



# INCWADANA yokuphila ngokulumkileyo



Ukwenza uphuhliso olusisigxina lube yimpumelelo kumakhaya aseKapa

INKUNKUMA

I-ENEJI

AMANZI

IZITYALO NEZILWANYANA

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Ukwenza uphuhliso olusisigxina lube yimpumelelo kumakhaya aseKapa

Ipapashwe siSixeko saseKapa, 2009

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Le ncwadana ishicilelwe kwiphepha eliLuhlaza elineMicu emiThathu lakwa-SAPPI, isitoko samaphepha angeyongozi kokusingqongileyo enziwe ngemicu yommoba engacocwanga ngeklorin ngenjongo yokuxhasa ukulinywa kwamahlathi ngokuzinzileyo eMzantsi Afrika.



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Ukwenza uphuhliso olusisigxina lube yimpumelelo kumakhaya aseKapa

Olu papasho luqulunqwe lwahlelwa ziiNgcali zoLawulo  
oluZinzileyo kokuSingqongileyo abe-Sustainable Energy Africa and  
AMATHEMBA Environmental Management Consulting. Inkxaso-mali  
nezimvo zifunyenwe kule mibutho ilandelayo:



**AMATHEMBA**  
Environmental Management Consulting CC





## Umbulelo

Le ncwadana, esekwe kwiNcwadi yesiKhokelo sokuPhathwa kokusiNgqongileyo kwiKhaya lokuLawulwa kokusiNgqongileyo i-AMATHEMBA iphuhliswe egameni lesiXeko saseKapa yi-AMATHEMBA kwakunye nequmrhu le-Eneji esisiGxina e-Afrika, ukanti imizobo noyilo lwenziwe ngabakwaDotted Line Design.

Incwadi le ngumzekelo ophathekayo wolawulo lwentsebenziswano, exhaswe ngezimali sisiXeko saseKapa, iSebe lePhondo lemiCimbi yokusiNgqongileyo nokuCetywa koPhuhliso kwakunye neSebe likaZwelonke lemiCimbi yezaManzi namaHlathi kwakunye nenkxaso evela kwinkqubo yeDANIDA yoLawulo lokusiNgqongileyo eziDolophini.

Ukuhlanganiswa kwencwadi enjengale kufune uphando, izigxeko-zincomo kwakunye neengcebiso ezisuka kumajelo amaninzi ohlukileyo. Sivuma ngomkhulu umbulelo inxaxheba enikwe ngabo bonke abathe banegalelo kwiinkcukacha eziqulathwe yile ncwadi.

IQumrhu loLawulo lokusiNgqongileyo i-AMATHEMBA: uBarry Wiesner, Tamara North, Stephen Davey

ICandelo leziCwangciso lesiXeko saseKapa: ISebe lokuLawula imiThombo yokusiNgqongileyo

IiNkonzo zoNcedo zesiXeko saseKapa: Amanzi, amaSebe eNkunkuma eQinileyo kwakunye neloMbane

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U-Eskom

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Programme for Basic Energy and Conservation in Southern Africa

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Umbutho wokusetyenziswa kweparafini ngokukhuselekileyo i-Paraffin Safety Association: Matt Nondwana

Umbutho wokukhathalelwa kohlaza iSteadfast Greening: Grace Stead

IQumrhu le-Eneji esisiGxina e-Afrika: Megan Anderson, Mark Borchers, Leila Mahomed, Audrey Dobbins

i-The Greenhouse Project: Dorah Lebelo



# Ingabula-zigcawu ephuma kuSodolophu waseKapa

Foto: Sififumene ngoncedo lweSiXeko saseKapa



Ubungozi nomngcipheko weenguqu ezikwimozulu kokusingqongileyo nakuqoqosho buqondwa kakuhle lihlabathi lonke.

Kananjalo siye siqonda ukuba imithombo yendalo namafutha enziwe ngeefosili anqongophele.

Ukunqongophala kwamanzi esikubonileyo kwisiXeko saseKapa kusenze sonke sakuqonda ukuba le mithombo asinto esifanele kukuyijonga singayithatheli ngqalelo.

Ukucima kombane okwenzeke kaninzi luphawu lweengxaki zonqongophalo lwamafutha eefosili kwihlabathi jikelele.

Kule minyaka izayo ngokukhula kweemfuno kunye nokunqongophala kwamafutha ezithuthi, kuza kubiza kakhulu ukwenza umbane ngamafutha eefosili.

IKapa lidume kakhulu ngesikumkani seentyatyambo salo, kodwa nesi sikumkani sisengozini ngenxa yotshabalaliso olwenziwa luphuhliso oluqhubekayo kwakunye noxinzelelo kokusingqongileyo olwenziwa lungcoliseko lomoya kwakunye neenguqu kwimozulu.

IsiXeko saseKapa sisebenza nzima ukuzama ukwenza iinkonzo ezinikezwa uluntu zibe zezona zisisigxina nezigcinakalayo kangangoko.

Ukuze sikwazi ukufikelela nokuphumeza iinjongo esizibekele zona ngokunxulumene ne-eneji, amanzi, inkunkuma nolondolozo lweentlobo-ntlobo zeziphili, isiXeko saseKapa sifuna ukuncedwa ngabantu baso.

Incwadana yokuphila NGOKULUMKILEYO iqulethe uthotho lwamanqanaba asebenzisekayo anokuthi amakhaya ngamakhaya aseKapa awathabathe ze awasebenzisele ukwenza amakhaya akhuseleke, kongeke nemali lo gama bencedisa ekuphunguleni ukuthwaxeka kokusingqongileyo nendalo yethu exabisekileyo.

La manyathelo aphantwe ngokugqibeleleyo ziingcungcu kwaye abonakalise ukuba angawenza umahluko. Amanyathelo la kugqatyazwe ngawo kulula ukuwaphumeza kwaye angenziwa ngokulula ukuba abe yinxalenye yobomi bemihla ngemihla.

Kananjalo incwadana yokuphila NGOKULUMKILEYO inika ingcaciso kwimibandela ephambili yamajelo okusingqongileyo esijongene nayo silihlabathi kwanalapha phakathi esiXekweni.

Le ncwadana isekwe kwiNcwadana engokusiNgqongileyo emakhaya yequmrhu i-AMATHEMBA engeNgcebiso zokuLawulwa kokusiNgqongileyo kwakunye neNcwadi yeze-Eneji enge-Eneji esisiGxina e-Afrika ebhalwe yaphuhlisa nguSarah Ward. AmaSebe esiXeko sethu aqinisekisile ukuba ingcaciso enikezwa yile ncwadana ichanekile yaye ayiphelelwanga lixesha, inika imboniselo eyiyo yokwenzeka esiXekweni. ISebe lePhondo leNtshona Kapa lemiCimbi yokusiNgqongileyo nokuCetywa koPhuhliso kwakunye neSebe likaZwe-lonke lemiCimbi yezaManzi namaHlathi, anike le ncwadi inkxaso ngezimali, nto leyo ebonakalisa ulawulo lomfelandawonye xa kufuneka kuliwe neengxaki ezinobuzaza zokusingqongileyo esijongene nazo kule mihla.

Ndiqinisekile ukuba bonke abo bathe bathabatha inxaxheba ekudalweni nasekusungulweni kwale ncwadana engokusingqongileyo baya kuziqenya xa bebona indlela evuthwe ngayo. Imiselwe ukuba ibe yintlahla-ndlela yazo zonke izixeko zaseMzantsi Afrika ze ibe ngumzekelo osebenzisekayo kwihlabathi wokuphuhliseka ngokusisigxina kwesixeko. Thina, sisisiXeko saseKapa, sikhuthaza bonke abasebenzisi bayo ukuba bayonwabele ze bayisebenzise le ncwadi intle kangaka nephuphuma lulwazi

**Helen Zille**

**USodolophu wesiXeko saseKapa**



Ku-intanethi yiya ku-

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ufumane izinto ezintsha malunga nokusingqongileyo, neenguqulelo ezikwezinye iilwimi, neminye imithombo nezinto ezipapashiweyo ngokusingqongileyo



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# INTSHAYELELO

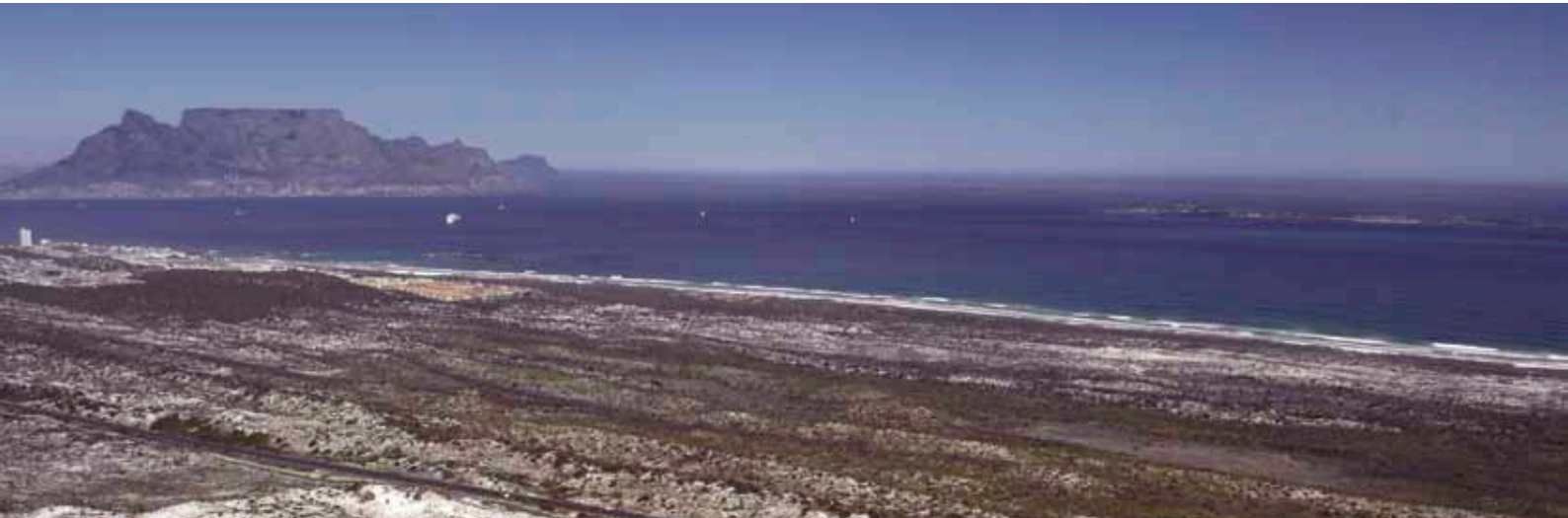
IKapa - Cape Town - Kaapstad – sisixeko esinguNozala (Mother City) wazo zonke izixeko zaseMzantsi Afrika. IKapa sesona sixeko sidala kweli lizwe, intloko-dolophu yowiso-mthetho yoMzantsi Afrika neziko elibalulekileyo lorhwebo nokhenketho. Emva kweeyurana nje ekhululwe eluvalelweni, uNelson Mandela wenza intetho yakhe yokuqala esidlangalaleni kwivaranda ephezulu yeHolo lesiXeko saseKapa – ememezela isiqalo sexesha elitsha ezimbalini zeli lizwe laseMzantsi Afrika. Kodwa ke, mhlawumbi iKapa laziwa kakhulu ngobuhle balo ngokwendalo – iNtab’ eTafile, unxwema leCape of Good Hope kwakunye neCape Flats, nalapho ubomi obubodwa bezityalo bukhoyo. IFeynbhosi, okanye ‘amatyholwana ashinyeneyo’ yimithana nezihluma ezibutyholwana ezingalahli magqabi ebusika nezisoloko ziluhlaza, eyaziwa jikelele ngophawu lwayo olulodwa lobukho kweprotiya phakathi kwayo. IFeynbhos ayikho enye indawo efumaneka kuyo ngaphandle kommandla ogudle unxweme lweKapa, iintaba ezikufuphi nonxweme kwakunye neenkechoyoyi zeentaba ezithile ezithe gqa-gqa phakathi ezweni. USinga-siqithi weKapa likhaya kuma-3-000 eentlobo-ntlobo zezityalo. I-190 lezi zityalo azifumaneki nakwenye indawo apha ehlabathini ngaphandle kwalapha.

IKapa laziwa kakhulu ngobuhle neentlobo-ntlobo zeziphili ezifumaneka kulo. Nakubeni kunjalo, lijongene nemiceli-mngeni yamajelo yokusingqongileyo enzima kakhulu. Uphuhliso lommandla kwakunye nongcoliseko lutshabalalisa amakhaya endalo, nto leyo ebeka emngciphekweni wentshabalalo izityalo ezininzi ezizodwa, amasele anqabileyo nezinambuzane ezihlala kula makhaya. Ukufudumala okukhulayo kwihlabathi okubangelwa kokukhutshwa ziinqwelo-mafutha nemveliso-mbane kuya kuba nefuthe elibi kakhulu kubo bonke ubomi kwisiXeko sethu. Amajelo amanzi aye enqongophala ngokukhawuleza kwaye neetiphu ziyagcwala.

Kananjalo iKapa linophawu olucacileyo lomahluko omkhulu phakathi kwezityebi namahlwempu. Abanye abemi beKapa basebenzisa amanzi, umbane, amafutha nepetroli eninzi kwaye bavelisa inkunkuma eninzi ngokunokude kodlule ummi waseMelika okumndilili, lo gama abanye basahlala kwimizi emininzi enempompo enye yamanzi, besebenzisa amafutha ayingozi anjengeparafini ukupheka.

“Oyena mceli-mngeni mkhulu esijongene naye kule nkulungwane intsha kukuthatha ingcingane ekhangeleka ifihlakele – uphuhliso olusisigxina nolugcinakalayo – siyenze ibe yinto eyimpumelelo yemihla ngemihla kubo bonke abantu beli limiweyo.”

**Kofi Annan, USosiba-jikelele woMbutho weZizwe eziManyeneyo, Matshi 2001.**



Ifoto: Sijifumene ngoncedo IweSixeko saseKapa

## Singenza ntoni ngoku? Singanako ukuguqula izinto senze umahluko?

I-Eneji, amanzi, inkunkuma kwakunye neentlobo-ntlobo zeziphili kokusingqongileyo kwethu Ngalo lonke ixesha ulayita isibane sikagesi, uqhuba inqwelo-mafutha yakho, uvulela amanzi etephini okanye ulahla inkunkuma yakho, wenza isigqibo esichapazela okusingqongileyo. Amajelo endalo – amanzi, amalahle, i-oyile, umhlaba, impepho – aya kutsha okanye aphele ukuba siwasebenzisa ngesantya esingaphezulu kwexesha alifunayo ukuze azizalise kwakhona. Kukho imiqondiso emininzi eyalatha ukuba oku sele kuqalile ukwenzeka.

Ifuthe lokuthwaxeka kwendalo ngamakhaya likhulu kakhulu. Ukuze siqinisekise ukuba sinamajelo oneleyo aza kusithwala – aza kwanela wonke umntu kwimihla esiphila kuyo kwanemihla ezayo – kufuneka siwaphathe kakuhle amajelo ethu, sisebenzise oko sinako ngobuchule nangokufanelekileyo. Uninzi lwethu luyazi ukuba kufanelekile ukuba sikwenze oku, kodwa kumathuba amaninzi asiqinisekanga ngeyona-yona nto ekufanele siyenze nendlela ekufanele siyenze ngayo. Le ncwadana ijolise ekunikeni iinkcukacha malunga namanzi, inkunkuma, i-eneji neentlobo-ntlobo zeziphili kwakunye **nezinto eziphathekayo ubani anokuzenza ukuze kubekho inguqu** – ukukhusela okusingqongileyo, ukulondoloza imali nokwenza amakhaya ethu abe ziindawo ezikhuselekileyo zokuhlala.

Iindaba ezimnandi zezokuba singawenza umehluko. Ngekilowathi-ngeyure (kWh) nganye othintele ukuyisebenzisa, wonge ngaphezulu kwekilogram yeKharbon dayokhsayidi (CO<sub>2</sub>) engeyivulelekile yaya kwi-atmosfera. IKharbon dayokhsayidi (CO<sub>2</sub>) inkqenqeqeza phambili kwizinto ezinegalelo ekufudumaleni kwehlabathi; nkqubo leyo zithi iinzululwazi ikhokelele ekunyukeni komndilili weqondo lobushushu kwihlabathi ngaphezudlwana nje kwesiqingatha seqondo ngeSelsiyas kule minyaka ingama-30 idlulileyo kwaye lingaqhubeka nokwenyuka eli qondo lobushushu de libe phakathi kwe-1.4 – 5.8 °C ekuzeni kusithela kwale nkulungwane. Ukufakela isibane esibengezelayo esibumbeneyo esine-11 leewathi (CFL) endaweni yesibane esiqhakazelayo esinama-60 eewathi kungonga ama-570kWh kubomi beso sibumbeneyo sibengezelayo – nto leyo inokonga ngaphezulu kwekilogram ezingama-570 zekharbon dayokhsayidi.



## Ukusindisa umhlaba nenzuzo yokwenza oko

Eyona nto imnandi ngokulondoloza amanzi nombane nokucutha inkunkuma kukuba oku kuya kongela wena nesiXeko saseKapa imali eninzi edingekayo! Amanyathelo acetyiswayo kule ncwadi ayafikeleleka kakhulu ngokwamaxabiso kwaye kulula nokuwenza. Xa ithuba elinokuthathwa eliphezulu, mhlawumbi ukufumana isifudumezi-manzi sesola, ingcaciso uyayinikwa engesithuba sexesha elinokuthathwa siso ukubuyekeza iindleko zokufakelwa kwaso xa ithuba elinokuthathwa onokuwusebenzisa kwangelo xesha linye.

Enye into ekufaneleke ukuba siyicinge kukuba xa uthenga isixhobo nombane, awuhlawuli nje eli xabiso ulibonayo - koko uyazibophelela ekuqhubekeni uhlawula iindleko zokusebenzisa esi sixhobo ngalo lonke ixesha sisetyenziswa nguwe. Ezi ndleko zamanzi ne-eneji zikhula ngokukhawuleza. Xa uthenga isixhobo, khumbula ukuba ufumene lithuba elingcono lokutshintshela kwisixhobo esiyakuthi sisebenzise i-eneji namanzi ngendlela efanelekileyo. Kuqhelekile ukuba ezi sixhobo zingaxabiso kakhulu kuyaphi kunesixhobo ezingasebenziseki kakuhle, kwaye ziya kukongela imali ekuhambeni kweminyaka nanjengokuba ii-akhawunti zakho zamanzi ne-eneji ziya kuhla.

## Indlela yokusebenzisa le ncwadana

Ingaba unqwenela ukuthenga isixhobo esitsha? Ukuguqula uhlaziye indlu yakho? Ingaba ufuna ukuphatha kakuhle uhlahlo-lwabiwo mali lwanyanga-zonke lwakho? Sonke singathanda ukuthatha izigqibo ezifanelekileyo ngokuphathelene nolawulo lwamakhaya ethu – ukwenza izigqibo ezingcono ngempilo yethu, ukhuseleko nezipaji zethu, kodwa singakushiya ngasemva okusingqongileyo. Le ncwadana inengcaciso esebenziseka kakuhle kakhulu nezilumkiso ezisebenzisekayo ezinokukunceda uthathe izigqibo ezifanelekileyo ukucutha ukusebenzisa kwakho amanzi ne-eneji nokucutha inkunkuma owukhuphayo. Kananjalo ikwanika ingcaciso ngendlela esinokugcina ngayo indalo yomelele kwaye izintlobo-ntlobo ezininzi kangangoko kwihlabathi lethu. Ezi zinto zinokwenziwa zingakongela imali kwaye zinokuphucula umgangatho wempilo nokhuseleko kwikhaya lakho. Kananjalo ziyakucutha ifuthe lethu elibi kokusingqongileyo.

Le ncwadana iqulethe ingcaciso eninzi kwaye sicebisa ukuba uzinike ithuba lokuyifunda – kunganzima kakhulu ukuzama ukwenza izinto ezininzi ngexesha elinye. Mhlawumbi kungangcono ukuba uzisikele ixesha lokwenza imisebenzi emitsha ngokweeveki.

Incwadana le yahlulwe yangamacandelo amane: Inkunkuma, I-Eneji, Amanzi neeNtlobo-ntlobo zeziphili. Icandelo ngalinye linamacandelwana amane:

- izinto ezicela umngeni eziphathelene nejelo elo;
- izinto ezenziwa sisiXeko saseKapa ukulawula ijelo elo;
- amanzi, i-eneji, inkunkuma neentlobo-ntlobo zeziphili ekhayeni lakho;
- kwakunye namanyathelo asebenzisekayo – yintoni emayenziwe nendlela yokwenza oko – aya kukunceda akongele imali, aphucule umgangatho wokhuseleko ekhayeni lakho, kuliwe nobuhlwempu, kuliwe noku guquka kwemozulu, kuphuculwe ubulunga bomoya ze kukhuselwe indalo yethu nokusingqongileyo.

Imisetyenzana nemifanekiso inikelwe ukuzamazamana nemiba ethile kwanokukhangela lula ulwazi. Imiba yempilo nokhuseleko nayo ishukuxiwe kwicandelo ngalinye kula mathathu. Uququzelelo nomsebenzi wasekuhlaleni ngundoqo wolawulo olulungileyo, amanyathelo aqalisiweyo ambalwa anomdla eKapa abandakanyiwe kwiingxelo zophando ezimfutshane.



Amakhaya aziintlobo ezahlukileyo ajongene nemiba eyahlukileyo yokusingqongileyo. Umzekelo, amakhaya anengeniso-mali eninzi anokufumanisa ukuba asebenzisa umbane omninzi ze afune iindlela anokuziphicotha zokucutha ukusebenzisa kwawo umbane. Ukanti ikhaya elingeniso ingephi lona linokufumanisa ukuba eyona ngxaki yalo inkulu yimpilo nokhuseleko ngenxa yokungakhuseleki kokusetyenziswa kweparafini. Sithemba ukuba le ncwada iya kusebenziseka kwaye ihambelane neemeko zamakhaya ethu onke eKapa, apho lithe icandelo elithile lakhangeleka lingahambelani nemeko yakho, lishiye udlulele kwicandelo elilandelayo – okanye ukhangele ukuba awungeqwalaseli imeko abajongene nazo abamelwane bakho kusini na.

limveliso ezisetyenziswayo ukuze kongeke amanzi ne-eneji ziyafumaneka eKapa kwiivenkile ezithengisa ngezinto zokwakha nakubathengisi bemibhobho nezinto zokutywina nokuhambisa amanzi okanye nakwiivenkile zezinto zombane. limveliso 'zohlaza' ezininzi ziyafumaneka kwiivenkile ezinkulu zengingqi ezithengisa ngezinto ngezinto. lindawo zethu ezithengisa ngezityalo zime ngembambo zizityalo eziziinkulelane kwaye ziyakuba nako ukukunika isikhokelo nengcebiso yokuba zeziphi na izityalo ezinokulungela ummandla wakho.

Eminye yemithombo yolwazi nezalathiso ichaziwe kule ncwadana, kodwa ke isalathiso esipheleleyo malunga nemithombo yolwazi ngokusingqongileyo esiXekweni ingafumaneka kwisaLathiso samaJelo angokusiNgqongileyo esiXeko, kwiSebe lesiXeko loLawulo lwamaJelo angokusiNgqongileyo, kumgangatho wesi-6, e-44 Wale Street, eKapa, inombolo yomnxeba ngu-(021) 487 2284, okanye i-imeyili: [smartliving@capetown.gov.za](mailto:smartliving@capetown.gov.za) okanye ku-[www.capetown.gov.za/environment](http://www.capetown.gov.za/environment).

Nceda qaphela ukuba amaxabiso neentlawulo-zinkonzo ezicatshulweyo kwitekisi ngawelixa loshicilelo kuphela, aya kutshintsha ekuhambeni kwexesha.

# IZITYALO NEZILWANYANA



*Ifoto: Siyifumene ngoncedo lweSixeko saseKapa*

Ibhayodavesithi (iintlobo ngeentlobo zizityalo nezilwanyana) zizo zonke izinto eziphilayo, iintlobo-ntlobo ezifuzeneyo, neendawo ezihlala kuzo. 'Bubutyebi bendalo' behlabathi, obubonelela ngako konke ukutya kwethu nento eninzi yemithombo ekrwada.



Foto: Sijikumele ngoncedo lwesixeko saseKapa

lintlobo-ntlobo zezityalo nezilwanyana ayiloluhlu lweentlobo nje kuphela, kodwa ngokulandelelana kolwalamano kuthungelwano oluxandileyo, nesisaqalayo ukulunakana, ndingathethi ke ngokuluqonda. Indawo nganye kolu thungelwano luxandileyo luya luphela kancinane xa inxalenye ethile yalo iba buthathaka okanye inyamalala.

Kubudlelwane bezityalo nezilwanyana kuqwalasela iintlobo, iimfuzo neendawo ezihlala kuzo, phakathi kwezinye izinto.

### lintlobo-ntlobo zezinto eziphilayo

Uhlobo lwento liqela lezinto eziphilileyo ezineempawu ezizodwa. Ngeentlobo ezohlukeneyo kuqwalaselwa inani, uhlobo nokwabiwa kweentlobo ezikwindawo ethile eziphila kuzo izityalo nezilwanyana. Okwangoku asikakwazi

ukuphendula umbuzo othi: ‘ziziphi ezinye iintlobo zezityalo nezilwanyana esabelana nazo lo mhlaba?’ lingqikelelo ziyohluka kakhulu, ukususela kwizigidi ezintlanu ukuya kwizigidi ezilikhulu. Ukuza kuthi ga ngoku, kukho malunga nesiqingatha sesigidi seentlobo zezityalo nezilwanyana ezichazwe ziinzululwazi.

## Intlobo-ntlobo zeemvelo zazo

Ukwahluka kwiiseli ezilawula imfuza kunika izinto eziphilileyo ithuba lokuqhubeka nokuchuma nokuhlala kwiimeko ezintsha. Imvelo yemfuzo eyohlukeneyo ibangelwa kukukhethwa kweempawu ‘ezithandwayo’ ‘ezisebenza’ kwimeko-bume engqongileyo ethile. Ukwahlula nokuxanda kweendawo zokuhlala kukhuthaza iintlobo ezininzi ngemithamo yokwahluka kwemfuza. Amaqela akhethekileyo awodwa, afana nalawo ahlala kwiziqithi ezincinane, okanye kwiindawo ezincinane zeendawo zokuhlala abekelwe bucala kwimeko-bume esingqongileyo, yaye adla ngokuba nemfuza engengako kunalo maqela ahlala ngobuninzi, kwiindawo ezixineneyo. Ngoko ke, amaqela akhethekileyo awodwa asengozini emandla yokubhanga.

## Intlobo-ntlobo zonxibelelwano nendalo

Oku kubhekiselele kwiintlobo-ntlobo zeendawo zokuhlala neendawo zeentlobo ezohlukeneyo zezityalo nezilwanyana ezinxulumanayo kuthungelwano lwendawo yokuhlala etshintshayo ngokolwalamano oluxhomekeke omnye komnye. Iindawo zokuhlala zezo zisemanzini (amachibi, iindawo ezimanzi, amachweba emilambo, imigxobhozo, kumaqaqa aselwandle) ukuya kwezo zisemhlabeni (amahlathi, iintlango, iintaba, amadlelo ashushu, amathafa anengca kunye namathafa angenamithi angumgxobhozo). Ngokomlinganiselo wembonakalo-mhlaba yeendawo zokuhlala, iintlobo-ntlobo zeendawo zokuhlala zezityalo zibonakala ngeentlobo zemifuno, umzekelo: iiNtyantyambo ezikhula kwiNtlabathi yaseKapa neNtshinyela yemithi ekhula kwiNtlabathi yoSinga-siqithi weKapa. Ngokweqondo elincinane, kanye namabala ezikolo, iipaka zasekuhlaleni neendawo ezingasemva emakhaya ziindawo zokuhlala zezityalo nezilwanyana ngokwazo.

## Ixabiso nokubaluleka kweentlobo-ntlobo zezityalo nezilwanyana

Iintlobo-ntlobo zezityalo nezilwanyana zingangabonakali njengento eqhelekileyo okanye njengenempembelelo ngqo kubomi bethu eKapa, kodwa iyayichaphazela yaye inempembelelo kwinkqubo yamanzi, amandla, ubomi noqoqosho lwethu, nto leyo exhasa unikezelo ngamanzi acocekileyo, umgangatho womhlaba, unikezelo ngemithombo yamandla neminye imithombo.

Umhlaba wethu sabelana ngawo kunye ne-			
4 700	Yeentsholongwane	5 000	lintsholongwane ezincinane
40 000	Yobulembu	1 170 000	Izilwanyana ezingenamqolo
47 000	Yomngundo	2 200	Protochordates
17 000	Yobulembu bomthi	21 700	Iintlanzi
16 000	YeBryophytes	5 100	Izilwanyana eziphila emhlabeni nasemanzini
13 000	Pteridophytes	5 700	Izirhubuluzi
750	Gymnosperms	4 700	Iintaka
250 000	Angiosperms	4 600	Izilwanyana ezanyisayo

Uluhlu oluthathwe kwi- Biodiversity – The living link – Let us preserve it, UNESCO and Punjab State Council for Science and Technology



lintlobo-ntlobo zezityalo nezilwanyana zisiseko zeplanethi esempilweni (nokuphila kwabantu). Ngoku kukholelwa ukuba iindawo zokuhlala ezohlukeneyo ezichumileyo zomelele yaye zingcono kakhulu yaye zibuya zihlume kucinezelo ebezibekwe kulo olufana nembalela okanye indawo ezithathwa nezonakaliswa ngabantu kuneendawo zokuhlala ezingenazintlobo zininzi zezinto eziphilayo. Ubuninzi beentlobo zezinto eziphilayo kunika iindlela ezininzi zeenkqubo zokuphila neendawo zokuhlala, ezifana nokwenziwa ngokutsha kwezakha-mzimba; ukuba enye indlela yonakalisiwe okanye itshabalalisiwe, kukho ezinye iindlela ezivumela ukuba iindawo zokuhlala ziqhubeke nokusebenza ngokomgangatho oqhelekileyo. Iintlobo-ntlobo ezincitshisiweyo zibeka iindawo zokuhlala ezisebenzayo emngciphekweni.



Iintlobo-ntlobo zezinto eziphilayo zixabiseke kakhulu:

- Izityalo nezilwanyana zethu zendalo zicoca amanzi ethu nomoya, zithintela ukhukhuliseko lomhlaba yaye zibamba umhlaba ube ndawonye. Ezi nkonzo zisebenza ngobuchule obumangalisayo yaye zinikezelwa simahla.
- Izityalo nezilwanyana ezohlukeneyo zibonelela ngomthombo wemfuzo osinika ukutya namachiza. Imfuza yendalo iphucula izilimo ngokubonelela ngokomelela namandla okulwa nezifo, ukutshintsha kwemozulu. Ngaphezulu, zizityalo ezingaphezu kwama-21 000 kwihlabathi jikelele ezichazwe njengezisebenza njengamachiza.
- Oku kubonakalisa ixabiso lokugcina izityalo nezilwanyana ezohlukeneyo ukuze zisetyenziswe kwixesha elizayo. Mhlawumbi ngenye imini kwixesha elizayo kuya kubakho ichiza lesifo esingumbulalazwe, kuya kufunyanwa isityalo okanye uhlobo oluthile lwezityalo ezikwimiyezo kwiizityalo zethu.
- EKapa, nakwiindawo ezininzi zehlabathi ke phofu, imeko-bume engqongileyo ekwimeko entle ixhasa imveliso yezokhenketho, ibonelela ngendawo yokuhlala ngokusempilweni kuninzi lwethu. Impiliso ikwabonelelwa ngokulinywa kweentyantyambo ezifana neprotiya, izityalo zamachiza ezifana ne-bhutshu, nokuveliswa kwamanzi acocekileyo emithombo.
- Imeko-bume yethu esingqongileyo yendalo isibonelela ngendawo yokufundela abantwana bethu ngamava nokwazi ngendalo, amabala avulekileyo okuzonwabisa, ubuhle nokuzola.
- Zixabisekile kuzo nakuthi – njengaye nabani okanye ubomi bunexabiso. Kwimeko apho uhlobo lwezityalo okanye isilwanyana lungafumanekiyo naphi na kwihlabathi, sinoxanduva oluthile – xa sele kutshabalale olo hlobo lwesityalo okanye lwesilwanyana iba sisiphelo sembali iyonke yalo mfuzo.



Foto: Sijifumene ngomcedo lweSiziko sasakapa



## Iintlobo zezityalo nezilwanyana eziyinzalelwane yalapha ngokuchasene nezo zizezamanye amazwe

Igama elithi iintlobo-ntlobo zezityalo nezilwanyana lilodwa nje alohluli phakathi kwezityalo nezilwanyana ezifumaneka kwiKapa ngokwendalo nezo zifike apha ngokwesiphumo seentshukumo zabantu nangokwemisebenzi. Izityalo nezilwanyana ezikhula ngokwendalo – ezo ziyinzalelwane yaseKapa – zibizwa ngokuba yinkulelane yalapha. Izityalo nezilwanyana eziziswe ngabantu ngenjongo okanye ngempazamo zezohlukileyo zamanye amazwe. Iintlobo ezingezizo zalapha ezikhula ngamandla nezitshintsha iintlobo eziyinzalelwane yalapha zibizwa ngokuba ziintlobo zezityalo nezilwanyana ezingeyonzalelwane yalapha nezonakalisayo.

## Isizathu senkxalabo?

Umbutho owaziwa ngokuba yi-California Academy of Sciences, noqhuba iZiko leMithombo ejongene neeNtlobo-ntlobo zeZityalo neZilwanyana, uthekelela ukuba iintlobo ezingaphezu kwe-10 000 zezinto eziphila emhlabeni ziyatshabalala rhoqo ngonyaka, yaye iqondo lokutshabalala kwazo liyanda. Oyena nobangela wokutshabalala kweentlobo zezinto eziphila emhlabeni kukonakaliswa ngabantu kweendawo zazo zokuhlala zendalo, kuqukwa nongcoliseko lomoya, ungcoliseko lwamanzi, ukonakaliswa kweendawo zokuhlala nokutshintsha kwemozulu ibe shushu kwihlabathi – iimpawu ezininzi zichaziwe kumacandelo angaphambili ale ncwadi.

Enye yeengozi ezinkulu yeentlob zezityalo nezilwanyana ezohlukileyo kukonakaliswa ngabantu okanye ukutshintshwa kweendawo zazo ezihlala kuzo zendalo. Njengoko sisebenzisa amanzi amaninzi sonakalisa imilambo, nto leyo etshintsha nenkqubo yokusebenza kwazo ngokwendalo. Ukusetyenziswa okongeziweyo kokutya njengoko abantu besanda kudinga imihlaba emikhulu yezolimo ukuba yenziwe kulo mxokelelwano wendalo. Ukwanda okuya ngaphandle kweedolophu (ukunaba kweedolophu) kukwatshintsha ngokufanayo iindawo zokuhlala zendalo. Njengoko abantu bethutha kwiindawo zendalo zakudala akusiswa izityalo kuphela, kodwa balandelwa ziikati, iimpuku nezinye izilwanyana ezinukuneza nezibulala izilwanyana ezincinane neentaka kulo ndawo. EKapa, imililo yamadlelo engaphaya kokuba yeyesiqhelo ebangwa yimisebenzi yabantu ikonakalisa izityalo nezilwanyana zethu zendalo. (Into enika umdla, ngamanye amaxesha izityalo nezilwanyana zichatshazelwa kukubaleka imililo yasehlotyeni – njengoko abasemagunyeni benoloyiko lokutshisa ehlotyeni nangona ilelona xesha lonyaka lokutshisa umphelo iintlobo ezithile zeentyantyambo kulungiselelwa eziza kuntshula).

Sisonke sinxulumene kuthungelwano lobomi ngomoya esiwuphefumlayo, amanzi esiwaselayo nokutya esikutyayo. Ukuba sitshabalalisa ezinye iinxalenye zothungelwano lwethu, siza kutshabalalisa awethu amathuba okuphila.



Foto: Sijifunene ngoncedo lwesixeko sasekapa



Ngokophando *lweeNtlobo ezohlukeneyo zeZityalo neZilwanyana olwenziwa e-Australian*, iPhepha elinguNomb. 1, 'Ukuphila kwabantu (nokwezinye izinto eziphilayo) kuxhomekeke ikakhulu koko kubizwa ziinzululwazi njengabavelisi bokuqala, izityalo ubukhulu becala. Ziintlobo zezityalo ezingamawaka amahlanu ezisetyenziswa njengokutya ngabantu, kodwa ngaphantsi kwamashumi amabini kungoku nje zondla uninzi lwabantu nezilwanyana zehlabathi ngeli xesha iziintlobo ezintathu kwezine zezityalo ezinekhobohayidrethi ezityiwa njengokutya okungundoqo kuninzi lwabantu. Enye inzuzo ebalulekileyo yenguqu kwiintlobo zezityalo nezilwanyana ezohlukeneyo kukulondolozwa komthombo wemfuza yezityalo zasendle nezifumaneka ukongeza isiseko esisengozini sokutshabalala sezi zidlo zikhoyo, ibonelela ngokomelela kwizifo, ukuvelisa okuphuculweyo nokumelana neemeko-bume ezingqongileyo ezohlukeneyo.'



# IZITYALO NEZILWANYANA EZOHLUKENEYO KWISIXEKO SETHU

Umhlaba wohlulwe ngokwemimandla yezihluma/zeentyantyambo emithandathu. Imimandla yezihluma ziindawo apho izityalo (amaqela ezityalo) ohlukileyo kulawo afumaneka kwezinye iindawo elizweni. Ikona ekumzantsi-ntshona eMzantsi Afrika likhaya loMmandla weZihluma kwiKapa, owona mmandla mncinane weentyantyambo kuleyo mithandathu yehlabathi. Asikuba lo mmandla ungowona mncinane kuleyo mithandathu yeentyantyambo kwihlabathi kuphela, kodwa ukwangowona mmandla unomthamo omkhulu owohlukeneyo weentlobo zezityalo. Ummandla weeNtyantyambo eKapa unamalunga nama-9 000 eentlobo ezohlukeneyo zezityalo neentlobo ezininzi zezilwanyana ezohlukeneyo.

IKapa lifumaneka kumbindi woMmandla weeNtyantyambo zeKapa, nto leyo eyenza iKapa ibe ngummandla obalulekileyo kwihlabathi, nelaziwa ngokuba 'kusemsini' wommandla weyantlukwano phakathi kwezityalo nezilwanyana zehlabathi.

Phofu ke, iKapa laziwa kwihlabathi liphela njengeyona ndawo isemsini enezityalo nezilwanyana ezohlukileyo kwihlabathi ngokungenakulinganiswa. Iintlobo ezininzi zezityalo nezilwanyana ezifumaneka eKapa zifumaneka apha kuphela yaye azikho kwezinye iindawo kumhlaba uphela. Ezi ntlobo zibizwa ngokuba ziintlobo ezisoloko zikho endaweni ethile kuphela. IKapa likwabalasela ngokuthandabuzekayo ngokuba yenye yeendawo ezineentlekele ezinkulu emhlabeni – ezo ndawo zisemngciphekweni wokuphulukana nenxalenye evisayo yeentlobo ezohlukeneyo zezityalo nezilwanyana zazo. Le ke yingxaki enkulu kwiintlobo ezohlukeneyo ezisoloko zikho kule ndawo kuphela nezijongene nokubhanga.

IKapa likwayeyona ndawo ityebileyo kwizityalo nezilwanyana ezohlukileyo yaye lingqongwe yimeko-bume yeelwandle eyodwa neyohlukeneyo, nexhasa izityalo nezilwanyana ezininzi ezohlukeneyo ezihlala elwandle ezifana ne-Abalone, iMinemga ethile noKrebe oMkhulu oMhlophe.

## Ulwazi oluyinyaniso ngezityalo nezilwanyana ezohlukeneyo zengingqi:



**Iintlobo ezisoloko zikho kwindawo ethile: zifumaneka kuphela kwindawo ethile echaziweyo, umzekelo: kuMmandla weNqila yeKapa.**

**Uluhlu loVimba weentlobo ezisengozini: uluhlu lwesizwe, olusekelwe kwinkqubo eyamkelweyo kwihlabathi, lweentlobo zezityalo nezilwanyana ezisengozini yokubhanga.**

- UMzantsi Afrika unenani lesibini ngokuphakama lezityalo ezibhangayo kwihlabathi
- Umyinge wama-70% oMmandla weeNtyantyambo eKapa kwiintlobo zezityalo ezingama-9 600 azifumaneki kwezinye iindawo emhlabeni. Malunga nomyinge wama-20% kwezi ntlobo zezityalo zidweliswe kuVimba wezo ziseNgozini.
- IKapa ngokwalo lilikhaya leentlobo zezityalo eziyinzalelwane yeli ezingaphezu kwama-3 000, izityalo ezifumaneka apha kuphela ezili-190 nezingaphezu kwama-318 zezi zicingelwa njengezisengozini yaye ezili-13 zibhangile.
- Imimandla ephantsi yeKapa ixhasa iintlobo zezityalo ezingaphezu kwe-1 466 kumgama oyi-1 874 km<sup>2</sup> nalapho ama-76 eentlobo zezityalo izezo zifumaneka apha kuphela ze ama-203 ibe zezo zicingeleka njengezisengozini.
- Imimandla ephantsi yeKapa ineyona mithamo iphezulu yezityalo ezisengozini kwindawo nganye enezihluma ezisaseleyo ehlabathini.
- ULuhlu lweeNtaba ezikuSinga-siqithi weKapa zixhasa iintlobo zezityalo ezingama-2 285 kumgama oyi-471 km<sup>2</sup> nalapho ama-158 izezo zifumaneka apha kuphela.
- Ama-83 eentlobo zezilwanyana ezanyisayo zisekho eKapa, eziyi-24 zikuLudwe lwezo ziSengozini, ezintathu zibhangile.
- Ngama-361 eentlobo zeentaka ezihlala eKapa – eziyi-22 zisengozini, ezine zidweliswe kuVimba wezo ziseNgozini ze ubuncinane iintlobo ezintathu zibhangile kule minyaka isandula ukuphela.
- Kukho iintlobo ezininzi zezilwanyana ezingenamqolo eKapa, malunga neentlobo ezili-111 zazo zifumaneka apha kuLuhlu lweeNtaba ezikuSinga-siqithi weKapa kuphela.
- Kukho iintlobo zezilwanyana ezinokuphila emhlabeni nasemanzini ezili-27 eKapa nalapho iintlobo ezine kwezi zidweliswe njengeentlobo ezikuVimba wezo ziseNgozini.
- Iintlobo ezingama-57 zezilwanyana ezirhubuluzayo, nalapho iintlobo ezintlanu kwezi zisengozini ngeli xesha ezintathu kwezi zibhangile kule ngingqi, nezifumaneka eKapa.
- Iintlobo ezingama-24 zeentlanzi zixhomekeke kumachweba aseKapa.
- Kukho iintlobo ezili-18 ezohlukeneyo zezityalo ezikhula emhlabeni kwisizwengokubanzi nezifumaneka eKapa. Iintlobo ezili-14 kwezi zisengozini ngenxa yeenguqu ezenziwa kwiindawo zazo zokuhlala.
- IKapa liqulethe iintsalela zezona ntlobo zezityalo zisengozini kwisizwe Lourensford Alluvium Fynbos, Swartland Shale Renosterveld and Swartland Silcrete Renosterveld.
- Izityalo ezininzi ezibalulekileyo kwimiyezo yehlabathi zivela eKapa nakummandla weeNtyantyambo zeKapa ngokubanzi. Ezi zityalo ziquka geraniums, gladioli, freesias, ixias, pincushions ne-gazarias; yaye iNtshona Koloni lelona ziko elinemveliso yezihluma zezitswele ezohlukeneyo kwihlabathi.



Ifoto: Sijifumene ngoncedo lweSixeko saseKapa



Ifoto: Siyifumene ngoncedo lweSixeko saseKapa

## UMgaqo-nkqubo oHlanganisiweyo olawula imeko-bume esiNgqongileyo kwiNqila neSicwangciso-qhinga esijongene neZityalo neZilwanyana ezohlukileyo

UMgaqo-siseko wethu uchaza ukuba bonke abemi boMzantsi Afrika banelungelo lokuphila kwimeko-bume esingqongileyo esempilweni nekhuselekileyo kwizizukulwana ezikhoyo nezizayo ekutshatyalalisweni kwendawo esihlala kuyo. Ulawulo oluzinzileyo lwemeko-bume esingqongileyo lunyanzelo oluhleli lukho lorhulumente wamakhaya. Ngo-Okthoba ka-2001 iSixeko saseKapa samkela uMgaqo-nkqubo wokuqala oHlanganisiweyo olawula imeko-bume esiNgqongileyo weNqila. Esinye sezicwangciso-qhinga eziphambili kwezo zintandathu kulo Mgaqo-nkqubo siSicwangciso-qhinga esijongene neZityalo neZilwanyana nendawo eziphila kuzo ejoliswe ukukhusela, ukulungisa nokuxhasa imeko-bume yethu yezityalo nezilwanyana ezohlukileyo ekhethekileyo yeKapa.

Iyantlukwano kwizityalo nezilwanyana neendawo ezihlala kuzo ayikhange ibekelwe so libukhali kwimicimbi yeSixeko kumasebe amaninzi aso nakumacandelo emisebenzi. Iindlela zokujongana neyantlukwano kwizityalo nezilwanyana ibisoloko ilawulwa yiyantlukwano, kukho oogunyaziwe abaninzi abajongene nokhuseleko lwezityalo nezilwanyana ezohlukeneyo kummandla owaziwa kungoku nje ngokuba siSixeko saseKapa nto leyo ekhokelele kuququzelelo nokumanywa okungafanelekanga kweenzame neendlela zokusebenza. Amaziko ambalwa abhengezwayo asebenza ngokusekelwe kwiziza ezithile, kunokuba kusetyenzwe ngobuchule besicwangciso solondolozo.

Ngeminyaka yoo-1980 noo-1990 kwenziwa umsebenzi obalulekileyo ukuchonga imimandla ephambili yolondolozo lwendalo, kodwa inkqubela yalityaziswa ngenxa yoxinzelelo nokungxamiseka kwemfuneko yokugcina inani elivisayo lezityalo nezilwanyana ezingeyonzalelwane yalapha kwiSixeko. Kwakucaca kananjalo ukuba akukho sicwangciso sifanelekileyo nesisebenzayo sokumiselwa yaye akukho mbutho unoxanduva lokumisela esi sicwangciso.

Ukumiselwa kwePaka yeSizwe ekwiNtaba yeTafile (eyayifudula ibizwa ngokuba yiPaka yeSizwe ekuSinga-siqithi weKapa) ngo-1998 kwasikhulula iSixeko kuxanduva lwaso lokulawula imisebenzi yolondolozo kwiindawo ezininzi. Ngo-1997 iprojekthi ejongene noLondolozo lweZiza zeNtyantyambo kwiKapa, eyenzelwa iSixeko nguMbutso ojongene neZityalo kuMzantsi Afrika yafumanisa iZiza ezingama-37 zoLondolozo lweNtyantyambo eziBaluleke kakhulu kwindawo ekuphila kuyo izityalo nezilwanyana ezohlukeneyo eKapa. Ngenxa yale ntsilelo iSicwangciso esijongene nendawo ehlala izityalo nezilwanyana ezohlukileyo sinika ithuba elihle kakhulu kwiSixeko lokuba sijongana ngokutsha neendawo ezinezityalo nezilwanyana ezohlukileyo yaye zilawulwe ngokufanelekileyo zilondolozwa njengemithombo yethu ebalulekileyo yendalo.

## Iinjongo eziphambili ezisixhenxe zokwenza iSicwangciso-qhinga sendawo ehlala iZityalo neZilwanyana ezohlukileyo:

### 1. Indawo enezityalo nezilwanyana eziphambili

Oku kuquka ukumiselwa kwesixokelelwano semimandla yolondolozo lwendalo elawulwa ngokufanelekileyo. Kusetyenziswa injongo yokulondolozwa izixhobo zocwangciso, kwachongwa iintsalela zezityalo ezithile, ezithi ndawonye nemimandla ekhoyo yolondolozo lwendalo neziza zeNtyantyambo zeSixeko, zigcine isampuli yezityalo ezimele izityalo nezilwanyana ezohlukeneyo zeKapa xa zilawulwa ngokufanelekileyo.

### 2. Indawo enezityalo nezilwanyana ezilandelayo ngokubaluleka

Kwimeko yedolophu, iindawo ezivulekileyo neminye imisebenzi ephambili isengadlala indima ephambili yolondolozo lwendalo. La mabala aquka imilambo, iindawo eziyinxalenye yolawulo lwamanzi esitshi, iindlela zamabala, iipaka, imiqukumbelo yeendlela, iindlela ezigciniweyo nezothutho. Ulondolozo luza kwenziwa kwimizila ethile yeendlela, iindlela ezizidibanisi nemimandla esetyenziselwa iinjongo ezixubeneyo.

### 3. Ulondolozo lwezityalo nezilwanyana ezohlukeneyo ezihlala emanzini ahlaziyekileyo

Xa siqwalasela ukubaluleka kwemithombo yethu yamanzi ahlaziyekileyo – imilambo, iindawo ezimanzi kunye neendawo ezinemigxobhozo – nebonelela 'ngemizila eluhlaza' phakathi kweentaba neendawo ezingaselunxwemeni, kuza kwenziwa ulawulo oluhlanganisiweyo nolusebenzayo kwezo ndawo. Oku kuza kuzama ukukhusela nokuxhasa ixabiso lentlalo, lezilwanyana nezityalo nendawo eziphila kuzo kunye nezinto eziluncedo zemithombo yamanzi ahlaziyekileyo yaye, xa kuyimfuneko, zithintele ukwenziwa ngakumbi ibe yimijelokazi kwalo mithombo.

### 4. Ulawulo lwezityalo ezingeyonzalelwane yalapha ezonakalisayo

Izityalo ezingeyonzalelwane yalapha ezonakalisayo ziyingozi emandla kwizityalo nezilwanyana ezohlukeneyo eKapa. Le njongo iza kujonga uphuhliso nokumiselwa kweNkqubo yoLawulo lweZityalo ezoNakalisayo ezingeyonzalelwane yalapha yeSixeko saseKapa. Okuphambili koku bubuhlakani namanye amaphulo nemibutho, ngokukodwa iNkqubo ejongene nokuSebenzela aManzi. Le nkqubo iza kuphucula idale amathuba ezoqoqosho kwiindawo zentlalo zabahlelekileyo. Njengogunyaziwe wengingqi, iSixeko saseKapa siza kumisela umzekelo ngokususa neengcambu izityalo ezingeyonzalelwane yalapha – ukuze abanini-mhlaba abazimeleyo bawulandele.



Foto: Sijifumene ngoncedo lweSixeko saseKapa

## 5. Umthetho nonyanzeliso-mthetho olujongene nezityalo nezilwanyana ezohlukeneyo

Kuza kuxhaswa indlela yokusebenza 'engafuni nkathazo' neza kukhuthazwa kusetyenziswa umthetho, unyanzeli-mthetho lwala maxesha kunye norhulumente ozinikeleyo.

## 6. Ulwazi ngezilwanyana nezityalo ezohlukeneyo nenkqubo yokukhangela

Inkqubo eqhubekayo yolwazi nokukhangela iza kuxhasa ukwenziwa kwezigqibo ezifanelekileyo nolawulo ngokuphathelele kwizityalo nezilwanyana ezohlukeneyo nophuhliso oluzinzileyo.

## 7. Imfundo nolwazi ngezityalo nezilwanyana ezohlukeneyo

Ezi zicwangciso-qhinga sithembele ekubeni kuthengwe ze kufunyanwe ubunini bezityalo nezilwanyana ngabantu baseKapa kunye nokwabelana ngoxanduva phakathi korhulumente wamakhaya nabahlali abanolwazi ngemeko-bume esingqongileyo baseKapa ngokuphathelele kwimicimbi yezityalo nezilwanyana ezohlukeneyo ukuze kwabelwane ngokufanelekileyo, kulawulwe yaye sibe noxanduva ngentsebenziswano lwemithombo yezityalo nezilwanyana ezohlukeneyo ezikhethekileyo zeSixeko.



## Iindlela zokoyisa izityalo ezingeyonzalelwane yalapha

Iintlobo zezityalo ezingeyonzalelwane yalapha ezonakalisayo zibeka ingxaki emandla kwizityalo nezilwanyana zaseKapa. Izityalo ezonakalisayo ezingeyonzalelwane yalapha zikhuphisana nezityalo zalapha ngendawo yokuhlala, yaye kwimeko yezityalo, oku kongeza amathuba emililo yaye kunempembelelo engathandekiyo kwimithombo yamanzi (umgangatho nobuninzi). Ngokorhulumente waseMelika, izityalo nezilwanyana ezingeyonzalelwane yalapha zitshabalalise ngempumelelo umyinge okwisine ekhulwini we-GDP kwihlabathi.

Oku kuphidwe kabini nesiqingatha kwi-GDP yase-Afrika idityanisiwe. Emva kokonakaliswa kwendawo yokuhlala ngabantu, izityalo nezilwanyana ezonakalisayo zingunobangela wesibini omkhulu wokubhanga kwezityalo nezilwanyana ezithile kwihlabathi.

Izityalo ezingeyonzalelwane yalapha ezonakalisayo zitshabalalisa amandla okuvelisa omhlaba. Uhlobo lwezityalo ezizintyantyambo zaseKapa zinamandla amancinane okuxhathisa kunezityalo ezonakalisayo ezineziqo ezikhulu yaye zisebenzisa amanzi amancinane. Izityalo ezingeyonzalelwane yalapha ezonakalisayo zinamandla okuvutha angaphezu kwezalapha nto leyo ekhokelela kwimililo engacimekiyo etshabalalisa amathambeka eentaba zeSixeko sethu ngokuphindelela okoyikisayo. Izityalo ezonakalisayo zinamandla okuvutha ngobushushu bamatyeli ali-10 kunezityalo eziyinzalelwane yalapha, zitshabalalisa imbewu yeentyantyambo eginwe emhlabeni, okanye ezilungiselelwe ukumelana nemililo engatshisi kangako. Ezazo iingcambu ziyamelana nomlilo, nangona kunjalo, kangokuba izityalo ezingeyonzalelwane yalapha zidla ngokuntshula zomelele ngaphezu kwangaphambili kumhlaba osandula ukutsha.

ISixeko sizama ukufikelela kwikamva leSixeko elingenazityalo nazilwanyana zonakalisayo. Ngokwenza njalo, siza kusebenzisana namanye amaphulo nemibutho, efana neNkqubo ephumelele ibhaso engokuSebenzela aManzi, nekhokelwa liSebe leMicimbi yaManzi naMahlathi, ngokunjalo neNkqubo ejongene nokuSuswa kweZityalo ezingeyonzalelwane yalapha kwiPaka ekwiNtaba yeTafale.

Inkqubo engokuSebenzela aManzi yasekwa ngo-1995 ngeenzame zokoyisa ingxaki yezityalo ezonakalisayo

ezingeyonzalelwane yalapha nentswela-ngqesho. Le nkqubo igxile kuphuhliso lwentlalo – ngokukodwa ukudala amathuba emisebenzi, nalapho umyinge wama-60% ubekelwe bucala amakhosikazi, ama-20% ulutsha ze 2% ibekelwe abantu abakhubazekileyo – kodwa kukwenziwa uphando, kuphuhliswa imfundo namaphulo olwazi, kusaziswa amanyathelo angqingqwa olawulo kwizikhululo zeenqwelo-moya, kumazibuko nakwezinye izikhululo zemida yaye kuyilwa nescwangciso esibambekayo sezomthetho. Sele kubhengezwe imiqathango emitsha phantsi kweSebe loLondolozo lwezoLimo loMthetho ojongene neMithombo yezoLimo ukuthibaza ukugaleleka ngamanani aphezulu kwezityalo nezilwanyana ezonakalisayo ezingeyonzalelwane yalapha.

Inyathelo elibalulekileyo kukufundisa abantu ngemfuneko yokumisa ukwanda kwezityalo nezilwanyana ezingeyonzalelwane yalapha. Ngephulo iSantam/ Cape Argus Ukuvuka Operation Firestop elibanjwe eKapa ukususela ngo-2000 – 2005 ( 'lo ngudogo' weNkqubo engokuSebenzela aManzi), nalapho kwasuswa izityalo ezingeyonzalelwane yalapha ukususela kumyinge wama-78% omhlaba karhulumente kummandla ongqonge iNtaba yeTafale. Ngumyinge okuma-21% kuphela womhlaba wabucala kulo mmandla owasuselwa izityalo ezingeyonzalelwane yalapha.

Inkqubo engokuSebenzela aManzi inenombolo yayo yasimahla (0800-005-376) ukucebisa amanini mhlaba nabanye abantu abaxhalabileyo ngezinto abangazenza.



Sisenzo esingekho mthethweni ukungcolisa ngokulahla, kuqukwa nokulahla izijungqe zemidiza ukwisithuthi. Umthetho kamasipala olawula oku uza kumisela ngokukhawuleza izohlwayo ezingqongqo kwabo benza oko, ngeli xesha lowo unetyala eya kuba noxanduva lokuhlawulela umonakalo owenziwe ngumlilo kwipropati ekunokwenzeka oko kuyo.

## Ukumiselwa kwesicwangciso-qhinga

Onke amaphulo akhoyo eSixeko aza kudityaniswa yaye uhlanganiso olukhulu lweenjongo zezityalo nezilwanyana yaye ziza kwaziswa kumasebe onke eSixeko. ISixeko siza kusebenzisana namaphulo abalulekileyo olondolozo lwengingqi, iSicwangciso seNtshukumo yaBanti nokuSingqongileyo eKapa, ngokunjalo nokuqinisekisa uthungelwano lwezicwangciso-qhinga nePaka yeSizwe ekwiNtaba yeTafale, namaphulo eCapeNature olondolozo lweNdalo.

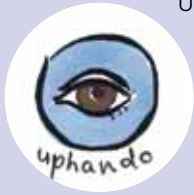
ISixeko asinakho ukuziphumeza iinjongo zeSicwangciso-qhinga esijongene neZityalo neZilwanyana ezohluneyo sisodwa. Owona mgaqo uphambili ulawulo esi sicwangciso-qhinga usebenza ngobuhlakani nemibutho eliqela nabantu abazimeleyo. Ubuhlakani obuphambili besi sicwangciso-qhinga buquka:

- ukuphuhliswa kobunkokeli bolondolozo lommandla ngokukodwa kwiindawo zentlalo ezazifudula zihlelelekile
- ukukhula kokubandakanyeka koluntu kulondolozo lwedolophu kusetyenziswa amanyathelo okusebenza ngqo kunokugxininisa kwimibutho nakwiintlanganiso
- uphuhliso lwezozoqosho kuluntu oluhlelelekileyo ngokwandiswa kobuchule bezozoqosho kwimithombo yethu yendalo
- ukwakha inkxaso nokukwabelana ngoxanduva.



Ifoto: Siyifumene ngoncedo lweSixeko saseKapa

## Ulondolozo lweNdalo kummandla we-Cape Flats



Ulondolozo lweNdalo kummandla we-Cape Flats yintsebenziswano eyodwa phakathi kweSixeko saseKapa, iZiko leSizwe elijongene neZityalo neZilwanyana ezoHlukeneyo kuMzantsi Afrika, iNgxowa-mali yeNtaba yeTafile (WWF-SA) kunye noMbutho wobuNzululwazi ngeZityalo woMzantsi Afrika, omanyene Nombutho weNtshukumo yoLuntu lweKapa nokuSingqongileyo (C.A.P.E). Injongo yale projekthi kukuziqhelisa ngokufanelekileyo ulawulo oluzinzileyo lwemimandla yolondolozo lwendalo ngendlela enenzuzo kwiindawo zentlalo ezingqongileyo, ngokukodwa kwiindawo apho ingeniso iphantsi yaye neemeko zentlalo zingaphucukanga.

Le projekthi yaphuhliswa ngokomxholo woMgaqo-nkqubo oHlanganisiweyo olawula imeko-bume esiNgqongileyo kwiNqila yeSixeko saseKapa neSicwangciso-qhinga esijongene neZityalo neZilwanyana ezohlukeneyo. Iziza zolingo ezikhethiweyo yayizezi: iPaka yeeNdawo eziManzi i-Edith Stephens, ummandla woLondolozo lweNdalo eWolfgat, ummandla weNgquzu noLondolozo lweNdalo eMacassar nase-Harmony Flats. Oku kuyinxalenye yeSixokelelwano lweZityalo neZilwanyana ezohlukeneyo seSixeko, nesibandakanya iintlobo ezibalulekileyo nezohlukeneyo zezityalo yaye sifumaneka sinxuse ezinye zezona ndawo zihlelekileyo zaseKapa, nalapho inzuzo yezemfundo, yokuzonwabisa neyezoqoqosho iziswa ngeprojekthi enokuvakala ngokukoko. Umbutho woLondolozo lweNdalo kummandla we-Cape Flats waqalisa ukusebenza ngo-2002, usakha yaye uxhasa amaphulo akhoyo kwisiza ngasinye.

Umbutho woLondolozo lweNdalo kummandla we-Cape Flats uxhase iinkqubo ekwaphuhliswa kuzo amaphulo okusingqongileyo engingqi kunye nabathathi-nxaxheba abanempembelelo emandla kumaphulo okusingqongileyo engingqi kunye nolwazi olufanelekileyo loluntu lwengingqi. Kwanyuswa ingxowa kulungiselelwa ukuqesha nokuqesha abalondolozo abatsha bendalo abaza kwenza umsebenzi wolawulo lolondolozo kwiindawo ezinezityalo zolingo. Umbutho woLondolozo lweNdalo awuloziko ngokunokwawo, kodwa yiprojekthi ecedisa ukuqalisa imisebenzi. ISixeko sihleli sinoxanduva solawulo lwemihla ngemihla lweziza yaye iqela lolondolozo lwendalo liphethwe ngabalawuli bemisebenzi kwiSixeko.

Kwamiselwa iindlela ezintsha zolawulo lolondolozo lwendalo – ngentsebenziswano emandla phakathi kweqela lolondolozo noluntu. Kwagxilwa ingakumbi kuthatho-nxaxheba loLuntu ngokusebenza, kunokusebenzisa imibutho yenkxaso, ngokunjalo neentshukumo ezincinane ezikhokelela kwiiprojekthi ezinkulu. Umzekelo, umnqweno wokufumana ulutsha lwengingqi lizibandakanye ekugadeni iintaka kwisiza ezinye kwajongwana nako ekuqaleni ngokusindleka imiboniso yezikhalo zeentaka njengexalenye yenkqubo yeeholide zezikolo. Amalungu olutsha amabini azimasa le projekthi abonisa umdla kungoku nje aqeqeshwa njengamagosa agada iintaka. Umbuzo owenziwa yititshala yengingqi ngolwazi lokusingqongileyo wakhokelela kuphuhliso loqeqesho olwenziwa rhoqo ngekota kummandla woLondolozo lweNdalo eCape Flats, intsebenziswano phakathi kwale projekthi neNkqubo ejongene neMfundo ngokuSingqongileyo yeZikolo ebandakanya abafundi abavela kummandla we-Cape Flats abali-100 behamba uhambo olude oluya kummandla we-Wolfgat, umyezo wezityalo neentyantyambo ePhilippi ukuya kwiPaka yeNdawo eManzi i-Edith Stephens. Apha endleleni bafunda ngemeko-bume yendalo nezinto ezisingqongileyo ezenziweyo zeSixeko sabo, ngaxeshanye bephuhlisa izakhono zobunkokeli nezokusebenza ngokwamaqela.

Umeli-mngeni wombutho woLondolozo lweNdalo kummandla we-Cape Flats kukuguqula iintshukumo ezincinane zibe ziinkqubo eziqhubekayo ezisebenza ngokuzimela. Umzekelo, kwinkqubo yeeNgquzu eMacassar umceli-mngeni kukuguqula le nkqubo ibe 'yeyeentsuku ezikhuselekileyo', nalapho amakhulu-khulu abafundi betyelela ezi ngquzu ukuya kwenza imisetyenzana yabo yemfundo ngokusingqongileyo, 'kwiindawo ezikhuselekileyo', nalapho kukhuselekile kumaqela amancinane ukuba ahambe engakhokelwa, ze ekugqibeleni ziguqulelwe 'kwimpahla ekhuselekileyo yezoqoqosho nelinye ixabiso' nezitsala umdla wabakhenkethi nabantu balapha ukuba batyelele le ndawo.

**Ithathwe: Biodiversity for the People: Intsebenziswano yoluntu ekhokelela kwimisebenzi yolondolozo lwendalo kummandla we-Cape Flats, Goldman, T, Mzwandile, L,P no-Hendricks, L.**

## Imiyezo yolondolozo lwendalo eKapa

ISixeko saseKapa sinoluhlu olubukekayo lwemiyezo yolondolozo lwendalo neendawo zolondolozo ezilungiselelwe ukuba abahlali neendwendwe zizonwabise kuzo. Kukho uluhlu olugcweleyo, nolwazi oluphathelele kwezi ndawo, nolunokufumaneka ekupheleni kwesi sahluko kwicandelo elijongene neMithombo noludwe lwaMaxwebhu ekufuyenwe kuwo ulwazi.



### IXoxo elibuNgwe (Leopard Toad) laseNtshona – Isilwanyana soLondolozo esiseziDolophini

Ixoxo elibuNgwe laseNtshona lisele elinomdlandla kodwa elisengozini yokubhanga. Eli xoxo lifumaneka kuphela kwimimandla enonxweme ukusuka eKapa ukuya eGulhas. Lizalela emanzini – kwezi ntsuku oku kwenzeka kwimihlaba yoluntu okanye yabucala apho kukho iziza ezimbalwa ezijikelezwe zizakhiwo zasezidolophini. Ngoko ke, intsebenziswano nabahlali abanegadi anokufumaneka kuzo la maxoxo xa engazali ibalulekile ukuze aqhubeke ephila. Enye ingozi yawo ziimoto yaye amaxoxo amaninzi afa ewela indlela ebusika. La maxoxo akhuselwe ngumthetho yaye akuvumelekanga ukuba uwaqokelele okanye uwase kwenye indawo.

Xa ufuna ulwazi oluthe xhaxhe ngala maxoxo naxa ufuna ukuwaqonda, yiya ku-[www.leopard.co.za](http://www.leopard.co.za)





foto: Sifumene ngomcedo lweSixeko saseKapa

# IZITYALO NEZILWANYANA EZOHLUKENEYO NEKHAYA LAK- HO OKANYE INGINGQI OHLA- LA KUYO

ISixeko asinako ukuphumeza iinjongo zeSicwangciso-qhinga saso seZityalo neZilwanyana ezohlukeneyo sisodwa. Umgaqo obalulekileyo oxhasa esi sicwangciso-qhinga usebenzisana nemibutho eliqela nabantu abohlukeneyo.

Ukuba sekhaya kweli lifa linomtsalane lezityalo nezilwanyana ezohlukeneyo kuthetha ukuba thina bemi baseKapa sinoxanduva olukhulu lokukhathalela le ndalo ililifa lethu. Indalo yezityalo nezilwanyana ezohlukeneyo ezifumaneka eKapa zisengozini emandla yaye ukuba asizilawuli sizilondoloze ngokufanelekileyo, uninzi lweentlobo zezityalo nezilwanyana zethu neendawo ezihlala kuzo esinazo okwangoku ziza kutshabalala umphelo. Ngokwengxoxo sisisizukulwana sokugqibela esinethuba lokusindisa uninzi lwezityalo nezilwanyana zethu. Ukuba asithathi manyathelo kwangoku, izizukulwana ezizayo azisayi kubona okanye zingcamle kwizinto esinazo ngoku.

Ezinye zezona ngozi zinkulu kwizityalo nezilwanyana zethu ezohlukeneyo eKapa ziquka:

- Ukunaba nokuphuhliswa kwedolophu
- Ukwanda kwenani labantu
- Ukunaba kweentlobo zezityalo nezilwanyana ezonakalisayo nezingeyonzalelwane yalapha
- Ubuxelegu, ukulahla izinto nongcoliseko
- Imililo yamadlelo etshisa rhoqo, ebangwa ngabantu
- Ukhuseleko olugqithisileyo kwimililo kwezinye iindawo



**Uvavanyo: Ingaba uzikhathalele kangakanani izityalo nezilwanyana ezohlukileyo?**

	Ewe	Hayi
Ingaba usoloko uqinisekisa ukuba umdiza ovuthayo awulahlwa ngefestile yenqwelomafutha yakho?		
Ingaba usoloko uya kulahla amaqhekeza akho amatye okanye inkunkuma yasegadini kwindawo yokulahla emiselwe oko akuyishiyi edlelweni?		
Ingaba usoloko uqinisekisa ukuba i-oyile okanye ezinye iimveliso zemichiza zilahlwa kwiindawo zokulahla ezimiselwe oko azilahlwa kumabala avulekileyo okanye kwimingxuma yamanzi?		
Ingaba unazo izityalo ezohlukeneyo eziyinzalelwane yalapha kwigadi yakho kunye/okanye kwingingqi yakho?		
Ingaba unazo iintaka eziyinzalelwane yalapha ezityelela igadi yakho rhoqo?		
Ingaba unawo amacilikishe, amasele okanye izinambuzane eziyinzalelwane yalapha ezifana nomntan'ezulu okanye amavingivane/amanundu kwigadi yakho kunye/okanye kwingingqi yakho?		
Ingaba ulususe lonke ukhula olonakalisayo olungeyonzalelwane yalapha, ngokubalulekileyo iRooikrans, Port Jackson, Kikuyu, Fountain Grass, Lantana ne-Chromolaena, kwigadi yakho?		
Ingaba ikati yakho inekhola okanye intsimbi yokulumkisa ngalo ndlela ikhusela izilwanyana ezincinane eziyinzalelwane yalapha?		
Ingaba uyakuthintela ukusebenzisa amayeza okubulala izitshabalalisi okanye iyeza lokubulala izityalo ezinezikhondo ezitshabalalisayo kwigadi yakho?		
Ingaba uyawaxhasa amaphulo engingqi yakho okulondoloza iindawo zendalo okanye 'nityale uhlaza' kumabala enu engingqi?		

Ukuba uphendule ngo-ewe kwimibuzo emithathu okanye ngaphezulu usendleleni eya ekubeni 'negadi/iindawo esemva kwendlu yakho' yezityalo nezilwanyana esempilweni! Ukuba uphendule ngo-hayi, uninzi lweengcebiso ezikwisahluko esithi Amanyathelo aSenzayo zingakunceda uqalise ukuhlala ngokusempilweni.



Ifoto: Siyifumene ngoncedo lweSixeko saseKapa

## AMANYATHELO ASEBENZAYO

Umhlaba ubungayindawo enesithukuthezi kwi-Homo sapiens (abantu) ngaphandle kwelizwi lentaka, ukubona kweentyantyambo ezidubuleyo unyaka ngamnye, ithemba lokubona icilikishe elityeni, ukwazi nje ukuba iindlovu neengonyama zisazibhadulela ngokukhululekileyo. Zininzi iindlela esinokuba negalelo ngazo ekusindiseni nasekukhuseleli izityalo nezilwanyana ezizodwa nezikhethekileyo esinazo eKapa. Nazi ezinye iindlela eninokuthi na njengabantu nanjengekhaya nikhusele yaye nilondolozwe ngazo izityalo nezilwanyana ezohlukeneyo:

### Ukulima igadi yezityalo eziyinzalelwane yalapha

Nokuba uhlala kwisizana esincinane, ukulima igadi kungaluncedo ukuzinzisa umhlaba, ukuthintela uthuli nentlabathi ephephethekela kwindlu yakho, ukwenza umthunzi ukupholisa indlu KUNYE nokubonelela ngendawo yokuhlala izilwanyana nezityalo – ukwenza indawo ekuhlala kuyo izityalo nezilwanyana nokuxhasa izityalo nezilwanyana ezohlukeneyo.

Nangona kunjalo, kubalulekile ukuba igadi zethu eKapa zigcwaliswe zizityalo eziyinzalelwane yalapha. Ezi zityalo zikhule nezilwanyana zengingqi kwixesha elide kubomi obunobunzima nekuyimfuneko ukuba sizixhase kunokuba sizonakalise ukuze sigcine iintlobo ezininzi zezinto eziphilayo kwesi sixokelelwano sobomi. Ngaphezulu, izityalo zengingqi zikhule eKapa kwiimeko ezinobunzima, ezinentlabathi ngalo ndlela ke zidinga ukuncenkcheshelwa kancinane – nto leyo ecutha umthamo wamanzi ekuyimfuneko ukuba uwagcine ukuze igadi yakho ibe ntle.

Ukuba uhlala kufuphi nePaka yeSizwe ekwiNtaba yeTafale, kummandla wolondolozo lwendalo okanye kwisiza esineentyantyambo ezininzi, kubalulekile ukuba ulime izityalo **zengingqi**, izityalo eziyinzalelwane yoMmandla weNqila yeKapa. Izityalo ezivela kude, ezifana nase-Hermanus, zingantshula neentlobo zasendle ezifana nazo ukwenza ibhastile nto leyo ejongela phantsi iinzame zolondolozo.

lingingqi ezohlukeneyo eKapa zineemeko ezohlukeneyo zokukhula kwezityalo, kuqukwa nobuninzi bemvula ngexesha elithile, ukuvela kwiindawo ezinomoya nohlobo lomhlaba, ngoko ke uhlobo oluthile lwesityalo alunakulungela wonke ubani. Ngolwazi oluthe vetshe ngeentlobo ezifanelekileyo zezityalo onokuzityala kwindawo yakho, khangela iwebhusayithi kule dilesi: [www.sanbi.org](http://www.sanbi.org) ze ukhethe icandelo elithi 'plantZAfrica'. Apha uza kufumana ulwazi ngokulima ngohlobo lwasendle noluhli lwezityalo ezinkcenkcesheleka lula. Qaphela ukuba oluluhlu luquka iintlobo zezityalo ezivela ngaphandle koMmandla weNqila yeKapa. Ngaphezulu, ummandla womyezo ofikelelekayo eKirstenbosch uvelise incwadana ebizwa ngokuba 'Greening South African Schools' efundisa ngendlela yokwenza igadi enezityalo eziyinzalelwane yalapha, yaye iyafumaneka kwiNcwadi yeeNcwadi eKirstenbosch.

Eminye imizekelo yezityalo eziyinzalelwane yalapha onokuzijonga xa ulimayo kwigadi yakho ekummandla we-Cape Flats garden ziquka ezi:

### Imithi

Camphor Bush (*Tarchonanthus camphoratus*)

Milkwood (*Sideroxylon inerme*)

Wild Olive (*Olea europaea subsp. africana*)

### Amatyholwana

Bietou (*Chrysanthemoides monilifera*)

Blombos (*Metalasia muricata*)

Blue Felicia (*Felicia aethiopica*)

Blue Salvia (*Salvia chameleagnea*)

Brown Salvia (*Salvia africana-lutea*)

Cape May (*Coleonema album*)

Dune Crowberry (*Rhus crenata*)

Dune Taaibos (*Rhus laevigata*)

Geelblombos (*Athanasia dentata*)

Wild Aster (*Felicia filifolia*)

Wild Dagga (*Leonotis leonurus*)

Wild Malva (*Pelargonium cucullatum*)

Wild Scabious (*Scabiosa incisa*)

Wild Rosemary (*Eriocephalus africanus*)

Yiba nenkathalo emandla ukuba **ungaze** ulime naluphi na uhlobo lwezityalo ezonakalisayo ezingeyonzalelwane yalapha kwigadi yakho. Iintlobo zezityalo ezonakalisayo ezingeyonzalelwane



*Rhus laevigata*



*Felicia filifolia*



*Salvia africana-lutea*



*Chondropetalum tectorum*

### Izityalo ezinesikhondo/ utyani olwambesa umhlaba

Arctotis (*Arctotis stoechadifolia*)

Arum Lily (*Zantedeschia aethiopica*)

Carpet Geranium (*Geranium incanum*)

Dekriet (*Chondropetalum tectorum*)

Glastee (*Cliffortia ferruginea*)

Pig's Ear (*Cotyledon orbiculata*)

Sea Lavender (*Limonium perigrinum*)

Sour Fig (*Carpobrotus edulis*)

yalapha ezifana ne-Rooikrans ne-Fountain Grass ziyingozi emandla kwizityalo nezilwanyana yaye zikwandisa namathuba engozi yemililo yasendle. Ngoku kusemthethweni phantsi koMthetho woLondolozo lweMithombo yezoLimo ukulima izityalo ezonakalisayo ezingeyonzalelwane yalapha. Zininzi iintlobo zezityalo eziyinzalelwane yalapha nezingonakalisiyo ezinokulinywa endaweni yezityalo ezonakalisayo kwigadi yakho. Eminye imizekelo yezityalo ekungafanelekanga ukuba zithengiswe nekufuneka zisuswe ngokubonakalayo kwigadi yakho ziquka:

### Imithi



Ifoto: Nick Helme

Crack Willow (*Salix fragilis*)

Manatoka (*Myoporum tenuifolium*)

Orange Cestrum (*Cestrum aurantiacum*)

Pines (e.g. Cluster Pine, *Pinus pinaster*)

Sweet Pittosporum (*Pittosporum undulatum*)

Wattles (e.g. Golden Wattle, *Acacia pycnantha*)

### Amatyholwana

American Bramble (*Ruibhasi cuneifolius*)

Hakeas (e.g. Sweet Hakea, *Hakea drupacea*)

Oleander (*Nerium oleander*)

Spanish Broom (*Spartinum junceum*)

Tickberry (*Lantana camera*)

Triffid Weed (*Chromolaena odorata*)

### Izityalo ezinesikhondo

Pampas Grass (*Cortaderia selloana*)

Patterson's Curse (*Echium vulgare*)

### Izityalo ezikhula emanzini

Red Water Fern (*Azolla filiculoides*)

Water Hyacinth (*Eichornia crassipes*)

Ngoluhlu olupheleleyo lweentlobo zezityalo ezonakalisayo ezingeyonzalelwane yalapha, nceda ukhangele kule dilesi yewebhusayithi: [www.invasive.species.sanbi.org](http://www.invasive.species.sanbi.org) okanye uqhagamshelane ne-ofisi kandlunku yeNkqubo engokuSebenzela aManzi kwiSizwe eKapa kule nombolo: (021) 441 2700.

## Ukugcina ubumelwane bakho ngokwendalo

Onke amabala avulekileyo kwiSixeko sethu, ingengawo nje kuphela amabala ophuculo abucala, kufuneka alinywe izityalo eziyinzalelwane yalapha. Khuthaza ukugcina amabala avulekileyo oluntu ekwimeko yendalo, umzekelo ngokulima imiqukumbelo enengca ngamatyholwana nezityalo ezinezikhondo eziyinzalelwane yalapha. Kananjalo kufuneka sizibandakanye ekukhuthazeni izikolo ukuba ziziqalele ezazo iigadi ezinezityalo eziyinzalelwane yalapha kumabala emidlalo nakwimiphetho yamabala azo. Amashishini engingqi anganomdla wokuxhasa ngemali iiprojekthi ezinjalo.



### Abalimi Bezekhaya: Ukutyala uhlaza kummandla we-Cape Flats

Abalimi, uMbutho ongaxhaswa nguRhulumente osekwe kwingingqi nojongene nophuhliso lokusingqongileyo, uxhasa ukusekwa kombutho osisigxina ojongene nokusingqongileyo kwiilokishi ezikummandla we-Cape Flats kusetyenziswa iiNkqubo zawo zoLimo

kwiidolophu nezingokutyalwa koHlaza kummandla we-Cape Flats. INkqubo engokutyalwa koHlaza kummandla we-Cape Flats uxhile ekuboneleleni ngemihombo nokunika inkxaso imibutho esakhasayo etyala uhlaza nelondoloza izityalo zalapha ngombono wokuvuselela imeko-bume esingqongileyo yezityalo eziyinzalelwane yalapha kwiilokishi zeli. Ukukhuthazwa kwenkcubeko yolwazi ngokusingqongileyo, imisebenzi eyenza inzuzo nokudalwa kwamathuba engqesho amiselekileyo kunye neempawu eziphambili ezimiliselwe kwiprojekthi nganye ukuqinisekisa ukubandakanyeka ngokuzinzileyo koluntu. Ngolwazi oluthe vetshe qhagamshelana Nombutho obizwa ngokuba: Abalimi kule nombolo yomnxeba: ( 021) 447 1256.



## Sisebenzela iSixeko esingenamichiza

Imichiza isoloko inetyhefu (izibulala-zitshabalalisi, izibulala zinambuzane, iparafini nedizili) yaye zonakalisa ngokudla (i-asidi yebhetri yemoto, izicoci zemisele nezezitovu okanye ibhilitshi). Ezi zinto kunzima ukuba isixokelelwano sendalo sizophule yaye zingonakalisa isixokelelwano sendalo ezidibana nazo – ukutyhefa izilwanyana ezingalungiselelwanga oko, ukutyhefa isixokelelwano samanzi nezityalo.

Kuphephe ukusebenzisa imichiza eyonakalisayo kwiigadi yakho. Khangela eminye echazwe phantsi kwesihloko esithi 'uLawulo lweZitshabalalisi' ekupheleni kwesahluko esingaNkunkuma kule ncwadi. Ngalo lonke ixesha khumbula ukuba igadi yezityalo eziyinzalelwane yalapha iza kudinga izibulala-zitshabalalisi ezingeninzinga njengoko zikhule ngokuzazi izilwanyana nezinambuzane zengingqi yaye zisebenza ngokwesixokelelwane esinye nezi zinto.

Xa uthenga, qiniseka ukuba uthenga iimveliso ezingenamichiza iyingozi. Oku kuthetha ukuba uza kuyeka ukudala ingxaki kwasekuqaleni! Yifunde ngocoselelo imiqondiso yeemveliso ukuze wazi ukuba kukho ntoni na kwimveliso leyo yaye ukhethe eyona ingeyongozi kakhulu. Icandelo leNkunkuma kule ncwadi libonelela ngamathuba anika umdla ongawasebenzisa endaweni yokucoca ngendlela yakudala nezinye iimveliso neengcebiso eziluncedo ukukubonisa ukuba ungasebenzisa ziphi iimveliso/imichiza.

Ngalo lonke ixesha yisa imichiza, i-oli esetyenzisiweyo nezinye izinto ezingeyondalo kwiziko ekulahlwa kulo iNkunkuma ePhathekayo leSixeko okanye kwelinye iziko eliqokelela izinto ezingasetyenziswayo elimiselekileyo

(i-oli esetyenzisiweyo ingasiwa kuyo nayiphi na igaraji/sikhululo senkonzo yezithuthi nalapho iza kuqokelelwa ze irisayiklshwe ngabe-Rose Foundation – jonga icandelo leNkunkuma). Ezi zinto mazingalahlwa kwimingxuma yamanzi amdaka okanye esitalatweni. Nayiphi na imichiza elahlwe kumngxuma wamanzi amdaka nakumsele wamanzi esitshi ziphelela empilweni yethu, kumachweba nakwiilwandle, zibulala yaye zitshabalalise izityalo nezilwanyana.

## Gcina ubumelwane bakho bucocekile yaye kungekho ngozi kokusingqongileyo

Inkunkuma yasegadini, yasendlini neyezakhiwo kufuneka isiwe kwiziko lengingqi ekulahlwa kulo iNkunkuma ePahthekayo (jonga icandelo leNkunkuma). Ukulahla inkunkuma enjalo emadlelweni yenye yeendlela ezininzi ekonakaliswa ngayo imimandla yethu yendalo. Amaqhekeza amatye okwakha angacumza izityalo zendalo. Inkunkuma yasegadini inento eyonakalisayo yezityalo, efana nengca iKikuyu, nethi itshabalalisa idlelo. Kubaluleke kakhulu ukuba singashiyi, okanye nilahle, iiglas ezophukileyo edlelweni. Oku kungenza ukuba ubushushu bugxile ndaweninye nto leyo ekhokelela kwimililo.



Ukulahla inkunkuma edlelweni, okanye nakuyiphi na indawo evulekileyo lulwaphulo-mthetho. Ukuba uthe wabona nabani na elahla inkunkuma, nceda uqhagamshelane namaPolisa eNqila kule nombolo: (021) 596 1999 ukuxela eso senzo.

Naliphi na iphepha, iplastiki okanye inkunkuma elahlwe esitalatweni, emhlabeni okanye naphi na apho kungeyondawo yokulahla inkunkuma ibizwa ngokuba 'kukungcolisa'. Yonke inkunkuma ephelela kwimimandla yendalo, ngokukodwa iplastiki, iyingozi kakhulu kwizilwanyana. Iindawo ezininzi zokutywina zihlala ziseplastikini zijijele iintamo zezilwanyana, nto leyo esika izikhumba zazo zizibulale. Isixeko sinikezela ngenkonzo yokuthuthwa kwenkunkuma kuzo zonke iindlu. Yisebenzise le nkonzo ukuthutha nayiphi na inkunkuma ongenakho ukuyisebenzisa kwakhona/ukuyirisayiklisha!



Ungaqhubi isithuthi sakho okanye itraki ngaselunxwemeni (qaphela ukuba iMiqathango elawula ukuSetyenziswa kweZithuthi ngaPhandle kwendlela iyakuthintela oku ngaphandle kokuba ukhululiwe okanye unemvume eyodwa), okanye kwimimandla yendalo. Ukuba unesithuthuthu ibhayisikili emavili mane, yikhwele kuphela kwiindawo ezimiselwe oko ngokufanelekileyo nezibekelwe bucala ukwenza oku.

## Zibandakanye kwimisebenzi yokusingqongileyo yengingqi

Ukulawula ihlabathi lethu lendalo luxanduva lomntu wonke yaye umsebenzi omkhulu wenziwa ngokuzithandela kungajongwanga nzuzo. Ngeli xesha oku kunganiki nzuzo yamali, kukho inzuzo enkulu kubantu abazibandakanya namaqela okuzinikela kokusingqongileyo. Umsebenzi onjalo ukukhuthaza ukuba uphume wonwabele indalo yethu elilifa yokusingqongileyo. Ngumsebenzi wentlalo owakha ubuntu. Lo msebenzi wokuzinikela ukhuthazwa ngakumbi nguMongameli Mbeki.

IKapa linothungelwano olusebenzayo lwamaqela okusingqongileyo, imibutho namaqumrhu, afana neQela elijongene neeNtaka eKapa, isebe le-Birdlife SA, nombutho wezolimo ezidolophini nokutyalwa kohlaza ezidolophini owaziwa ngokuba yi-Abalimi Bezekhaya. Uninzi lwemimandla yolondolozo lwendalo yaseKapa inamaqela asebenzayo abahlobo

(umzekelo: Friends of Rietvlei) oncedisa ukulawula ummandla wolondolozo lwendalo yaye wenze neqela lemisebenzi yokuzinikela equka ukususwa kwezityalo ezonakalisayo ezingeyonzalelwane yalapha, imfundo nolwazi, ukususwa kwenkunkuma nolondolozo lwendawo. La maqela aphantsi kwe-WESSA – uMbutho ojongene neZilwanyana zaSandle neZityalo kokuSingqongileyo eMzantsi Afrika – owona mbutho mdala nomkhulu woMzantsi Afrika ongaxhaswa ngurhulumente, ubulungu bawo busekelwe kwimibutho yokusingqongileyo nombono wawo ikukuphakamisa uthatho-nxaxheba loluntu ekukhathaleleni umhlaba. Umbutho iWESSA ukwaxhasa yaye ukhuthaza ukumiselwa kwamaqumrhu okusingqongileyo nolawulo lwemimandla esingqongileyo kwingingqi kusetyenziswa amasebe awo.

### IMibutho yeBahlobo eKhoyo kummandla weKapa

Afro Montane Information Forum

Friends of Bain's Kloof

Friends of the Blaauwberg Conservation Area (BCA)

Boland Environment Forum

Bot River Estuary & Environs 'Botfriends'

Friends of Bracken Nature Reserve

Friends of Cecilia Forest

Friends of Constantia Valley Greenbelts

Durbanville Environment Forum

Friends of the Cape of Good Hope

Friends of Helderberg Nature Reserve

HOPE Group (Hillside-Highway Organisation For Protection of The Environment)

Friends of the Liesbeek

Friends of Lion's Head

Friends of Little Princess Vlei

Friends of Meadowridge Common

Montagu Eco Club

Montagu Nature Garden Association

Friends of Paarden Eiland



Ifoto: Siyifumene ngoncedo lweSixeko saseKapa

Friends of Rietvlei  
 Friends of Rondebosch Common  
 Scarborough Conservation Group  
 Friends of Silvermine Nature Area  
 Friends of Simon's Town Coastline  
 Simon's Town Flora Conservation Group  
 Friends of the Glen  
 Friends of Tokai Forest  
 Friends of Tygerberg Hills  
 Friends of Wolfgat



Ifoto: Sijifumene ngoncedo lweSixeko saseKapa



## Ulonolozo lwendalo loluntu

Ummandla wolondolozo lwendalo iHarmony Flats Nature Reserve sisiza esincinane esingaphantsi kwee-akile ezili-10, nangona kunjalo, sihlala kwiindidi ezohlukeneyo zezityalo ezikhethekileyo ezifana nezitswele, ezinye zinqabile kakhulu. Esi siza sikummandla we-Strand, yaye singqongwe ziindawo zentlalo ezihlelekileyo ezingenandlela yakufikelela kwimithombo. Kusetyenziswa iprojekthi Cape Flats Nature kwasekwa **iqela elisebenzayo loluntu iHarmony Flats Nature Reserve ngo-2003**. Eli qela lokuzinikela liqhuba amaphulo okwazisa ngemililo kwizindlu ngezindlu namaphulo olwazi jikelele ngalo mmandla wolondolozo lwendalo. Abahlali ngoku bangabacimi-mlilo abazinikeleyo. Iqela elisebenzayo lisuse izityalo ezingeyonzalelwane yalapha, uthintelo lokhukhuliseko yaye laphuhlisa iindlela zokwenza lo mmandla ube ngokhuselekileyo yaye ulawulwe ngokufanelekileyo ukuze abantwana badlale yaye bafunde nto kuwo. Kule minyaka imbalwa idlulileyo eli qela likhokele inkqubo yezemfundo ngokusingqongileyo ngeVeki yokuTyalwa kweMithi, likhokela abafundi abangama-400 kulo mmandla wolondolozo, libazisa ngezityalo ezikhethekileyo yaye bechazelwa nangembali yonxulumano loluntu nommandla wendalo obukekayo.

Kumathambeka eNtaba yeTafile, umbutho we-**Friends of Tokai Forest** wafumana inkxaso-mali yehlabathi evela kwiNgxowa-mali ye-Critical Ecosystems Partnership Fund ukuzama ukwenza uluntu luzibandakanye ekugcineni ii-akile ezimbini zommandla weeNtyantyambo ezikumhlaba oyiNtlabathi kwiKapa eziseNgezini eMbi. Le ndawo ikhethiweyo ikufuphi nentsalela ekhoyo yommandla weentyantyambo exhasa iintlobo ezininzi zezityalo iRed Data. Umbutho wamahlathi eMTO wasusa icandelo lemithi etyaliweyo yompayina ngeli xesha umbutho wePaka yeSizwe ekwiNtaba yeTafile yancedisa ngokutshisa ngaphambi kokususwa ngo-Epreli 2006 ukukhuthaza ukuntshula kwembewu yeentyantyambo kweli thambeka. Abahlobo basuse idywabasi egingeyonzalelwane yalapha kummandla otshisiweyo (*Acacia saligna* ne-*A. longifolia*) yaye bakhangela ngocoselelo ukukhula ngokutsha kwezityalo ezizizihluma – ezingaphezu kweentlobo ezili-100 okwangoku ezibhaliweyo. Iqela laBahlobo lifumene iza kummandla omanzi iSoetvlei ukugcina le ndawo ingenazo izityalo ezonakalisayo kunye nokuncedisa ezinye iiprojekthi kummandla weZityalo ezilinyiweyo eTokai.

Ukuba akunakho ukuxhasa iqela labazinikeleyo ngokuthatha inxaxheba ebonakalayo, cinga ngokuxhasa ngezinye iindlela, ezifana nokunikela – nokuba kungemali okanye ‘ukunikela ngesisa’ (izixhobo, imithi, njalo, njalo). Umzekelo, Abalimi Bezekhaya baneProjekthi yeMithi kummandla weKapa nalapho abantu benokubhalisa, njengabahlobo abafumana nabajikelezisa ulwazi ngale projekthi, okanye njengabanikeli. Iminikelo ingenziwa lula ngokuthunyelwa kwiwebhusayithi yalo mbutho.

## Yonwabele imeko-bume ekungqongileyo nako konke enako

Ndwendwela uxhase ummandla wengingqi wolondolozo lwendalo. Imimandla yolondolozo lwendalo ikho ukuze konwatywe kuyo ngabantu bonke yaye ziindawo ezintle ukuphumla kuzo uwedwa okanye nilusapho. Iinkcukaha zoqhagamshelwano zayo yonke imimandla yolondolozo lwendalo yeSixeko saseKapa iyafumaneka kwicandelo lethu leMithombo neleZalathisi. IKapa lilodwa ngokuba nepaka yesizwe esikwimida yalo (iNtaba yeTafile) yaye lizingca ngommandla wezityalo neentyantambo ezohlukeneyo owaziwa kwihlabathi liphela eKirstenbosch.



Ifoto: Siyifumene ngoncedo lweSixeko saseKapa

# IINKCUKACHA ZOQHAGAMSHELWANO NEZIBONELELO EZIKHOYO

Abalimi Bezekhaya 'the planters': Iprojekthi yasezidolophini yezolimo nokukhathalela indalo eluhlaza: ifowuni (021) 447 1256, imeyili: abalimi@iafrica.com, Web: www.abalimi.org.za

Botanical Society of South Africa: ifowuni (021) 797 2090

Inombolo yeeNkonzo zoThutho lweNkunkuma, eyoCoco neyokuLahlwa kweNkunkuma yeSixeko saseKapa: 0860 103 089

Icandelo loLawulo lweZityalo neZilwanyana leSixeko : email: biodiversity@capetown.gov.za

Isebe leMicimbi yaManzi naMahlathi, iOfisi yoMmandla, ifowuni. (021) 950 7100

Eskom, Koeberg Nature Reserve: tel. (021) 550 4021, web www.eskom.co.za

Iofisi yolwazi yaseKirstenbosch National Botanical Garden: ifowuni (021) 799 8783

Ukuchaza izinto ezinxamnye nomthetho (ezibandakanya ukulahlwa kwenkunkuma) kuMapolisa eSixeko, fowunela kwa-(021) 596 1999.

Table Mountain National Park: ifowuni. (021) 701 8692, imeyili: tablemountain@sanparks.org, web: www.tmntp.co.za

Ukujoyina okanye ukuqala iqela la`Bahlobo' qhagamshelana nomququzeleli we-WESSA National Friend, uMarion Dunkeld-Mengell: ifowuni/ifeksi (012) 667 2183, iselifowuni 083 455 1736

Wildlife and Environmental Society of South Africa, Iofisi yoMmandla weNtshona Koloni: ifowuni (021) 701 1397, imeyili: andy@wessa.wcape.school.za

Inombolo engahlawulelwayo ye-Working for Water : 0800 005 376

## Amathala oLondolozo lweNdalo neMimandla yeNdalo

### Ithala leNdalo laseAtlantis

**Iiyure:** 07:00 – 19:00

**Amangeno:** R100 nge-4X4 nganye ebandakanya abakhweli abane, abanye abantu yiR9.00 ipemethi, izithuthuthu R60,00; R9.00 umntu ngamnye ukuhamba esantini nokunyuka intaba

**Isithuthi:** Iteksi

**Izinto ezikhoyo:** Ukunyuka intaba, ukuhamba esantini, imizila yee-4X4 neyezithuthuthu

**Imfundo ngokusiNgqongileyo:** Uyifumana xa ucele phambi kokuba uze

**Uqhagamshelwano:** Ifowuni (021) 577 5000; imeyili Tumeka.Mdlazi@capetown.gov.za

All photos in this section Courtesy City of Cape Town



### Ummandla woLondolozo waseBlaauwberg, eBloubergstrand

Kukho iintlobo ezintathu zezityalo, iCape Flats Dune Strandveld, Swartland Shale Renosterveld neCape Flats Sand Fynbos.

**Iiyure:** Ngaselwandle: kusasa de kutshone ilanga (zosi-7 iintsuku ngeveki); Indawo yokoja nokwenza ipikniki yase-Eersteste: 08:00 – 19:00 (Nov – Apr), 08:00 – 17:00 (Meyi – Okt); Blaauwberg Hill: okwangoku ungena kuphela xa ubufake isicelo kwangaphambili

**Amangeno:** Akakho ngaphandle kweEersteste Resort eyi-R6,00 umntu ngamnye

**Isithuthi:** Iteksi okanye ibhasi

**Izinto ezikhoyo:** Iindawo zepikniki, iindawo zokoja, ukunyuka intaba, iindawo zokutyibiliza kumaza olwandle, ukubukela iintaka, ukubukela iminenga, ukuloba (kufuneka imvume), izinto ezenziwa ngamaqela 'Abahlobo' qho ngenyanga

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo ngokusiNgqongileyo ngoMmandla woloNdolozo waseBlaauwberg (nceda ubhukishe)

**Indawo yokulala:** Ayikho

**Qhagamshelana:** Ifowuni nefeksi (021) 554 0957, imeyili bca@capetown.gov.za



### Ithala leNdalo iBracken, eBrackenfell

Eli thala lendalo lixhasa izityalo iCape Flats Sand Fynbos neSwartland Granite Renosterveld.

**Iiyure:** 07:30 – 16:00 (ngeentsuku zeveki); ayivuli ngeempelaveki

**Amangeno:** Akakho

**Isithuthi:** Iteksi okanye ibhasi

**Izinto ezikhoyo:** Iipikniki, ukubukela iintaka, iindawo zokuhamba-hamba ngenyawo ekulula ukuba kuqhutye neztitulo zabakhubazekileyo kuzo

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo

ngokusiNgqongileyo laseBrackenfell

**Indawo yokulala:** Ayikho

**Qhagamshelana:** Ifowuni nefeksi (021) 982 1323, Imeyili: Tshepo.Mamabola@capetown.gov.za

### Ithala leNdalo iDick Dent, kummandla waseSomerset West

**Qhagamshelana:** ifowuni (021) 851 6982, ifeksi (021) 851 2148, imeyili: HelderbergNature.Reserve@capetown.gov.za



### Ithala leNdalo iDurbanville, elimelene nebala lamahashe laseDurbanville

Izowuni yotshintsho yeSwartland Shale Renosterveld neCape Flats Sand Fynbos.

**Iiyure:** 07:30 – 16:00 (ngeentsuku zeveki); ayivuli ngeempelaveki

**Amangeno:** Akakho

**Isithuthi:** Itekisi okanye ibhasi

**Izinto ezikhoyo:** Iindawo zepikniki, iindlela zokuhamba-hamba, ukubukela iintaka, inqugwalana (gazebo) elivulekileyo lokubambela iintlanganiso

**Imfundo ngokusiNgqongileyo:** Izinto ezifundisayo zabantwana lisebenzisana ne“Cape for Kids” (nceda ubhukishe)

**Indawo yokulala:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 970 3097, ifeksi (021) 979 0093

Imeyile: Vibeke.Kragh@capetown.gov.za



### Ipaki yoMgxobhozo iEdith Stephens, ePhilippi

Lo mgxobhozo uxhasa iintlobo-ntlobo zeentaka.

**Iiyure:** 07:30 – 16:00 (ngeentsuku zeveki); nceda ubhukishe ngeempelaveki

**Amangeno:** Akakho

**Isithuthi:** Itekisi okanye ibhasi

**Izinto ezikhoyo:** Iindawo zepikniki, imigxobhozo yamaxesha onyaka athile, ukusebenzela inesari yemigxobhozo, igadi yezoLimo yaseziDolophini, igadi yamayeza.

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo lase-Edith Stephens

**Indawo yokulala:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 691 8070, ifeksi (021) 691 7375, imeyili: Luzann.Isaacs@capetown.gov.za

### Ithala leNdalo iGreater Zandvlei, eMarina da Gama

Eli chweba lomlambo lixhasa iintlobo-ntlobo zeentlanzi neentaka.

**Iiyure:** 07:30 – 16:00 (ngeentsuku zeveki); ayivuli ngeempelaveki

**Amangeno:** Akakho

**Isithuthi:** Uloliwe

**Izinto ezikhoyo:** isithintelo-maza, isigu seentaka, iindawo zepikniki, ukukhwela inqanawe, ukuhamba-hamba

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo ngokusiNgqongileyo laseZandvlei elikufuphi kwisitishi sikaloliwe saseSteenbarg (bhukisha phambi kokuba uye ukuba ufuna ukuboniswa iirepthayili)

**Indawo yokulala:** Ayikho

**Uqhagamshelwano:** Ifowuni nefeksi (021) 701 7542, i-imeyili [Cassandra.Sheesby@capetown.gov.za](mailto:Cassandra.Sheesby@capetown.gov.za)

[Markclive.Arendse@capetown.gov.za](mailto:Markclive.Arendse@capetown.gov.za) xa ufuna ukufundiswa ngendalo

### Ithala leNdalo iHarmony Flats, kummandla waseSomerset West

**Uqhagamshelwano:** ifowuni (021) 851 6982, ifeksi (021) 851 2148, imeyili: [HelderbergNature.Reserve@capetown.gov.za](mailto:HelderbergNature.Reserve@capetown.gov.za)



### Ithala leNdalo iHelderberg, eSomerset West

Eli thala lendalo lixhasa isityalo iKogelberg Sandstone Fynbos neBoland Granite Fynbos nezityalo ezingeninzanga kakhulu ze-bontebok.

**Iiyure:** 07:30 – 17:30 (Meyi ukuya kuOktobha); 07:30 -19:00 (Novemba ukuya kuEpreli) lintsuku ezisi-7 ngeveki

**Amangeno:** R6,00 kwabadala; R4.00 kumaxhego namaxhegwazana (eze nee-ID); R3,00 kubantwana ze ibe yi-R5,00 kwizithuthi

**Isithuthi:** Itekisi

**Izinto ezikhoyo:** Indawo yepikniki, Duck Inn Restaurant, iziko lolwazi, iivenkile yezipho, ukuboniswa kwemyuziyam, ukunyuka intaba; iikonsathi eziba sekutshoneni kwelanga, indawo yamayaza aziingcambu (ivula ngo-10:00 – 16:00)

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo ngokusiNgqongileyo iMike Woods (nceda ubhukishe ngkufowunela kwa-(021) 852 8831)

**Indawo yokulala:** Sugarbird Campsite (xa ufuna ukulala apha, fowunela kwa-(021) 852 8831)

**Uqhagamshelwano:** Ifowuni nefeksi (021) 851 2148, imeyili: [HelderbergNature.Reserve@capetown.gov.za](mailto:HelderbergNature.Reserve@capetown.gov.za)

### Ithala leNdalo iKenilworth Racecourse

**Iiyure:** Wenza amalungiselelo xa ufuna ukutyelela

**Amangeno:** Akakho

**Isithuthi:** Itekisi okanye ibhasi

**Izinto ezikhoyo:** Ukuhamba-hamba; ulawulo lwezityalo ezingaqhelekanga

**Imfundo ngokusiNgqongileyo:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 700 1843; imeyili: [mayaS@goldcircle.co.za](mailto:mayaS@goldcircle.co.za)

### Ithala leNdalo iKogelberg, eGordon's Bay

Eli thala lezilwanyana nezityalo lixhasa isityalo iKogelberg Sandstone Fynbos.

**Iiyure:** 07:30 – 16:00 (ngeentsuku zeveki); iNdlela eTyhutyhayo iSteenbras Gorge ivula ngazo zosi-7 iintsuku ngeveki

**Amangeno:** R15,00 ukungena eSteenbras Gorge (abantu abali-50 ngosuku ubuninzi; iipemethi zifumaneka eSunbird Lodge ekufuphi nale ndawo)

**Isithuthi:** Iteksi

**Izinto ezikhoyo:** ukunyuka intaba, ukuhla entabeni ngentambo, umdlalo wokuzijula eliweni ubanjwe ngentambo (okwenziwa yinkampani yangaphandle)

**Indawo yokulala:** Ukukhempisha (ukubhukisha, fowunela kwa-(021) 856 1286)

**Uqhagamshelwano:** ifowuni (021) 851 4975, ifeksi (021) 851 2148, imeyili: HelderbergNature.Reserve@capetown.gov.za

### Ithala leNdalo iLourens River, kummandla waseSomerset West

**Uqhagamshelwano:** Ifowuni (021) 851 6982, ifeksi (021) 851 2148, imeyili: HelderbergNature.Reserve@capetown.gov.za

### Ithala leNdalo leeNgquzu zeNtlabathi eMacassar, eKhayelitsha/Macassar

Ezi ngquzu zentlabathi ezingaselwandle zixhasa iCape Flats Dune Strandveld (Izityalo ezikhula kwiiNgquzu zeNtlabathi).

**Iiyure:** 07:30 – 16:00 (ngeentsuku zeveki); ayivuli ngeempelaveki

**Amangeno:** Akakho

**Isithuthi:** Iteksi okanye ibhasi

**Izinto ezikhoyo:** Ukwenza ipikniki, ukuloba ngaselwandle, ukunyuka intaba nokudada

**Imfundo ngokusiNgqongileyo:** linkqubo zemfundo zangaphandle

**Indawo yokulala:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 371 5141, ifeksi (021) 374 1910, imeyili: Lewine.Walters@capetown.gov.za

### Ithala leNdalo laseMamre

**Iiyure:** Wenza amalungiselelo xa ufuna ukutyelela

**Amangeno:** Akakho

**Isithuthi:** Iteksi

**Izinto ezikhoyo:** Indawo yepikniki Ukuhamba-hamba

**Imfundo ngokusiNgqongileyo:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 577 5000; imeyili: Charlene.Liedeman@capetown.gov.za



### Ithala loMgxobhozo laseRietvlei, eTable View

Lo mgxobhozo unezityalo zeCape Flats Dune Strandveld ezixhasa iintlobo-ntlobo zeentaka.

**Iiyure:** 07:30 – 16:00 (ngeentsuku zeveki); 09:00 – 17:00 (ngeempelaveki)

**Amangeno:** R5 umntu ngamnye; R15 isithuthi ngasinye

**Isithuthi:** Iteksi okanye ibhasi

**Izinto ezikhoyo:** Isikhitshana sokuhamba emanzini, iindawo

zepikniki, iindawo zokuloba, iindawo zokoja, ukunyuka intaba, isigu seentaka

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo laseRietvlei

**Indawo yokulala:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 557 5509, imeyili: rietvlei.students@capetown.gov.za, webhsayithi: www.friendsofrietvlei.co.za

### IRondebosch Common

**Iiyure:** Azikho

**Amangeno:** Akakho

**Isithuthi:** Iteksi, ibhasi okanye uloliwe

**Izinto ezikhoyo:** linyatyambo zasentwasahlobo, imizila yembali yepikniki, ukunkcunkca, ukukhwela ibhayisikile, ukuhambisainja

**Imfundo ngokusiNgqongileyo:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 700 1843; imeyili: mayaS@goldcircle.co.za



### Ithala leNdalo iRondevlei, eGrassy Park

Lo mgxobhozo uxhasa iintlobo-ntlobo zeentaka. Ulikhaya kwiimvubu (iihippo) neentlobo ezizodwa ezimbini zezityalo, iCape Flats Sand Fynbos neCape Flats Dune Strandveld.

**Iiyure:** 07:30 – 17:00 (lintsuku ezisi-7 ngeveki)

**Amangeno:** Abadala R6,00; Abantwana (abaneminyaka emi-3 ukuya kweli-13) R3,00; amaxhego namaxhegwazana R4,00; iimvume zokuloba zamihla le kwabadala yi-R30,00 ze kubantwana ibe yi-R10,00

**Isithuthi:** Itekisi okanye ibhasi

**Izinto ezikhoyo:** Iindawo zepikniki, izigu zeentaka, izakhiwo ezide zokubukela indalo, imyuziyam, iakhwariyam, iindawo zokuloba, ukuhamba ngesikhithshana, iikhempu zokulala ebusuku, isakhiwo esinezibonelelo zenkomfa

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo ngokusiNgqongileyo laseRondevlei; Leonard Gill Field Museum (nceda ubhukishe)

**Indawo yokulala:** Island Bush Camp elawula yi-Imvumbu Nature Tours

**Uqhagamshelwano:** Ifowuni (021) 706 2404, ifeksi (021) 706 24045, Imvubu Nature Tours, ifowuni (021) 706 0842; xa ufuna ukukhempisha ubusuku bonke kwiCape Town Environmental Education Trust, fowunela kwa-(021) 706 8523

imeyili: [RondevleiNatureReserve@capetown.gov.za](mailto:RondevleiNatureReserve@capetown.gov.za)

### Ithala leNdalo iSilwerboomkloof, eSomerset West

**Uqhagamshelwano:** Ifowuni (021) 851 6982, ifeksi (021) 851 2148, imeyili: [HelderbergNature.Reserve@capetown.gov.za](mailto:HelderbergNature.Reserve@capetown.gov.za).

### I-Two Rivers Urban Park, edibanisa neRaapenberg Bird Sanctuary

**Iiyure:** Azikho

**Amangeno:** Akakho

**Isithuthi:** Itekisi, uloliwe

**Izinto ezikhoyo:** Indawo yepikniki, ukubukela iintaka

**Uqhagamshelwano:** Ifowuni (021) 700 1843; imeyili: [mayaS@goldcircle.co.za](mailto:mayaS@goldcircle.co.za)



### Ithala leNdalo iTygerberg, Bellville

Eli thala lendalo lixhasa izityalo zokugqibela ezisengozini yokutshatyalaliswa ezibizwa ngokuba yiSwartland Shale Renosterveld.

**Iiyure:** 09:00 – 16:00 (ngeentsuku zeveki); 09:00 – 18:00 (ngeempelaveki nangeeholide zikawonke-wonke)

**Amangeno:** Akakho

**Isithuthi:** Itekisi okanye ibhasi

**Izinto ezikhoyo:** Ukunyuka intaba, iindawo zepikniki, ukubukela iintaka, ukubukela indalo nje xa iyonke

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo ngokusiNgqongileyo laseKristo Pienaar linemidlalo efundisayo yabantwana (nceda ubhukishe)

**Indawo yokulala:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 913 5695, ifeksi (021) 913 6268

### Ithala leNdalo iUitkamp, kummandla waseDurbanville

**Uqhagamshelwano:** ifowuni (021) 970 3097

### IMigxobhozo yaseUitkamp

**Iiyure:** Azikho

**Amangeno:** Akakho

**Isithuthi:** Iteksi, ibhasi

**Izinto ezikhoyo:** Imigxobhozo eneentyatyambo ezinika umdla, amasele neentaka

**Imfundo ngokusiNgqongileyo:** Ayikho

**Uqhagamshelwano:** ifowuni (021) 970 3097



### Ithala leNdalo iWolfgat, eMitchells Plain

Iingquzu zentlabathi ezixhasa isityalo iCape Flats Dune Strandveld.

**Iiyure:** 07:30 – 16:00 (ngeentsuku zeveki); ayivuli ngeempelaveki

**Amangeno:** Akakho

**Isithuthi:** Iteksi okanye ibhasi

**Izinto ezikhoyo:** Ukwenza ipikniki, ukuloba ukuloba kwiindawo ezilungiselwe oko ezingaselwandle (kufuneka imvume); iintaka zonxweme, ukudada

**Imfundo ngokusiNgqongileyo:** Iinkqubo zemfundo ezibonelelwa ngamaziko angaphandle

**Indawo yokulala:** Ayikho

**Uqhagamshelwano:** Ifowuni (021) 371 5141, ifeksi (021) 374 1910, imeyili: Charline.McKie@capetown.gov.za



### Ithala leNdalo iZeekoevlei, ePelican Park

Lo mgxobhozo uxhasa iintlobo-ntlobo zeentaka.

**Iiyure:** 07:30 – 19:30 (Ehlotyeni, lintsuku ezisi-7 ngeveki); 07:30 – 18:00 (Ebusika, lintsuku ezisi-7 ngeveki)

**Amangeno:** Akakho

**Isithuthi:** Iteksi

**Izinto ezikhoyo:** Ukwenza ipikniki, ukuloba

**Imfundo ngokusiNgqongileyo:** Iziko leMfundo

ngokusiNgqongileyo laseZeekoevlei

**Indawo yokulala:** Bhukisha xa ukukhempisha ufowunele kwa-(021) 706 8523

**Uqhagamshelwano:** Ifowuni (021) 706 2404, Ifeksi (021) 706 2405,  
imeyili: ZeekoevleiNature.Reserve@capetown.gov.za

**IMigxobhozo yaseZoarvlei**

**Iiyure:** Azikho

**Amangeno:** Akakho

**Isithuthi:** Iteksi, ibhasi

**Izinto ezikhoyo:** Ukuhamba-hamba, ukubukela iintaka

## Ukufunda le ncwadi kuza kukunceda ukuba

- Wonge imali ngokuthi ulawule ikhaya lakho ngendlela eyiyo.
- Uphucule ukhuseleko ekhaya.
- Ukuqonda imiba ebalulekileyo yokusingqongileyo esijongene nayo xa sisonke.
- Ukuqonda imirhumo yeSixeko.
- Ukwazi ukuba mawuye phi xa ufuna uncedo okanye iingcebiso ngeenkono zeSixeko.
- Ukuzama obunye ubuchwepheshe obufana nezishushubezi zamanzi ezisebenza ngelanga.
- Ukutyebisa ulwazi lwakho nokonwabela amathala endalo akwimimandla yethu.
- Ufunde ukulungisa into evuzayo, ukutshintsha iglowubhu yesibane, ukufakela isilingi, ukujika inkunkuma yakho ibe ngumgquba kunye nezinye izinto ezincinci eziya kukunceda ukuba uphile ngokukhuselekileyo, ulondolozelwe okusingqongileyo kunye nemali yakho.

