoriwe thoriwile ku va xirho xa Bodo hi ti 1 June 2023. I mupfurofexini wa dyondzo ya sayense ya misava la nga na Onasi ya BSc ya Dyondzo ya sayense ya misava (Wits) na MBA eka Global Business & Sustainability (UNICATT). U sungule tidyondzo ta PhD ta ndzavisiso (Wits) ta nhlokomhaka ya, 'Ku pfala ka migodi ya Afrika Dzonga': Rimba ro pfumelela milawu eka ku pfariwa ka migodi leyi tirthisiweke ku seketela miganga leyi tshebhela eka migodi'. Ndzavisiso lowu wu langutisa eka ntirho wa Afrika Donga sweswi eka timinirali na milawu ya migodi na rimba ra swinawana ku fikelela ku tiyiseleka ka ku tirthisa misava endzhaku ko tirthiseriwa eka ku tshebhela eka miganga endzhaku kova yi pfariwile. Manana Nxumalo u na ntokoto wo tirha eka swiyenge swa migodi na eneji. U sungule ku tirha tanihi mutivi wa misava eFree State Goldfields, kutani a joyina DMRE: Xiyenge xa Vulawuri bya Migodi. U tirhile eka Eskom, Xiyenge xa Eneji ya Masungulo. Eka malembe yatsongo tanihi n'wamabindzu, a fambisa Sustainability Consultancy, Luhlaza-ISS. Manana Nxumalo u tirhe tanihi xandla xa mutshamaxitulu wa Bodo ya Dayimati ya Afrika Dzonga na mutshamaxitulu wa komiti ya xithekiniki exikarhi ka 2016 na 2019. U tlhele a tirha tanihi mutshamaxitulu eka Foramu ya Mahungu ya Vuhlayiseki ya Pelindaba eka Vulawuri bya Nyutiliya ya Tiko na tanihi xirho xa Phaneli ya Vativi lava dyondzsaka van'wabindzu eka Innovation Hub.



Manana Thobeka Njozela

Xirho xa Bodo

Manana Thobeka Njozela u na MBA ku suka eYunivhesiti ya Pitor, Onasi ya Bcompt ku suka Yunivhesiti ya Transkei na Bcomm ku suka Yunivhesiti ya Fort Hare. U hetisile tidyondzo ta Nongonoko wa Mafambiselo Nkulu ta GIBBS na Nongonoko wa Mafambiselo eYunivhesiti ya Rhodes. Mulawuri wo Tiyisisiwa, u kumile vuthwasi bya Tinkota bya le Ndzeni byo Tiyisiswa no va na switifikheti swa Lawula ku Tihlela, na ku Tiyisia Mafambiselo ya Khombo. Manana Njozela u thoriwe thoriwile ku va xirho xa Bodo hi ti 1 June 2023. U tirhe tanihi xirho xa tikomiti ta tinkota na makhombo rka tindzawulo ta tiko, swifundzhankulu na swiyenge swa mfumo. U na ntokoto wo tala eka mafambiselo ya swiyenge swa mfumo, mafumelo, mafambiselo ya timali; tlakusa tindlela ta khamphani; nhluvukiso wa maendlelo na masimekelo, vuheri no hlela.



Dokodela Moloko Matlala

Xirho xa Bodo

Dokodela Moloko Matlala u kume Diploma yo Dyondzisa ya Sekondari ku suka Kholiji ya Dyondzo ya Setotlwane, MSc Tidyondzo ta swiharhi eYunivhesiti ya Limpopo, na PhD ya Tijeneti ta ndzhaka eYunivhesiti ya Pitor. Sweswi, u endla Masitasi ya Vufambisi bya Bindzu na Wits Business School. Sweswi Dokodela Matlala i Mulari Nkulu: Mafambiselo ya Swihlovo swa Marungula ya Mati ya Tiko eka Ndzwawulo ya Mati na Mbhasiso. Eka ntirho wa yena, u ve eka swiyimo swo hambana, ku katsa na kuva Muofisi wo Lawula Nthyakiso wa Mati, Mupfuni wa Mulawuri, Xandla xa Mulawuri eka tihofisi hi timbirhi ta swifundzankulu swa Mpumalanga na Limpopo eka Ndzwawulo ya Mati na Mbhasiso. Dokodela Matlala u thoriwe thoriwile ku va xirho xa Bodo hi ti 1 June 2023.



Tatana Mandla Malindisa

Xirho xa Bodo

Tatana Malindisa u thoriwe ku va xirho xin'wana xa Bodo xo siva Dokodela Moloko Matlala hi ti 1 June 2023. Tatana Malindisa u na digiri ya Bachula ya Khomense, xitifikheti eka Nongonoko wa Forensikina Vulavisiya bya Tinkota na switifikheti swin'wana. Sweswi u tirha eka Ndzwawulo ya Mati na Mbhasiso tanihi Mulawuri Nkulu wa Vufambisi bya Makhombo na ku Landzelela a ri na ku tlula ntokoto wa 19 wa malembe eka tidyondzo ta mafambiselo ya makhombo, vulawuri bya le ndzeni, tinkota ta le ndzeni, na vulavisiya bya vuxisi bya timali byo hlawuleka. U tirhile tanihi Muofisiri Nkulu wa Makhombo eka tindzawulo tinharhu ta mfumo wa tiko, Mutokoti wa Mafambiselo ya Makhombo eka Ndzwawulo ya Timali ya Xifundzankulu xa KwaZulu-Natal, Muofisiri Nkulu wa Makhombo eka Mhasipala wa Xifundzantsongo xa Sekhukhune, Muphurofexini wa Mafambiselo ya Makhombo eka Tinhlayohlayo ta Afrika Dzonga na N'watinkota Nkulu wa Mfumo eka Ndzwawulo ya Dyondzo eKwaZulu-Natal.



Dokodela Jennifer Mirembe
Xirho xa Bodo

Dokodela Mirembe u thoriwe thoriwile ku va xirho xa Bodo ya CGS hi ti 24 July 2023. U na Vudokodela bya Makunguhatelo ya Doroba, digiri ya Masitasi eka Makungaheto ya Dorobankulu na nhlayo ya minthwaso ya mafambiselo. U tirhe eka swiyimo swo tala swa le henhlala, ku katsa na ntirho wa yena sweswi wa Mulawuri wa Mafambiselo ya Chanele ya Mphakelo na Mukunguhati Nkulu wa Dorobankulu eka Ndzawulo ya Vutshami bya Vaaki, Mati na Mbhasiso.



Dokodela Mmboneni Muofhe
Xirho xa Bodo

Dokodela Mmboneni Muofhe i Xandla xa Mulawuri-Jeneral (DDG) wa Ntirhisano wa Vutshuri bya Ikhonomi ya Vaaki eka Ndzawulo ya Sayense na Vutshuri eAfrika Dzonga. U thoriwe thoriwile ku va xirho xa Bodo hi ti 1 June 2023. Nkarhi lowu nga hundza Dokodela Muofhe a ri eka xiyimo xa DDG eka Swihlovo swa Matiko ya Tinxaa na Ntirhisano na DDG eka Vutshuri bya Thekinoloji eka ndzawula yona ley. U na ntokoto wa sayense, thekinoloji na tisisitimi ta vutshuri lowu katsaka ndzaviso wa xisayense, mafambiselo ya ndzaviso, ntirhisano wa matiko ya misava, swikimi swa nhluvukiso na timali ta vutshuri na ku simekiwa ka matshalatshala yo hambana ya DSI na switirhisiwa. Dokodela Muofhe u rhangele ku simekiwa ko hambana ka sayense, thekinoloji na tindlala ta vutshuri ku fana na Ndlela ya Sayense ya Xivandla ya Tiko, Ikhonomimbirhi, na Hayidirojini Afrika Dzonga (eneji). U tlhele a rhangela endlelo ro tumbuluxa xiviko xa Xithekiniki xo Lulamela Afrika Dzonga ku seketela Vumaki byo Kuma Gese. Dokodela Muofhe u tirhe eka swivandla swo hambana swa mafumelo, ku katsa eka Tibodo ta Biovac (khamphani yo endla nsawutiso ya Afrika Dzonga), kasi sweswi, eka CGS na le ka Komiti yo Rhangela eka Nhlangano wa Rihanyo wa Matiko eka Habu yo Hundzisela Thekinoloji ya mRNA. U tirhe tanhi xirho xa Bodo ya Vafambisi eka Senthara ya Matiko ya misava eka Injhiniyere ya Genetiki na Bayothekinoloji kasi sweswi i Mutshamaxitulu na un'wana eka Group on Earth Observations. Hi swa xikolo, Dokodela Muofhe u na digiri ya BSc (Univen), MSc (UCT), MBA (UP) na PhD eka Mafambiselo ya Thekinoloji na Vutshuri (da Vinci Institute).



Dokodela Patience Gwaze
Xirho xa Bodo

Dokodela Gwaze u hlawuriwe ku va xirho xa Huvo hi 3 March 2022. U nga PhD eka Nhundzu ya Fizikisi na Khemikali ya Nhundzu ya Swilo swa Aerosol, digiri ya Masitasi ya Fizikisi ya mati, na BSc Onasi ya Fizikisi. U turhe eka swiyenge swo hambana tanhi mutivi wa sayense a nga si joyina Ndzawulo ya Swihlahla, Vuphasi bya tihlampfi na Mbango hi 2010. Sweswi i Mulawuri Nkulu: Muhleri wa Marungula ya Moya, na Muofisiri wa Tiko wa Marungula ya Moya.



Tatana Sabelo Malaza
Xirho xa Bodo

Tatana Malaza u thoriwe ku va xirho xin'wana xa Bodo xo siva Dokodela Patience Gwaze hi ti 3 March 2022. U na digiri ya Masita eka Mafambiselo ya Bindzu, digiri ya Bphil eka Mafambiselo ya Vutivi na Marungula, Bachula ya digiri ya Sayense no thwasela Nhluvukiso wa Mafambiselo ku suka eka Gordon Institute for Business Science. I Mutirhi wa Mafambiselo ya Mbango la nga na ku tlula 18 wa malembe ya ntokoto eka xiyenge xa mfumo. Tatana Malaza u tirhe eka Ndzawulo ya Mati na Mbhasiso na Ndzawulo ya Swihlahla, Vuphasi bya tihlampfi eka swiyimo swo hambana. Sweswi u Mulawuri Nkulu la nga na vutihlamuleri byo humelerisa vuheri bya ntshikilelo wa mbango eka Ndzawulo ya Swihlahla, Vuphasi bya tihlampfi na Mbango.

Bodo yi landzelela no hlonipha mitirho leyi xaxametiweke eka xiyege xa 50 xa Nawu wa PFMA (Nawu wa 1 wa 1999 tanihi leswi wu cinciweke), leswi lavaka, eka swin'wana, kuva swirho swa Bodo:

- a) Endla ntirho hi vukheta lebyikulu ku vona nsirhelelo wo twala eka nhundzu na tirhekbedo ta CGS;
- b) Tirha hi ku tshembheka, vunene, xindzhuti na hi ku tsakela ka kahle ka CGS eku fambiseni timhaka ta timali ta nhlangano;
- c) Papalata ku tirha hi ndlela leyi nga fambelaniki na vutihlamuleri lebyi va nyikiweke byona;
- d) Papalata ku tirhisa xiymo xa vona na/kumbe mikateko kumbe marungula ya xihundla lawa vaya kumekeke tanihi swirho swa Bodo kuya tirhisela ku vuyeriwa kumbe ku vuyerisa munhu un'wana swi nga fanelangi; na
- e) Paluxa no boxa ku tsakela kwihi na kwihi ko kongoma na loku nga kongomangiki va nga vaka na kona kumbe swirho swa mindyangu ya vona va nga vaka na byona leswi nga tisaka nkweglembetano wo tsakela.

Bodo yi simeka ku paluxiwa ka ku tsakela ka lembe no paluxa ku tsakela ka xirho xihi na xihi xa komiti na nhlengeletano ya Bodo ku vona leswaku swirho swi paluxa ku tsakela loku nga kona kumbe loku tekiwaka ku ri kona eka mhaka yihi na yihi eka Mulawuri wa Vutihlamuleri. Swirho swa bodo swi fanele ku tisusa eka makanelwa loko mhaka yeleyo yi tekeriwa enhlokweni, handle ka loko Bodo yi teka xiboho hi ndlela yin'wana.

Kuya hi swipimelo swa Nawu wa Dyondzo ya sayense ya misava (Nawu wa 100 wa 1993) tanihi leswi wu cinciweke), hlayiwaka swin'we na PFMA, Bodo yi na vutihlamuleri bya matirhelo ya CGS. Bodo yi fanele ku endla vulawuri no fambisa timhaka ta CGS, yi veka ndlela ya mafambiselo ya nhlangano, yi pasisia xivono xa yona, xikongomelo, swikongomelo swa mafambiselo na tipholisi.

Ku engetela, Bodo yi valanga ku landzelela eka tipholisi na matirhselo hi swikongomelo swa xisayense, mafambiselo na timali. Bodo yi na vutihlamuleri byo vona kuri CGS yina tisisitimi no tihlaysa kahle ta kahle, to tirheka tale rivaleni ta mafambiselo ya timali, mafambiselo ya makhombo na tinkota ta le ndzeni, na maendlelo laya nga voayameriki tlhelo, yo ringana, ya phikizana kahle no hunguta maxavelo.

Bodo yi na vutihlamuleri byo rhangela, lawula no fambisa bindzu ra CGS, naswona yi pasisile rimba ro twala ra vulawuri

kuya hi xiyege xa 56 xa PFMA, lexi nyikaka matimba ya mafambiselo ya siku na siku ya timhaka ta CGS eka CEO. Ku nyikiwa matimba ya vulawuri bya pholisi a swi vuli kuri hi ndlela yin'wana Bodo a yinge aleriwa vurhangeri na vulawuri bya vutihlamuleri bya nhlangano.

2.3 Tsalwa ra swiboho swa Bodo na vutihlamuleri bya Bodo

Tsalwa ra swiboho swa Bodo, ieri pfuxetiwaka lembe na lembe, ri nyika leswi landzelaka:

- a) Ntirho wa vurhangeri bya Bodo, vuahluri na ndlela ya mafambiselo;
- b) Xivumbeko xa Bodo;
- c) Vurhangeri, mitirho hi vutshembheki, na vutihlamuleri;
- d) Khodi ya matikhomelo ya Bodo;
- e) Ku vumbiwa no thoriwa ka tikomiti;
- f) Tindlela ta mafumelo na tinhlengeletano;
- g) Mafambiselo ya nkweglembetano wa ku tsakela;
- h) Vutihlamuleri byo pasisa makungu ya maendlelo no valangiwa ka matirhelo na mafambiselo;
- i) Xiboho no pasisia ka tipholisi;
- j) Mafambiselo ya makhombo; na
- k) Ku hlawuriwa, ku dyondzisiwa no hleriwa ka Bodo.

2.4 Dyondzo ya bodo na vuheleteri

CGS yi na nonganoko wa dyondzo ya bodo eka swirho swintshwa.

2.5 Vuleteri bya swirho swintshwa swa Bodo

Nonganoko wa nhluvukiso wo lawula wu vona leswaku swirho swa Bodo swi leteriwa kahle nkarhi na nkarhi ku vona leswaku va na vutivi lebyi faneleke no dyondzisiwa mayelana na matirhelo ya kahle na milawu ya mafumelo ya khamphani. Tidyondzo to ringanela to kongoma ta nyikiwa ku suka eka swiyenge swa ndhuma leswi tiviwaka ku tiyisisa swikili swa Bodo na ku nghenelela. Swirho swa Bodo na tikomiti swi khutaziwa ku tivisa Matsalana wa Bodo loko va lemuka vuleteri byin'wana byo engetela lebyi nga antswisaka ku nghenisa xandla ka vona eka khamphani. Hi swiviko swa kotara hi kotara na tipholisi, swirho swa Bodo swi tshama swi tsundzuxiwa hi swiyenge swa mafumelo ya CGS, tipurojeke ta maendlelo na matirhelo ya nhlangano ku swi pfuna ku hetisisa mitirho na vutihlamuleri bya swona.

2.6 Tinhlenegetano ta Bodo

Bodo leyi heleriweke hi nkarhi yi ve na ntlhanu wa tinhlenegetano hi 2022/23. Tafula ra 4 ri hlamusela vuxokoxoko bya tinhlenegetano hi xirho ha xin'we xa Bodo elembeni.

Tafula ra 4: Tinhlenegetano ta Bodo ya CGS hi 2022/23

Swirho swa Bodo	28 April 2022	27 May 2022	28 July 2022	27 October 2022	27 January 2023	Nhlayo ya tinhlene- tano leti xirho xi veke kona
Dokodela H Mathe (Mutshamaxitulu)	Kona	Kona	Kona	Kona	Kona	5
Tatana M Mabuza (CEO)	Kona	Kona	Kona	Kona	Kona	5
Tatana X Mvinjelwa (Xandla xa Mutshamaxitulu)	Kona	Kona	Kona	Kona	Kona	5
Dokodela P Gwaze	Kona	Khomeriwa	Khomeriwa	Kona	Khomeriwa	2
Tatana S Malaza	Kona	Kona	Kona	-	Kona	4
Manana D Mochotlhi	Kona	Kona	Kona	Kona	Kona	5
Tatana P Nel	-	-	-	-	Kona	1
Manana R Mdubeki	Kona	Khomeriwa	Khomeriwa	Kona	Kona	3
Manana P Tsotetsi	-	Khomeriwa	Khomeriwa	-	-	0
Qgweta. N Maake	Kona	Kona	Kona	Kona	Kona	5
Manana A Chowan	Kona	Kona	Khomeriwa	Kona	Kona	4
Dokodela J Mirembe	Kona	Kona	Kona	Kona	Khomeriwa	4
Tatana B Gerryts	Kona	Khomeriwa	Kona	Khomeriwa	Kona	3
Tatana A Moatshe	Khomeriwa	Kona	Kona	Kona	Khomeriwa	3
Manana L Madiba	Khomeriwa	Khomeriwa	Khomeriwa	Kona	Kona	2

2.7 Huvo yo Hakela

Tihakelo ta swirho swa Bodo ti bohiwa hi Holobye wa Swicelwa swa Minirali na Eneji hi ku tihlanganisa na Holobye wa Timali tanihi leswi boxiweke eka xitiviso xa 12 xa switiviso swa switatamente swa timali (Tafula ra 5).

Tafula ra 5: Tihakelo ta swirho swa Bodo ya CGS (2022/23)

Vito	Tihakelo	Ku pfuniwa kun'wana	Ku ririsawa kun'wana	Ntsengo R'000
Dokodela H Mathe	147	-	-	147
Tatana X Mvinjelwa	189	-	-	189
Qgweta. N Maake	181	-	-	181
Manana A Chowan	89	-	-	89
Dokodela J Mirembe	-	-	-	-
Tatana S Malaza	-	-	-	-
Tatana P Nel	-	-	-	-
Manana R Mdubeki	-	-	-	-
Manana D Mochotlhi	-	-	-	-
Manana P Tsotetsi	-	-	-	-
Manana L Madiba	-	-	-	-
Tatana A Moatshe	-	-	-	-
Tatana B Gerryts	-	-	-	-
Dokodela P Gwaze	-	-	-	-

2.8 Tikomiti ta Huvo

Kuya hi xiyenge xa 15 xa Nawu wa Sayense ya miseve (Nawu wa 100 wa 1993 tanihi leswi wu cinciweke), Bodo yi tumbuluxe komiti leyti kuya hi xileriso xa Bodo yi endla mitirho ya Bodo leyti vekiweke nkarhi na nkarhi. Ku ya emahlweni, xiyenge xa 15 xa Nawu wa PFMA (Nawu wa 1 wa 1999 tanihi leswi wu cinciweke) xi hlamusela leswaku mitirho yin'wana ya Bodo na swiyenge swa mafambiselo ya CGS swi nga nyikiwa tikomiti ta Bodo kuri hava ku aleriwa vurhangeriwi na vulawuri bya vutihlamuleri bya Bodo. Kutani, tikomiti ta Bodo ti boheka ku endla swinginganyeto swa Bodo hinkwayo yi ku nga si simekiwa ka hi vufambisi. Nyikiwe matimba hi xiyenge xa 15 xa Nawu wa Sayense ya miseve (Nawu wa 100 wa 1993 tanihi leswi wu cinciweke), xiyenge xa 56 xa PFMA na swinginganyeto swa King Code, Bodo yi vumbiwa no nyika matimba eka mitirho yin'wana eka tikomiti ta Tibodo leti landzelaka:

- a) Komiti ya Tinkota na Makhombo;
- b) Komiti ya Timali;
- c) Komiti ya Xithekini; na
- d) Komiti ya Vatirhi, Tihakelo na ku Cinca.

Tafula ra 6: Tinhlenegetano ta Komiti ya Tinkota na Makhombo eka 2022/23

Swirho swa komiti	21 April 2022	19 May 2022	21 July 2022	20 October 2022	20 January 2023	Minhlanga-no leyti a yi ri kona
Manana K Maroga	Kona	Kona	Kona	Kona	Kona	5
Tatana O Willcox	Kona	Kona	Kona	Kona	Kona	5
Dokodela T Khumalo*	Kona	Kona	Kona	Kona	Kona	5
Manana D Morabe	Kona	Kona	Kona	Kona	Kona	5
Qgweta. A Chowan	Kona	Kona	Khomeriwa	Kona	Kona	4
Qgweta. N Maake	Kona	Kona	Kona	Kona	Kona	5
Tatana SM Xulu	Kona	Khomeriwa	Khomeriwa	Kona	Khomeriwa	2
Dokodela S Mngadi	Kona	Kona	Kona	Kona	Kona	5
Manana D Seane	Kona	Kona	Kona	Kona	Kona	5

* swi vula leswaku xirho xi tshikile.

2.9.1 Xiviko xa Komiti ya Tinkota na Makhombo

Swiviko swa Komiti ya Tinkota na Makhombo leswi endliweke hi vutihlamuleri bya yona byo suka eka xiyenge xa 77 xa PFMA xa PFMA na Xinawana xa Nkwama wa Timali ta tiko xa 27.1. Komiti yi tlhela yi vika leswaku yi pasisile Swiboho swa milawu swa Komiti ya Tinkota na Makhombo tanihi swipimelo swo tirha hi swona leswi faneleke, yi pasisile timhaka ta yona eka ku landzelela eka swiboho swa milawu leswi naswona yi endlile mitirho hinkwayo leyti kumekaka eka yona.

Eku endleni ka mitirho ya yona, komiti yi tirhile mitirho leyti landzelaka exikarhi ka yin'wana:

2.9.2 Ku hlela milawu yale ndzeni

Komiti yi lorisile, valangile, no hlela migingiriko ya mitirho ya tinkota yale ndzeni. Hi ntirho wa tinkota wa le ndzeni, komiti yi yile emahlweni ku valanga matirhelo ya kahle ya vulawuri bya le ndzeni eka CGS no hlela loko ntirho wa wa tinkota wa le ndzeni wu endle ntirho wa yona. Hi nkarhi wa 2022/23, vulawuri bya le ndzeni byi kombise kuva antswa lokukulu eka tindhawu tin'wana, na mpimo wo angarhela wo lawula wu kombise xilaveko xo antswisiwa. Ka ha ri na xivandla xo antswisiwa eka leswi landzelaka:

- a) Vufambisi bya nxaxamelo wa maxavelo;
- b) Mafambiselo ya nhundzu;
- c) Mafambiselo ya timali;
- d) Ku dyondza na nhluvukiso;
- e) Ku thola, mahlawulelo no vekiwa kuya hi vuswikoti;
- f) Marungula ya matirhelo;
- g) Thekinoloji ya marungula;
- h) Vuhlanganisi na vuxaka bya vatisrisani;
- i) Vuxisi, vukungundzwana, matikhomelo na mafumelo;
- j) Mafambiselo ya makhambo na ku landzelerisa; na
- k) Vukorhokeri bya vusirheleri.

Komiti yi vika leswaku ndzima eku simekiweni ka tindlela to lulamisa ku ololoxa leswi kumiweke swi le ku valangiweni na leswaku ndzima ya swiviko ya endliwa kotara yin'wana na yin'wana.

2.9.3 Vuhleri bya xiviko xa lembe

Komiti yi:

- a) Langutise hi vuntshwa xiviko xa CGS eka marungula ya matirhelo ya khamphani;
- b) Langutise hi vuntshwa tipholisi na maendlelo ya tinkota swa CGS;
- c) Langutise hi vuntshwa ku ringanelo no tirhiseka ka marungula ya timali leswi nyikiweke hi N'watinkota-Jeneral;
- d) Hlerile, langutise hi vuntshwa no kanela na N'watinkota-Jenerali switatamente swa timali ta lembe swa CGS leswi katsiweke eka xiviko xa lembe;
- e) Langutise hi vuntshwa xiviko xa mafambiselo xa N'watinkota-Jenerali na xiviko xa Tinkota; na
- f) Kuya hi marungula laya nyikiweke eka komiti, ya langutisiwile no hetisisa leswaku switatamente swa timali swa lembe swi landzelela swilaveko swa PFMA, Swinawana swa Nkwama wa Timali ta tiko na swipimelo swa GRAP ya Afrika Dzonga.

2.9.4 Vufambisi bya ndzawulo

Komiti yi vika leswaku hi lembe leri hleriwaka yi pasisile Rhjisitara ra Makhombo ya Maendlelo, Pholisi yo Sivela Vuxisi na Vukungundzwana na Pholisi ya Makhombo ya Khamphani

na Mafambiselo yo Landzelerisa. Tipholisi leti ti hetelele ti hlamuseriwe vatirhi no katsiwa eka ndzhaka ya CGS. Komiti yi langutise hi vuntshwa:

- a) Xiyimo xa makhombo xa nhlangano na swa ku tiyiseleka; na
- b) Nkoka wo hlangana na makhombo ya timali ya CGS, no lerisa vafambisi ku valanga no vumba tindlela to sivela swo fana na sweswo, ku katsa makhombo laya fambelanaka na ndhuma, matirhelo, vuxisi, endlelo, tisisitimi ta ICT, ku vuyelela endzhaku ka makhombo na kuya emahlweni ka matirhelo ya khamphani.

2.9.5 Ku kambela ka switatimende swa timali

Komiti yi langitiswa hi vuntshwa no kanela na N'watinkota-Jenerali switatamente swa timali swa CGS eka lembe leri heleke hi 31 March 2023. Komiti yi tlhele yi langutisa hi vuntshwa papila ra vafambisi ra N'watinkota-Jeneral na nhlamulo ya kona. Komiti yina vonelo ra leswaku switatamente swa timali swa landzelela, eka timhaka hinkwato, swilaveko swa PFMA na swiyimo swa GRAP swa Afrika Afrika.

2.9.6 Xiviko xa tikotara

Nkarhi wa Bodo ya CGS yi herile hi April 2023, ku nga si endliwa Xiviko xa Timali xa sweswi. Kwalaho, nkarhi wa Komiti ya Tinkota na Makhombo wu hele hi nkarhi wun'we na Bodo leyi heleleke hi nkarhi.

CGS yi tsakile ku andlala Xiviko xa Timali xa lembe ximali leri heleke hi 31 March 2023. Komiti ya Tinkota na Makhombo leyi heleriweke hi nkarhi yi langutisw hi vuntshwa leswi kumiweke swa kungu ra masimekelo ra 2021/21 ku nga si hela nkarhi wa yona no vika hi nkarhi wolowo nhlayo ya nkoka wa leswi kumiweke leswi ololoxiweke. Vufambisi byi tinyikele ku ololoxa hinkwaswo swa tinkota leswi kumiweke leswa ha yaka emahlweni.

Komiti yi pfumelelana no amukela mahetelero ya N'watinkota-Jenerali eka switatamente swa timali naswona yi na mavonelo ya leswaku Switatamente swa Timali swa Lembe swi fanele ku amukerira no hlaiya xikan'we na xiviko xa N'watinkota-Jenerali.



Tatana Serame Maetle

Mutshamaxitulu

Komiti ya Tinkota na Makhombo

31 July 2023

2.10 Vutihlamuleri na xivumbeko xa Komiti ya Timali

Komiti ya Timali ya CGS yi lerisiwa ku langutisa no ringanyeta eka BODO ku pasisia timhaka leti landzelaka:

- a) Migungiriko ya nkoka ya timali;
- b) Xiyimo xa vukona bya nhundzu na timali ta CGS;
- c) Ku suriwa ka swikweleti swo biha;
- d) Ku hambana ka leswi vikiweke eka mpimanyeto wa lembe lowu pasisiweke na/kumbe lowu langutisiweke hi vuntshwa kuya hi Leswi vikiweke na Kungu ra Rimba ra Nkoka;

- e) Timali leti ringanyetiweke na mpimanyeto wa khamphani eka mali yo tirhisiwa;
- f) Switatimeente swa timali swa xiviko xa lembe;
- g) Tipholisi hinkwato leti nga na switandzhaku swa timali; na
- h) Mafambiselo ya marungula eka matirhelo ya khamphani enhhla ka mpimanyeto lowu pasisiweke.

Komiti ya Timali yi vumbiwa hi tsevu wa swirho leswi nga riki swa vufambisi na CEO (xirho xa vufambisi). Vuxokoxoko bya swirho byi andlariwa eka Tafula ra 7, na tinhlengeletano leti swi veke kona swi nghenisiwe ku suka hi ti 1 April 2022 kuya eka 31 March 2023.

Tafula ra 7: Tinhlengetano ta Tikomiti ta Timali hi 2022/23

Swirho swa komiti	21 April 2022	19 May 2022	21 July 2022	20 October 2022	20 January 2023	Minhlangano ley a yiri kona
Tatana P Nel	Kona	Kona	Kona	Khomeriwa	Kona	4
Tatana M Mabuza	Kona	Kona	Kona	Kona	Kona	5
Tatana O Willcox	Kona	Kona	Kona	Kona	Kona	5
Qgweta. A Chowan	Kona	Kona	Khomeriwa	Kona	Kona	4
Qgweta. N Maake	Kona	Kona	Kona	Kona	Kona	5
Manana D Morabe	Kona	Kona	Kona	Kona	Kona	5
Dokodela J Mahachi	Kona	Kona	Kona	Kona	Kona	5

2.11 Komiti ya Xithekiniki

Komiti ya Xithekiniki ya CGS yi lerisiwe ku tekela enhlokweni no ringanyeta kuva Bodoyi pasisa nongonoko wa xisayense wa lembe na mafambiselo ya xithekiniki (GTP) wa nhlangano, ku hlela mbuyelo wa xisayense na xithekiniki no vona ku simekiwa ka endlelo ra ICT swin'we na vuheri byo hela ka nkarhi.

Xivumbeko na kuya eka tinhlengeletano ka Komiti ya Xithekiniki ku suka hi ti 1 April 2022 kuya eka 31 March 2023 swi kombisiwile eka Tafula ra 8.

Tafula ra 8: Tinhlengeletano ta Komiti ya Xithekiiki hi 2022/23

Swirho swa komiti	20 April 2022	18 May 2022	20 July 2022	19 October 2022	19 January 2023	Minhlangano ley a yiri kona
Tatana B Gerryts	Kona	Kona	Kona	Kona	Kona	5
Tatana M Mabuza	Kona	Kona	Kona	Kona	Kona	5
Tatana X Mvinjelwa	Kona	Kona	Kona	Kona	Kona	5
Dokodela M Mayekiso	Kona	Kona	Kona	Kona	Kona	5
Dokodela S Mngadi	Kona	Kona	Kona	Kona	Kona	5
Dokodela J Mahachi	Kona	Kona	Kona	Kona	Kona	5
Tatana S Malaza	Kona	Kona	Kona	Kona	Kona	5

2.12 Komiti ya Vatirhi, Tihakelo na ku Cinca

Komiti ya Vatirhi, Tihakelo na ku Cinca yi lerisiwile ku langutisa no ringanyeta eka Bodo ku pasisiwa ka tindlela ta vatirhi na tipholisi ta CGS, mojulu ya miholo ya nhlangano, miholo ya vafambisi nkulu na ku tlakusiwa ka miholo ya lembe. Komiti yi tlhela yi hlela no endla swinginganyeto

swa tihakelo ta tibonasi ta matirhelo no langutisa swiviko swa matirhelo ya nhlangano eka timhaka to fambelana na vatirhi, ndingano wa vatirhi na vuleteri bya vatirhi na timhaka ta nhluvukiso.

Xivumbeko na tinhlengeletano leti Vatirhi va yeke, Komiti ya Vatirhi, Tihakelo na ku Cinca ku suka hi ti 1 April 2022 kuya eka 31 March 2023 swi kombisiwile eka Tafula ra 9.

Tafula ra 9: Tinhlengeletano ta Komiti ya Vatirhi, Tihakelo na ku Cinca hi 2022/23

Swirho swa komiti	20 April 2022	18 May 2022	20 July 2022	19 October 2022	19 January 2023	Minhlanga- no leyi a yi ri kona
Manana R Mdubeki	Kona	Khomeriwa	Kona	Khomeriwa	Kona	3
Tatana M Mabuza	Kona	Kona	Kona	Kona	Kona	5
Tatana X Mvinjelwa	Kona	Kona	Kona	Kona	Kona	5
Dokodela M Mayekiso	Khomeriwa	Kona	Kona	Kona	Kona	4
Manana M Seane	Kona	Kona	Kona	Kona	Kona	5
Dokodela J Mirembe	Kona	Kona	Kona	Khomeriwa	Kona	4
Dokodela T Khumalo*	Kona	Kona	Kona	Kona	Kona	5

* swi vula leswaku xirho xi tshikile.

3

MAFAMBISELO YA KHOMBO

Bodo ya CGS yina vutihlamuleri byo tiyisisa bya mafumelo ya mafambiselo ya makhombo hi vurhangeri bya kahle. Vufambisi byi na vutihlamuleri eka Bodo eka ku hlanganisiwa ka mafambiselo ya makhombo eka mitirho ya siku na siku ya CGS na ku simekiwa no valanga endlelo ra mafambiselo ya makhombo. Komiti ya Tinkota na Makhombo i xiyege xo tiyimela lexi nga na vutihlamuleri byo langutisa ku hlangana na makhombo yo fabelana na mafumelo na mafambiselo ya makhombo eka CGS. CGS yi vumba rhijisitara ra endlelo ra makhombo lembe na lembe kuya hi tindlela ta nhlangano, leswi langutisiwaka kotara yin'wana na yin'wana naswona leswi nyikaka vutiyisisi eka Bodo kuri CGS yi le ku tirhaneni swa kahle eka makhombo laya kumiweke. Rhijisitara ra endlelo ra makhombo ri tlhela ri dyondzisiwa Bodo lembe na lembe. Khombo ra matirhelo ri lawuriwa hi rhijisitara ya makhombo ya ntirho naswona rhijisitara ra makhombo ra GTP no kaneriwa hi nkarhi wa Mafambiselo ya Makhombo ya Matirhelo na Komiti yo Tiyisisa yo Hlanganelo. Pholisi ra Bindzu ra Khamphani no Landzelela Mafambiselo ri hetelele ku langutisiwa hi vuntshwa no pfuxetiwa hi April 2022.

Xivumbeko xa mafumelo ya mafambiselo ya khombo ra nhlangano wa CGS xi andlariwile eka Xifaniso xa 16.



BODO YA CGS



KOMITI YA TINKOTA NA MAKHOMBO



EXCO



**MAFAMBISELO YA MAKHOMBO YA
MATIRHELO NA KOMITI YO TIYISISA
YO HLANGANELA**



YUNITI YA KU LANDZELELA MAKHOMBO

Xifaniso 16: Xiyenge xa mafumelo ya mafambiselo ya khombo ra nhlangano xa CGS

4

VULAWURI BYA LE NDZENI

Vufambisi byi na vutihlamuleri byo endla hi vuntshwa, byo simeka noya emahlweni ku langutisiwa hi vuntshwa malawulelo ya le ndzeni ku nyika ku tiyisisa eka matirhelo na vukahle na ku tshembhela eka xiviko xa timali, na ku sirhelela no hlaysia wi ka vutihlamuleri bya nhundzu ya nhlangoano. Ku lawula loku ku valangiwa hile ka CGS hi

vufambisi na vatirhi, hi ku hambanyisiwa ka mitirho. Ntirho wa tikota ta le ndzeni wu tirha vuheri byo tiyimela eka ndzingano na ku tirheka ka swo lawula leswi tanihi xiphemu xa kungu ra tinkota ra le ndzeni leri pasisiweke ra lembe, na swiviko swa tikota ta le ndzeni swi andlariwa eka Komiti ya Tinkota na Makhombo.

5

TIKOTARA TA LE NDZENI

Ntirho wa tinkota ta le ndzeni wu tumbuluxiwe kuya hi PFMA naswona wu pasise nghenelo ra tinkota kuya hi makhombo ro fambelana na Swiyimo swa Matiko ya misava swa Tinkota ta le Ndzeni ta Maendlelo ya Xiphurofexini (ISPPIA). Ntirho wa tinkota ta le ndzeni wu landeleta ISPPIA. Komiti ya Tinkota na Makhombo yi langutisa hi vuntshwa no pasisa swibo swa milawu swa ximfumo swa tinkota ta le ndzeni.

Komiti ya Tinkota na Makhombo yi pasisa kungu ra tinkota ta le ndzeni ra lembe, na swiviko swa tinkota swa le ndzeni swi andlariwile eka komiti kotara yin'wana na yin'wana. Ku hlela tinkota ko landzelela ku endliwile eka leswi hleriweke lembe leri hundzeke. Ntirho wa tinkota ta le ndzeni i ku tlhela ku endliwa vulavisihi byo sungula eka timhaka leti vikiweke hi riqingho ra mahala ro mangala na hi mitirho ya nkarhinyana leswi komberiweke hi vufambisi.

6

KU LANDZELELA MILAWU NA SWINAWANA

CGS yi landzelela Swinawana swa Nkwama wa Timali ta tiko hi ku landzelela nxaxamelo na khalendara swa PFMA, leswi tshamaka swi langutisa no pfuxetiwa. Ku landzelela milawu na swinawana swi langutisiwa hi migingiriko ya Komiti ya Tinkota na Makhombo na hi Yuniti ya ku Landzelea Makhombo eka levhele ya matirhelo, kuya hi milawu ya matiko ya CGS

leyi pasisiweke hi Bodo hi August 2022. Minxaxamelo yo landzelela yi vumbiwa hi milawu na swinawana hinkwaswo leswi nga kona na leswi longoloxiweke eka milawu ya matiko no lagutisiwa hi tindlela ta kahle. Levhele yo landzelela yi kaneriwa hi nkarhi wa Mafambiselo ya Makhombo ya Matirhelo na tinhengeletano ta Komiti yo Tiysisa eka Vutiysisi.

7

VUXISI NA VUKUNGUDZWANA

CGS yi na vutihlamuleri bya xinawu kuya hi PFMA ku teka magiza ku sivela matirhiselo ya timali laya nga pasisiwangiki, laya nga riki ya xinawu, yo tlangisa no lahlekeriwa ya sukaka eka matikhomelo ya vugevenga. Pholisi yo Sivela Vuxisi na Vukungundzwana ya CGS yi pfuxetiwile no pasisiwa hi January 2023, na riqingho ro mangala munhu a nga tiboxi vito ri kona.

Xitirhisiwa lexi xi fambisiwa hi Deloitte ehandle ka khamphani. Swiviko swi endliya n'hweti na n'hweti, kasi matikhomelo ya vuxisi hinkwavo laya ehleketeriwaka ya lavisisiwa hi van'watinkota vae ndzeni no vikiwa eka Komiti ya Tinkota na Makhombo. Makhombo ya vuxisi ya tiviwa hi nkarhi wo hlela tindlela no langutisa eka tirhijisitara ta makhombo eka CGS.

8

KU HUNGUTA NKWETLEBETANO WA KU TSAKELA

Vaphakeri hinkwavo va hundzu na vukorhokeri eka CGS va boheka ku tata tsalwa ro fana na Nkwama wa Timali ta tiko (SBD4 Ku Boxa ku Tsakela). Hi ku landza swihehlo leswi nga vaka koa swo tsakela na nkwtelmbetano wa ku tsakela, loko mbuyelo wa bidi, kumbe xiphemu xa kona, swi nyikiwa vanhu vanhu lava thoriweke hi CGS, ku laveka

leswaku munhu loyi a endlaka xikombelo kumbe muyimeri la pfumeleriweke a boxa xiyimo xa yena eka vulawuri byo hlela/vuahluri. Ku engetela, swirho swa vatirhi sa CGS leswi khumbhekaka eka Komiti yo Kanelia, Hlela Bidi no, Ahlula swi boheka ku tata tifomo to hlamusela na to paluxa eka nhlengeletano yin'wana na yin'wana.

9

KHODI YA MATIKHOMELO

Swirho hinkwaswo swa vatirhi swi landzelela Khodi ya Matikhomelo. CGS yi tiyimiserile eka ku enda mabindzu ya vunene, laya nga voyameriki tlhelo no va erivaleni no tlakusa ntoloveloo lowu nga aveki, wa ximunhu na bindzu ra vutihlamuleri eka mbango. Yi endla tano hi ku landzelela eka minkoka leyi landzelaka:

- Vutshuri** – Ku vumba no simeka miehleketo yo otwala na swimakiwa leswi vumbaka nkoka.
- Ku hambana** – Angarhela ntoloveloo wo katsa lowu hlaysaka ku cinca no tiva ku nghanisiwa ka xandla ku suka eka vatirhisani hinkwavo.
- Tirha kahle** – Ku lwela ku tirha kahle eka nchumu wun'wana na wun'wana wa bindzu ra yona.
- Vutihlamuleri** – Ku susumeta vutshembheki na ku tiyimisela, kuva na vutihlamuleri na vun'winyi.
- Ku dyondza** – Ku yisa emahlweni ku dyondza hi ku vumba vutivi.
- Vuhlayiseki, rihanyo, na mbango** – Ku rhangisa rihanyo na vuhalayiseki eka vatirhi hinkwavo na vatirhisni kuya hi milawu ya vurhangeri bya mbango.
- Tirhela erivaleni** – Ku nyika vukorhokeri hi ku ringana, swi va kahle, ndzingano na kuva erivaleni.

Ku ya emahlweni, CGS yi landzelela milawu leyi landzeleka:

- Vunene na vutshembheki eka matirhelo, ku katsa makhomelo ya kahle kumbe mikwetlembetano yo tsakela exikarhi ka vuxaka bya vanhu na bya xiphurofexini.
- Hlonipha timfanelo ta ximunhu na xindzhuti eka vatirhi hinkwavo.

- Amukela ku hambana ka ndzhaka, vukhongeri, rixaka, rimbewu, na nhlavutelo ya swo rhandzana.
- Ku tshembheka, tirhela erivaleni na vutihlamuleri.
- Landzelela swipimelo swo twala swa mafambiselo ya khamphani na swa milawu.
- Nkarhi hinkwawo loko u yimela nhlangano no teka vutihlamuleri eka swiendlo hi ndlela leyi nga le henhla tikhomi kahle.
- Hanya hi vutshembheki eku tirhaneni na swirho swa Bodo/Komiti, vatirhi, vaphakeri, tikhaisimende na vayimeri van'wana.
- Landzelela milawu ya mfumo hinkwayo leyi nga kona, milawu na swinawana no fambela kule ku endla milandzu ya vugevenga.
- Papalata nkwtlembetano wo tsakela no boxa loko yi va kona.
- U nga tirhisi marungula ya khamphani hi xikongomelo xihi na xihi handle ka leswi endleriweke swona no hlayisa marungula kuva ya xihundla.
- Hambana no nghanela eka mintoloveloo kumbe ku endla swa wena leswi Iwisanaka na CGS kumbe swi nga endlaka kuva CGS yi lahlekeriwa kumbe ku onhaka hikwalaho ka leswi.

Ku ya hi Khodi ya Matikhomelo ya CGS, vanhu hinkwavo lava yimeleka CGS va fanele ku hlayisa swiyimo swa le henhla swa matikhomelo ya khamphani na vutshembheki. Ku ya emahlweni vatirhi hinkwavo, vatikontiraka, vayimeri na van'wana lava yimelaka CGS va fanele ku yi yimela hi vunene no hambana na ku endla migingiriko yihi na yihi kumbe xikimi lexi nga yivelaka un'wana mali, nhundzu kumbe vukorhokeri. Ndhuma na vutshembheki eka CGS i swa nkoka eka vuswikoti bya nhlangano ku tirha kahle tanhihi nhlangano wa Mfumo.

10

MATSALANA WA BODO

Matsalana wa Bodo u nyika vukorhokeri bya tsundzuxa eka Bodo no tivisa swirho swa Bodo hi ku cinca ka milawu na swilo swintshwa swa mafumelo ya khamphani. Ku ya emahlweni, Matsalana wa Bodo u letela Bodo na tikomiti

ta Bodo hi laha va faneleke va endla mitirho ya vona hi ku yimela nhlangano kahle. Matsalana wa Bodo u kondletela no va kona eka tinhlengeletano ta Bodo na ta komiti ya Bodo, no teka vun'winyi bya matsalwa hinkwayo ya pholisi.

11

KU TIYISISIKA NTIKELO

Vukorhokeri lebyi nyikiwaka hi CGS byi endliya kuya hi nkoka wa sisitimi ra mafambiselo leri vonaka lesaku ku vumbiwa, phakeriwa no kambela vukorhokeri swi fambeana na swiyimo swa nkoka swa tiko na swa matiko ya misava. Mafambiselo ya nkoka eka CGS ya fanele ku vona leswaku vatirhisani va kuma vukorhokeri bya kahle nkarhi hinkwawo. Eka ku ringeta kuva nhlangano wu tiyisisiwa hi ISO 9001, kungu ri endliwile ro simekiwa ka xilaveko a ISO 9001: Swiyimo swa 2015 na ku antswisa sisitimi ra mafambiselo ya nkoka wa nhlangano. Ku fika sweswi kungu ri endliwile eka malembe ximali ya 2021/22 na 2022/23. Hi 31 March 2023, ndzima yo simeka a yi ri eka 41%.

Laboretari ya CGS a yi ri xitirhisiwa xa xiyimo xa le henbla ku kambela tisampulu to hambana ku vona leswaku kuna vukorhokeri bya kahle byo kongoma no fikelela swilaveko

swa tikhaisimende na vatirhisani. Nhlango wu tlhela wu kunguhata ku kuma tindlela to kambela Vukorhokeri byo Hlela ku tiyisisiwa hi ISO/IEC 17025: 2017. Kungu ri ve kona no endliya hi malembe ximali ya 2021/22 na 2022/23. Hi 31 March 2023, ndzima yo simeka a yi ri eka 78%. Ndzima leyi tsakeriwaka eka ku simekiwa ka ISO 9001: 2015 na ISO/IEC 17025: Swiyimo swa 2017 swi hlulekile ku fikeleriwa hi ti 31 December 2022. Ndzima yo antswa a yi tava yi endliwile loko a ku nga ri swipimelo swa matirhelo hikwalaho ka ku tlakusiwa ko pfuxetiwa ka phurojeke ya HVAC loku a ku ri ku humeleleni etihofisini ta Silverton eka mbango lowu nga kona. Ku hetisiwa ka ku pfuxetiwa ka phurojeke ya HVAC ku teka nkarhi wo leha ku tlula hilaha a swi languteriwe ha kona. Sweswi pPhurojeke yi herile no tirha, naswona xikongomelo i ku hatlisisa ku simekiwa ka swilaveko swa swipimelo swa 2023/34.

12

RIHANYO, VUHLAYISEKI NA MBANGU

Vufambisi bya boheka, kuya hi Nawu wa Rihanyo ra le Mitirhweni na Vuhlayiseki wa 85 wa 1993 na Swinawana, ku nyika ndhawu ya ntirho yo pfumala makhombo eka vutomi bya vanhu, loko swirho swa vatirhi swi ri na vutihlamuleri byo tika no tikhoma hi ku landzela swileriso swa vuhlayiseki swa nhlangano. Pholisi ya CGS ya Vuhlayiseki, Rihanyi na Mafambiselo ya Mbango yi pfumelela nhlangano ku sindzisa ku landzela eka milawu leyi nga kona. Lexo hetelela xi tlhela xi nyika swikombiso swo hambana ehenbla ka matirhelo eka ndhawu leyi swi kamberiwaka kona, ku vona ku herisa makhombo no hunguta makhombo. Xiyimo xo landzelela eka matirhelo sweswi ku le ka 91%. Maendlelo ya le ku endliveni ku lulamisa tindhawu leti nga landzeleriki. Nhlango wu tumbuluxe Komiti ya Vuhlayiseki, Rihanyo na Mbango leri hlanganaka kwalomu ka kan'we eka tin'hweti

tinharhu tin'wana na tin'wana ku kanelia timhaka ta rihanyo na vuhlayiseki entirhweni leti khumbhaka vatirhi. Komiti, endzhaku ka nhlangano wun'wana na wun'wana, yi nga yisa swinginganyeto eka Komiti Nkulu, loko swi boha. Komiti, ku engetela eka foramu yo kanerisana, yi tlhela yi tirhisiwa tanihi ndhawu yo tihlanganisa na vatirhi eka timhaka ta rihanyo emitirhweni na vuhlayiseki na mbango.

Vufambisi byi tumbuluxile naswono byi le ku tirhiseni kungu ro simeka swilaveko swa swipimelo swa ISO 45001 na ISO 14001 swo antswisa tisitimi ta nhlangano ta rihanyo na vuhlayiseki entirhweni na mbango swa nhlangano, hi ku landzelelana. Hi 31 March, ndzima yo simeka a yi fika eka 21% na 27% eka ISO 45001 na ISO 14001 hi ku landzelelana. Kungu ra nhlangano i ku hatlisisa ku tumbuluxiwa no simekiwa ka swilaveko leswi swa swipimelo eka lembe ximali leri taka.

13

VUTIHLAMULERI BYA VAAKI

Endlelo ra nhlangano ra CGS yi susumetiwa no pfumelela vuuhlanganisi byo hlanganelna ku tihlanganisa ka kahle na vatirhisani. Nhlango wu pasisile ndlela yo hlanganelna ya vuuhlanganisi na vuxaka bya vatirhisani leri tumbuluxiweke eka ku vumba no hlayisa vuxaka byo tiya, byo aka no vuyerisa kahle na vatirhisani, ngopfu-ngopfu eka tindhawu laha CGS yi tirhaka kona.

CGS yiya emahlweni ku lwelwa eka ku vumba vuxaka bya ntirhisano na vatirhisani eka ku vuyeriwa ko twala, ku antswisa vuxaka bya yona na ku lawula leswi languteriweke hi ku hangalasa marungula yo kongoma, ya nkoka na ya nkarhi wa sweswi. Laha swi kotekaka, nhlango wu nyikele eka miganga laha wu tirheke koa hi ku tirhisana na swiyenge swa mfumo, xikan'we na timhasipala ta xifundza, xifundzantsongo na wa muganga ku avelana vutivi na marungula eka timhaka ta dyondzo ya xisayense xa misava na ku nghenisa xandla eku tlakuseni swiyimo swa vaaki swa ikhononi ya ndhawu.

Leswi landzelaka i mgingiriko yin'wana leyi CGS yiya simekeke ea lembe leri hleriwaka:

- Ku nghenela kahle eka Senthara ya Mafambiselo ya Makhombo ya Tiko, "Senthara ya Tiko" leyi lavaka ku tlakusa sisitimi ro hlanganelna no kondleteriwa ro sivela makhombo, ro hunguta na mafambiselo ya makhombo. Nhlango wu avelana ndavisiso wa yona mayelana na ku mbhundzumuka ka misava tanahi vulawuri byo tsundzuxa eka khombo ro mbombomela eka tindhawu ta maribye leti nga khumbhaka nhluvukiso na matirhiselo ya misava, ngopfu-ngopfu hi ku landza tindhambhi leti khumbheke Swifundzakulu swa KwaZulu-Natal na Kapa Vuxa.
- Humesa mimepe leyi nga na tindhawu to rhandza hi ku mbombomela leyi pfunaka swiboho swo kunguhata matshamelo na makungu ya mafambiselo ya makhombo. Mimepe yi xaxameta tindhawu ta migodi na le kusuhi kuva leti hambanaka kuva ti nga humelela hi ku mbombomela.
- Yiya emahlweni yi kambela mgingiriko yo ningingika ka misava na ku avelana marungula mayelana na ku humelela ka mgingiriko yo ningingika ka misava tanahi loko leswi swi humelela eka vahangalasi va mahungu na vaaki. Eka lembe leri hleriwaka, CGS yi hlamlule eka swivutiso swo tala ku suka eka tichanele to hambana ta mahungu na minkandziyiso, timhasipala na swirho

swa vaaki leswi vilelaka eka ku tsekatseka loku kokeke mahlo ya vanhu.

- Vatirhi va nkarhi wo koma na lava komberiwaka loko kuri na ntirho wo tala eka tiphuromeje to hambana ta xithekiniki kwalaho ku akiwa vuleteri eka tindhawu laha CGS yi tirhaka kona.
- Ku kondletela xikan'we na ku nghenelela eka minkombiso ya mitirho eka vadyondzi va xikolo etikweni hinkwaro. Ku ya emahlweni, CGS yi rhambiwile ku avelana tirho wa yona eka minkanerisano leyi lulamisiweke hi tindzawulo ta dyondzo ya sayense ya misava eka tiyunivhesiti to hambana.
- Ndavisiso na nhluvukiso eka ku nuhetela ka le kule na michini yo dyondza ya xithekiniki ku kombisa mimepe ya migodi leyi nga riki nawini tanahi sisitimi yo kambela.
- Nghenelela eka tiforamu to hambana ta DDM leti timhasipala ti sungulaka ku lemuka nkoka wa dyondzo ya sayense ya misava eka makunguhatelo ya maendlelo, ku fana na Makungu ya Nhluvukiso wa Matshamelo.

CGS yi tiyimiserile ku humesa switshunxo swa dyondzo ya sayense ya misava leswi khumbhaka vaaki no vona leswaku miganga yi kuma nkoka eka ndavisiso wa xisayense xa misava. Ku engetela, nhlango wu ya emahlweni kuva khamphani ya vutihlamuleri leyi nga na mhaka na miganga na mbango. Matshalatshala leyi, CGS yi kota ku tlakusa phurofayili ya vito ra yona no tisa vulemukisi eka ntirho wa yona eka vatirhisani va nkoka na vaaki.

13.1 Eku vumbeni vito ra CGS

Hi nkarhi wa 2022/23, CGS yi kondletele mgingiriko ya vulemukisi bya vito ku tlakusa vulemukisi eka ntirho wa exikarhi ka vatirhisani. Endlelo leri ri khumbha minkhuvo leyi kondleteriwaka, mapfhumba, ku tihlanganisa na vatirhisani, ku nghenelela eka tinhlengeletano, na ku tumbuluxiwa no hlayisa vuxaka bya swiyenge swa mahungu na ku tirha swin'we na ntirhisano.

Ku vumba vito swa xiymo xa le henhla swi katsile:

- Xitsalwana lexi kandziyisiweke eka nkandziyiso wa *Modern Mining* eku hetiseni ka memorandamu wo twisisana exikarhi ka CGS na Bangi ya Nhluvukiso wale Dzongeni wa Afrika (DBSA) ku pfuneta nhluvukiso wa miako.

- Xitsariwa xa mahungu xi kandziyisiwile eka tindhawu ta mahungu tainthanete *My Broadband* lexi langutisaka eka ku lunghisa ku wa ka misava eAfrika Dzonga. Nkarhi na ndzinganyeto wa madurhelo swa ntirho lowu swi kandziyisiwile.
- Magazini ya *Mining Weekly* yi kandziyisile xitsariwa eka ku tlanelga 110 wa malembe ya CGS ya ntirhi wa kahle ya xisayense xa misava.
- CGS yi kandziyise hungu eka phephahungu ra *Mail & Guardian* ku hoyozela vativi va sayense vambirhi va CGS lava fikeleleke eka rhengu ro hetelela ra masagwati ya Foramu ya Sayense ya Tiko na Thekinoloji (NSTF).
- Vaxisati va CGS va kombisile eka *Leadership Magazine* ku tlanelga N'hweti ya Vaxisati.
- Xitsalwana xi kandziyisiwile eka *South African Municipal Publication* 2023 ku langutisiwa eka dyondzo ya sayense ya misava tanahi nchumu wa nkoka eka nhluvukiso wa munhu.
- Xitsariwa xa ntirho xi kombisiwile lexi tlangeleke vativi va sayense vambirhi va CGS xi kandziyisiwile eka magazini ya *Innovation, Science, Engineering and Technology (ISET) Career South Africa* ku koka ku tsakela eka vadyondzi eka tidyondzo to fambelana na dyondzo ya sayense ya misava.
- Xinavetiso xa mahungu xi kandziyisiwile eka jenali ya *Green Economy* hi ntirho wa CGS wa ku cinca eneji yiva yo tengya tiko kuya eka ikhonomi yo thyakisa switsongo.
- Xinavetiso xa swihangalasi swa mahungu xi kandziyisiwile eka magazini ya *Mining Africa News* yo hlanganisiwa ya dyondzo ya sayense ya misava eka mimepe ya dyondzo ya sayense ya misava yo hlanganisiwa eka vumundzuku byo tiyiseleka.
- Xitsalwana xa vuhangalasi bya mahungu xi kandziyisiwe eka magazini wa *Mining Decision* ku langutisa eka ndhawu ya datara ya CGS leyi nyikaka ku fikelela eka datara ya xisayense xa misava.
- Papila ra vuhangalasi bya mahungu xi kandziyisiwe eka magazini ya *African Business* ku langutisa eka ku valanga minirali nakambe.
- Xitsalwana xa vuhangalasi bya mahungu xi kandziyisiwe eka nkandziyiso wa *Mining Review Africa* eku pfuneni ku valanga ka Afrika Dzonga.
- Nhlayo ya switsalwana swi kandziyisiwile eka minkandziyiso ya vuhangalasi bya mahungu byo hambana ku fana na *Weekend Argus, IOL Business Report, City Press na Rapport* swi katsa ku nghenelela ka CGS eka Nhlengeletano ya Migodi ya Afrika leyi humeleleke eCape Town.

- Nhlayo ya 48 wa swinavetiso swi kandziyisiwile eka swiyenge swa mahungu leswikulu swo hambana no tlakusa ntirho wa CGS eka vaaki.
- Mahungu laya humelelaka nkarhi na nkarhi ya kombisa ku hluvuka ka nhlangano, matshalatshala yo tihlanganisa na vatirhisani eka ku kula loku yaka emahlweni ka valandzeri eka swiyenge swa vuhangalasi bya mahungu swa CGS ku fana na Facebook, Twitter na LinkedIn.

Tiinthavhiwu ta swihangalasa mahungu ti katsiwile:

- CEO na CGS, Tatana Mosa Mabuza, u intavhiwile hi *Mining Review Africa* eka CGS tanahi xiyege lexi kotisaka vuvalangi.
- Tatana Mosa Mabuza u intavhiwile hi SABC News (@ TheGlobe) hi ku hunguta ka minkondzo ya khaboni.
- Manana Refilwe Monoko u intavhiwile hi The Sheila Khama Extractivities Podcast hi tipoltiki ta xivumbeko xa misava ta timinirali ta nkoka.
- Dokodela Taufeeq Dhansay u intavhiwile hi Radio 702 laha a nyikeke mavonelo ya yena eka ku cela migodi swi nga ri enawini.
- Tatana Mosa Mabuza u intavhiwile hi nongonoko wa SABC News Morning Live wu angarhele Nhlengeletano ya varhangeri va matiko ya CGS na ku tlanelga ka 110 wa malembe ka vukona bya nhlangano.
- Tatana Sibongiseni Hlatswayo u intavhiwile eka Ukhosi FM hi nkarhi wa Nhlengeletano ya varhangeri va matiko.
- Dokodela Humphrey Mathe u intavhiwile hi xipanu xa SABC News Morning Live ku vulavula hi Nhlengeletano ya varhangeri va matiko na ku tlanelga ka 110 wa malembe ka vukona bya nhlangano.
- Tatana Goodman Chiliza u intavhiwile hi Ukhosi FM hi ku ninginika ka misava loku humeleleke eXifundzeninkulu xa KwaZulu-Natal.
- Dokodela David Khoza u intavhiwile hi Hot FM laha a hlamusaleke ku nghenisiwa ka xandla eka mabindzu ya migodi.
- Tatana Mosa Mabuza u intavhiwile u eka nongonoko wa Chanele ya Afrika ya Rise and Shine FM ku vulavula hi swicelwa swa nkoka na nkoka wa mimepe ya mabindzu ya migodi.
- Dokodela Thakane Ntholi u intavhiwile hi Newzroom Afrika eka ntirho wa vantshwa eka mabindzu ya migodi

Ku engetela, CGS yi hlamlule eka swivutiso swo tala leswi a swi ta ntsena na swa inthanete hi ku ninginika ka misava loko leswi swi humelela.

Mapfumbha na minkhuva swi katsiwile:

Mapfumbha ya nkoka na minkhuvo elembeni:

- Tatana Mosa Mabuza u tivisile swa ximfumo Nhlengeletano ya varhangeri va matiko eka tindhawu ta swa vuulanganisi ta le ndzeni na le handle.
- CGS yi rhurhele nkombiso wa mitirho eLeandra, Mpumalanga, ku tivisa vadyondzi eka tidyondzo to fambelana na sayense.
- Hi nkarhi ya N'hweti ya VaMan (Ndzati [August]), CGS yi tlangele vatirhi van'wana va xisati hi ku vulavula hi vona eka tindhawu tin'wana ta swa vuulanganisi ta le ndzeni na le handle.
- CGS yi tlangele Siku ra matiko ya misava ra ku Hambana ka dyondzo ya sayense ya misava (6 October) hi ku langutisa eka xivumbeko xa misava xa Xihlala xa Fundudzi lexi kumekaka eSoutpansberg eXifundzeninkulu xa Limpopo.
- CGS yi ngenele eka nhlengeletano ya Nhlanguwa Xivumbeko xa Misava wa Afrika Dzonga (SAGA) hi December 2022 ku avelana ntirho lowu endliweke hi nhlanguwa hi swiviko swo vuriwa na swa tipositara no tlakusa vito ra CGS.
- CGS yi kombisile Nhlengeletano ya varhangeri va matiko ya Dyondzo ya sayense ya misava hi ku tirhisa tibilibodo eka tindhawu to Phatsama Swihahampfuka ta Tiko ta O.R Tambo ejoni, King Shaka eDurban na Xitarata xa Pitori eSilverton, ePitori, laha tihofisinkulu ti kumekaka kona.
- Vhidiyo ya hungu ra ku hela ka lembe ku suka eka CEO ri avelaniwile na vatirhi, kasi hungu ra nguva ro xewetana ri aviwise na valandzeri va CGS eka tindhawu to hambana ta swiyenge swa mahungu.
- CGS yi ngenele eka tinhlengeletano ta vuvekisi byo kondleteriweke ta DMRE leyi humeleleke eSwifundzankulu swa Limpopo na N'walungu Vupeladyambu. CEO na Manana Refilwe Monoko u nyike mburisano hi vuswikoti bya timinarili eka swifundzankulu leswi hi vonelo ro koka minkateko ya vuvekisi yintshwa.
- CGS yi rhurhele nkhuvo wa masiku mambirhi wa vunene, lowu thiweke 'Sayense ya tlanga', leyi a yi lava ku nyika matimba no nyika vatirhi mahungu mayelana na rihanyo, vunene na mahanyelo.
- CGS yi ngenele eka Nhlengeletano ya varhangeri va matiko Huvo ya Rihanyo ra le Migodini na Vuhlayiseki ku tlakusa vulemukisi bya ntirho wa yona eka ku tidyondzo ta ku ninginika na ku tiyelela ka misava.

13.2 Ku tihlanganisa na vatirhisani

Xivangelo xo va kona (*raison d'être*) xa CGS xi suka eka mafambiselo ya vuxaka bya vatirhisani tanhi xo kotisa ku humelerisa ntirho wa yona. Endlelo ro tihlanganisa ra vatirhisani na CGS ri fambelana na ntshovelo wo vumba tindlela ta nhlanguwa. Xikongomelo xa nonganoko wo tihlanganisa na vatirhisani i ku vumba vuxaka byo twanana na vatirhisani. Ku fikelela xikongomelo lexi, CGS yi fanele ku ngenelela no tihlanganisa na vatirhisani vo tala, ku katsa vatirhi, tindzawulo ta tiko na ta swifundzankulu, timhasipa, varhangeri va xintu, swiyenge swa Mfumo, varimi, minhlangano ya mbango leyi nga riki ya mfumo, tihuvo ta swidyondzeki na ta xiphurofexini, tikhamphani leti nga riki ta mfumo na ta mfumo.

Hi nkarhi wa 2022/23, matshalatshala yo hlanganelo ya endliwile ku antswisa nkoka na ku tihlanganisa nkarhi na nkarhi na vatirhisani ku vumba mbango wo seketela na ntirhisano. Nonganoko wo tihlanganisa na vatirhisani wa CGS wu landzela endlelo ro hlanganelo leri katsaka ku twisira, ri fambelanaka no fambisa ku langutela ka vatirhisani, kuya hi vutihlamuleri bya khamphani, mafumelo ya kahle na ku tirha swi va erivaleni. Manghenelo lawa ya langutisa eku vumbeni no wundla vuxaka bya kahle na vatirhisani ku vona ku humeleta ka ku simekiwa ka CGS GTP na tiphurojeke to bindzula. Ku fika sweswi, vufambisi bya CGS, xisayense, xithekiniki na vatirhi vo pfuneta hinkwavo va landzelele ngenelero leri, leswi sweswi swi sungula kuva na mbuyelo kuya hi ku simeka phurojeke, xiyimo xa vito na ku vonaka.

Vutihlanganisi byo hlaya byo fambelana na vumaki byi ve kona na vatirhisani va nkoka ku endlela ku simekiwa ka kahle ka CGS GTP, ku tihlanganisa ka mabindzu na minkhuvo. Endzhaku ko pasisiwa ka Ndlela yo Pompola ya Migodi na Vumaki bya Migodi eAfrika Dzonga, Mfumo wu nyike CGS vutihlamuleri byo pfuxa xiyenge xo pompola, lexi boheke ku rhangisa tiphurojeke to hlaya.

Kapa N'walungu: Phurojeke ya masungulo ya matimu ya maribye

Eku lweleni ku twisira ndzavisiso lowu bohana eka tinxaka to hambana ta swicelwa swa maribye, CGS yi tihlanganise na vatirhisani vo hambana eXifundzeninkulu xa Kapa N'walungu ku lavana na nseketelo, ngopfu-ngopfu ku vona leswaku miganga leyi khumbekaka ku pfumelela vativi va sayense va CGS ku fikelela ndhawu leyi nga riki ya mfumo ku hlengeleta datara ya misava. Vativi va sayense va hlengeleta datara ya swicelwa swa tinsimbhi leswi kumekaka

eNamaqualand eka rimba ra pfhumba ro pompola ra xikalu xa 1:50 000. Vatirhisani lava ku tihlanganisiweke na vona, ku katsa, vayimeri va Mhasipala wa Xifundzantsongo xa ZF Mgawu, Mhasipala wa Kai!Garib, Khasipala wa Khâi-Ma, mintanga ya swiharhi ley i nga riki ya mfumo, varimi, vinyi va misava na vatirhisi va migodi. Ku engetela, CGS yi ve na tinhlengeletano na nhlangano wa Agri Noord-Kaap ku nyika swiviko eka mimbuelo ku suka eka nonganoko wo pompolo eka lembe leri hundzeke no lava ku lava ku seketela migingirko ley i kunguhatiweke eka 2022/23.

Mpumalanga: CCUS

CCUS yi nyikiwe ntirho wa vutihlamuleri byo simeka CCUS ku langutisa timhaka hinkwato to fambelana ta swivangelo swa ximunhu, ikhonomi, xithekinu na mbango. eXifundzeni xa Mpumalanga, nonganoko wo tihlanganisa na vatirhisani wu nyike nseketelo wo boha wa nonganoko wo pompolo dyondzo ya sayense ya misava hi xikongomelo xo ndlandlamuxa vuandlalo bya mimepe bya xikalu xa 1:50 000, na ndzavisiso na nhluvukiso ku hlamusela ku vumbiwa ka misava ley i ringaneleke ku hlayisa CO². Xikongomelo xa ntirho lowu i ku tiyisia gezi ro enela ya Afrika Dzonga hi ku tirhisa CCUS na ku kondletela ku cincela ka ikhononi yo hunguta nthyakiso wa mbango. Ndzavisiso lowu wu humelerisa ku tiyimisela ka Afrika Dzonga ku cincela eka mhaka yo kula ka ikhonomi yo hunguta nthyakiso wa mbango, hi ku fambisana no tiyimisela ka milawu ya matiko yo cinca ka maxelo. Loko ku nga si endlwa ntirho wa xisayense, CGS yi ve na ku tihlanganisa ka tinhlengeletano na swiyenge hinkwaswo swa Mfumo eXifundzeni, ku katsa Ndzwalo ya Nhluvukiso wa Ikhonomi na Vuphumba, Mhasipala wa Xifundzantsongo xa Gert Sibande, Mhasipala wa Muganga wa Govan Mbeki, varhangeri va miganga na miganga ya vurimi.

Ku tihlanganisa loku ku endle leswaku CGS yi rhambiwa eka Nhlengengetano ya varhangeri va matiko wa Gezi eMpumalanga na ya Ikhonomi ya Xifundza laha CGS yi andlaleke hilaha ndzavisiso wa CCUS wu kongomaka ku nghenisa thwii eka vukona bya eneji ya Afrika Dzonga ku hlamula eka khombo ra gezi ra tiko leri nga si vaka kona. Tanihi ku hlamula eka ku cincela ko katsa, CGS yi nyikiwe nkarhi wo kombisa no andlala eka DDM ya Mhasipala wa Xifundzantongo wa Nkangala ku Cincela ko Katsa na Nhlengengetano ya varhangeri va matikoya Eneji yo Pfuxetiwa. Xikongomelo xa nhlengeletano ya varhangeri va matiko a kuri ku hlengengeta vatirhisani eka ndhawu yin'we ku kanelia mahaka yo yelana na eneji eka xifundzantsongo ehansi ka Rimba ro katsana.

Nhlengengetano ya varhangeri va matiko hi xirhmabho eka CGS ku ngchenela eka Ndzwalo ya Vurimi, Ku Cinca ka Misava na Na Makungu ya Vutshamo bya Nhluvukiso wa Matikoxikaya na Foramu ya Mafambiselo ya Matirhiselo ya Misava. CGS yi endle xiviko eka CCUS, ku kombisa ku hlanganisa tidyondzo ta xithekinu xa misava eka tindlela ta DDM eka levhele ya mhasipala.

Ku engetela, CGS yi endle tiwekixopo tinharhu ta maxavelo ya mabindzu lamatsongo, ya le xikarhi na lamakulu, hi ku tirhisan na Ndzwalo ya Nhuvukiso wa Mabindzu ya Muganga ya Mhasipala wa Muganga wa Govan Mbeki, ku hlamusela ndzavisiso na ku pfuxa ikhonomi yo fambisana na CCUS eka ndhawu ya mhasipala. Tiforamu ta mabindzu ya muganga na vatirhisani va kombise ku tsakela lokukulu eka tiwekixopi hi vonelo ra swivandla swa mitirho eka vumundzuku leswi sukaka eka CCUS leswi nga antswisaka mpfumaleko wa mitirho eka mhasipala.

Tanihi xiphemu xo vumba matshalatshala ya vuswikoti bya muganga wa wona, CGS hi ku tirhisan na Highveld Ridge West Circuit na Hofisi ya Dyondzo ya Gert Sibande, yi rhurhele nkombiso wa tidyondzo eka vadyondzi va xikolo xa le henhla eLeandra. Xikongomelo xa nkombiso a kuri ku nyika matimba eka vadyondzi va Giredi 11 ku fika eka 12 hi ku vumba vulemukisi bya sayense, thekinoloji, injhiniyere, tinhlayonhlayo na tidyondzo ta vutshuri. Swivandla swo pfuniwa hi mali na basari swi andlariwile. Hi nkarhi wa nkombiso CGS yi nyike vuleteri na ku dyondzisa ku tlula 370 wa vadyondzi, vatirhisani na vakombisi lava teke eka nkombiso.

Swifundzankulu swa Kapa Vuxa na KwaZulu-Natal: Ku pompola makhombo ya misava ya tiko

Hi ku landza timpfula ta matimba leti vangeke ndhambi na makhukhula edzongeni na dzonga-vuxa bya Afrika Dzonga, ngopfu-ngopfu eSwifundzankulu swa Kapa Vuxa na KwaZulu-Natal hi April 2022, CGS yi rhangise tindhawu leti eka makhukhulo no hlela eka ku humeleka nakambiri. Xiyimo xa Nghozi xa Tiko xi vekiwile eku hlamuleni ka ndhambi na makhukhula leswi endleke leswaku 448 wa vanhu va lova, 40 000 va nga ha ri na vutshamo, na ku tlula 12 000 wa tindlu ti onhaka. Miako yo fana na tindlu, titiliniki ta rihanyo, na swikolo swi onhakile swinene.

Ku pfumelela ku simekiwa ka hlelelo, Yuniti ya Vuhlanganisi na Vuxaka bya Vatirhisani ya CGS yi kondletele tinhlengeletano

na Mhasipala wa eThekwini Metropolitan, tikhanselara ta wadi na Mfumo Xivongo wa ka Luthuli ku andlala kungu ra CGS eka tindhawu leti khumbheke hi ndhambhi. Ku engetela, xipanu xa ndzavisiso wa makhombo xa KwaZulu-Natal CGS xi nyikiwe ntirho wo kuma tindhawu leti werikekr hi ndhambhi na makhukhula eka ndhawu ya eThekwini ku endlela ku kunguhata rendzo ro ya kona hi nkarhi wa Nhlenegetano ya varhangeri va matiko wa Dyondzo ya sayense ya misava. Tanihi xiphemu xo tlanelo 110 wa malembe yi ri kona, CGS yi rhurhele rendzo ro ya vona ndhawu hi nkarhi lowu vangheneleri va joyinile vativi va sayense va CGS eku hleleni leswi kumiweke swa ndzavisiso eka tindhawu leti hlaseriweke hi ndhambhi eku hlamuleni ka swivutiso leswi saleke.

Kasi eKapa Vuxa, vativi va sayense va CGS va nyikiwe ntirho wo kumisia ku onhakeriwa swinene no tsundzuxa mhasipala kahle. Ku engetela, vativi va sayense va endle ku

pompolo ka xithekiniki xa misava ku lemukisa makunguhatelo ya nhluvukiso wa vumundzuku wa doroba eka ndhawu ya Mhasipala wa Muganga wa Port St. Johns.

Kapa Vupeladyambu: Nongonoko wo Cela ku Enta eKaroo

CEO ya CGS u rhangale xipanu ku tivisa Huvo ya Mhasipala wa Xifundza xa Central Karoo hi ndzima, ku simekiwa na swinginganyeto swa masaungulo ya dyondzo yo mbango wa misava leyi endliweke eka Nongonoko wa KDD. Xikongomelo xa nongonoko lowu a kuri ku nyika marungulo ya xisayense eka gasi leyi nga vaka kona eAfrika Dzonga. Xiviko xi ta va kona eka vaaki endhaku ka loko Khabinate ya Afrika Dzonga yi xi pasisile. Nhlenegetano na mhasipala wa xifundzantsongo yi tlhele yi nghenisa Nongonoko wa KDD eka huvo yintshwa leyi thoriweke endzhaku ko minhlawulo ya mfumo wa muganga leyi veke kona hi 2021.

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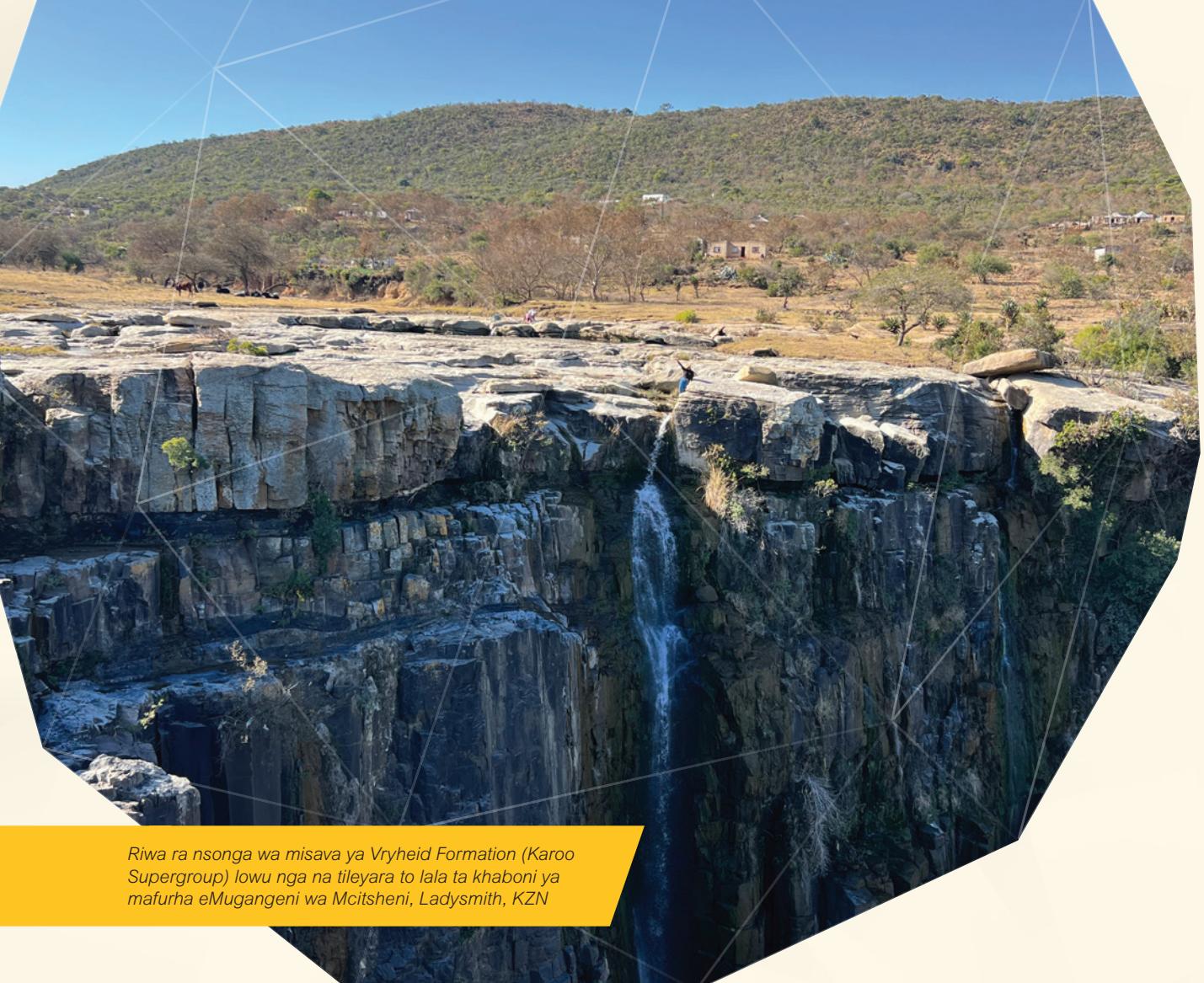
MARUNGULA YA MATIRHELO YO LANDZELELA B-BBEE

Tafula leri landzelaka (Tafula ra 10) ri hetisiwile kuya hi ku landzelela swilaveko swa ku Nyika Matimba eka Ikhonomi ya Vantima hi ku Angarhela (B-BBEE) swa Nawu wa B-BBEE wa 2013 lexi bohiweke hi Ndzwawulo ya Mabindzu, Vumaki na Mhikizano.

Tafula ra 10: Marungula ya matirhelo yo landzelela CGS B-BBEE

Xana Ndzwawulo/Xiyenge xa Mfumo xi tirhisile Endlelo ra Khodi ya Kahle leri faneleke rihi na rihi (Xitifikheti xa B-BBEE Tilevhele ta 1-8) mayelana na leswi landzelaka:

Endlelo	Ku hlamula Ina/E-e	Kanelo (katsa nkanelo eka nhlamulo ya wena no kombisa swilaveko leswi endliweke ku landzelela)
Ku kuma endlelo ro fikeleta ku nyikiwa layisense, ku nyikiwa kumbe mpfumelelo wihi na wihi mayelana wa gingiriko ya ikhonomi kuya hi nawu wihi na wihi?	E-e	CGS a yi nyiki tilayisense, a yi ntirho wa yona. Ku nyika tilayisense ta migodi swi endliwa hi DMRE.
Ku tumbuluxa no simekiwa ka pholisi yo hluvukisa na ku xava ko tsakela?	Ina	Ku xava ko tsakela swi katsiwa eka Pholisi ya Vufambisi bya nxaxamelo wa maxavelo no simekiwa kuya emahlwei kuya hi swinawana swintshwa swa Nkwama wa Timali ta tiko.
Ku boha ndlela yo xavisa hi mabindzu ya mfumo?	E-e	A swi le mavokweni ya CGS ku xavisa mabindzu ya mfumo.
Ku endla ndlela eku ngheneni ka ntirhisano na xiyenge lexi nga riki xa mfumo?	Ina	CGS yi tirhisana na xiyenge lexi nga riki xa mfumo, kuya hi swikili leswi vekiweke ku pfunana, na mutirhisani u tava na endlelo ra yena.
Ku boba endlelo ro nyika swikhenso, mpfuno na swikimi swa vuvekisi ku seketela ku Nyika Matimba eka Ikhonomi ya Vantima hi ku Angarhela?	E-e	CGS a yi nyiki mpfuno na swikimi swo khensa; hambiswiritano, tibasari ta nyikiwa kuya hi pholisi ya basari ya CGS.



Riwa ra nsonga wa misava ya Vryheid Formation (Karoo Supergroup) lowu nga na tileyara to lala ta khaboni ya mafurha eMugangeni wa Mcitsheni, Ladysmith, KZN

XIPHEMU XA D VUFAMBISI BYA VATIRHI

Xiyenge lexi xi yimela tindhawu ta nkoka ta Yuniti ya Bindzu ta Swiyege swa Vatirhi ya 2022/23, ku katsa matshalatshala ya vuleteri na ku cinca.

Xiyenge lexi xi katsa na:

- Tisisitimi to pima matirhelo ku hlela matirhelo;
- Mafambiselo ya vunene bya vatirhi ku vona rihanyo ra vona na vunene na vatirhi;
- Migingiriko ya vatirho elembeni;
- Mithontlho ya timali ta vatirhi;
- Swikongomelo swa switirhisiwa swa vatirhi; na
- Tinhlayohlayo ta switirhisiwa swa vatirhi.

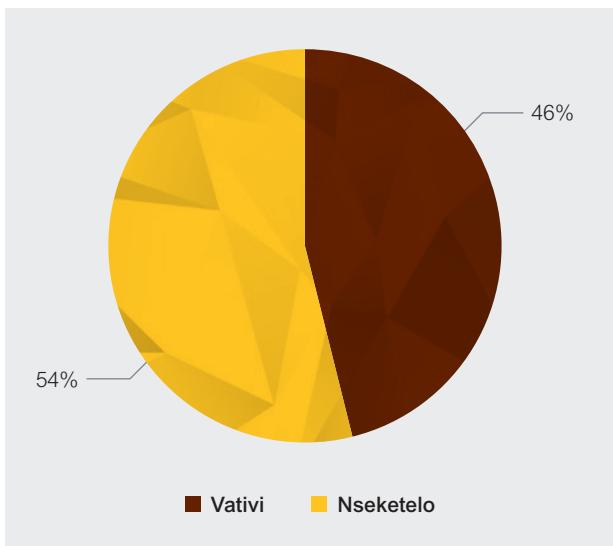
CGS yi teka vatirhi va yona tanahi va nkoka ku nyika swikongomelo swa mafambiselo. Ku fika sweswi, Yuniti ya Xiyenge xa Vatirhi i mutirhisani wa mafambiselo eka nhlangano lava ntirho wa vona ku nga ku vona kuri CGS yi koka no hlayisa switirhisiwa leswi lavekaka na vutivi ku humelerisa ntirho kuya hi nawu na swikongomelo swa mafambiselo.

1

MBALANGO WA TIMHAKA TA VATIRHI

1.1 Nhlayo ya vatirhi

CGS yi na nhlayo ya vatirhi va 428 eka tsevu wa swifundzantsongo, ku nga Pitori (Hofisi Nkulu), Gqeberha, Bellville, Limpopo, Pietermaritzburg na Upington. Eka leswi, 46% va thoriwe eka mitirho ya nkoka (xisayense) na 54% eka mitirho yo seketela (Xifaniso xa 17). Nhlangano wu endla vuvekisi ngopfu eka vatirhi va wona hi ku langutisa swinene eka vantshwa na vavasati. CGS ya tinyungubyisa hi nhlayo ya vatirhi va yona lava 50% ku nga vavasati.



Xifaniso 17: Xivumbeko xa nhlayo ya vatirhi va CGS hi 2022/23

1.2 Mgingiriko ya nkoka ya xiyenge xa vatirhi na leswi fikeleriweke hi 2022/23

- Tikontiraka ta matirhelo ta mitirho ya nkoka ti ringananisiwile eka lembe leri hleriwaka. Xikongomelo xa ntirho lowu a ku ri ku vona kuri kuna ku fambelana ka swikongomelo swa matirhelo eka vativi va sayense hinkwavo eka tilevhele to hambana.
- Vulawuri bya Vuthwasi bya Migodi (MQA) byi pfumelele xikombelo xa CGS xa mpfuneto hi timali eka Nongonoko

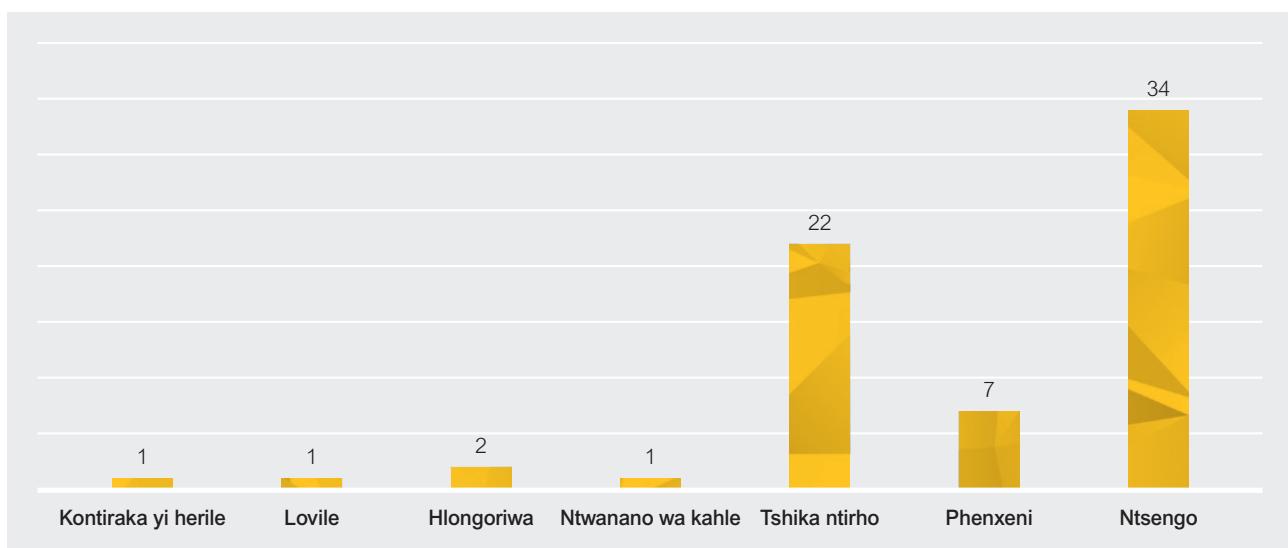
wa nkarhinyana na Vafambisi na Nongonoko wa Nhluvukisi wa Vafambisi (MEDP). Mpfuneto hi timali eka 10 wa vatirhi lava dyondzaka ntirho na swirho swinharhu swa vatirhi leswi dyondzaka ehansi ha MEDP swi pasisiwile. Ku fikeleriwa loku ku kombisa ku tiyimisela ka CGS eka matirhelo ya vafambisi na ku seketela nhluvukiso wa vatirhi hi xikongomelo xo vumba ndlela ya talenta ya kahle na matirhelo ya kahle eka swikongomelo.

- Ku dyondzisa ka vatirhi vantshwa ku endliliwile laha Timininjhere Nkulu na Timininjhere va nyikiweke mgingiriko na tipholisi ta nkoka na tindlela leti tirhaka eka tiyuniti ta bindzu ta vona. Ku ya emahlweni, Muphakeri wa Vukorhokeri bya Vunene bya Vatirhi u andlarile vukorhokeri lebyi nga kona mayelana na leswi eka swirho swa vatirhi va CGS na maxaka ya swirho swa mindyangu ya vona.
- CGS yi rhurhele hi ndlela yo humelela Siku ra Vunene eka tihofisi hinkwato ta CGS. Xikongomelo xa Siku ra Vunene a kuri ku nyika matimba eka vatirhi hi ku va nyika dyondzo ya rihanyo na xitsundzuxo xa mahanyelo. Marungula lawa ya ta va kotisa ku antswisa rihanyo ra vona, naswona ya ta tlakusa rihanyo ra kahle ra vatirhi. Vatirhi va nyikiwe nkarhi wo endla swikambelo swo sikirina rihanyo, na ku nghenelela eka mgingiriko yo nyanyula na ya miri ku tlakusa vuxaka bya xipanu.
- CGS yi tirhisaniile na Khomixini ya Ndzhivalelano, Vulamuri na Vuahluri yi rhurhele tiwekixopo timbirhi eka ku xanisa emitirhwani. Xikongomelo xa tiwekixopo a kuri ku nyika matimba eka vatirhi na timininjhere hi vutivi eka ku xanisiwa emitirhwani. Ku xanisiwa swi katsa mahanyelo ku fana na ku karhatiwa na ku xanisiwa hi swa masangu.
- Ku hleriwa ka ku enela hi vatirhi ku endliliwile hi nkarhi wa kotara yo hetelela ya 2022/23 na ku nghenelela loku veke kona ku ta simekiwa eka lembe ximali rintshwa.
- Timininjhere nkulu timbirhi ta xisati ti thoriwile ku pfala swivandla leswi a swi ri kona swa Mininjhere Nkulu eHofisini ya CEO na Mininjhere Nkulu wa Vukorhokeri bya Khamphani. Ku thoriwa ku endle leswaku CGS yi hundza swikongomelo swa 40% wa vayimeri va xisati hi 10% (ku fikelela 50%) eka swiyimo swa vurhangeri eka nhlangano.

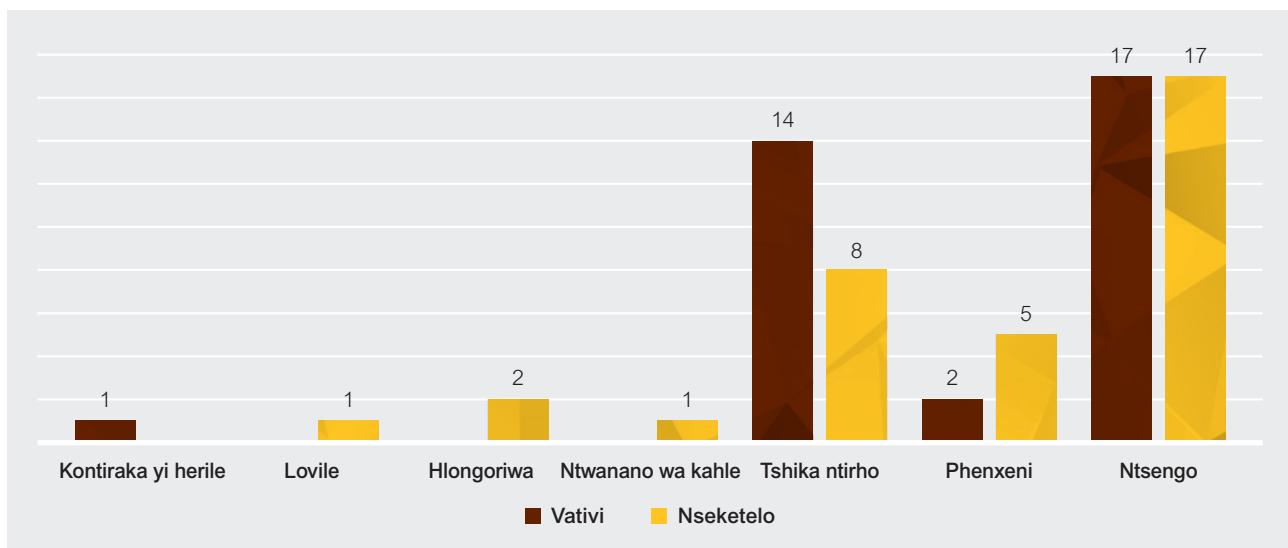
- Tanihi xiyenge xa sayense, CGS yi navetisile no nyika 49 lava ringaneriwaka tibasari tintshwa. Tibasari ti nyikiwe vatirhi va CGS (tibasari ta nkarhinyana) xikan'we na lava nga riki vatirhi va CGS (tibasari ta nkarhi hinkawo), hi xikongomelo xo nghenisa xandla eka matshalatshala ya mfumo ya nhluvukiso wa swikili no tumbuluxi swivandla swa mitirho. Matshalatshala ya basari ya tlhele ya kombisa ku tiyimisela ka CGS eka nhluvukiso wa vatirhi.
- Rimba ra mafambiselos ya talenta ri tumbuluxi wile naswona sweswi ri le langutisiweni ku pasisiwa na ku simekiweni.
- Xiviko xa Ndzingano wa Vatirhi xi yisiwile eka Ndzwawulo ya Mitirho na Vatirhi.
- Kungu ra Swikili swa le Mitirhweni na xiviko xa vuleteri xa lembe swi yisiwile eka MQA.

1.3 Hlelo ra nhlayo ya vatirhi lava tshikeke ntirho

Nhlayo ya vatirhi yi pima phesente ya vatirhi lava tshikeke ntirho eka CGS hi lembe leri hleriwaka, xikan'we na mpimo lowu swivandla swi siviweke ha wona. Lembe ri herile riri na vatirhi va 7.89% lava tshikeke ntirho, leswi nga hansi ka 10% ley i vekiweke. Mpimo lowu wu fananisiwa na masungulo yo fana na ku dyondza na nhluvukiso na masungulo yan'wana ya nkoka yo seketela vatirhi. Ku tshika mitirho swi ve eka 65%, na 21% yo tshika mitirho a kuri lava yeke eku wiseni. Tanihi leswi kombisiweke eka Xifaniso xa 19.50% wa lava tshikeke mitirho a va ri vativi kasi 50% a va suka eka nseketelo.



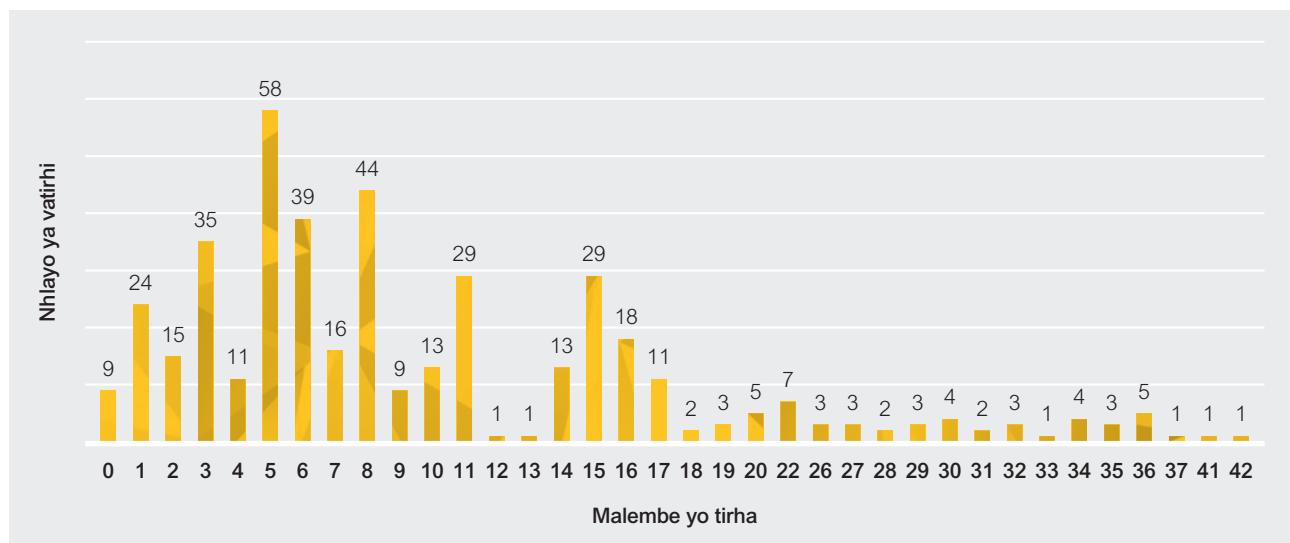
Xifaniso 18: Nhlayo ya vatirhi va CGS eka 2022/23



Xifaniso 19: Nhlayo ya nseketelo na nkoka wa vatirhi va CGS eka 2022/23

1.4 Nkarhi wa vatirhi hi ku angarhela

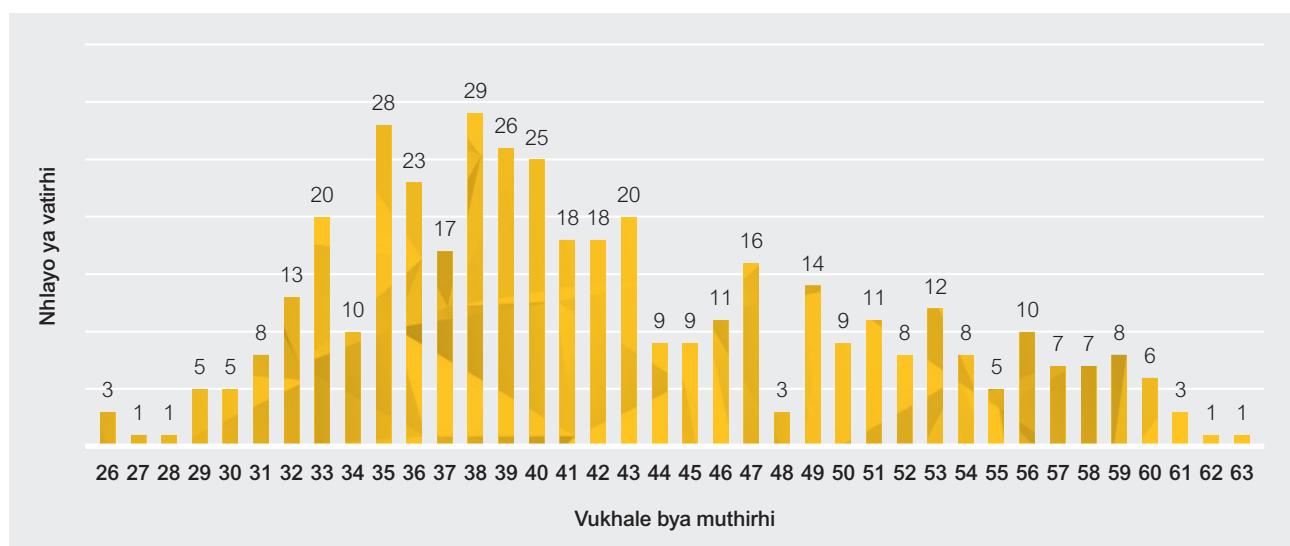
Makumenkombo-nhungu wa tiphesente ta vatirhi CGS va tirhile eka CGS ku ringana ntlanu wa malembe na ku tlula. Loko hi le tlhelo vatirhi lava tirheke nkarhi wo leha vari na vutivi bya ndzhavuko, vukorhokeri na ntirho wa CGS, i swa nkoka ku ringanisa nkoka wo hlayisa vutivi lebyi hi xikongomelo xo ringana xa nkoka xo thola vatirri vantshwa lava taka na miehleketo yintshwa. I nkateko eka CGS kuva vatirhi va yona va yimela ku hlangana ka swiyenge swimbirhi.



Xifaniso 20: Hi ku angarhela mutirhi loyi a nga le ndzeni ka CGS

1.5 Hlelelo ra vukhale bya vatirhi

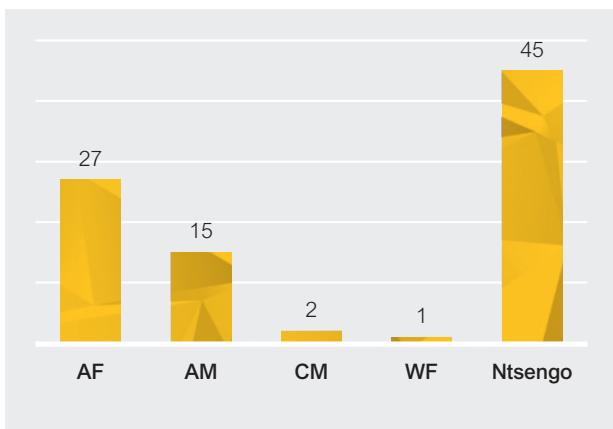
Makumbembirhi-nwe wa tiphesene ta vatirhi va CGS ti tekiwa tanahi vantshwa. Tinhlayonhlayo ti yimela ku hunguteka ku suka eka 26% hi 2021/22. Ku antswisa vantshwa va yona, CGS yiya emahlweni y nyika vatirhi nkateko (na vaakatiko va tiko) minonganoko ya basari na ku dyondzisiwa mitirho.



Xifaniso 21: Vuhleri bya vukhale bya vatirhi va CGS

1.6 Nongonoko wo dyondzisa vatirhi

Xifaniso xa 22 xi yimela mbalango wa nongonoko wo dyondzisa vatirhi wa CGS eka lembe leri hleriwaka.



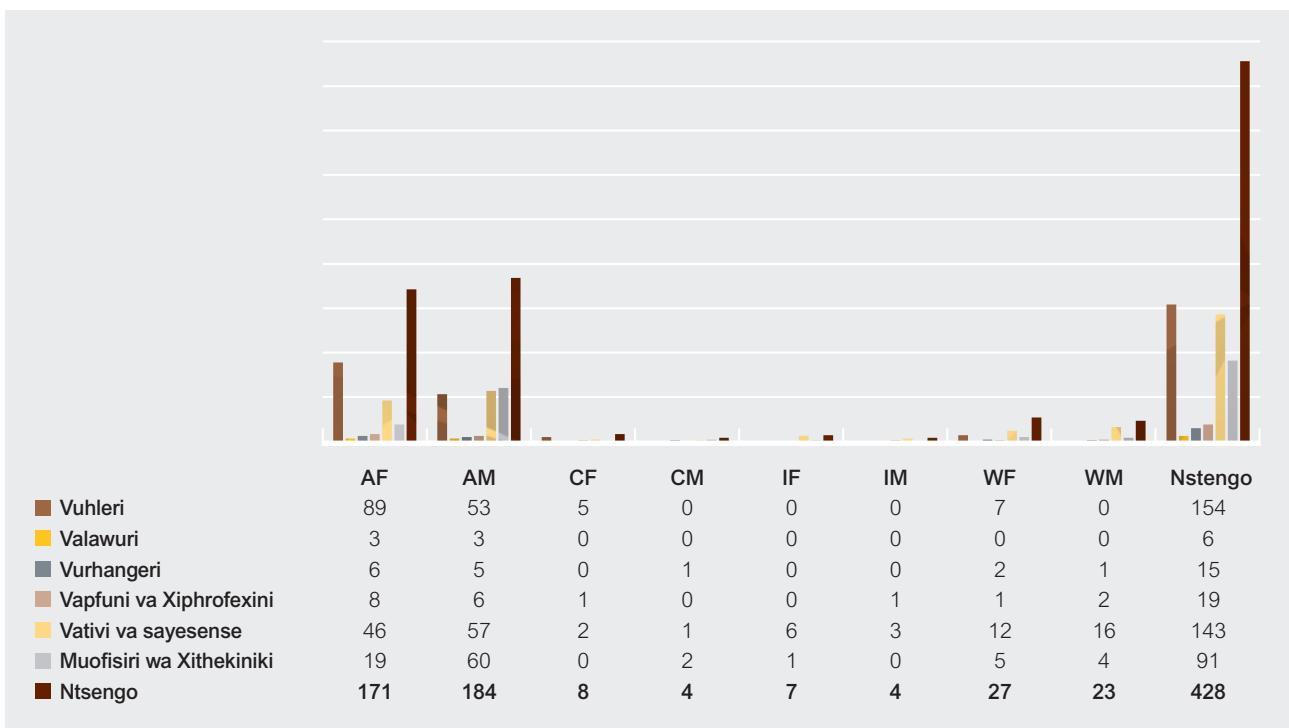
Xifaniso 22: Nongonoko wo dyondzisa ntirho wa CGS eka 2022/23

Xiya: AF – Wansati ma muntima; AM – Wanuna wa muntima; CM – Wanuna wa mukhaladi; WF – Wansati wa mulungu

Sweswi kuna 45 wa lava dyondzisiwaka mitirho eka nongongoko wa CGS lowu fambaka nakrhi wa maembe mambirhi. Makumemune-nkombo wa tiphesente ya vatirhi lava dyondzisiwaka ntirho va vekiwe na vatirhi va vutivi va nhlangano, kasi 53% a va ri eka mitirho yo seketela. Nongonoko wu nyika lava thwaseke ku kuma ntokoto lowu lavekaka ku engetela mikateko ya vona wo thoriwa. Vatirhi van'wana lava dyondzisiwaka mitirho va nyikiwile mitirho ya nkarhi hinkwawo loko van'wana va nyikiwa tikontiraka ta nkarhi lowu vekiweke hi nkarhi wa tikontiraka to dyondzisiwa ntirho na le ndzhaku ka wona, hi ku landzaka endlelo ro tika ra matholelo.

1.7 Hlelelo ra vatirhi

Loko vuyimeri bya rimbewu byi fikeleriwile eka nhlangano, kuna nkateko wo antswisa vuyimeri eka tindhawu tin'wana ta nkoka na ta mafambiselo. Leswi voniweke, 52% wa vaMan va Maafrika va sive swivandla swa mpfuneto, kasi 3.51% eka swivandla swa vurhangeri. Vurhangeri byi ringanyeta ku simeka tindlela ta goza ro ringanisa ku vona leswaku vaMan va Maafrika va thoriwa eka swivandla swa nkoka.



Xifaniso 23: Xivumebko xa vatirhi va CGS: ku hambana ka swiyenge kuya hi rixaka, rimbewu na ntirhi

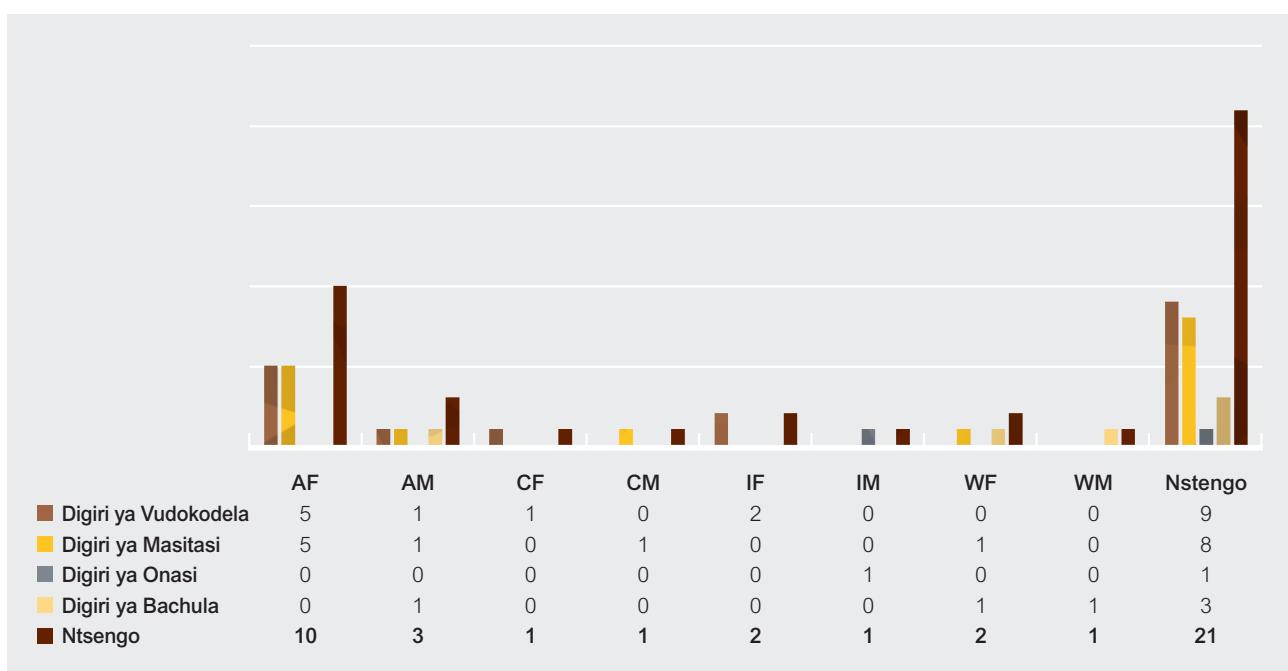
Xiya: AF – Wansati ma muntima; AM – Wanuna wa muntima; WF – Wansati wa mulungu; CM – Wanuna wa mukhaladi; IF – Wansati wa Muindiya; WM – Wanuna wa mulungu

1.8 Tibasari

1.8.1 Tibasari ta nkarhi hinkwawo

Nongonoko wa basari wo seketela vali vaxisati ehandle wa a wu seketela machudeni ya nkarhi hinkwawo eka machudeni laya nga na titalenta ku suka eka mindyanwini leyi sweleke. Hi lembe xidyondzo ra 2022, 21 wa machudeni ya nyikiwile tibasari. Xifaniso xa 22 xi hlamusela vakumi vatibasari ta nkarhi hinkwawo eka lembe leri hleriwaka.

Eka 21 wa vakumi va tibasari ta nkarhi hinkwawo, 76% a kuri vaxisati na 24% vaxinuna. Eka nkaye wa vakumi va tibasari ta PHD nhungu a kuri vaxiati kasi tsevu eka nhungu wa machudeni ya Timasitasi eka vakumi va tibasari a kuri vaxisati. Leswi swi kombisa ku nyiketela ka CGS eku nyikeni vaxisati matimba eka mbango wa dyondzo ya sayense ya misava.

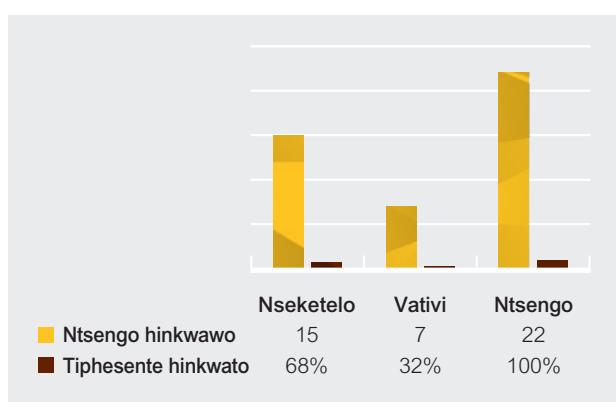


Xifaniso 24: Vakumi va tibasari ta nkarhi hinkwawo hi 2022/23

Xiya: AF – Wansati ma muntima; AM – Wanuna wa muntima; WF – Wansati wa mulungu; CM – Wanuna wa mukhaladi; IF – Wansati wa Muindya; WM – Wanuna wa mulungu

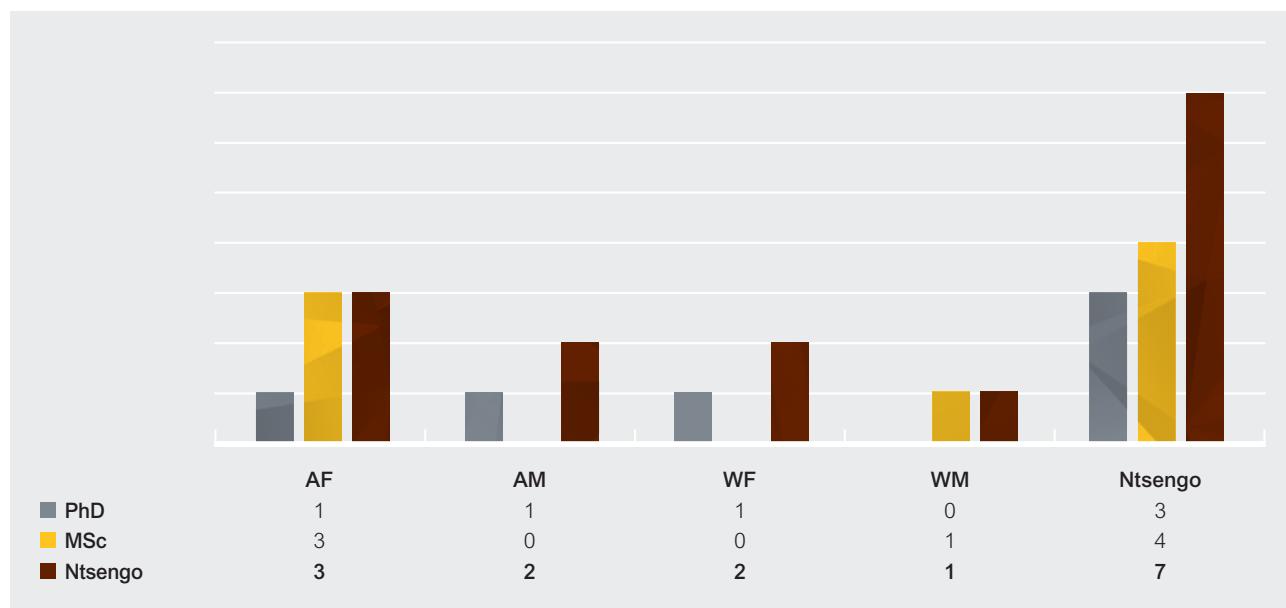
1.8.2 Vaaukeri va tibasari ta nkarhi hinkwo

Tibasari ta nkarhi hinkwawo ti nyikiwile vatirhi va CGS eka tidyondzo ta sayense na leti nga riki ta sayense. Nongonoko wa basari wa nkarhinyana wu hlanganisiwa na tindlela ta nhluvukiso wa ntirho nova khomelela. Ku vile na 22 wa tibasari tintshwa ta nkarhi hinkwawo eka lembe leri hleriwaka. Eka tibasari leti nyikiweke, nkombo a kuri minthwaso leyi fambelanaka na nkoka kasi 15 a kuri leti fambelanaka na vupfuni. Makumetsevu-nhungu wa vakumi va tibasari ku vile vaxisati kasi 32% a ku ri vaxinuna. Masungulo ya nhluvukiso wa swikili ya kombisa ku nyiketela ka CGS eku vumbeni no seketela vatirhi lava nga vuswikoti no nyikiwa swikili.



Xifaniso 25: Ku thantlihiwa ka vakumi va tibasari ta CGS ta nkarhinyana hi 2022/23

Xifaniso xa 26 xi nyika mbalango wa nkombo wa vakumi va tibasari ta nkarhinya ku dyondzela tidigiri at PHD na ta Masitasi elembeni. Lexi lemukiweke, 57% wa lava nyikiweke tibasari a ku ri vaxisati kasi 43% wa ku ri vaxinuna.

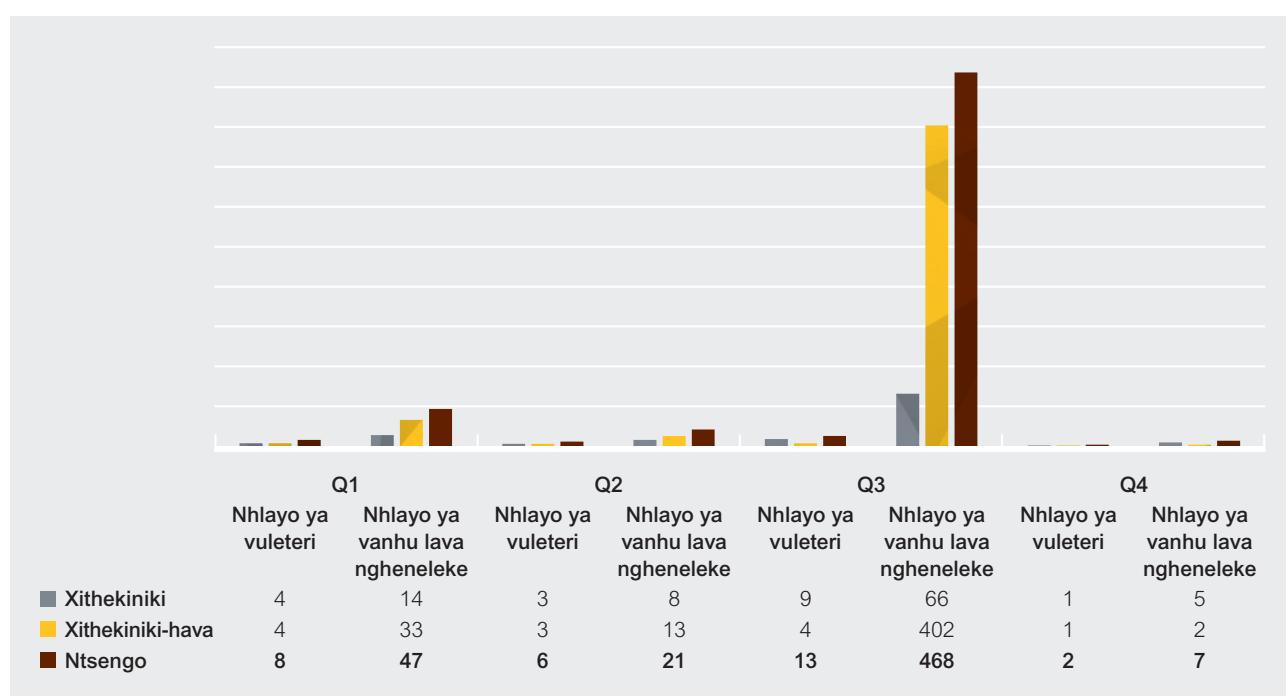


Xifaniso 26: Vakumi va tibasari ta PhD na Masitasi va nkarhinya eka CGS

Xiya: AF – Wansati ma muntima; AM – Wanuna wa muntima; WF – Wansati wa mulungu; WM – Wanuna wa mulungu

1.9 Vuleteri byo nghenelela lebyi endliweke elembeni

Xifaniso xa 27 xi komisa nhlayo ya vuleteri byo nghenelela lebyi endliweke elembeni leri hlieriwaka.



Xifaniso 27: Nxaxamelo ku nghenelela ka vuleteri na nhlayo ya vangħeneleri

1.10 Vuvekisi eka vatirhi

Hi ku landza swiboho swa ndzingano wa tiko wa mitirho, CGS ye teke vutihlamuleri byi byika vatirhi va yina matimba hi ndlela ya nkinkhi, ngopfu-ngopfu ku suka eka miganga leyi khale a yi nga tekeriwi enhlokweni, no kurisa ntalo wa vukorhokeri bya xisayense na nseketelo loku yimeleke rimbewu. Vanhu va hina va rhandza lewi va swi endlaka, tanihu leswi mune wa vatirhi va hina lava landzaka vo tirha hi ku tiyimisela va nga na vumbhoni eka leswi.

Dokodela Thifhelimbilu Mulabisana

Xana u hlangane na CGS rini?

Ndzi joyine CGS hi 2012 tanihu mudyondzisiwa wa ntirho eka khale ka Yuniti ya Bindzu ra ku Ninginika.

Xana a wu lava ku endla yini loko u endla ntangha khume?

A ndzi swi tiva kuri ndzi lava ku endla vulavisisi eka ku ninginika ka misav; ndzi twe swi tsakisa.

Xana CGS yi ku pfune njhani ku fikelela milorho ya wena?

CGS yi ndzi pfune ku kuma rirhandzu ra mina hi le ka minkombiso ya tidyondzo to fikelela vaaki. CGS yi tlhele yi seketela hi timali tidyondzo ta mina ku suka hi nkarhi wa tidyondzo tale hansi kuya fika eka ta PhD.

Xana ntirho wa wena i yini sweswi?

Ndzi mutivi wa sayense, wo tokota hi ku ninginika ka misava.

I yini xivuyerisaka eka ntirho wa wena?

Ndzi lavisisa makhombo ya vuxaka bya ku ninginika. Ndzi kuma ntirho lowu wu vuyerisa tanihu leswi ndzi kotaka ku nghenisa xandla eku kumeni makhombo eAfrika Dzonga na le dzongeni wa Afrika. Hi ndlela leyi ndzi nga nghenisa xandla eka nhluvukiso wo hlayiseka wa miako.

Xana ntirho wa wena wu fambelana njhani na swikongomelo swa mafambiselo swa CGS?

Ndzavisiso lowu ndzi nghenelalaka eka wona wu hlohotela swipimelo swa vuhaliseki no veka tihlo eka nhluvukiso wa miako. Ndzi ehleketa kuri ntirho lowu i wa nkoka swinene eka ku humelelerisa vanhu.

I yini xi ku tlhontlhaka?

Ndzi tlhontlhaka hi ku navela ku dyondzo na nyanyuko wo kuma swilo swintshwa.



Wansati wo sungula eAfrika
Dzonga ku thwasela PhD eka
Tidyondzo ta swivumbeko swa
misava, a tokota hi Makhombo yo
Ninginika na Vuxaka bya kona.

Hile tlhelo, xana a wu tava u hlawule ntirho wun'wana?

Swi ndzi tekele nkarhi ku kuma ntirho lowu a ndzi lava ku wu endla loko ndzi kula. Kambe ndzi ehleketa kuri a ku nga tava na ndlela yin'wana a yi ta ndzi tsakisa ku nghenisaka xandla eka vaaki.

Xana u nga hlohotela njhani:

Vantshwa lava tsakelaka ntirho wa wena?

Sayense na ndzavisiso swa nyanyula swinene, ngopfu-ngopfu loko u sungula ku twisia ntiko wa ntirho wa wena eku ngheniseni xandla eka nhluvukiso wa vaaki.

Vatirhi lava nga na ku navela va CGS ehansi ka xiymo xa wena?

Kuna swivandla swo tala ku yisa tidyondzo eka CGS, swi teki no humelela kuya hilaha u kotaka kona.

Dokodela Rudzani Lusunzi



Xana u hlangane na CGS rini?

Ndzi sungule ku tirha eCGS hi lembe ra 2011 naswona ndzi ni malembe yo tlula 12 ndzi ri karhi ndzi endla ndzavisiso ni ndzavisiso. Ku sukela hi November 2014 ku fika March 2015, a ndzi thoriwile tanahi mutivintsongo wa sayense eka Yuniti ya Bindzu ra Mati na Mbango. Hi July 2015, ndzi yile eka Yuniti ya Bindzu ra Timinirali na Eneji.

Xana a wu lava ku endla yini loko u endla ntangha khume?

A ndzi lava ku tirha tanahi muinjhiniyere wa migodi.

Xana CGS yi ku pfune njhani ku fikelela milorho ya wena?

Ndzi joyinile CGS tanahi mudyondzisiwa wa ntirho eka Yuniti ya Bindzu ra Mati na Mbango, laha vutihlamulerinkulu bya mina byi kateke ku pompola khemikali ya misava na vulawuri bya nkoka na ku tiyisisa. Tanahi mudyondzisiwa wa ntirho, a ndzi nyikiwe ntirho wo rhangela xipanu (eka vadyondzisiwa va mitirho na vaofisiri va xithekini) eka timhaka hinkwato leti khumbhaka migodi. Ndzi sungule ku tirha eka ku humelerisa datara no vuhamuseri ehansi ka vulanguteri bya vativinkulu va sayense, lebyi ndzi pfuneke ku kula eka swa sayense. Ndzi nyikiwe ntirho wo hlela mitshikilelo ya mbango leyi nga vaka kona eka migodi eswifundzeninkulu hinkwaswo swa Afrika Dzonga ehansi ka vuleteri bya xisayense ku suka eka vatirhinkulu. Hi 2012, hi ku landza rendzo eka ndhawu yin'wana ya migodi ya golidi eXifundzheninkulu xa Mpumalanga, ndzi kume xiphiko lexi lavaka ku lulamisiwa hi xihatla xi nga si nyanya. Kutani ndzi endle xikombelo xo dyondzela digiri ya Masitasi ku ololoxa xiphiko lexi ndzi xi kumeke (2016–2018). Ntirho lowu wu endle ndzi thwasela PhD (2019–2022). Ndzi na malwandla kuva CGS yi tshembela eku nyikeni vatirhi va yona no vona leswaku swikili swa bona swa antswisiwa eka minthwaso ya dyondzo ya ximfumo.

Xana ntirho wa wena i yini sweswi?

Ndzi mutivintsongo wa sayense eka Yuniti ya Bindzu ra Timinirali na Eneji.

I yini xivuyerisaka eka ntirho wa wena?

Ndzi endla vulavisisi bya xisayense xa misava eka swiyenge swo tala. Ntirho wa mina wu katsa ku fambisa no simeka phurojeke eka Tiyuniti ta Bindzu ra Timinirali na Eneji na ta Mati na Mbango ta CGS.

Xana ntirho wa wena wu fambelana njhani na swikongomelo swa mafambiselo swa CGS?

Ku kula ka ikhonomi na ntiyiseleko wa mbango i tindhawu timbirhi leti langutisiwaka ta CGS. Ndza khumbheka eka tiphurojeke ta khemistri ya misava leyi nga ya nkoka eku fikeleleni xikongomelo xa NDP ku kuma 5% ya nkavelo wa mali leyi tirhisiwaka eka ku kambela ka matiko ya misava. Ku ya emahlweni, ndzi khumbheka eka tiphurojeke leti kongomaka eka ku antswisa nkoka wa mati na moyo, hi swimbirhi leswi i swa nkoka eka ku tiyiseleka ka mbango, ngopfu-ngopfu ku langutana na ku hisa ka misava.

I yini xi ku tlhontlhaka?

Afrika Dzonga i tiko leri nga na nkayivelo wa mati, kutani hi fanele ku hlayisa antswisa switirhisiwa leswi hi nga na swona. Ntlhontlh wukulu wa mina i ku tirhana na nthyakiso wa mbango ngopfu-ngopfu nthyakiso wa swihlovo swa mati.

Hile tlhelo, xana a wu tava u hlawule ntirho wun'wana?

Ndzi endle xikombelo no hleriwa hi Vukorhokeri bya Xiphirisa xa Afrika Dzonga (SAPS) hi 2007, no amukeriwa ku sungula vuleteri hi 2008. Sweswo, a ndzi tisolu kuva ndzi nga joyinangi SAPS hi 2008, ndz hlawula ku tlheleta eyunivhesiti kuya hetisa digiri ya Onasi ya Dyondzo ya sayense ya misava.

Xana u nga hlohlotela njhani:

Vantshwa lava tsakelaka ntirho wa wena?

Ndzi ta va byela "Pfumela Xikwembu kutani tindlela ti pfulekile". Van'wana va hina va pfumarile nkateko wo kombisiwa ku hambana ka mitirho va ha ri vatsongo. Hambiswiritano, namuntlha, xin'wana na xin'wana xa koteka, kasi u nga ya kule loko u swi lava. Lulamisela ku tisa ku hambana – u hlawulekile – u nga fikelela milorho ya wena loko u titshembha.

Vatirhi lava nga na ku navela va CGS ehansi ka xiymo xa wena?

Swa koteka ku fikelela swikongomelo swa wena ntsena loko u tshinyekile, kongoma no tiyimisela.

Tatana Masogana Chuene



Xana u hlangane na CGS rini?

Ndzi hlangane na CGS hi lembe ra 2014 tanihi mutirhela-mfumo wa xithekiniki eka Yuniti ya Minerali na Nhlangano wa Mabindzu (leyi vuriwaka Economic Geochemistry na Geochemistry).

Xana a wu lava ku endla yini loko u endla ntangha khume?

Nkarhi hinkawo a ndzi lavile ku tirha emigodini na tisayense ta misava.

Xana CGS yi ku pfune njhani ku fikelela milorho ya wena?

CGS yi ndzi pfunile ku kuma xirhandza xa mina eku fikelela mitirho yo hambana ya minonganoko ya dyondzo ya sayense ya misava ku katsa ntirho lowu khumbhaka ku ninginika misava, xivumbeko xa misava, mati na mbango. Sweswi, ndzi titsarisele na Yunivhesiti ya Afrika Dzonga laha ndzi endlaka digiri yo engetela ya Tidyondzo ta Mbango.

Xana ntirho wa wena i yini sweswi?

Ndzi mupfuni wa muofisiri wa xithekiniki eka Yuniti ya Vukorhokeri bya Xithekiniki. Ntirho wa hina i ku nyika mpfuneto eka minonganoko ya xisayense xa misava ku pfuna vativi ku fikelela swikongomelo swa vona etihofisini, elaboretari (ntirho wa laboretari), na le ntirhweni hi woxe.

I yini xivuyerisaka eka ntirho wa wena?

Ntirho wa mina wu khumbha ku pfuna eka tindhawu ta dyondzo yo lavisisa, ku pompola, ku hlela no hlayisa tirhekhodo ta dyondzo (ku nga migingiriko ya leswi endliwaka, ku endla tindlela no landzelela swipimelo swa vuhalayiseki). Mitirho ley i ya nkoka ku endla ndzavisiso wa dyondzo ya sayense ya misava na swikili leswi bohaka eka ku hundzisela ko humelela eka timhaka to hambana (ku nga matirhiselo ya misava na miako, timinirali na eneji na mati na mbango), eku seketeleni xikongomelo xa CGS ku ololoxa mitlhontlho ya vaaki.

Xana ntirho wa wena wu fambelana njhani na swikongomelo swa mafambiselo swa CGS?

CGS yi tiyimisela ku vumba muganga wo humelela no cinca ro pfumelela switshunxo swa dyondzo ya sayense ya misava. Ntirho wa mina i ku pfuna vativi va sayense ku fikelela xikongomelo lexi hi ndlela ya ndzavisiso.

I yini xi ku tlhontlhaka?

Ntirho lowu fambelana na ndzavisiso wa mati na mbango wu endla miehleketo ya mina yi tshama yi tirha.

Hile tlhelo, xana a wu tava u hlawule ntirho wun'wana?

Kuya hi kuva ndzi na nkateko wo tirha eka tiyuniti to hambana ta dyondzo ya sayense ya misava, ndzi kota ku hlawula leswi ndzi swi tsakelaka, tanihi leswi ndzi nga na vutivi bya minonganoko yo tala leyi endliwaka hi CGS. A ndzi ehleketi kuri ndzi nga lava ndhawu yin'wana kuva eka yona. Entiyisweni, a ndzi tava ndiz nga hlawulangi ku tirha kun'wana handle ka laha ndzi nga kona.

Xana u nga hloholotela njhani:

Vantshwa lava tsakelaka ntirho wa wena?

Hi ku nyikiwa nkateko, sayense yi nga va xitshunxo eka mitlhontlho yo tala ya hima. Vantshwa va fanele ku langutisa naswona a va fanelangi ku hambukisiwa eka ku fikelela swikongomelo swa vona, tanihi leswi va nga vumundzuku bya tiko ra hina.

Vatirhi lava nga na ku navela va CGS ehansi ka xiymo xa wena?

CGS i xiyege lexi khutazaka vatirhi va xona ku engetela swikili swa vona ku endlela kuri vata pfuneta nkoka wa ntirho lowu va wu endlaka. Tibasari ti nyikiwa eka vatirhi lembe na lembe ku endlela leswaku va yisa tidyondzo ku suka loko va nga thwasa kuya eka loko va thwasile. Swi le ka hina ku teka nkateko lowu.

Manana Caroline Kabini



Xana u hlangane na CGS rini?

Ndzi hlangane na CGS hi December 1, 2017 tanihi muhlayisi la baseke.

Xana a wu lava ku endla yini loko u endla ntangha khume?

Loko ndza ha ri eka ntangha khume, xikongomelo xa mina a kuri kuya eyunivhesiti ndzi endla digiri ya Mafambiselo ya Bindzu. A ndzi ri na ku navela ku fikelela vutivi na swikili leswi faneleke ku humelela eka dyondzo ley. Hambiswirato, a ndzi fanele ku tirha hikuva ndyangu wa ka hina a wu nga fikeleli ku ndzi hakelela tidyondzo ta mina.

Xana CGS yi ku pfune njhani ku fikelela milorho ya wena?

CGS yi seketele norho wa mina hi ku ndzi nyika basari ku yisa emahweni xitifikheti xa Vufambisi bya Bindzu. Ndzi hetile xitifikheti kasi sweswi ndzi titsarisele Bachelor ya Vufambisi bya Bindzu. Tidyondzo ta mina ti hakeleriwa hi basari ya CGS. Ndza khensa hi mpfuno wa CGS, leswi ndzi pfumeleleke ku ya emahlweni swikongomelo swa mina swa tidyondzo no fikelela milorho ya mina. Ku engetela eku hakeleleni tidyondzo ta mina, CGS ndzi nyike nkateko wo tirha eka tindhawu to hambana, xikombiso tanihi muamukerivayeni, mupfuni wa xiyenge xo thola na mupfuni wa yuniti ya bindzu.

Xana ntirho wa wena i yini sweswi?

Sweswi ndzi mukhomeri wa muofuni wa yuniti ya bindzu eka Yuniti ya Timinirali na Eneji (xiyenge xo pompola). Ximfumo, ntirho wa mina i wo basisa.

I yini xivuyerisaka eka ntirho wa wena?

Ntirho wa mina tanihi mubasisi wu khumbha ku basisa tihofisi ta vatirhi kolorhi. Ntirho wa mina wu va pfuna ku endla mitirho ya vona eka ndhawu/hofisi yo basa. Ndzi kume swi vuyerisa ku tiva leswaku ndzi nyika ntirho wa kahle, wo tengen na ndhawu ya kahle eka vatirhi ku va pfuna ku humelerisa ntirho wa vona wa kahle eku nghaniseni xandla eka swikongomelo swa mafambiselo ya CGS.

Tanihi mupfuni, ntirho wa mina i ku seketele xipanu xa mina hi ku endla ntirho wo va pfuna, leswi va pfumelelaka ku langutisa eka ntirho wa xisayense.

Xana ntirho wa wena wu fambelana njhani na swikongomelo swa mafambiselo swa CGS?

Xikongomelo xa CGS xi khumbha IMMP eku seketeleni NDP na mitirho yin'wana ya mfumo. Makungu lawa ya ku kula ka ikhonomi na mitirho hi xikongomelo xo hunguta vusweti na mpfumaleko wa ndzingano. Ku fikelela swikongomelo leswi swa mafambiselo ya CGS, vatirhi va lava ndhawu ley baseke nseketelo wa mpfuno.

I yini xi ku tlhontlhaka?

Ndzi tlhontlhawa kuva xivono xa mina.

Hile tlhelo, xana a wu tava u hlawule ntirho wun'wana?

Ndzi tsakile hi ntirho wa mina wa sweswi, tanihi leswi ndzi vonaka wu ri wa nkoka eka nhlangano. Hambiswirato, ndzi tlhela ndzi lava ku kula entirhwensi naswona hi swona swi endlaka ndzi ri eku dyondzeni.

Xana u nga hloholotela njhani:

Vantsiswa lava tsakelaka ntirho wa wena?

Xitsundzuxo xa mina i ku endla swa kahle masiku hinkwawo na hi xivono xa yena n'wini. Loko u swi kota ku endla sweswo, hinkwaswo swi ta tshamiseka.

Vatirhi lava nga na ku navela va CGS ehansi ka xiyimo xa wena?

Vekisa eka ku tikurisa hi ku dyondza no tirha kahle eka ntirho wa wena wa sweswi.

Manana Vhuhwavhohau Nengovhela



Xana u hlangane na CGS rini?

Ndzi joyinile na CGS hi lembe ra 2020 tanahi Yuniti yo Hlanganisa, leyi sweswi yi nga xiphemu xa Yuniti ya Swicelwa na Mmabindzu ya Eneji.

Xana a wu lava ku endla yini loko u endla ntangha khume?

A ndzi lava ku twisia rifumo ra tiko ra hina leri kumekaka eka swicelwa swa minirali. Ndzi tlhele ndzi lava ku vuyeriwa hi ku twisia ko enta eka tindlela ta xivumbeko xa misava loku tiseke ku cinca ka matikonkulu na mbalango wa ndhawu.

Xana CGS yi ku pfune njhani ku fikelela milorho ya wena?

Tiphurojeke ta CCUS na KDD i ku hatlisisa vuswikoti bya mina bya ndzavisiso no ndzi nyika nkateko wo twisia tindlela to twisia ndzaviso ku suka eka mavonelo ya xiphurofexini.

Xana ntirho wa wena i yini sweswi?

Ndzi mudyondzisiwa entirhweni eka Yuniti ya Timinirali na Eneji.

I yini xivuyerisaka eka ntirho wa wena?

Ntirho wa mina w katsa ku endla ndzaviso eka tiphurojeke to hambana eka yuniti. Hi ndlela leyi ndzi le ku pfuneni ku nghanisa xandla ku fikelela nsirhelelo wa eneji etikweni naswona ndzi nghenelele swinene eka goza ra maxelo. Mbuelo wa ntirho wa mina ku tava ku fikelela nhluvukiso wo tiyiseleka.

Xana ntirho wa wena wu fambelana njhani na swikongomelo swa mafambiselo swa CGS?

Ndzavisiso lowu ndzi nghenelaka eka wona wu langutisa eka nsirhelelo wa eneji, goza ra maxelo na ku cinca ka nthyakiso wa moyo eku seketeleni ka swiboho swa nhluvukiso wa tiko.

I yini xi ku tlhontlhaka?

Ndzi khutaziwa hi kuya emahlweni ka ku dyondza na ntlhontlhwo tirhisa dyondzo ya sayense ya misava ku hlamlula eka swivutiso swin'wana swo tika na mitlhontlhoe Afrika Dzonga.

Hile tlhelo, xana a wu tava u hlawule ntirho wun'wana?

Dyondzo ya sayense ya misava i khale kuri nchumu lowu a ndzi wu rhandza, ndzi swi tivile ndza ha ri ntsongo kuri a ndzi lava kuva mutivi wa swa misava, endzhaku ko hlaya hi xivumbeko xa misava eka Britannica Encyclopaedia.

Xana u nga hlohlotela njhani:

Vantshwa lava tsakelaka ntirho wa wena?

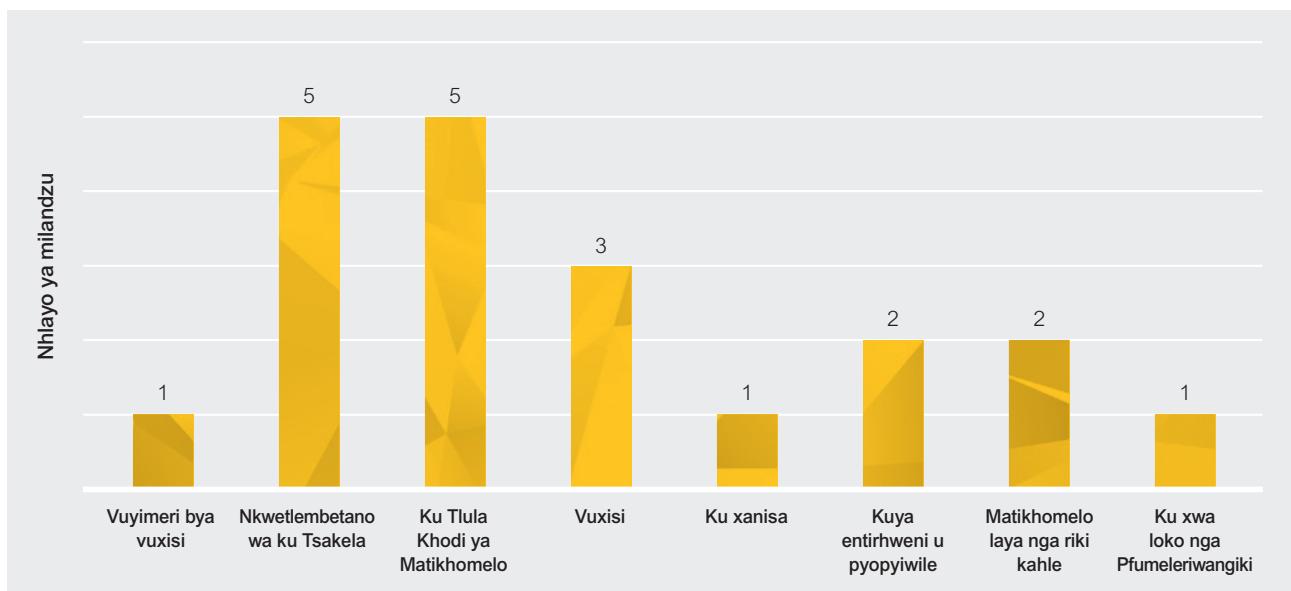
Nhluvukiso wa ximunhu a wu tshama wu ri eka ku kumiwa ka switirhiswa swa ntumbuluko (hi xitalo mati kumbe swicelwa) naswona leswi swi ta tshamisa tano. Namuntlha, xilaveko xa hina eka switirhiswa swa minirali na eneji a swi nga languteriwangi. Dyondzo ya sayense ya misava ya ha ta tshama yi ri "nkoka wa nhluvukiso wa ximunhu" eka lembe xidzana ra 21st na ku hundza.

Vatirhi lava nga na ku navela va CGS ehansi ka xiymo xa wena?

CGS yi nyika vativi va sayense/valavisisi lavatsongo swivandla swo tala ku humelela. Manghenelelo ya tidyondzonyingi laya tekiweke hi nhlangano ya vula kuri mudyondzisiwa wa ntirho a nga nghenelela eka tiphurojeke to hlaya eka tiyuniti to hambana ta bindzu na, eku endleni leswi, va kuma swikili swa xithekiniki swo hambana. Xikombiso, ndzi vile na nkateko wo tirha hi datara leyi kumiweke ku suka eka xikenara xa nkoka xa hyperspectral, naswona ndzi nghenelele eka phurojeke yo cela ya KDD eKaroo Basin, yo sungula ya muxaka wa yona ku sukela eka phurojeke ya SOEKOR hi malembe ya 1960. Ku hava lexi tlulaka ku hlangana na leswi eka mutivi wa misava lontsongo.

1.11 Vuxaka bya vatirhi

Eka lembe leri hleriwaka, timhangu to hambana ta matikhomelo yo biha ti yingisiwerile kasi na swivilelo swi ve kona. Nandu lowukulu ku vile ku hluleka ku paluxa nkvetlembetano wo tsakelo (5) na ku tlula Khodi ya Matikhomelo ya CGS (5). Milandzu ley i landzeriwile hi mpfumaleko wo tshembheka (3), ku tirhisa xihoko hi ndlela ley i nga riki kahle (2), matikhomelo yo pfumela xiphurofexini (2), vuyimeri bya vuxisi (1), ku xanisa (1) na ku xwa swi nga pfumeleriwangi (1). CGS yiya emahlweni ku khutaza vatirhi ku landzelela tipholisi na maendlelo eku tirhiseni tindlela to hambana ku khutaza ku landzelela eka tipholisi. Tindlela ta ndzulamiso ta tirhisiwa loko vufambisi byi laveka ku sindzisa ku landzelela milawu.



Xifaniso 28: Ku tlhantlihiwa ka milandzu ya matikhomelo eka CGS hi nkarhi wa 2022/23

1.12 Nhlayiseko wa nkarhi lowu lahlekeke hi ku vaviseka

Ku vikiwa milandzu ya kaye eka lembe leri hleriwaka na magoza lama tekiweke ku sivela ku humelela nakambe ka leswi.

1.13 Mintirho ley i hleriweke ya 2023/24

Yuniti ta Bindzu yo Thola yi kunguhata migingiriko/mitirho ley i landzelaka ya 2023/24:

- a) Mafambiselo ya matirhelo – tikontiraka, ku hlela exikarhi ka lembe na vuheri bya ku hela ka lembe;

- b) Kungu ra swikili swa le ntirhweni na xiviko xa vuleteri bya lembe eka MQA;
- c) Ku simekiwa ka Kungu ra Ndzingano wa Mitirho na xiviko xa Ndzwulo ya Mitirho na Vatirhi;
- d) Vuhleri bya pholisi;
- e) Wekixopo ya vulemukisi bya pholisi;
- f) Ku pfuxiwa ka nongonoko wa vuleteri;
- g) Siku ra Vunene;
- h) Ku dyondziswa ka vatirhi vantshwa;
- i) Pfhumba ra vulemukisi bya vutsoniwa; na
- j) Ku simekiwa ka ku nghelela loku vekiweke ka vuheri bya vatirhi ka 2022/23.



Ribye ra~2.6Ga ra ntima ra giranayiti yale hansi ka misava ra xenoliths leri kumekaka ePongola Supergroup Lithologies eWhite Mfolozi exikarhi ka KwaZulu-Natal.



Swivumbeko leswi hlakaleke swa maribye ya vholikheniki ya Sifula Greenstone Belt eBuffalo River Gorge, exikarhi ka KwaZulu-Natal

XIPHEMU XA E XIVIKO XO LANDZELELA PFMA

Xiphemu xa xiviko xi nyika marungula laya fambelanaka na ku landzelela ka CGS eka PFMA. Xiyenge lexi xi angarhela marungula laya landzelaka:

- Matirhiselo ya timali laya nga pasisiwangiki, ya nga vuyeriseki no tlengisa, na ku lahlekeriwa ka switirhisiwa;
- Ku hakeriwa ka vaphakeri endzhaku ka nkarhi na/kumbe va nga hakeriwi; na
- Vufambisi bya nxaxamelo wa maxavelo.

1

MATIRHISELO YA TIMALI LAYA NGA PASISIWANGIKI, YA NGA VUYERISEKI NO TLANGISA, NA KU LAHLEKERIWA KA SWITIRHISIWA

1.1 Matirhiselo ya timali laya nga pasisiwangiki

a) Timali ta khamphani eka matirhiselo ya timali laya nga pasisiwangiki

Description	2022/23 R'000	2021/22 R'000
Opening balance	-	1 695
Add: Irregular expenditure confirmed	-	-
Less: Irregular expenditure condoned	-	(1 695)
Less: Irregular expenditure not condoned and removed	-	-
Less: Irregular expenditure recoverable	-	-
Less: Irregular expenditure not recovered and written off	-	-
Closing balance	-	-

Ku hava matirhiselo ya timali laya nga pasisiwangiki ya nga humeleta eka lembe ximali leri hleriwaka.

Tinotsi ta timali ta khamphani

Description	2022/23 R'000	2021/22 R'000
Irregular expenditure under assessment in 2022/23	-	-
Irregular expenditure relating to 2021/22 and identified in 2022/23	-	-
Irregular expenditure for the current year	-	-
Total	-	-

b) Vuxokoxoko bya lembe leri na leri hundzeke bya matirhiselo ya timali laya nga pasisiwangiki (ehensi ka vuheri, ku tiyimisela, na vulavisisi)

Description	2022/23 R'000	2021/22 R'000
Irregular expenditure under assessment	-	-
Irregular expenditure under determination	-	-
Irregular expenditure under investigation	-	-
Total	-	-

Ku hava matirhiselo ya timali laya nga pasisiwangiki ya nga humeleta eka lembe ximali leri hleriwaka.

c) Vuxokoxoko bya lembe leri na leri hundzeke bya matirhiselo ya timali laya nga pasisiwangiki

Description	2022/23 R'000	2021/22 R'000
Irregular expenditure condoned	-	1 695
Total	-	1 695

Ku hava matirhiselo ya timali laya nga pasisiwangiki ya nga humelela eka lembe ximali leri hleriwaka.

d) Vuxokoxoko bya lembe leri na leri hundzeke bya matirhiselo ya timali laya nga pasisiwangiki byi susiwile – (byi nga amukeriwangiki)

Description	2022/23 R'000	2021/22 R'000
Irregular expenditure NOT condoned and removed	-	-
Total	-	-

Ku hava matirhiselo ya timali laya nga pasisiwangiki ya nga humelela eka lembe ximali leri hleriwaka.

e) Vuxokoxoko bya lembe leri na leri hundzeke bya matirhiselo ya timali laya nga pasisiwangiki byi kumiweke

Description	2022/23 R'000	2021/22 R'000
Irregular expenditure recovered	-	-
Total	-	-

Ku hava matirhiselo ya timali laya nga pasisiwangiki ya nga humelela eka lembe ximali leri hleriwaka.

f) Vuxokoxoko bya lembe leri na leri hundzeke bya matirhiselo ya timali laya nga pasisiwangiki byi susiwile (byi nga ha kumeki)

Description	2022/23 R'000	2021/22 R'000
Irregular expenditure written off	-	-
Total	-	-

Ku hava matirhiselo ya timali laya nga pasisiwangiki ya nga humelela eka lembe ximali leri hleriwaka.

Ku paluxa ko engetela ko fambelana na Malulamiselo ya Swiyenge swo Tirhisana

- g) **Vuxokoxoko bya timhangu laha xiyenge xi khumbhekaka eka ntirhisano wo hlanganelo wa swiyenge (laha xiyenge xexo xi nga hava vutihlamuleri byo landzelela)**

Description	2022/23 R'000	2021/22 R'000
None	-	-
Total	-	-

Ku hava matirhiselo ya timali laya nga pasisiwangiki ya nga humelela eka lembe ximali leri hlieriwaka.

- h) **Vuxokoxoko bya magoza yo tshinya ya lembe leri na leri hundzeke kumbe ya vugevenga laya tekiweke hi xivangelo xa matirhiselo ya timali laya nag pasisiwangiki**

Disciplinary steps taken
None

Ku hava matirhiselo ya timali laya nga pasisiwangiki ya nga humelela eka lembe ximali leri hlieriwaka.

1.2 Matirhiselo laya nga vuyerisiki na yo tlangisa timali

- a) **Tinotsi ta timali ta khamphani ta matirhiselo laya nga vuyerisiki na yo tlangisa timali**

Description	2022/23 R'000	2021/22 R'000
Opening balance	18 496	18 496
Add: Fruitless and wasteful expenditure confirmed	-	-
Less: Fruitless and wasteful expenditure written off	-	-
Less: Fruitless and wasteful expenditure recoverable	-	-
Closing balance	18 496	18 496

Matirhiselo laya nga vuyerisiki na yo tlangisa timali ya kumiwile mayelana na ku simekiwa ka sisitimi ya ku thambha, ku nghenisiwa ka moyu na ku hangalasiwa ka mati (HVAC) ku fika eka 2017. Ntirho wu kumeke wu ri wa xithekiniki wu nga amukeleki no lava ku cincwiwa. Vufambisi bya ha tinyiketerile ku herisa no papalata matirhiselo laya nga vuyerisiki na yo tlangisa timali wahi na wahi.

Tinotsi ta timali ta khamphani

Description	2022/23 R'000	2021/22 R'000
Fruitless and wasteful expenditure that was under assessment in 2022/23	-	-
Fruitless and wasteful expenditure that relates to 2021/22 and identified in 2022/23	-	-
Fruitless and wasteful expenditure for the current year	-	-
Total	-	-

- b) Vuxokoxoko bya lembe leri na leri hundzeke bya matirhiselo ya timali laya nga pasisiwangiki (ehensi ka vuheri, ku tiyimisela, na vulavisisi)**

Description	2022/23 R'000	2021/22 R'000
Fruitless and wasteful expenditure under assessment	-	18 496
Fruitless and wasteful expenditure under determination	-	-
Fruitless and wasteful expenditure under investigation	-	-
Total	-	-

Matirhiselo laya nga vuyerisiki na yo tlangisa timali ya kumiwile mayelana na ku simekiwa ka sisitimi ya ku thambha, ku nghanisiwa ka moyo na ku hangalasiwa ka mati (HVAC) ku fika eka 2017. Ntirho wu kumeke wu ri wa xithekiniki wu nga amukeleki no lava ku cinciwa. Vufambisi bya ha tinyiketerile ku herisa no papalata matirhiselo laya nga vuyerisiki na yo tlangisa timali wahi na wahi.

- c) Vuxokoxoko bya timali leti tirhisiweke hi vusopfa no tlangisiwa ta sweswi na ta lembe leri hundzeke**

Description	2022/23 R'000	2021/22 R'000
Timali leti tirhisiweke hi vusopfa no tlanisiwa leti kumiweke	-	-
Total	-	-

- d) Vuxokoxoko byo kuma timali leti tirhisiweke hi vusopfa no tlangisiwa ta sweswi na ta lembe leri hundzeke ti nga kumiwangiki no suriwa**

Description	2022/23 R'000	2021/22 R'000
Fruitless and wasteful expenditure written off	-	-
Total	-	-

- e) Vuxokoxoko bya magoza yo tshinya ya lembe leri na leri hundzeke kumbe ya vugevenga laya tekiweke hi xivangelo xa matirhiselo ya timali laya nag pasisiwangiki**

Disciplinary steps taken
None

**1.3 Vuxokoxoko byo paluxa byo yelana no lahlekeriwa ka timali kuya hi PFMA
Xiyenge xa 55(2)(b)(i) na (iii)**

a) Vuxokoxoko byo lahlekeriwa hi switirho eka lembe leri hundzeke hikwalaho ka vugevenga

Material losses through criminal conduct	2022/23 R'000	2021/22 R'000
Theft	-	-
Other material losses	-	-
Less: Recovered	-	-
Less: Not recovered and written off	-	-
Total	-	-

b) Vuxokoxoko bya switirho swin'wana leswi lahlekeke

Nature of other material losses	2022/23 R'000	2021/22 R'000
None	-	-
Total	-	-

c) Vuxokoxoko bya switirho leswi a swi lahlekile swi nga kumeka

Nature of losses	2022/23 R'000	2021/22 R'000
None	-	-
Total	-	-

d) Switirho swin'wana leswi lahlekeke swi suriweke eka nhundzu ya khamphani

Nature of losses	2022/23 R'000	2021/22 R'000
None	-	-
Total	-	-

2

KU HLWELA/KUMBE KUVA KU NGA HAKERIWI VAPHAKERI

Description	2022/23 R'000	2021/22 R'000
Valid invoices received	11 692	284 278
Invoices paid within 30 days or agreed period	10 809	266 359
Invoices paid after 30 days or agreed period	883	17 919
Invoices older than 30 days or agreed period (unpaid and without dispute)	N/A	N/A
Invoices older than 30 days or agreed period (unpaid and in dispute)	N/A	N/A

Tihakelo leti hakeriweke endzhaku ka 30 wa masiku ku vile tihakelo leti ku veke na ku kanetana na vaphakeri mayelana na mintsengo kumbe nkoka wa nhundzu kumbe vukorhokeri lebyi kumiweke.

3

VUFAMBISI BYA VUMAKI

3.1 Ku xaviwa hi tindlela tin'wana

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Motivation for the approval of a single-source procurement process for appointing Major Drilling South Africa for retrieval and replacement of drilling rods	Major Drilling South Africa	Deviation	N/A	R2 306 867.77
Appointment of Optron (Pty) Ltd as a sole supplier for the procurement of two (2) new differential global positioning systems (DGPS) and a total station	Appointment of Optron (Pty) Ltd	Deviation	N/A	R1 108 641.40
Appointment of 13 specialists on a short-term contract to participate and contribute to the second workshop scheduled for 20–24 June 2022 for the Duynefontyn Probabilistic Seismic Hazard Analysis	Prof. Alex Kisters Dr Alastair Sloan Dr Marco Andreoli Dr Douglas Paton Prof. Norm Abrahamson Prof. Andreas Rietbroek Prof. Brady Cox Dr Olga Ktenidou Prof. Ben Edwards Dr Linda Al Atik Dr Laura Gulia Dr Gabriel Torro Dr Anthony Tankard	Deviation	N/A	R2 502 700.00
Appointment of Dr P. Stafford, a specialist to the Ground Motion Technical Integration Team for the Duynefontyn Probabilistic Seismic Hazard Analysis	Dr Peter Stafford	Deviation	N/A	R4 830 000.00
Appointment of Dr V. Montaldo Falero, a specialist to the Seismic Source Technical Integration Team for the Duynefontyn Probabilistic Seismic Hazard Analysis	Dr V. Montaldo Falero	Deviation	N/A	R3 712 115.46
Appointment of Red Dog Scientific Services to purchase additional equipment for the mobile seismograph stations	Red Dog Scientific Services	Deviation	N/A	R2 133 496.96
Appointment of Leipzig Advisory IT (Pty) Ltd for the provision of Enterprise Resource Planning (ERP) project management services	Liepzig Advisory IT (Pty) Ltd	Deviation	N/A	R2 760 000.00
Appointment of Bentley Systems International Limited for one (1) corporate license for Oasis Montaj and Leapfrog Software at an annual subscription	Bentley Systems International Ltd	Deviation	N/A	R4 015 719.51

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Appointment of University of Vermont and Professor Paul Bierman for the provision of cosmogenic dating services	University of Vermont and Prof. Paul Bierman	Deviation	N/A	R1 069 200.00 R985 875.00
Appointment of AIRBUS Southern Africa (Pty) Ltd for the CGS helicopter (RZJ) to regain airworthiness	AIRBUS Southern Africa (Pty) Ltd	Deviation	N/A	R5 400 000.00
Appointment of Mira Geoscience for a yearly subscription of the Geoscience Analyst Software maintenance corporate license	Mira Geoscience	Deviation	N/A	USD 15 060.00
Appointment of Red Dog Scientific Services as a sole supplier to supply the CGS with a set of resistivity meter	Red Dog Scientific Services	Deviation	N/A	R2 939 189.55
Appointment of Malvern PANalytical (Pty) Ltd to replace the damaged X-ray tube in the Zetium X-ray fluorescence spectrometer	Malvern PANalytical (Pty) Ltd	Deviation	N/A	R1 080 678.00
STARLIMS Netherlands B.V. (formerly Abbott Informatics Netherlands B.V.) for the upgrade of STARLIMS v10 to STARLIMS v12, including the annual maintenance plan (AMP)	STARLIMS Netherlands BV (formerly Abbott Informatics Netherlands BV)	Deviation	N/A	R2 322 374.24
Appointment of Spec Africa to supply, deliver and install a high-security Clearvu fence or similar/equivalent which is electrified to the CGS located on the farm Goedehoop, Leandra, Mpumalanga province	Spec Africa	Deviation	N/A	R6 994 304.54
Appointment of Gobora Drilling (Pty) Ltd for reverse circulation (RC) drilling of eight holes at Nchwaning 267 for a period of six to eight weeks	Gobora Drilling (Pty) Ltd	Deviation	N/A	R2 563 752.50
Total				R43 124 030.24

3.2 Ku hambana ka tikontiraka na ku ndlandlamuxa

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value R'000	Value of previous contract expansion/s or variation/s (if applicable) R'000	Value of current contract expansion or variation R'000
Heating, ventilation, and air conditioning (HVAC) system project – supplementary budget	Amakhaza Moia (Pty) Ltd	Variation	N/A	R76 464 703.02	N/A	R23 740 081.00
Contract variation of 11.01% between the CGS and Gqozi Group Investment to procure additional and essential equipment for the fully functional core/reverse circulation drill rig	Gqozi Group Investment	Variation	N/A	R21 956 742.64	N/A	R2 417 393.21
Contract variation of 10.46% between the CGS and Mission Point Investment Holdings to procure additional and essential equipment for the fully functional percussion/reverse circulation drill rig	Mission Point Investment Holdings	Variation	N/A	R23 111 589.50	N/A	R2 417 393.21
Total				R121 533 035.16	N/A	R28 574 867



Jannelsepan Formation Areachap group
– Pyroxene, hornblende quartz schist

XIPHEMU XA F MARUNGULA YA TIMALI

Xiphemu lexi xa xiviko xi nyika vundzeni eka timali ta kahle ta CGS na ku katsaka marungula laya landzelaka:

- Xiviko xa Muofisiri Nkulu wa Timali, lexi katsaka vuheri byo angarhela bya timali na tihaka leti fambelanaka na migingirko leyi ringanyetiweke, ku hlayisiwa ka nsalo, vufambisi bya nxaxamelo wa maxavelo, xiviko xa tinkota na makungu ya vumundzuku.
- Xiviko xa N'watikonta-Jenerali eka Palamente eka CGS. Xiviko lexi i vonelo mayelana na vunene bya switatimente bya timali ta lembe eku andlalen ka xiyimo xa timali, matirhelo ya timali, nkhuluklo wa timali kuya hi swipimelo swa Afrika Dzonga swa GRAP na swilaveko swa PFMA eka timhaka hinkwato. Eka swiviko swa matirhelo eka ku landzelela ka swa nawu na swinawana, malawulelo ya le ndzeni na timhaka leti fanaka.
- Xitatimente xa Xiyimo xa Timali, lexi katsaka xitatimente xa xiyimo xa timali, xitatimente xa matirhiselo ya timali, xitatimente xo cinca eka nhundzu ya khamphani, xitatimente xa nkhuluklo wa khexena tinotsi ta switatimente swa timali.

1

XIVIKO XA MUOFISIRINKULU WA TIMALI



Tatana Thabo Molikoe
Muofisirinkulu wa Timali
(Mukhomeri)

Mafambiselo ya kahle ya timali ya le xivindzini xa bindzu rihi na rihi. CGS yi tekela enhlokweni kuri kuva na xiyimo xa kahle xa timali swi pfunile ku susumeta nhlangano kuya emahlweni.

Rungula Ra Xisekelo

Huvo ya Dyondzo ya sayense ya misava yi xaxametiwe eka Xedulu xa 3A xa Xiyenge xa Mfumo kuya hi Nawu wa Mafambiselo ya Timali ta tiko, Nawu wa 1 wa 1999. Swikongomelo leswi rhangelaka ku tumbuluxiwa ka CGS i ku vumba no kandziyisa swimakiwa swa xiyimo xa le henbla na ku phakela vukorhokeri byo fambelana na dyondzo ya sayense ya misava eka vaaki va Afrika Dzonga na vumaki.

Xiyimo xa timali

Xiyimo xa kahle xa timali na ku kula ka kwalomu ka 7% xi hlayisiwile eka ku tlula 12 wa malembe laya hundzeke. CGS yi na nhundzu yo tlula R610.9 wa mamiliyon na nhundzu ya mpimo wa makete ya 1:1 eka lembe ximali leri vikiweke.

Nhundzu na xitirhisiwa

Vuvekisi bya ntsengo wa R59.5 wa mamiliyon yi endliwile eka nhundzu, xitirhisiwa na nhundzu yo khomeka eka lembe

leri. Ku ya emahlweni vuvekisi eka miako ya xisayense na xitirhisiwa swa ha ri swa nkoka ku vona kuri switirhisiwa swa xiyimo xa le henbla na switirho swa xaviwa no hlayisiwa.

Mafambiselo ya nkhuluko wa khexe

Khexe na ndzingano wa khexe swi hungutekile ku suka eka R292.9 wa mamiliyon hi 2023 kuya eka R170.2 wa mamiliyon hi 2022, leswi endleke ku lahlekeriwa ka R122.8 wa mamiliyon. Vuvekisi byi endliwile ku seketela ku hatlisisa ku antswa ka ikhonomi eka ku simekiwa ka nongonoko wa mepe ya dyondzo ya sayense ya misava.

Xivilelo lexi nga kona

Switatamente swa timali swa lembe swa CGS swi lulamisiwile kuya hi xivilelo lexi nga kona. Vafambisi nkulu va endlile mpfuxeto wa ximfumo eka vuswikoti bya CGS kuya emahlweni tanihi xivilelo lexi nga kona eka vumundzuku na hi mpfuxeto, va amukele kuri xiviko xa switatamente ta timali lexi xi ringanerile.

Leswi humeleleke endzhaku ka siku ra xiviko

Afrika Dzonga yi lave ku tihlanganisa na matiko ya vuxirho hi xikongomelo xo seketela ku tumbuluxiwa ka Foramu ya Xivumbeko xa misaya ya BRICS kasi CGS yi ta nghenisa xandla xa nkoka. Matiko ya vuxirho ya ta vumba no hluvukisa minonganoko hi ku ringana eka ntsakelo wo fana ku langutisa, exikarhi ka swin'wana, nhluvukiso wa minirali, mati yo ringanelia, nhlayiseko wa vaaki, nhluvukiso wa ikhonomi, vukona bya eneji na ku antswisa dyondzo ya sayense ya misava hi ku angarhela.

Afrika Dzonga yi ta sungula ntirho wo va mutshamaxitulu hi 2023. Ndhawu ya mintwanano ya matikonyingi ya ta nyika matiko ya BRICS nkateko wo tirhisa no cincana datara na vuswikoti exikarhi ka matiko no va nyika matimba ku phikizana eka nkoka wa nxaxamelo wa ikhonomi ya matiko ya misava.

Swikombelo swo hlayisa mali leyisaleke

Kuya hi Xiyenge xa 53(3) xa PFMA xa 1999, CGS yi kume mpfumelelo ku suka eka Ndzwawulo ya Timali ta tiko ku hlayisa mali leyisaleke. Mpfumelelo wu kumiwile ku tirhisa mali leyisaleke ya nsalo ku lulamisa ka na vuvekisi bya xitirhisiwa xa sayense na miako, na ku simekiwa ka endlelo ro hlayisa. Xikombelo xintshwa xi ta endlawa eka lembe leri hleriwaka.

Vufambisi bya nxaxamelo wa maxavelo

Yuniti ya Nxaxamelo wa Maxavelo yi tirha ehansi ka xiyenge xa Muofisiri Nkulu wa Timali. Yuniti leyisaleke bya bindzu yi nyika sisitimi ya maxavelo na xivandla lexi nga voyameriki tlhelio, xa ndzingano, xa le rivaleni, xo phikizanelia no va xi nga durhi, naswona yi tumbuluxiwile kuya hi Xiyenge xa 54 xa PFMS ya 1999 (tani leswi yi cinciweke hi Nawu wa 29 wa 1999). Kuya hi B-BBEE, Xiyenge xa 13G (1) xa Nawu wa B-BBEE, CGS yi endlawa hi valawuri va vufambisi na nhluvukiso wa vaphakeri bya bindzu.

Timhaka ta xiviko xa vuheri

Timhaka leti hlamsikeriweke eka xiviko xa vuheri bya N'watikota-Jeneralis ti langutiwa hi vueentu ku vona kuri kuna ku fikelela eka mavonelo ya vuheri bya matirhiselo ya timali ya kahle. CGS yi kume mavonelo ya vuheri bya matirhiselo ya timali ya kahle ku suka eka N'watikota-Jeneralis eka lembe leri heleke hi 31 March 2023 naswona yi taya emahlweni ku antswisa mbango wa vulawuri wa le ndzeni.

Ku Tiyiseleka eka swa Timali

Ku vona ku tiyiseleka eka swa Timali, CGS yi endlawa hi vomu ku kanelia eka marungula yo tala ya dyondzo ya sayense ya misava, vutivi na ntokota wa sayense ku vumba mayelana a nkoka wa swa timali na vuvekisi bya mabindzu.

2

XIVIKO XA N'WATINKOTA-JENERALI EPALAMANETE HI HUVO YA DYONDZO YA SAYENSE YA MISAVA

Xiviko eka vuheri bya switatimente swa timali

Vonelo

1. I have audited the financial statements of the Council for Geoscience (CGS) set out on pages 129 to 163, which comprise the Statement of Financial Position as at 31 March 2023, Statement of Financial Performance, Statement of Changes in Net Assets and Cash Flow Statement for the year then ended, as well as notes to the financial statements, including a summary of significant accounting policies.
2. In my opinion, the financial statements present fairly, in all material respects, the financial position of the Council for Geoscience as at 31 March 2023 and its financial performance and cash flows for the year then ended in accordance with Standards of Generally Recognised Accounting Practise (Standards of GRAP) and the requirements of the Public Finance Management 1 of 1999 (PFMA).

Masungulo ya vonelo

3. I conducted my audit in accordance with the International Standards on Auditing (ISAs). My responsibilities under those standards are further described in the responsibilities of the auditor-general for the audit of the financial statements section of my report.
4. I am independent of the public entity in accordance with the International Ethics Standards Board for Accountants' *International code of ethics for professional accountants (including International Independence Standards)* (IESBA code) as well as other ethical requirements that are relevant to my audit in South Africa. I have fulfilled my other ethical responsibilities in accordance with these requirements and the IESBA code.
5. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Mhaka yin'wana

6. I draw attention to the matter below. My opinion is not modified in respect of this matter.

Xitsariwa xa Xileriso xa Nkwama wa Tiko xa 4 xa 2022-23: Ku Landzelela PFMA na Rimba ro Vika

7. On 23 December 2022 National Treasury issued Instruction Note No. 4: PFMA Compliance and Reporting Framework of 2022-23 in terms of Section 76(1)(b), (e) and (f), 2(e) and (4)(a) and (c) of the PFMA, which came into effect on 3 January 2023. The PFMA Compliance and Reporting Framework also addresses the disclosure of unauthorised expenditure, irregular expenditure, and fruitless and wasteful expenditure. Among the effects of this framework is that irregular and fruitless and wasteful expenditure incurred in previous financial years and not addressed is no longer disclosed in the disclosure notes of the annual financial statements, only the current year and prior year figures are disclosed in note 22 and note 23 to the financial statements. The movements in respect of irregular expenditure and fruitless and wasteful expenditure are no longer disclosed in the notes to the Annual Financial Statements of Council for Geoscience. The disclosure of these movements (e.g. condoned, recoverable, removed, written off, under assessment, under determination and under investigation) are now required to be included as part of other information in the Annual Report of the auditees. I do not express an opinion on the disclosure of irregular expenditure and fruitless and wasteful expenditure in the Annual Report.

Vutihlamuleri bya vulawuri bya ku tihamulela eka switatimente swa timali

8. The Accounting Authority is responsible for the preparation and fair presentation of the financial statements in accordance with the Standards of GRAP; and the requirements of the PFMA and for such internal control as the Accounting Authority determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

9. In preparing the financial statements, the Accounting Authority is responsible for assessing the public entity's ability to continue as a going concern; disclosing, as applicable, matters relating to a going concern; and using the going concern basis of accounting unless the appropriate governance structure either intends to liquidate the public entity or to cease operations, or has no realistic alternative but to do so.

Vutihlamuleri bya n'watinkota-jenerali eka tinkota ta switatiamente swa timali

10. My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

11. A further description of my responsibilities for the audit of the financial statements is included in the annexure to this auditor's report.

Ku vika eka xiviko xa matirhelo ya lembe

12. In accordance with the Public Audit Act 25 of 2004 (PAA) and the general notice issued in terms thereof, I must audit and report on the usefulness and reliability of the reported performance information against predetermined objectives for the selected material performance indicators presented in the Annual Performance Report. The Accounting Authority is responsible for the preparation of the Annual Performance Report.

13. I selected the following material performance indicators related to Delivery of the Mandate presented in the Annual Performance Report for the year ended 31 March 2023. I selected those indicators that measure the public entity's performance on its primary mandated functions and that are of significant national, community or public interest.

- Onshore geoscience map coverage
- Offshore geoscience map coverage
- Applied geoscience outputs for minerals and energy
- Applied geoscience outputs for infrastructure, land use, groundwater and the environment.

14. I evaluated the reported performance information for the selected material performance indicators against the criteria developed from the performance management and reporting framework, as defined in the general notice. When an Annual Performance Report is prepared using these criteria, it provides useful and reliable information and insights to users on the public entity's planning and delivery on its mandate and objectives.

15. I performed procedures to test whether:

- the indicators used for planning and reporting on performance can be linked directly to the public entity's mandate and the achievement of its planned objectives
- the indicators are well defined and verifiable to ensure that they are easy to understand and apply consistently and that I can confirm the methods and processes to be used for measuring achievements
- the targets linked directly to the achievement of the indicators and are specific, time bound and measurable to ensure that it is easy to understand what should be delivered and by when, the required level of performance as well as how performance will be evaluated
- the indicators and targets reported on in the Annual Performance Report are the same as what was committed to in the approved initial or revised planning documents
- the reported performance information is presented in the Annual Performance Report in the prescribed manner
- there is adequate supporting evidence for the achievements reported and for the reasons provided for any over- or underachievement of targets.

16. I performed the procedures for the purpose of reporting material findings only.

17. I did not identify any material findings on the reported performance information for the selected indicators following selected material performance indicators.

Mhaka yin'wana

18. I draw attention to the matter below.

Ku fikelela eka leswi vekiweke swo kunguhatiwa

19. The Annual Performance Report includes information on reported achievements against planned targets and provides explanations for over- and underachievements.

Ku vika eka ku landzelela nawu

20. In accordance with the PAA and the general notice issued in terms thereof, I must audit and report on compliance with applicable legislation relating to financial matters, financial management and other related matters. The accounting authority is responsible for the public entity's compliance with legislation.
21. I performed procedures to test compliance with selected requirements in key legislation in accordance with the findings engagement methodology of the Auditor-General of South Africa (AGSA). This engagement is not an assurance engagement. Accordingly, I do not express an assurance opinion or conclusion.
22. Through an established AGSA process, I selected requirements in key legislation for compliance testing that are relevant to the financial and performance management of the public entity, clear to allow consistent measurement and evaluation, while also sufficiently detailed and readily available to report in an understandable manner. The selected legislative requirements are included in the annexure to this auditor's report.
23. I did not identify any material non-compliance with the selected legislative requirements.

Marungula yan'wana eka xiviko xa lembe

24. The Accounting Authority is responsible for the other information included in the Annual Report, which includes the audit committee's report. The other information referred to does not include the financial statements, the auditor's report and those selected material indicators in the scoped-in programme presented in the Annual Performance Report that have been specifically reported on in this auditor's report.
25. My opinion on the financial statements, the report on the audit of the Annual Performance Report and the report on compliance with legislation do not cover the other information included in the Annual Report and I do not express an audit opinion or any form of assurance conclusion on it.
26. My responsibility is to read this other information and, in doing so, consider whether it is materially inconsistent with the financial statements and the selected material indicators in the scoped-in programme presented in the Annual Performance Report, or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

27. I did not receive the other information prior to the date of this auditor's report. When I do receive and read this information, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the other information be corrected. If the other information is not corrected, I may have to retract this auditor's report and re-issue an amended report as appropriate. However, if it is corrected this will not be necessary.

Ku hluleka ka malawulelo ya le ndzeni

28. I considered internal control relevant to my audit of the financial statements, Annual Performance Report and compliance with applicable legislation; however, my objective was not to express any form of assurance on it.
29. The matters reported below are limited to the significant internal control deficiencies that resulted in the basis for the opinion, and the material findings on compliance with legislation included in this report.
30. I did not identify any significant deficiencies in internal control.

Swiviko swin'wana

31. I draw attention to the following engagements conducted by various parties. These reports did not form part of my opinion on the financial statements or my findings on the reported performance information or compliance with legislation.
32. Various investigations were initiated by the public entity into allegations of possible unethical behaviour and allegations of procurement and contract management irregularities. These investigations were at various stages of completion at the date of this auditor's report.

Auditor-General

Pretoria

31 July 2023



Auditing to build public confidence

ANNEXCHARA – VUTIHLAMULERI BYA VUHLERI BYA N’WATINKOTA-JENERALI

The annexure includes the following:

- the auditor-general’s responsibility for the audit
- the selected legislative requirements for compliance testing.

Vutihlamuleri bya vuheri bya N’watinkota-Jenerali

Vuahluri bya xiphurofexini na ku kanakana ka xiphurofexini

As part of an audit in accordance with the ISAs, I exercise professional judgement and maintain professional scepticism throughout my audit of the financial statements and the procedures performed on reported performance information for selected material performance indicators and on the public entity’s compliance with selected requirements in key legislation.

Switatimendhe swa timali

In addition to my responsibility for the audit of the financial statements as described in this auditor’s report, I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the public entity’s internal control
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made

- conclude on the appropriateness of the use of the going concern basis of accounting in the preparation of the financial statements. I also conclude, based on the audit evidence obtained, whether a material uncertainty exists relating to events or conditions that may cast significant doubt on the ability of the public entity to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor’s report to the related disclosures in the financial statements about the material uncertainty or, if such disclosures are inadequate, to modify my opinion on the financial statements. My conclusions are based on the information available to me at the date of this auditor’s report. However, future events or conditions may cause a public entity to cease operating as a going concern
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Ku vulavurisana na lava nga na vuthlamuleri byo lawula

I communicate with the Accounting Authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the Accounting Authority with a statement that I have complied with relevant ethical requirements regarding independence and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence and, where applicable, actions taken to eliminate threats or safeguards applied.

Ku landzelerisa nawu – swilaveko swa nawu leswi hlawuriweke

The selected legislative requirements are as follows:

Legislation	Sections or regulations
Public Finance Management Act 1 of 1999 (PFMA)	Section 51(1)(b)(i); 51(1)(b)(ii); 51(1)(e)(iii) Section 53(4) Section 54(2)(c); 54(2)(d) Section 55(1)(a); 55(1)(b); 55(1)(c)(i) Section 57(b)
Treasury Regulations (TR)	Treasury Regulation 8.2.1; 8.2.2 Treasury Regulation 16A3.1; 16A3.2; 16A3.2(a); 16A6.1; 16A6.2(a) & (b); 16A6.2(e); 16A6.3(a); 16A6.3(a)(i); 16A6.3(b); 16A6.3(c); 16A6.3(d); 16A6.3(e); 16A6.4; 16A6.5; 16A6.6; TR 16A.7.1; 16A.7.3; 16A.7.6; 16A.7.7; 16A8.2(1); 16A8.2(2); 16A8.3; 16A8.3(d); 16A8.4; 16A9.1(b)(ii); 16A9.1; 16A9; 16A9.1(c); 16A9.1(d); 16A9.1(e); 16A9.1(f); 16A 9.2; 16A 9.2(a)(ii); TR 16A 9.2(a)(iii) Treasury Regulation 30.1.1; 30.1.3(a); 30.1.3(b); 30.1.3(d); 30.2.1 Treasury Regulation 31.1.2(c') Treasury Regulation 31.2.1; 31.2.5; 31.2.7(a) Treasury Regulation 31.3.3 Treasury Regulation 33.1.1; 33.1.3
Prevention and Combating of Corrupt Activities Act No.12 of 2004 (PRECCA)	Section 34(1)
Preferential Procurement Regulations of 2022 (PPR)	3(1) 4(1) 4(2) 4(3) 4(4) 5(1) 5(2) 5(3) 5(4) 5(4)
PFMA instruction note no. 3 of 2021/22	Definition Par. 4.2(b) Par. 4.4 Par. 4.3 Par. 4.4(c) Par. 4.4(d)
SCM Instruction Note 03 of 2021-22	Par. 3.2.1 Par. 4.1 Par. 7.2 Par. 3.3.1 Par. 4.2(b)
SCM Instruction No. 2 of 2021/22	Par. 3.2.1 Par. 3.2.4 Par. 3.2.4(b)
NT Instruction 07 of 2017/18	Par. 4.3
NT Instruction 4A of 2016/17	Par. 6
NT Instruction note 4 of 2015/16	Par. 3.4

Legislation	Sections or regulations
NT Instruction No. 5 of 2020/21	Par. 4.8 Par. 4.9 Par. 5.3
Preferential Procurement Regulations (PPR), 2011	PPR 2011 4(1) PPR 2011 4(3) PPR 2011 4(4) PPR 2011 4(5) PPR 2011 5(1) PPR 2011 5(2) PPR 2011 5(3) PPR 2011 5(5) PPR 2011 6(1) PPR 2011 6(2) PPR 2011 6(3) PPR 2011 6(5) PPR 2011 6(4) PPR 2011 7(1) PPR 2011 10 PPR 2011 11(2) PPR 2011 11(4) PPR 2011 11(5) PPR 2011 11(8)
Treasury Instruction note 11 of 2020/21	Par. 3.1 Par. 3.4(b) and 3.9
Preferential Procurement Policy Framework Act 5 of 2000 (PPPFA)	PPPFA Section 2(1)(a) PPPFA Section 2(1)(f)
Second amendment NT Instruction No. 5 of 2020/21	Par. 1
Erratum NT Instruction note No. 5	Par. 2
Preferential Procurement Regulations (PPR), 2017	PPR 2017 5(1) PPR 2017 5(3) PPR 2017 5(6) PPR 2017 5(7) PPR 2017 6(1) PPR 2017 6(2) PPR 2017 6(3) PPR 2017 6(5) PPR 2017 6(6) PPR 2017 6(8) PPR 2017 7(1) PPR 2017 7(2) PPR 2017 7(3) PPR 2017 7(5) PPR 2017 7(6) PPR 2017 7(8) PPR 2017 8(2) PPR 2017 8(5) PPR 2017 9(1) PPR 2017 10(1) PPR 2017 10(2) PPR 2017 11(1)
Public Service Act	18(1), (2)

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SWITATIMENTE SWA TIMALI SWA LEMBE LERI HELEKE HI 31 MARCH 2023

XITATIMENTE XA XIYIMO XA TIMALI

hi ti 31 March 2023

	Notes	2023 R'000	2022 (Restated) R'000
Assets			
Non-current assets			
Property and equipment	4	381 181	364 667
Intangible assets	5	359 579	341 464
Heritage assets	28	4 039	5 641
		17 562	17 562
Current assets			
Inventories	6	231 585	360 189
Trade and other receivables from exchange transactions	8	5	5
Cash and cash equivalents	9	61 395	67 186
		170 186	292 997
Total assets		612 767	724 856
Net assets and liabilities			
Accumulated surplus		333 249	421 019
Non-current liabilities			
Post-employment benefit liabilities	7	5 979	11 530
Current liabilities			
Trade and other payables	10	273 540	292 308
Deferred income	11	71 989	52 334
Accruals	12	168 869	205 182
		32 683	34 792
Total net assets and liabilities		612 767	724 856

XITATIMENTE XA MATIRHELO YA TIMALI

eka nkarhi lowu heleke hi 31 March 2023

	Notes	2023 R'000	2022 (Restated) R'000
Total revenue		572 248	583 212
Revenue from exchange transactions	13	172 732	256 969
Revenue from non-exchange transactions	13	399 516	326 243
Total cost of projects		(259 744)	(268 543)
Cost of commercial projects	13	(117 139)	(83 215)
Cost of statutory projects	13	(142 605)	(185 328)
Gross surplus		312 503	314 669
Administrative expenses		(398 620)	(328 840)
Other operating expenses	13	(1 624)	(905)
Deficit from operations		(87 741)	(15 076)
Finance cost	14	(29)	(20)
Net (deficit)/surplus for the year		(87 770)	(15 096)

SWITATIMENTE SWO CINCA EKA NHUNDZU YA KHAMPHANI
eka nkarhi lowu heleke hi 31 March 2023

	Notes	Accumulated surplus R'000	Total R'000
Opening balance at 31 March 2021		449 181	449 181
Net surplus for the period		(13 066)	(13 066)
Restated balance at 31 March 2021		436 115	436 115
Net loss for the period		(12 175)	(12 175)
Correction of prior period error	26	(2 921)	(2 921)
Restated net loss for the period		(15 096)	(15 096)
Restated balance at 31 March 2022		421 019	421 019
Net loss for the period		(87 770)	(87 770)
Balance at 31 March 2023		333 249	333 249

XITATIMENTE XA NKHULUKO WA KHEXE

eka nkarhi lowu heleke hi 31 March 2023

	Notes	2023 R'000	2022 (Restated) R'000
Cash outflow from operating activities		(64 348)	(22 102)
Cash receipts from customers		560 179	525 052
Cash paid to suppliers and employees		(634 553)	(556 980)
Cash generated from operations	16	(74 374)	(31 928)
Interest received	13	10 055	9 846
Finance cost	14	(29)	(20)
Cash outflow from investing activities		(58 464)	(43 264)
Acquisition of:			
Property and equipment	16.1	(59 397)	(43 697)
Intangible assets	16.2	(183)	(187)
Proceeds from sale of asset	13	-	-
Insurance proceeds for property and equipment	4.1	1 116	620
Net increase/(loss) in cash and cash equivalents		(122 812)	(65 365)
Cash and cash equivalents at beginning of period	9	292 997	358 362
Cash and cash equivalents at end of period	9	170 186	292 997

1 TIPHOLISI TA VUHLERI

eka nkarhi lowu heleke hi 31 March 2023

1.1 Basis of preparation

Statement of compliance

1. The financial statements have been prepared in accordance with the Standards of Generally Recognised Accounting Practices (GRAP) including any interpretations, guidelines and directives issued by the Accounting Standards Board.

The financial statements have been prepared on a historic cost basis and accounting policies are consistent with prior years.

These Annual Financial Statements have been prepared on a going concern basis, i.e. the assumption that the Council for Geoscience will continue to operate as a going concern for at least the next 12 months.

2. The Cash Flow Statement has been prepared in accordance with the direct method.
3. Specific information is presented separately on the Statement of Financial Position such as:
 - a) receivables from non-exchange transactions, including taxes and transfers;
 - b) taxes and transfers payable; and
 - c) trade and other payables from non-exchange transactions.

The budget reporting standard does not apply to the Council for Geoscience as our budget is tabled as part of the Department of Mineral Resources and Energy budget.

1.2 Revenue recognition

Revenue comprises the revenue from non-exchange transactions recognised as income in the current year, contract income and sales of publications.

The CGS measures revenue at the fair value of the consideration received or receivable. Revenue is recognised only when it is probable that the economic benefits associated with a transaction will flow to the CGS, and the amount of revenue and associated costs incurred or to be incurred can be measured reliably.

1.2.1 Revenue from non-exchange transactions

The Council for Geoscience receives grants in the form of a baseline allocation from the Department of Mineral Resources and Energy.

Revenue from non-exchange transactions is recorded as deferred income when it is received. It is then recognised as income proportionate to the costs incurred or to the extent that CGS has complied with any of the criteria, conditions or obligations embodied in the grant.

Other baseline allocation funds are recognised as revenue upon receipt.

1.2.2 Revenue from exchange transactions

Revenue from exchange transactions comprises sales and contract revenue as follows:

Sales revenue

Sales revenue represents the invoiced value of goods and services supplied by the Council for Geoscience. This revenue is recognised when the revenue recognition criteria are met.

Contract revenue

Revenue from contracts is recognised by means of progress payments over the duration of the contracts. Revenue from contracts in progress is recognised when the revenue criteria are met. When the outcome of a contract can be estimated reliably, revenue is recognised by referring to the stage of completion of the contract outcome.

1.3 Interest received

Interest is recognised on a time proportionate basis with reference to the principal amount receivable and the effective interest rate applicable.

1.4 Property and equipment

Property and equipment are tangible non-current assets that are held for use in the production or supply of goods or services, or for administrative purposes, and are expected to be used during more than one period.

1 TIPHOLISI TA VUHLERI (kuya emahlweni)

The cost of an item of property and equipment is recognised as an asset when:

- it is probable that future economic benefits associated with the item will flow to the Council for Geoscience; and
- the cost of the item can be measured reliably.

Land and buildings were valued at initial recognition and subsequently only the building is depreciated on a straight-line method.

Costs include costs incurred initially to acquire or construct an item of property and equipment and costs incurred subsequently to add to, replace part of, or service it. If the cost of a replacement part is recognised in the carrying amount of an item of property and equipment, the carrying amount of the replaced part is derecognised.

Property and equipment are carried at cost less accumulated depreciation and any impairment losses.

Day-to-day expenses incurred on property and equipment are expensed directly to surplus or deficit for the period.

Where an asset is acquired at no cost or at a nominal cost, its cost is its fair value as at the date of acquisition.

Major refurbishment that meets the recognition criteria of an asset is capitalised.

Depreciation is provided on all property and equipment other than freehold land to write down the cost, less residual value, on a straight-line basis over their average useful lives, as follows:

Land	Not depreciable
Buildings	30 years
Motor vehicles	5 to 14 years
Equipment	5 to 14 years
Aircraft and Helicopter – Body	15 to 18 years
Aircraft and Helicopter – Components	Useful hours as per Civil Aviation Authority
Boat	10 years
Office furniture	20 to 27 years
Computer equipment*	3 to 15 years
Specialised equipment	15 years
Electronic devices	2 years

* All existing computer equipment continue to depreciate for 6 years from date of purchase. New computer equipment procured on or later than 1 April 2022 will adopt the new useful life of 3 years.

The depreciation charges for each period are recognised in the Statement of Financial Performance, unless it is included in the carrying amount of another asset.

The average useful lives and residual values are reviewed on an annual basis and changes are reflected as a change in accounting estimates on a prospective basis.

The residual value of motor vehicles is 10% of cost. The residual value of land and buildings is the market value at the end of the useful life. The residual value of the aircraft body is 10%. The residual value of boats is 10%.

1.5 Intangible assets

An intangible asset is recognised when:

- it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity; and
- the cost of the asset can be measured reliably.

Capitalised computer software is carried at cost less accumulated amortisation and less accumulated impairment losses. Computer software is tested annually for impairment or changes in estimated future benefits. Amortisation is provided to write down the intangible assets to their residual value, on a straight-line basis, being two to eleven years.

Research and development

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally generated intangible asset arising from research and development is recognised as part of intangible assets only if all of the following conditions are met:

- an asset is created that can be identified;
- it is probable that the asset created will generate future economic benefits; and
- the development cost of the asset can be measured reliably.

Where no internally generated intangible asset can be recognised, development expenditure is recognised as an expense in the period in which it is incurred. Internally generated assets are amortised on a straight-line basis over their useful lives.

1.6 Heritage assets

Heritage assets are assets held for their cultural, environmental or historical significance. Heritage assets are initially recognised at deemed cost which has been determined, due to the nature of heritage assets, by specialist valuators.

1 TIPHOLISI TA VUHLERI (kuya emahlweni)

Heritage assets are reflected at deemed cost and are not depreciated. At each reporting date heritage assets are assessed for indications of impairment. If any such indication exists, an estimate of the recoverable amount or the recoverable service amount of the heritage assets will be determined and tested against the carrying amount.

1.7 Inventories

The Council for Geoscience is a custodian of scientific information that produces publications in the form of books, maps and map explanations etc. These publications are distributed to the public for free or at a nominal charge.

Inventories are initially measured at deemed costs (fair value).

1.8 Translation of foreign currencies

Foreign currency transactions

A foreign currency transaction is recorded, on initial recognition in Rand, by applying to the foreign currency amount the spot exchange rate between the Rand and the foreign currency at the date of the transaction.

At each balance sheet date:

- foreign currency monetary items are translated using the closing rate.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous Annual Financial Statements are recognised in the Statement of Financial Performance in the period in which they arise.

Cash flows arising from transactions in a foreign currency are recorded in Rand by applying to the foreign currency amount the exchange rate between the Rand and the foreign currency at the date of the cash flow.

1.9 Deferred income

Deferred income is accounted for in the Statement of Financial Position. The related revenue is recognised on an accrual basis in the Statement of Financial Performance in the period in which it satisfies the revenue recognition criteria.

1.10 Retirement benefit costs

Short-term employee benefits

The cost of short-term employee benefits (those payable within 12 months after the service is rendered, such as bonuses, paid vacation leave and sick leave) is recognised in the period in which the service is rendered and is not discounted.

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs.

Defined contribution and defined benefit plans

The Council for Geoscience operates both a defined contribution pension and provident fund and a defined benefit plan in respect of post-retirement medical aid contributions. For the defined benefit plan, the defined benefit obligation and the related current service cost, is determined by using the projected unit credit method. The defined benefit plan is subject to an annual actuarial valuation. The qualifying plan asset of this scheme is held and administered by Momentum Group Limited.

The actuarial gains or losses are further limited to the extent that the net cumulative unrecognised actuarial gains or losses (before recognition of that actuarial gain or loss) exceed the unrecognised part of the transactional liability. Payments to defined contribution retirement benefit plans are charged to the Statement of Financial Performance in the year to which they relate.

1.11 Provisions and contingent liabilities

Provisions are recognised when:

- the entity has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- a reliable estimate can be made of the obligation.

The amount of a provision is the present value of the expenditure expected to be required to settle the obligation.

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Commitments

The CGS classifies commitments as contracted future transactions that are non-cancellable or only cancellable at significant cost, and that will normally result in the outflow of cash.

This excludes steady routine transactions such as salary commitments relating to employment contracts or social security benefits.

A distinction is made between operational and capital commitments.

Disclosure is made of the aggregate amount of operational and capital expenditure contracted for at the reporting date, to the extent that the amount has not been recorded in the financial statements.

If a commitment is for a period longer than a year, it is stated in the note to the commitments.

Disclosure of expenditure that has been approved as per our delegation of authority, but that has not yet been contracted for, is made.

1.12 Financial instruments

Initial recognition

The entity classifies financial instruments, or their component parts, on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement.

Financial assets and liabilities are recognised on the entity's Statement of Financial Position when the CGS becomes party to the contractual provisions of the instrument.

Financial assets and liabilities are recognised initially at fair value.

Derecognition of financial instruments

The entity derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

The entity derecognises financial liabilities when the entity's obligations are discharged, cancelled or they expire.

Impairment of loans and receivables

Financial assets are assessed for indicators of impairment at each Statement of Financial Position date. Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been impacted.

The carrying amount of trade receivables is reduced through the use of an allowance account (bad debt provision). When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in surplus or deficit.

Fair values of trade and other payables are determined at a price charged at transaction date and impaired when indicators of impairment are present. At year end there were no differences between the book value and the fair values of trade and other payables.

Fair value of trade and other receivables

Fair values of trade and other receivables are determined at a price charged at transaction date and impaired when indicators of impairment are present. At year end there were no differences between the book value and the fair values of trade and other receivables because of the short-term maturity.

Financial assets carried at amortised cost

Loans and receivables are measured at amortised cost less any impairment losses recognised to reflect irrecoverable amounts. Impairment is determined on a specific basis, whereby each asset is individually evaluated for impairment indicators. Write-offs of these assets are expensed in surplus or deficit.

Cash and cash equivalents

Cash and cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash. Cash and cash equivalents are measured at fair value.

Financial liabilities carried at amortised cost

Trade and other payables are initially measured at fair value and are subsequently measured at amortised cost.

1 TIPHOLISI TA VUHLERI (kuya emahlweni)

1.13 Operating leases

Leases of assets under which all the risks and rewards of ownership are effectively retained by the lessor are classified as operating leases. Lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term.

Any contingent rents are expensed in the period they are incurred.

1.14 Impairment

The CGS identifies cash generating assets as assets that are managed with the objective of generating a commercial return, and non-cash generating assets as assets that do not generate market related cash flows from that asset.

The entity assesses at each Statement of Financial Position date whether there is any indication that an asset may be impaired. If there is any indication that an asset may be impaired, the recoverable amount is estimated for the individual asset. The recoverable amount of an asset is the higher of fair value less assumed costs to sell and its value in use.

If the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. That reduction is an impairment loss recognised immediately in surplus or deficit.

At each reporting date the entity assesses impairment losses recognised in prior years for continued existence or decreases. If such indication exists, the recoverable amounts of those assets are estimated. The increase in the carrying amount of an asset attributable to a reversal of an impairment loss does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior periods. A reversal of an impairment loss of assets carried at cost less accumulated depreciation or amortisation is recognised immediately in surplus or deficit.

1.15 Critical accounting estimates and judgements

Provision for bad debts

Past experience indicates a reduced prospect of collecting debtors over the age of four months. Debtor balances are

regularly assessed by management and provided for in line with the policy.

Provisions

Provisions were raised and management determined an estimate based on the information available and in line with the policy.

Property and equipment

Management has made certain estimations with regard to the determination of estimated useful lives and residual values of items of property and equipment.

Leases

Management has applied its judgement to classify all lease agreements that the entity is party to as operating leases, as they do not transfer substantially all risks and ownership to the entity. Furthermore, as the operating lease in respect of premises is only for a relatively short period of time, management has made a judgement that it would not be meaningful to classify the lease into separate components for the land and for the buildings for the Polokwane office's current lease, and the agreement will be classified in its entirety as an operating lease.

1.16 Sources of estimation uncertainty

There are no key assumptions concerning the future and other key sources of estimation uncertainty at the Statement of Financial Position date that could have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial year.

1.17 Irregular expenditure

Irregular expenditure is recorded in the notes to the financial statements when confirmed. The amount recorded is equal to the value of the irregular expenditure incurred, unless it is impractical to determine, in which case reasons therefore must be provided in the notes. Irregular expenditure receivables are measured at the amount that is expected to be recovered and are de-recognised when settled or written off as irrecoverable.

Irregular expenditure must be removed from the balance of the irregular expenditure notes when it is either:

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- a) condoned by the relevant authority if no official was found to be liable in law;
- b) recovered from an official liable in law;
- c) written off if it is irrecoverable from an official liable in law; or
- d) written off if it is not condoned and not recoverable.

1.18 Fruitless and wasteful expenditure

Fruitless and wasteful expenditure is expenditure that was made in vain and would have been avoided had reasonable care been exercised. Fruitless and wasteful expenditure where identified is accounted for in the related year. The expenditure is accordingly classified with its nature, and where subsequently recovered or written off, it is accounted for accordingly in surplus or deficit.

1.19 Post-reporting date events

Events after the reporting date are those events, both favourable and unfavourable, that occur between the reporting date and the date when the financial statements are authorised for issue. Two types of events can be identified:

- Those that provide evidence of conditions that existed at the reporting date (adjusting events after the reporting date)
- Those that are indicative of conditions that arose after the reporting date (non-adjusting events after the reporting date).

The CGS will adjust the amounts recognised in the financial statements to reflect adjusting events after the reporting date once the event occurred.

The CGS will disclose the nature of the event and estimate its financial effect or a statement that such estimate cannot be made in respect of all material non-adjusting events, where non-disclosure could influence the economic decisions of users taken on the basis of the financial statements.

1.20 Related party transactions

Individuals as well as their close family members, and/or entities are related parties if one party has the ability, directly or indirectly, to control or jointly control the other party or exercise significant influence over the other party in making financial and/or operating decisions. Management is regarded as a related party and comprises the Board members and Senior management. Related party transfers/payments of appropriated funds, specific-purpose allocations, etc. would generally fall under the disclosure exemption in GRAP 20, and such transfers and allocations are therefore part of the normal supplier and/or client/recipient relationships and are therefore not disclosed.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE

eka nkarhi lowu heleke hi 31 March 2023

2 New standards and interpretations

2.1 Standards and interpretations issued, but not yet effective

The Council for Geoscience has not applied the following standards and interpretations, which have been approved but are not yet effective for accounting periods 2022/23:

GRAP statement	Description	Impact	Effective date
GRAP 25	Employee Benefits	None	To be determined
GRAP 104	Financial Instruments (Revised)	None	1 April 2025
IGRAP 7	Limit on a Defined Benefit Asset Min Fund Requirement and Interact	None	To be determined
IGRAP 21	The Effect of Past Decisions on Materiality	None	1 April 2023

3 Going concern assessment

Management has considered the following matters relating to the Going Concern:

In the year under review the CGS recognised a deficit of R87.8 million, negative cash outflow of R 22.1 million and current liabilities marginally exceeding current assets. This performance may cast doubt on the CGS's ability to continue as a going concern. However, the budget compiled for the 2023/24 financial year supports the ongoing execution of the CGS mandate. Further to the above there has been no change in any legislation to suggest that the entities objectives are threatened and as a result, its ability to continue as a going concern. The CGS has also received a significant grant allocation over the current MTEF period. There are no legal or court claims or litigations against the CGS which could threaten the entity's ability to operate as a going concern. There are no material uncertainties related to events or conditions that may cast significant doubt about the CGS's ability to continue as a going concern.

Under the going concern assumption, the CGS is viewed as continuing inter-operations for the foreseeable future and therefore accounts for its assets and liabilities on the basis that it will be able to realise and discharge them in the normal course of operations. Taking the aforementioned into account, management has prepared the Annual Financial Statements on the going concern basis.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

4 Property and equipment

2023	Buildings and fixtures								Total R'000
	Land R'000	Equipment* R'000	Office furniture R'000	Aircraft and boat R'000	Motor vehicles R'000	Computer equipment R'000			
Gross carrying amount	18 231	254 227	209 552	14 134	24 792	30 713	68 497	620 146	
Accumulated depreciation at the beginning of the period	(1 600)	(81 015)	(138 609)	(9 098)	(10 439)	(17 576)	(20 345)	(278 682)	
Opening net carrying amount at 31 March 2022	16 631	173 212	70 942	5 036	14 353	13 137	48 152	341 464	
Movements during the period:									
Work in progress (refer to note 4.2)	-	(83 295)	(141)	-	-	-	2 599	(80 837)	
Acquisitions	-	110 878	18 895	836	-	790	8 835	140 235	
Disposals	-	-	(226)	(18)	-	(27)	(396)	(666)	
Disposals – Cost	-	-	(3 665)	(325)	-	(57)	(2 329)	(6 376)	
Disposals – Depreciation	-	-	3 439	308	-	30	1 933	5 710	
Depreciation	-	(7 610)	(21 673)	(493)	(526)	(2 546)	(7 769)	(40 618)	
Closing net carrying amount at 31 March 2023	16 631	193 186	67 797	5 361	13 827	11 355	51 421	359 579	
Gross carrying amount	18 231	281 810	224 640	14 645	24 792	31 446	77 602	673 166	
Accumulated depreciation/ impairment	(1 600)	(88 624)	(156 843)	(9 283)	(10 965)	(20 091)	(26 181)	(313 587)	

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

4 Property and equipment (continued)

2022	Buildings and fixtures R'000			Office furniture R'000	Aircraft and boat R'000	Motor vehicles R'000	Computer equipment R'000	Total R'000
	Land R'000	Equipment* R'000	Total R'000					
Gross carrying amount	18 231	233 716	202 459	14 265	24 859	26 899	62 934	583 363
Accumulated depreciation at the beginning of the period	(1 600)	(74 644)	(121 646)	(9 331)	(9 760)	(15 624)	(16 064)	(248 669)
Opening net carrying amount at 31 March 2021	16 631	159 072	80 813	4 934	15 099	11 275	46 870	334 694
Movements during the period:								-
Work in progress (refer to note 4.2)	-	20 511	(195)	-	-	-	(2 988)	17 328
Reversal of impairment	-	-	-	-	-	-	-	-
Acquisitions	-	-	11 726	721	-	4 133	9 789	26 369
Disposals	-	-	(72)	(134)	(4)	(32)	(108)	(350)
Disposals – Cost	-	-	(4 438)	(852)	(67)	(319)	(1 238)	(6 914)
Disposals – Depreciation	-	-	4 366	718	63	287	1 130	6 564
Depreciation	-	(6 371)	(21 329)	(485)	(742)	(2 239)	(5 411)	(36 577)
Closing net carrying amount at 31 March 2022	16 631	173 212	70 942	5 037	14 354	13 137	48 152	341 464
Gross carrying amount	18 231	254 227	209 552	14 134	24 792	30 713	68 497	620 146
Accumulated depreciation/ impairment	(1 600)	(81 015)	(138 609)	(9 098)	(10 439)	(17 576)	(20 345)	(278 682)

* Equipment in the tables above include the following categories of equipment: Specialised Equipment, Audio and Visual, Technical Equipment, Office Equipment and Scientific Equipment.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

4 Property and equipment (continued)

The transfer of the following land and buildings as stipulated under Section 26 of the Geoscience Act (No. 100 of 1993) has not yet been completed.

Location	Fair value at date of transfer R'000
474 Carl Street, Town Lands 351JR, Pretoria West	2 800
280 Pretoria Street, Silverton, Pretoria	94 000

The value of these properties has been included in the carrying amount of land and buildings as at 31 March 2023 and was determined by an independent valuator.

Details regarding land and buildings are kept at the Council for Geoscience head office and will be supplied upon written request.

4.1 Compensation from third parties for property and equipment lost

	2023 R'000	2022 R'000
Proceeds from insurance	1 116	620

4.2 Property and equipment in the process of being constructed

Cumulative expenditure recognised in the carrying value of property and equipment being developed/constructed

	Buildings and fixtures R'000	Equipment* R'000	Aircraft and boat R'000	Total R'000
Gross carrying amount	91 580	20 751	1 040	113 371
Opening net carrying amount at 31 March 2022	91 580	20 751	1 040	113 371
Movement	(84 152)	2 457	-	(81 695)
Closing net carrying amount at 31 March 2023	7 428	23 208	1 040	31 676

* Equipment in the tables above include the following categories of equipment: Specialised Equipment, Audio and Visual, Technical Equipment, Office Equipment and Scientific Equipment.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

4 Property and equipment (continued)

Property and equipment in the process of being constructed with delays

Included in the work in progress for buildings and fixtures is a carrying amount of R83.605 million in respect of a ventilation system in the Silverton building that has been delayed. The work was found to be technically not acceptable and needed remediation.

	Buildings and fixtures R'000
Gross carrying amount	83 605
Opening net carrying amount at 31 March 2022	83 605
Movement	(83 605)
Closing net carrying amount at 31 March 2023	-

Repairs and maintenance

Repairs and maintenance expenditure incurred for the year to repair and maintain property and equipment.

	2023 R'000	2022 R'000
Land and buildings	8 966	8 413
Office equipment and furniture	39	77
Technical and scientific equipment	2 669	1 910
Computer equipment	158	55
Aircraft	2 260	210
	14 092	10 665

5 Intangible assets

	2023 R'000	2022 R'000
Computer software		
Gross carrying amount	16 752	16 833
Accumulated amortisation	(11 110)	(9 666)
Opening net carrying amount at 31 March 2022	5 641	7 168
Movements during the period:		
Acquisitions	183	187
Disposals	(72)	(9)
Disposals – Cost	(3 803)	(269)
Disposals – Amortisation	3 731	259
Amortisation	(1 714)	(1 704)
Closing net carrying amount at 31 March 2023	4 039	5 641
Gross carrying amount	13 132	16 752
Accumulated amortisation	(9 093)	(11 111)

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

6 Inventories

	2023 R'000	2022 R'000
Publication inventories	5	5

7 Retirement benefit

7.1 Post-retirement medical aid fund (PRM)

The Council for Geoscience has made provision for the medical aid fund covering all its qualifying employees. All eligible employees are members of the defined benefit scheme. To improve management of this defined benefit scheme the CGS established a qualifying plan asset in October 2010 which is held and administered by Momentum Group Limited and evaluated annually as at 31 March.

The amount recognised in the Statement of Financial Performance is determined as follows:

	2023 R'000	2022 R'000
Current service costs	54	52
Interest charge	2 471	2 350
Expected return on planned assets	(1 513)	(1 306)
Actuarial (gain)/loss recognised	(2 607)	(434)
Recognition of loss on asset realisation	(3 956)	(392)
	(5 551)	270

The amount included in the Statement of Financial Position arising from the CGS' obligation in respect of PRM is as follows:

	2023 R'000	2022 R'000	2021 R'000	2020 R'000	2019 R'000
Present value of fund obligations	22 210	25 894	26 070	24 348	(15 094)
Fair value of planned assets	(16 231)	(14 364)	(14 810)	(15 094)	8 035
Liability recognised in the Statement of Financial Position	5 979	11 530	11 260	9 254	(7 059)

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

7 Retirement benefit (continued)

Movement in net liability during the period is as follows:

	2023			2022		
	Liability R'000	Planned asset R'000	Net R'000	Liability R'000	Planned asset R'000	Net R'000
Liability at beginning of period	25 894	-	25 894	26 070	-	26 070
Value of planned assets at beginning of period	-	(14 364)	(14 364)	-	(14 810)	(14 810)
	25 894	(14 364)	11 530	26 070	(14 810)	11 260
Interest charge/expected return of planned asset	2 471	(1 513)	958	2 350	(1 306)	1 044
Contributions received	-	(3 956)	(3 956)	-	(392)	(392)
Current service costs	54	-	54	52	-	52
Benefits paid	(2 360)	2 360	-	(2 373)	2 373	-
Actuarial (gain)/loss	(3 849)	1 242	(2 607)	(205)	(229)	(434)
Closing balance	22 210	(16 231)	5 979	25 894	(14 364)	11 530

Contributions expected to be paid

Top up payments are expected to be made during the 2024 financial year.

Expected rate of return on assets 10.89%

Assumptions

Discount rates 10.89%

Basis of discount rates: JSE zero coupon bond yield after the market closed on 31 March 2023

Return on assets 10.89%

Expected salary increases 6.50%

Healthcare cost inflation rate 7.64%

Sensitivity analysis on accrued liability (R Millions) for the year ending 31 March 2023

Assumption	Change	In service	Continuation	Total	Change
Central assumptions	-	1 574	20 636	22 210	-
Healthcare inflation	1%	1 839	22 038	23 877	8%
	-1%	1 357	19 372	20 729	-7%
Discount rate	1%	1 362	19 382	20 744	-7%
	-1%	1 836	22 049	23 885	8%
Post-retirement mortality	-1 year	1 618	21 508	23 126	4%
Average retirement date	-1 year	1 658	20 636	22 294	0%
Continuation of membership at retirement	-10%	1 424	20 636	22 060	-1%

The preceding table indicates, for example that if medical inflation is 1% greater than the long-term assumptions made, the liability will be 8% higher than that shown.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

7 Retirement benefit (continued)

Sensitivity analysis for current service and interest cost (R Millions) for the year ending 31 March 2023

Assumption	Change	Current service	Interest cost	Total	Change
Central assumptions	-	36 767	2 281 468	2 318 235	-
Healthcare inflation	1%	44 906	2 462 951	2 507 857	8%
	-1%	30 247	2 120 333	2 150 580	-7%
Discount rate	1%	30 689	2 316 941	2 347 630	1%
	-1%	44 397	2 237 456	2 281 853	-2%
Post-retirement mortality	-1 year	37 689	2 381 122	2 418 811	4%
Average retirement date	-1 year	40 463	2 290 680	2 331 143	1%
Continuation of membership at retirement	-10%	33 091	2 265 418	2 298 509	-1%

The preceding table indicates, for example that if medical inflation is 1% greater than the long-term assumptions made, the liability will be 8% higher than that shown.

7.2 Pension and provident fund benefits

The CGS and its employees contribute to a defined contribution plan. The assets of the scheme are held separately from the CGS in funds under the control of trustees. The total cost charged to income of R16.274 million (2022: R16.072 million) represents equal contributions of 7.5% by the employer and employee.

8 Trade and other receivables from exchange transactions

	2023 R'000	2022 R'000
Trade receivables	27 670	31 493
Contract customers	30 082	28 182
Other receivables	9 478	9 763
	67 231	69 438
Less – Provision for bad debts	(5 836)	(2 252)
	61 395	67 186
Provision for bad debts		
Opening balance	2 252	2 026
Movement	3 584	226
Closing balance	5 836	2 252
Analysis of impairment		
Long overdue debtors considered impaired	5 836	2 252
	5 836	2 252

There is no difference between the fair value of trade and other receivables and their book value.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

9 Cash and cash equivalents

Cash and cash equivalents at the end of the period are represented by the following balances:

	2023 R'000	2022 R'000
Cash at bank	143 566	116 907
Call accounts	26 620	176 091
	170 186	292 997

There is no difference between the fair value of cash and cash equivalents and their book value.

10 Trade and other payables

	2023 R'000	2022 R'000
Trade payables	29 304	21 430
Other payables	42 685	30 904
	71 989	52 334

There is no difference between the fair value of trade payables and their book value.

11 Deferred income

Exchange revenue

	2023 R'000	2022 R'000
11.1 Deferred income arising as a result of an agreement entered into with the Department of Science and Innovation to develop an intellectual property management office (Geoscience Act Par 5(1)(g))		
Carrying amount at the beginning of period	2 607	2 607
Amounts used during the period	-	-
Carrying amount at the end of period	2 607	2 607
11.2 Deferred income arising as a result of an agreement with the Organisation of African Geological Surveys		
Carrying amount at the beginning of period	335	293
Amounts received	1 036	42
Carrying amount at the end of period	1 371	335

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

11 Deferred income (continued)

	2023 R'000	2022 R'000
11.3 Deferred income arising as a result of an agreement entered into with the Department of Mineral Resources and Energy to develop and implement various measures to mitigate the effect of mining-induced contamination and integrated research into mine closure		
Carrying amount at the beginning of period	52 271	-
Amounts used during the period	<u>(19 792)</u>	<u>-</u>
Carrying amount at the end of period	32 479	-
11.4 Deferred income arising as a result of an agreement entered into with the National Research Foundation		
Carrying amount at the beginning of period	110	110
Amounts received	-	-
Amounts used during the period	<u>-</u>	<u>-</u>
Carrying amount at the end of period	110	110
11.5 Deferred income arising as a result of the Carbon Capture, Storage and Utilisation Project		
Carrying amount at the beginning of period	57 441	81 810
Amounts received	-	-
Amounts used during the period	<u>(37 975)</u>	<u>(24 369)</u>
Carrying amount at the end of period	19 466	57 441
11.6 Deferred income arising as a result of the Carbon Capture, Storage and Utilisation Project funded by the World Bank		
Amounts received	101 000	101 000
Amounts used during the period	<u>(5 292)</u>	<u>-</u>
Carrying amount at the end of period	95 708	101 000
11.7 Deferred income arising as a result of an agreement with the Department of Mineral Resources and Energy		
Carrying amount at the beginning of period	43 690	106 518
Amounts received	-	50 819
Amounts used during the period	<u>(26 562)</u>	<u>(113 647)</u>
Carrying amount at the end of period	17 128	43 690
Total deferred income	168 869	205 182

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

12 Accruals

	2023 R'000	2022 R'000
Accruals for leave pay		
Carrying amount at the beginning of period	28 698	27 216
Provision current period	1 795	4 003
Amounts used during the current period	(3 540)	(2 521)
Carrying amount at the end of period	26 954	28 698
The leave pay provision relates to the estimated liabilities as a result of leave days due to employees.		
Accruals for 13th cheque		
Carrying amount at the beginning of period	6 094	6 256
Provision current period	(365)	(162)
Carrying amount at the end of period	5 729	6 094
The 13 th cheque accrual relates to the structuring of the employee costs to company and is paid out on employees' birthdays.		
Total accruals	32 683	34 792

13 Surplus/Deficit from operations

Operating surplus/deficit is arrived at after taking the following items into account:

	2023 R'000	2022 R'000
Revenue	572 248	583 212
Non-exchange revenue		
Total grant received	355 761	377 062
Project related revenue	-	(50 819)
Contracting revenue	43 755	-
Total non-exchange revenue	399 516	326 243
Exchange revenue		
Department of Mineral Resources and Energy project related revenue	2 599	113 647
Contracting revenue	110 494	104 726
Publication revenue	2 868	3 198
Carbon, capture, storage and utilisation	37 975	24 369
	153 936	245 939

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

13 Surplus/Deficit from operations (continued)

	2023 R'000	2022 R'000
Other exchange revenue		
Foreign currency gains	881	44
Proceeds from sale of asset	-	-
Recovery of asset losses	1 116	620
Sundry income	6 694	912
	8 692	1 576
Interest received		
- Interest income on call accounts	5 487	7 006
- Interest income on current accounts*	4 618	2 447
	10 104	9 453
* Includes interest accrued to the amount of R394 040		
Total exchange revenue	172 732	256 969
Total cost of contracts	259 744	268 543
Cost of commercial projects		
Direct cost	80 979	64 621
Personnel expenditure	36 160	18 594
	117 139	83 215
Cost of statutory projects		
Direct cost	30 668	55 618
Personnel expenditure	111 937	129 710
	142 605	185 328
Administrative expenses include:		
Audit fees	3 117	3 672
- Current period	2 448	2 895
- Internal audit	591	219
- Fee for other services	78	558
Provision for bad debts	3 584	-
Depreciation – On owned assets	40 617	36 576
- Buildings	7 610	6 371
- Equipment	21 673	21 329
- Office furniture	493	484
- Motor vehicles	2 546	2 239
- Aircraft	299	443
- Boat	227	299
- Computer equipment	7 769	5 411

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

13 Surplus/Deficit from operations (continued)

	2023 R'000	2022 R'000
Reversal of impairment	-	-
Amortisation – Intangible assets		
- Computer software	1 714	1 704
Rentals in respect of operating leases		
- Land and buildings	1 400	6 614
- Multifunctional printers	1 695	887
Other operating expenses		
Net loss on disposal of equipment	226	72
Net loss on disposal of vehicles	27	32
Net loss on disposal of intangible assets	72	9
Net loss on disposal of computer equipment	396	108
Net loss on disposal of office furniture	18	134
Net loss on disposal of boat	-	3
Write-off work in progress – HVAC	-	-
Foreign currency losses	886	548
	1 624	905
Staff costs	345 924	340 464
Included in staff costs are:		
Defined benefit plan expense for the post-retirement medical aid fund	(5 551)	270
- Current service cost	54	52
- Interest cost	2 471	2 350
- Expected return on plan assets	(1 513)	(1 306)
- Recognised actuarial (gain)/loss	(2 607)	(434)
- Recognition of loss on asset realisation	(3 956)	(392)
Defined contribution plan expenses for the pension and provident fund	16 274	16 072

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

13 Surplus/Deficit from operations (continued)

Emoluments

Senior management	2022/23					
	Pensionable salary R'000	Performance bonus R'000	Provident/ Pension fund contributions R'000		Other contributions* R'000	Termination benefits R'000
			Pensionable	Performance		
Mr Mabuza M	3 811	368	232	147	-	4 557
Mr Matsepe LD	2 686	256	163	579	-	3 685
Ms Monoko PR	2 023	183	132	115	-	2 453
Dr Tshipa J	796	-	48	558	2 273	3 675
Dr Khoza TD	2 032	177	124	115	-	2 447
Ms Mbatha ZB	240	-	18	11	-	269
Dr Khumalo TN	242	-	18	11	-	271

Senior management	2021/22					
	Pensionable salary R'000	Performance bonus R'000	Provident/ Pension fund contributions R'000		Other contributions* R'000	Termination benefits R'000
			Pensionable	Performance		
Mr Mabuza M	3 656	404	222	921	-	5 203
Mr Matsepe LD	2 577	304	157	130	-	3 168
Ms Monoko PR	1 941	220	127	550	-	2 839
Dr Tshipa J	2 057	195	123	279	-	2 655
Dr Khoza TD	1 949	213	119	108	-	2 389

* Other contributions relate to employer contributions towards statutory deductions and leave.

Board emoluments

Non-executive Board Members	2023 R'000	2022 R'000
Dr Mathe H	147	45
Mr Mvinjelwa X	189	129
Mr Mokoena S*	-	113
Adv. Maake N	181	126
Ms Chowan A	89	96
Dr Mirembe J	-	-
Mr Malaza S	-	-
Mr Nel P	-	-
Ms Mdubeki R	-	-
Ms Mochothli D	-	-
Ms Tsotetsi P	-	-
Ms Madiba L	-	-
Mr Moatshe A	-	-
Mr Gerryts B	-	-
Dr Gwaze P	-	-
	606	509

* Deceased March 2022.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

14 Finance cost

	2023 R'000	2022 R'000
Finance cost on motor vehicle fleet cards	29	20

15 Reconciliation of net surplus/(loss) for the period to cash generated from operations

	2023 R'000	2022 R'000
Net surplus for the period	(87 770)	(15 096)
Interest	29	20
Depreciation on property and equipment	40 617	36 576
Amortisation – Intangible assets	1 714	1 704
Reversal of impairment of assets	-	-
Proceeds from sale of assets	-	-
Compensation from third parties for property and equipment lost	(1 116)	(620)
Net loss on disposal of fixed assets	738	358
Interest earned	(10 055)	(9 846)
Provision for post-retirement medical aid benefits	(5 551)	270
Operating cash flows before working capital changes	(61 394)	13 365
Working capital changes:		
Increase in provision for accumulated leave pay and 13 th cheque	(2 109)	1 321
(Increase)/Decrease in trade and other receivables	5 792	(44 658)
Increase/(Decrease) in trade and other payables	19 655	(15 801)
Increase/(Decrease) in deferred income	(36 314)	13 845
Cash generated from operations (including finance costs)	(74 374)	(31 928)

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

16 Acquisitions of:

	2023 R'000	2022 R'000
16.1 Property and equipment		
Land and buildings	110 878	-
Equipment	18 895	11 726
Office furniture	836	721
Aircraft and boat	-	-
Motor vehicles	790	4 133
Computer equipment	8 835	9 789
	140 235	26 369
Work in progress – Acquisitions		
Land and buildings	(83 295)	20 511
Computer equipment	2 599	(2 988)
Equipment	(141)	(195)
Aircraft and boat	-	-
	(80 837)	17 328
Total acquisitions	59 397	43 697
16.2 Intangible assets		
Computer software	183	187
	183	187

17 Contingent liability

17.1 Pending legal action

	2023 R'000	2022 R'000
The Council for Geoscience has an estimated legal liability due to pending labour cases	529	476
	529	476

18 Taxation

No provision for income tax was made as the Council for Geoscience is exempted in terms of Section 10(1)(Ca)(i) of the Income Tax Act.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

19 Operating lease commitments

	2023 R'000	2022 R'000
19.1 Lease of office space		
The operating lease between a supplier and the Council for Geoscience entered into from 1 December 2017 to 30 November 2023.		
At the reporting date the outstanding commitments under non-cancellable operating leases, which fall due are as follows:		
Up to 1 year	493	562
2 to 5 years	-	495
Total lease commitments	493	1 057
19.2 Lease of office printing equipment		
The operating lease contracts with suppliers from 1 May 2021 to 30 January 2025.		
At the reporting date the outstanding commitments under non-cancellable operating leases, which fall due are as follows:		
Up to 1 year	2 631	2 847
2 to 5 years	749	3 480
Total lease commitments	3 380	6 327
19.3 Lease of office generators		
The operating lease between AGP Electrical and Instrumentation and the Council for Geoscience entered into on 30 January 2023 to 31 July 2023		
At the reporting date the outstanding commitments under non-cancellable operating leases, which fall due are as follows:		
Up to 1 year	1 778	-
2 to 5 years	-	-
Total lease commitments	1 778	-
19.4 Commitments		
Operating expenditure		
Approved and contracted	110 137	146 824
Approved but not yet contracted	3 030	28 201
Capital expenditure		
Approved and contracted – Property and equipment	57 679	71 858
Approved but not yet contracted – Property and equipment	5 997	-
Total commitments	176 843	246 882

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

19 Operating lease commitments (continued)

	2023 R'000	2022 R'000
Commitments		
Up to 1 year	41 548	35 405
2 to 5 years	135 295	211 478
Total commitments	176 843	246 882

The Council for Geoscience has usage-based contracts for the provision of the following:

- Sampling Services Geophysics
- Accommodation and travel
- Courier services

20 Financial instruments

Financial instruments consist of cash and cash equivalents, investments with financial institutions, trade and other receivables, and trade and other payables.

20.1 Credit risk

Financial assets, which potentially subject the Council for Geoscience to concentrations of credit risk, consist principally of cash, short-term deposits, and trade receivables. The Council for Geoscience's cash equivalents and short-term deposits are placed with high credit quality financial institutions. Trade receivables are presented net of the allowance for doubtful debts. Credit risk with respect to trade receivables is limited due to the large number of customers being dispersed across different industries and geographical areas. Accordingly, the CGS has no significant concentration of credit risk.

The carrying amounts of financial assets included in the Statement of Financial Position represent the Council for Geoscience's exposure to credit risk in relation to those assets.

Trade and other receivables are controlled by well-established policies and procedures which are reviewed and updated on an on-going basis. The CGS does not have any significant exposure to any individual customer or counterparty.

Trade receivables and other payables are carried at amortised costs. Refer to notes 8 and 10.

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

20 Financial instruments (continued)

20.2 Interest rate risk

The organisation's exposure to interest rate risk and the effective interest rates on the financial instruments at the reporting date are: 31 March 2023.

	Weighted average effective interest rate %	Weighted average effective interest rate %
Assets		
Cash	1.00%	1.00%
Call accounts	4.88%	3.94%

Short-term deposits

The risk is perceived to be low due to the following factors:

- Funds are only invested with approved financial institutions according to the policy of the Council for Geoscience.
- Short-term deposits are only reinvested or invested after Management's approval.

20.3 Foreign currency risk

The CGS undertakes certain transactions denominated in foreign currencies, hence exposures to exchange rate fluctuations arise. It is not the CGS' policy to take out cover on these outstanding foreign currency transactions due to the fact that these transactions take place on an ad hoc basis. The Council for Geoscience's exposure as at 31 March 2023 is disclosed in note 21.

20.4 Airborne operations risk

It is the policy of the Council for Geoscience to transfer risk in respect of airborne operations to third parties, namely insurers and an external operator.

21 Foreign currency exposure

	2023			2022		
	Exchange rate	Foreign amount '000	Rand amount R'000	Exchange rate	Foreign amount '000	Rand amount R'000
21.1 Trade receivables						
Foreign currency						
US\$	R17.52660	\$41	726	R14.39330	\$28	399
21.2 Banks						
Foreign funds						
Euro	R18.96690	€240	4 552	R15.86860	€240	3 808

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

22 Related-party transactions

During the period the following related-party transactions took place between the Council for Geoscience and the Department of Mineral Resources and Energy:

	2023 R'000	2022 R'000
Total grant received	355 761	377 062

Relationships:

Parent National Department: Department of Mineral Resources and Energy

Refer to note 11 for further details regarding transactions with the Department of Mineral Resources and Energy.

Income received from related parties

During the year funds were received and revenue recognised for services rendered by the CGS from the following related parties that are related to the entity as indicated below. The balances at year-end contained in deferred income and debtors is disclosed. Amounts receivable from these entities are subject to the same terms and conditions as normal trade receivables.

	2023 R'000	2022 R'000
Debtors balances		
Department of Defence	3 376	-
National Research Foundation	-	-
Petroleum Agency SA	-	-
Eskom	19 892	6 463
Petroleum Agency SA	-	3 340
Housing Development Agency*	3 584	-
* A provision for bad debt of an equal amount has been recognised due to the amount outstanding for longer than 60 days.		
Deferred income balance		
Department of Science and Innovation	2 607	2 607

Relationship: National sphere of government

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

22 Related-party transactions (continued)

Services rendered by related parties

During the year expenses were incurred and recognised for services rendered to the CGS from the following related parties that are related to the entity as indicated below. The balances at year-end contained in trade payables are disclosed. Amounts due to these entities are subject to the same terms and conditions as normal trade payables.

	2023 R'000	2022 R'000
--	---------------	---------------

Creditors balances

Department of Public Works and Infrastructure

-

-

Relationship: National sphere of government

All other related-party transactions were concluded at arm's length.

23 Irregular expenditure

	2023 R'000	2022 R'000
Opening balance	-	1 695
Irregular expenses identified in the current year	-	-
Expenditure condoned	-	(1 695)
	<hr/>	<hr/>

Details of irregular expenditure identified in the current year

Non-compliance with National Treasury's instruction note 5 of 2020/21 'Emergency Procurement in Response to National State of Disaster'. National Treasury Practice note number 5 was repealed by National Treasury Practice note 11 with effect from 1 September 2020. The contract variation of 25% for internet services was concluded after instruction note 5 of 2020/21 was repealed on 26 August 2020. No loss has been incurred as services were rendered. National Treasury condoned the irregular expenditure on 30 April 2021.

Disciplinary steps were taken against the employee that caused the irregular expenditure and they have since resigned.

24 Fruitless and wasteful expenditure

	2023 R'000	2022 R'000
Opening balance	18 496	18 496
Fruitless and wasteful expenditure identified in the current year	-	-
	<hr/>	<hr/>

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

24 Fruitless and wasteful expenditure (continued)

Determination

Fruitless and wasteful expenditure was identified with regards to the implementation of the humidity, ventilation and airconditioning (HVAC) system up to 2017. The work was found to be technically not acceptable and needed remediation. Management remains committed to eliminating and avoiding any fruitless and wasteful expenditure.

Investigation

The Council for Geoscience has commenced with investigative procedures and has engaged legal services to recover the costs and damages.

25 Events after reporting date

Non-adjusting events

Eminent acquisition of assets

Acquisition of equipment in support of the upgrade and safety of the Council for Geoscience head office building. The estimated cost for this acquisition is R9 million.

26 Correction of prior year error

	Period	2023 R'000	2022 R'000
Nature			
A correction was made to payables in the prior period relating to the allocation of payments.	31 March 2022	-	176
A correction was made to the financial statements to debtors for the prior period.	31 March 2022	-	(19)
A correction was made to the financial statements to depreciation/amortisation for prior period.	31 March 2022	-	(341)
A correction was made to the financial statement to prepaid expenses for the prior period.	31 March 2022	-	2 014
A correction was made to leave liability recognised in the correct period.	31 March 2022	-	233
An adjustment was made to property plant and equipment in the prior period relating to a construction project retention.	31 March 2022	-	858
		-	2 921
Effect			
Statement of Financial Performance for the period ended 31 March 2022			
Administrative expenses		-	2 940
Revenue from exchange transactions		-	(19)
		-	2 921

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

26 Correction of prior year error (continued)

	2023 R'000	2022 R'000
Effect		
Statement of Financial Position as at 31 March 2022		
Trade and other receivables from exchange transactions	-	19
Trade and other payables	-	(3 048)
Accruals	-	(233)
Property and equipment	-	341
Statement of Net Assets for the Period Ended 31 March 2022		
Accumulated surpluses	-	(2 921)
Correction of prior year disclosure		
Nature		
Disclosure as at 31 March 2022		
Restatement of closing balances of cumulative expenditure recognised in the carrying value of property and equipment being developed/constructed and cost:		
Buildings and fixtures	-	2 515
Office furniture	-	-
Restatement of accumulated depreciation		
Vehicles – Other	-	-
Boat	-	-
Restatement of closing balances of commitments		
Approved and contracted	-	-
Effect		
None (only disclosure item)		

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

27 Change in accounting estimate

The useful lives of property and equipment were reassessed. This resulted in a change of estimated remaining lives of certain assets in the categories listed below:

Useful lives

	Old	New
Equipment	5–7 years	5–14 years
Office furniture	20 years	20–27 years
Motor vehicles	5–8 years	5–12 years
Computer equipment	6 years	6–15 years
Computer software	2–5 years	2–11 years
Aircraft	15 years	18 years

The effect of the change in accounting estimate has resulted in depreciation amounting to R867 888 in 2022/23.

The change of R1 414 120 will be reflected in future periods.

	2023 R'000	2022 R'000
Due to the change in accounting estimate regarding the useful life and residual values of assets the depreciation expense is reported at:	34 493	31 500
Equipment	21 673	21 329
Office furniture	493	484
Motor vehicles	2 546	2 571
Computer equipment	7 769	5 411
Computer software	1 714	1 704
Aircraft	299	-
Depreciation expense using the previous rates would have been reported at:	35 361	33 587
Equipment	22 130	22 909
Office furniture	497	595
Motor vehicles	2 720	2 658
Computer equipment	7 852	5 640
Computer software	1 719	1 784
Aircraft	443	-
Difference – Useful lives	867	2 087
Equipment	457	1 580
Office furniture	4	111
Motor vehicles	174	87
Computer equipment	83	229
Computer software	5	80
Aircraft	144	-

TINOTSI TA SWITATIMENTE SWA TIMALI SWA LEMBE (kuya emahlweni)

28 Heritage assets disclosure

GRAP 103 defines heritage assets as assets which have a cultural, environmental, historical, natural, scientific, technological or artistic significance and are held indefinitely for the benefit of present and future generations.

Certain heritage assets are described as inalienable items thus assets which are retained indefinitely and cannot be disposed of without consent as required by law or otherwise.

	2023 R'000	2022 R'000
Nature		
The Council for Geoscience has the following classes of heritage assets:		
- Gemstone collections	1 445	1 445
- Meteorite collections	2 804	2 804
- Mineral collections	13 313	13 313
	17 562	17 562

The heritage assets were initially recognised at fair value using valuators with the following credentials:

- Fossils – Professor for Paleontological Research, University of the Witwatersrand
- Mineral collections – MSc Geology and Professor and Chairman of the Department of Geology, University of the Witwatersrand
- Meteorite collections – Author of “Meteorites”, private collector of meteorites
- Gemstones – MSc Geology

Various valuation methods were used taking into account the different types of heritage assets held by the CGS.

The valuation reports are held at the Council for Geoscience offices and are available for inspection.

The Palaeontological (fossil) assets have no monetary value as legislation does not permit the purchase or sale of fossils. (National Heritage Resources Act 1999 Par 35(4)(c)).

The Council for Geoscience is in possession of old scientific equipment for display purposes only. This equipment does not carry any value.

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