



INCWADANA yokuphila ngokulumkileyo



Ukwenza uphuhliso olusisigxina lube yimpumelelo kumakhaya aseKapa

INKUNKUMA

I-ENEJI

AMANZI

IZITYALO NEZILWANYANA

INCWADANA yokuphila ngokulumkileyo



Ukwenza uphuhliso olusisigxina lube yimpumelelo kumakhaya aseKapa

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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
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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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IQela leNtshukumo zoPhuhliso: Fikiswa Mahote

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U-Eskom

I-Fairest Cape Association

Programme for Basic Energy and Conservation in Southern Africa

Umbutho wokhuselo ngokusetyenziswa kwamafutha i-LP Gas Safety Association

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: Sifumene 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 ekuphungeni 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 inxaso 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 ngokusingqongileyo 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

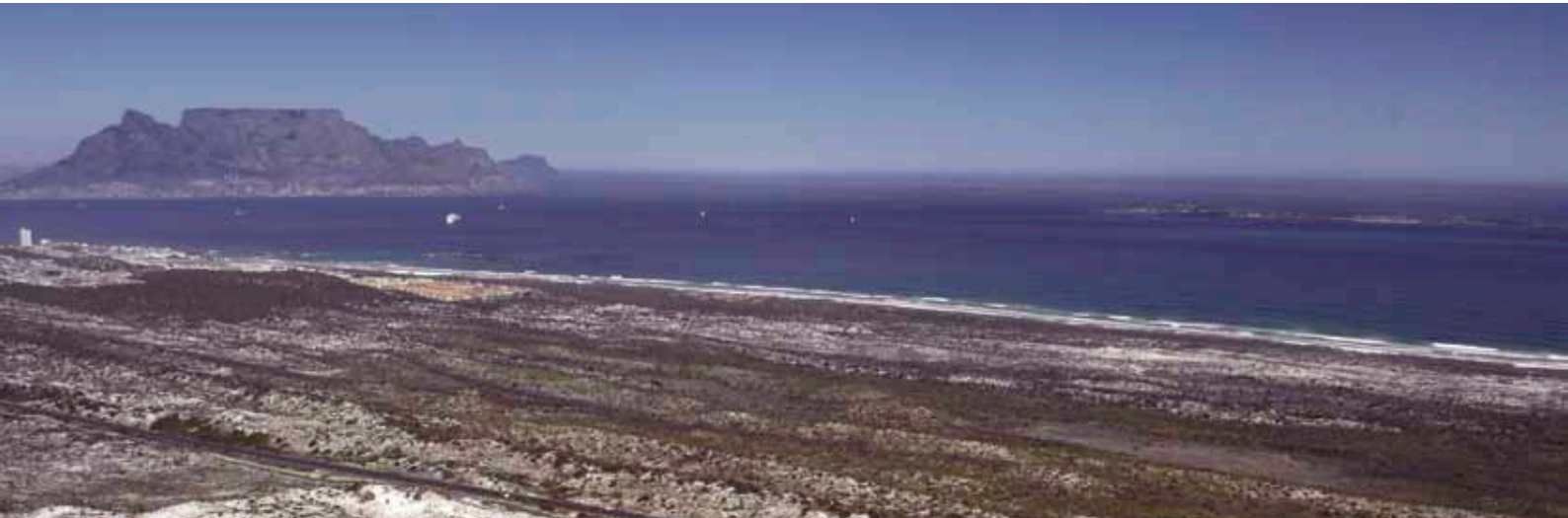
IKapa - Cape Town - Kaapstad – sisixeko esinguNozala (Mother City) wazo zonke izixeko zaseMzantsi Afrika. IKapa sesona sixeko sidala kweli lizwe, intloko-dolophu yowiso-mthetho yoMzantsi Afrika neziko elibalulekileyo lorhwebo nokhenketho. Emva kweeyurana nje ekhululwe eluvalelweni, uNelson Mandela wenza 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’ eTafale, 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: Siyifumene ngoncedo lweSixeko 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 (CO₂) engeyivulelekile yaya kwi-atmosfera. IKharbon dayokhsayidi (CO₂) inkqenqkeza 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 ithetha into ethile yanexatyiswana eliphezulu, mhlawumbi ukufumana isifudumezi-manzi sesola, ingcaciso uyayinikwa engesithuba sexesha elinokuthathwa siso ukubuyekeza iindleko zokufakelwa kwaso xa ithelakiswa nombane onokuwusebenzisa kwangelo xesha linye.

Enye into ekufaneleke ukuba siyicinge kukuba xa uthenga isixhobo nombane, awuhlaluli nje eli xabiso ulibonayo - koko uyazibophelela ekuqhubekeni uhlawula iindleko zokusisebenzisa 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 kunezixhobo 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 okanye ku-www.capetown.gov.za/environment.

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

INKUNKUMA



Ifoto: Mark Lewis

Umhlaba sisixokelelwano esivalekileyo senkqunto – akukho nto iphela emehlweni. Endalweni, ivili lobomi lihamba ngokwesixokelelwano esibusazinge kwaye inkunkuma eqinileyo nengaqinanga sesinye isiphili kwenye indalo ibe kukutya kwesinye. Amagqabi emithi awileyo ayabola ze izondlo ziphindele emhlabeni, ukuze zibe kukutya kwemithi kwakhona. Umceli-mngeni onomdla esijongene nawo isiXeko sethu kukuba siqalise ukuba nomfanekiso-ngqondweni apho kungekho nkcitho nankunkuma, apho yonke into elahlwayo esiphelweni sobunye ubomi iba sisondlo sobunye ngobugcisa obuthile okanye ngokwenkqubo yendalo.



Ukuchaza inkunkuma eqinileyo

Inkunkuma esisiqina ihlelwa ngokwezintlu ezimbini: inkunkuma-jikelele nenkunkuma eyingozi.

Inkunkuma

Inkunkuma ayibeki abantu okanye okusingqongileyo emngciphekweni wentshabalalo yangoko nangoko kwaye iquka inkunkuma yasekhaya, udothi wabakhi, amazala nenkunkuma yegadi, ukungcola okomileyo okukhutshwa yimizi-mveliso nemizi yorhwebo. Naxa kunjalo nje, inkunkuma ingathi ngenxa yokubola okanye idibane namanzi, ikhuphe ilitshethi – leachate (ulwelo oluhluzeka luvuze enkunkumeni) ekwaziyo ukungcolisa kwaye eneempawu zokuba nengozi.

Inkunkuma eyingozi

Inkunkuma eyingozi inokwenza okanye ingangunobangela wengozi ngoko nangoko empilweni yoluntu okanye kokusingqongileyo, mhlawumbi ngokunokwayo nje iyodwa okanye xa itha yahlangana nolunye udidi lwenkunkuma.

Nantoni na enokuba nomsebenzi ekumgqomo wakho wenkunkuma (into enokusetyenziswa kwakhona ngomnye umntu, irisayikilishwe okanye ilungiswe) **akufanelekanga** ukuba ibe lapho!

Inkunkuma, ungcoliseko nokusingqongileyo

Isingcolisi yiyo nayiphi na into engenakufunxwa, isetyenziswe okanye ilawulwe kokusingqongileyo. Umzekelo, amachiza ayityhefu agalelwa kwizixokelelwano zamanzi endalo naya konakalisa zonke izinto ezinobom kuwo. Ungcoliseko lungazitshabalalisa izinto eziphilayo.

Ekugqibeleni inkunkuma ibuyela endalweni kokusingqongileyo – nokuba loo nto ithetha ukuba ibhotile yeplastiki ingathatha iminyaka eliwaka ukwenza oko. Ukuba inkunkuma ayiphathekanga kakuhle, ithi ibangele ungcoliseko. Njengokuba inkqunto iqalisa ukubola, ulwelo olaziwa ngokuba yilitshathi iyaveliswa. Ukuba akuthathwanga manyathelo okuyicoca, ilitshathi ithi ityhefe umhlaba kwanamanzi aphuma ngaphantsi komhlaba. Yonke imihla kucocwa amawaka-waka eelitha zolwelo oluyilitshethi eveliswe yinkunkuma etiphini eVisserhok, eKapa.

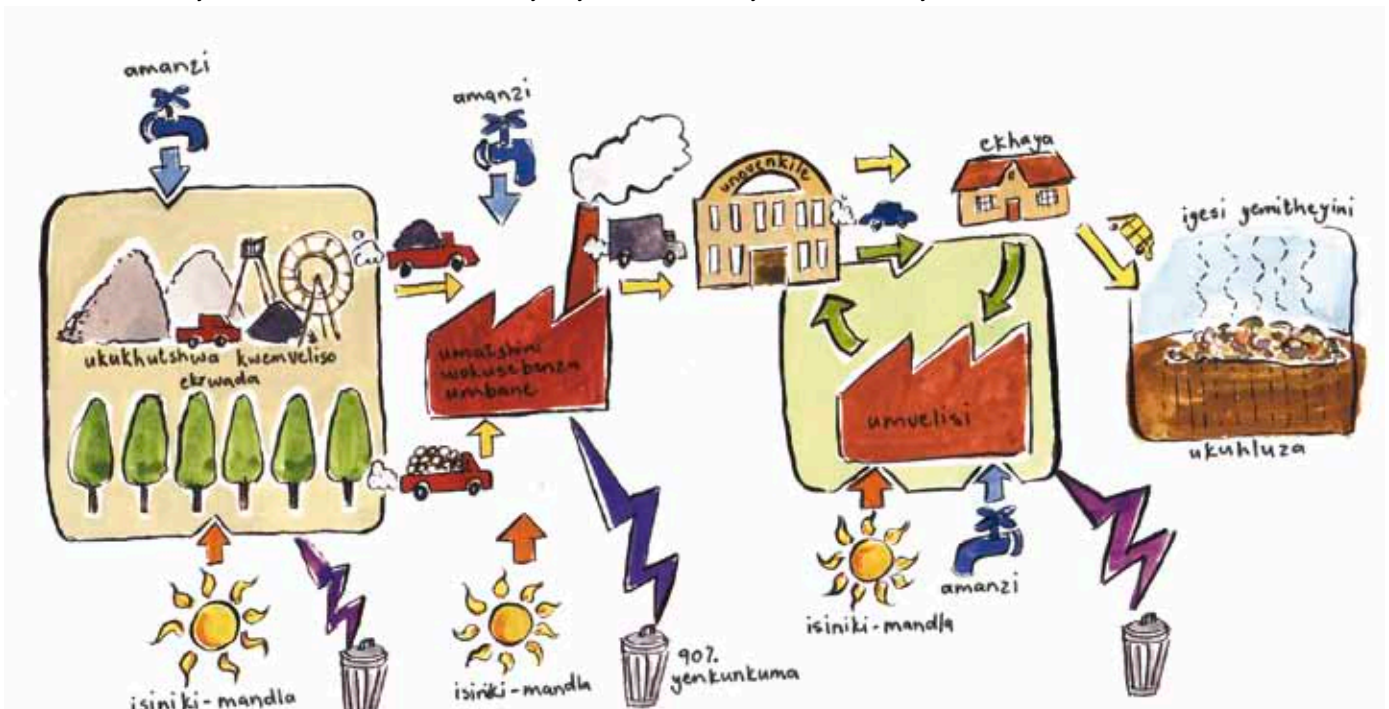
Ezinye zegesi eziphambili zendlu yohlaza, imitheyini (methane), iveliswa xa inkunkuma etiphini ithi yabola ngenxa yokungabikho komongomoya. IMethane inobungozi ngokuphinda-phindwe kangangama-21-24 kune-CO₂ nanjengoko igcina ubushushu obuninzi (obuthi bufudumeze umhlaba wethu, nto leyo inegalelo ekufudumezekeni kwehlabathi) ze ihlale amakhulu-khulu eminyaka kwi-atmosfera yethu.

Ukuthethelela ukucuthwa kwenkunkuma eveliswayo

Inkunkuma ixabisa imali eninzi. Umhlaba sisixokelelwano esivalekileyo. Zonke izondlo namajelo akhutshwayo kwisixokelelwano (ze angcwatywe etiphini, okanye atshiswe) ngamajelo esiphulukana nawo. Kananjalo inkunkuma yonakalisa indalo esingqongileyo njengongcoliseko.

Inkunkuma esiXekweni ilawulwa, ngezi ndlela – iyaqokelelwa, ilahlwe ze /okanye iphinde isetyenziswe kwisibonelelo sethu esiseAthlone sokuHanjiswa kweNkunkuma.

Inkunkuma esiyikhuphayo kwimigqomo yenkunkuma kumakhaya ethu veki neveki, ngenene nangenyano, lithontsana nje. Kukho inkunkuma eninzi eshiyekayo xa kusenziwa yonke imveliso oyisebenzisa umhla



Uqoqosho oluyinkcitho: inkunkuma iyenzeka kuwo onke amanqanaba okukhutshwa, okuvelisa nokusetyenziswa kwezinto.

nezolo njengamaphepha, iimpahla, okanye ukutya. Kuqikelelwa ukuba malunga nama-**90% onke ezinto ezisetyenziswayo xa kwenziwa imveliso ethile aba yinkunkuma ngoko nangoko**. Ukucutheka kwenkunkuma kuthetha ukuba kuyimfuneko emandla ukucinga malunga nezinto nobungakanani bezinto ekufuneka sizisebenzisile.

Ukuveliswa kwephepha nje kuthatha iitoni ezili-100 zamanzi.

Ilitha nganye yotywala oyiselayo ithatha iilitha ezili-10 zamanzi asetyenziswayo kwinkqubo yokudidiyela nokubalisa.

Ukuveliswa kweselula nje enye kufuna ama-75kg amajelo asetyenziswayo.

Ibrashi yamazinyo ifuna i-1,5kg yamajelo – amalahle, i-oyile namanzi – xa isenziwa.

Ukwenza inkunkuma encinane kuqinisekisa ukuba yinkunkuma encinane efika etiphini ze kuthi kube nokongenga isithuba esinexabiso elikhulu. Le nto yenza ilibaziseke imfuneko yokulungisa iitiphu ezintsha, kulungiswa oko kuthi kutshabalalise amakhaya endalo ezilwanyana nezinye iziphili.

Ukurhweba okuyinkcitho: inkunkuma idaleka kuwo onke amanqanaba okukhupha nokomba imveliso zokwenza kwasekuqaleni, ekuveliseni nasekwenziweni kwemveliso kwanokusetyenziswa kwemveliso ngabathengi.



Suku ngalunye eKapa kuveliswa iitoni ezingama-6 000 zenkunkuma – malunga ne-1,7kg ne-2kg yenkunkuma ummi ngamnye ngosuku. Kuqikelelwa ukuba amakhaya anengeniso-mali eninzi anobutyala bokukhupha eyona nkunkuma ininzi – **malunga ne-1,5kg yenkunkuma umntu ngamnye ngosuku, amakhaya anengeniso encinane wona adala nje malunga ne-0,3kg yenkunkuma umntu ngamnye ngosuku**.

Entshona Kapa ngonyaka kulahlwa inkunkuma enokwanela iilori ezifoliswe umgama olingana nokusuka eKapa uye kuma eRhawutini – lowo ngumgama oziikhilomitha ezimalunga ne-1 200!

(Umthombo: Fairest Cape Association, 4th edition).



Yintoni itiphu?

Isiza setiphu yindawo yokuthumela inkunkuma yokugqibela ekhethwe, yakhiwa, yacetywa, yaphononongwa ngobunjini, ze ilawulwe ngobunzululwazi nangobugcisa. Kufanele ukuba ingabi kude kuyaphi kwindawo ekudalwa kuyo inkunkuma ukuze iindleko zothutho zicutheke. 'Izisele zenkunkuma' ezitsha zala maxesha zidla ngokufulelwa ngeplastiki engenakuvuza ngaphantsi, ukanti uninzi lweetiphu zakudala zisaxhomekeke kwizithinteli zendalo zomhlaba oludongwe ukuthintela ityhefu yelitshathi ukuba ihlangane nezixokelelwano zamajelo endalo amanzi kwanamanzi aphansti komhlaba.

Mihla le inkunkuma ithuthelwa kwisiza setiphu esebenzayo apho yanekwa khona, ubunjwe ze igqunywe ngomhlaba, isanti kunye nenkunkuma yabakhi ecocekileyo khona ukuze uthintelwe ekuphaphathekiseni ngumoya ze usasaze izifo nezitshabalalisi zezinambuzane nezilwanyana. Xa ithe inkunkuma yapakishwa kakuhle naqinileyo yaza yangcwatywa ukuze kuthinteleke ukubola okudalwa ziibhakteriya ezixhomekeke kumongo-moya, ihlala apho naphakade. Kwitiphu yaseNew York eyombiwe kwiminyaka embalwa edlulileyo kufunyenwe amaphephandaba eminyaka eli-100 eyadlulayo nasafundeka kakuhle kakhulu!

Kuya kuba nzima ngamandla ukufumana iitiphu ezilungileyo ngokwejobo eKapa. Inkunkuma yethu kuza kufuneka ihanjiswa umgama omde, nto leyo eya kuba ziindleko ezinkulu kakhulu kumakhaya ethu ngokuphathelele kwimirhumo yokuhlalulela iinkonzo.

Kutheni singayitshisi nje inkunkuma yethu?

- Ukutshisa inkunkuma kuthetha kuphela nje ukutshintshela ingxaki yongcoliseko yaphantsi yenziwe ibe yingxaki yomoya.
- Ukutshisa inkunkuma kutyhafisa iinzame zokuthintela inkunkuma. Izitovu zokutshisa inkunkuma zifuna umthamo obonakalayo kwaye oza rhoqo ukuze kungabi ziindleko ezinkulu kakhulu ukuyisebenzisa. Kananjalo zikwafuna umxube wenkunkuma oza kutsha kwiqondo lobushushu eliphezulu ngokwaneleyo ukuze kucutheke ukukhutshwa komsa oyityhefu. Iipakethe ezinjengamaphepha neplastiki, ekulula ukuzirisayikilisha kufuneka ukuba zigcinwe nomxube wenkunkuma ukuze sitshiswe.
- Imisi eyityhefu nomthuthu oyingozi kakhulu uphuma ekutshisweni kwenkunkuma equlethe imetyhuri, ilothe, isiqalelo esithambileyo esimhlophe, okanye naluphi na uhlobo lwesinyithi namachiza ayityhefu. Amaziko anezitovu zokutshiswa kwenkunkuma avelisa eyona misi ikhutshwayo iyityhefu yaziwayo, equka iidioksini neefyurani. Ngamanye amaxesha 'amakhokho' athi afumaneke ze kunyanzeleke abuyiselwe etiphini kwakhona njengenkunkuma ekhethekileyo ze anyityiliselwe ngaphakathi ngekhonkrithi kuba ayityhefu kakhulu.
- Kuziindleko ezinkulu kakhulu eMzanzi Afrika ukutshisa inkunkuma ngezitovu zoko xa kuthelekiswa nokuhlela nokuvalela inkunkuma etiphini nanjengokuba inkunkuma kufuneka itshiswe kwiqondo eliphezulu kakhulu lobushushu (900°C) ukuze itshiseke kakuhle kucutheke nokungcola. Amakhulu-khulu amawaka eeranti athi adingekke ukuze kwakhiwe ze kugcinwe iziko elinezitovu zokutshisa inkunkuma elisebenza kakuhle. Ukucuthwa kwenkunkuma ngendlela eyiyo kunganqanda ukuba oku kuchazwe ngentla kungenzeki.

Inkunkuma asiyonkunkuma de ibe ilahliwe

Isixa esikhulu samajelo sisetyenziselwa ukudala imveliso esizisebenzisayo. Isininzi sala majelo asiboli endalweni. Amajelo angenakuhlaziyeka asetyenziselwa ukwenza i-aluminiyam, iplastiki neeglasi ezifumaneka kwiimveliso zethu – ezisetyenziselwa ukupakisha ezi mveliso. Ukufumana izembiwa zala majelo kufuna i-eneji nemali kwaye kuyingcozi kwiindawo ezingamakhaya endalo.

Kukho iintlobo ezininzi zoncendo nenzuzo efumaneka ekuphindeneni kusetyenziswe kwakhona okanye kurisayikilishwe uninzi lweemveliso ezithathwa 'njengenkunkuma' kumakhaya ethu:

- Isidingo sempahla yokwenza izinto ezintsha siyacutheka, nto leyo icutha ukukhangelwa nokwembiwa kwamajelo angahlaziyekiyo.
- Ukusetyenziswa kwe-eneji namanzi kuya kuncipha nanjengoko kuya kufuneka ukuba kurisayikilishwe izinto ezincinane xa kuthelekiswa nokwenziwa kweemveliso ezintsha ezikhutshwa (ezombiwa) emajelweni.
- Xa impahla eninzi ifumaneka kwinkunkuma yethu irisayikilishiweyo, incinane kakhulu inkunkuma enokulahlwa kwiziza zeetiphu zethu.





Zinto zini ezingamajelo angahlaziyekiyo?

Ijelo elingahlaziyekiyo yimpahla esuka kwindalo yokwenza izinto, umzekelo i-oyile namalahle anqabe kakhulu kwintlalo yethu (asetyenziselwa ukwenza zonke iimveliso zethu zeplastiki neepakethe ezithile). Ezi zinto ziya kunqongophala ngokukhawuleza ukuba siqhubeka nokuzomba okanye ukuzikhupha ngesantya esiphezulu esodlula isithuba sexesha elifunekayo lokuba zizenze okanye zizizalise kwakhona endalweni. Ngokuphathelele ne-oyile namalahle, kufuneka iimeko ezithile ezikhethekileyo okanye kuqingqithe izigidi zeminyaka ukuze zibe nokudaleka. Ukusetyenziswa kwakhona okanye ukurisayilikishwa kwaloo majelo ekugqibeleni kuwavumela ukuba athathe ixesha elide ukuphelelwa.

Ukurisayikilisha

Inkunkuma engenakuphinde isetyenziswe iye igqunyelwe emhlabeni. Impahla elahlwayo enokurisayikilisheka kwakhona efunyenwe kumgqomo wakho yaza yasinda ekulahlweni etiphini ingathathwa ngabantu abahlukileyo (wena siqu, abaqokeleli mpahla namashishini abasakhasayo) bayise kwiziko ekuqokelelelwa kulo. Ezi ndawo kuqokelelelwa kuzo impahla zilawulwa ngoonokotraka bengingqi kunye neSixeko. Kweminye iminandla kubakho amaziko ayithengayo impahla kubaqokeleli ze abahlawule isixamali esithile ngaloo mpahla bayizisileyo. Le mali ke kodwa ayininzi kuyaphi ngaphandle kokuba impahla leyo ngumthamo obonakalayo kwaye konke oku kuqokelelwa kwempahla elahlwayo kwenziwa ikakhulu ngabantu abahluphekayo kusenziwa ngaphandle kolawulo olungqingqwa ngasese.

Iimpahla ezihlelwe (zabotshwa) kakuhle ziba nexabiso eliphezulu. Amaxabiso ayehluka ngokulawulwa ziimfuno zentengiso yemarike kwakunye nohlobo lweempahla. Ngokubanzi ezona mpahla zexabiso zirisayikilishek-ayo ziintsimbi, ubhedu, i-aluminiyam, ixina, imetyhuri nezinki ezisuka kwizixhobo zokusebenza, izixhobo zikagesi zokulayita, izinxibo zezinyithi nezinto ezimenyezelayo nobukhazi-khazi, imibhobho nezinto zokutywinwa nokuhanjiswa kwamanzi, iintambo zegesi nempahla yokwakha.



Ifoto: Mark Lewis

INKUNKUMA KWISIXEKO SETHU

Oomasipala banoxanduva ngokomthetho lokususa ze bachole inkunkuma kwiingingqi zabo. Ngoku wonke umasipala kufuneka ngokoMthetho weziXokelelwano zikaMasipala ukuba alungise ze enze isiCwangciso esiBumbeneyo soPhuhliso (IDP) nesiyakuthi sibandakanye ukuphuhliswa kwesiCwangciso soLawulo oluBumbeneyo lweNkunkuma (IWMP). Ngoko ke isiXeko saseKapa sinoxanduva lokulawulwa nokucwangciswa kwemiba ephathelene nenkunkuma ngokubanzi, kwaye siphuhlise umthetho kamasipala osalide ukuphunyezwa yipalamente equka imbonelelo ngezimali yokuxhasa ukucuthwa nokurisayikilishwa kwenkunkuma.

Okwangoku isixa senkunkuma esiyidalayo eKapa yi-6% minyaka le – xa oku kutheliswa nokwanda kwabantu kona okonyuka nge-2% nje kuphela. Iindawo ezizitiphu eKapa ziphantsi koxinzelelo olukhulu. Ngonyaka ka-2003 kuvalwe itiphu yaseSwartklip yaza yona eyaseBrackenfell itiphu yavalwa ngo-2005 yaza eyaseFaure yavala ngo-2006. Izigidi ezi-2.1 zeetoni zenkunkuma edaleka ngonyaka eKapa zilahlwa kula ashiyekileyo amanxiwa eetiphu mathathu angala: eCoastal Park, eVissershok, eBellville South.

Itiphu yaseCoastal Park iya kukwazi ukwamkela inkunkuma eminye iminyaka ephaya kwi-16, lo gama yona itiphu yaseVissershok kulindeleke ukuba iqhube eminye iminyaka esibhozo. Lifumanekile igunya lokumisela iitiphu zeengingqi, kodwa oku kusalinde inkqubo yezibhenzo.

Injongo yokuvuselela itiphu kukulawula ungcoliseko-moya nokusasazeka kwenkunkuma okungcolisa okusingqongileyo. Ukuvuselelwa kwetiphu evaliweyo kudla isiXeko izigidi ngokobungakanani nendawo ekuyo loo tiphu. Itiphu evaliweyo iqala kuqala igqunyelelwe ngomaleko omkhulu womhlaba ze kwalekwe ingca ngaphezulu okanye/kunye nezinye izihluma. Inkunkuma etiphini iwuthiswa ngazo zombini izibolisi zeebhaktheriya i-anaerobic

(kukhutshwe igesi yamalahle) kwakunye ne-aerobic, kodwa le yinkqubo icotha kakhulu kwaye isantya sokuthotywa kwenkunkuma eyenziwe ngumntu, njengeplastiki okanye iinkonkxa nditsho namaphepha, kungathatha amakhulu-khulu eminyaka. Ekugqibeleni, ummandla lowo ungenziwa ibala elivulekileyo ukuze usetyenziswe luluntu oluwungqongileyo, okanye njengamabala ezemidlalo, kodwa awusayi kuze usetyenziselwe ukwakha izindlu ngenxa yengozi yokuphihlika kwaloo mhlaba kwakunye nokulindeleka kokuphuma kwezinto ezinobutyhefu zingene kumhlaba okufutshane naloo ndawo ibinepaki, amanzi kwakunye nomoya. E-Athlone kwakhiwe ipaki kwinxwiwa elidala letiphu.

Inkonzo yokuqokelelwa kwenkunkuma emakhaya

Iinkonzo zokuthuthwa kwenkunkuma ziqokelela inkunkuma emakhaya 'ekwimigqomo enamavili' ebukhulu buziilitha ezingama-240 enikezwa umzi nomzi osemfanelekweni, kanye ngeveki. Kwimimandla enamatyotyombe kusetyenziswa iMigqomo eMikhulu ebekwa kufuphi naloo mizi, nokuCocwa kwalo Mimandla. Oku kunokubandakanya ukukhutshwa kweplastiki ezimnyama zinikwe ityotyombe ngalinye ze ziqokelelwe qho ngeveki, kunye nokucoca loo mimandla, inkunkuma leyo ilahlwe kwindawo efanele oko.

Ukulahlwa kwenkunkuma emakhaya

Inkunkuma yasemakhaya eqokelelwa eKapa iyathathwa isiwe esiKhululweni sokuKhuphela iNkunkuma e-Athlone (ARTS, ifakwe kwibhanti lokuyihambisa nokuyahlula-hlula, kususwe zonke izinto ezinokurisayikilishwa ze ibunjwe ilayishwe ematrokweni kaloliwe isiwe kwitiphu yaseVissershok.

Imirhumo ehlawulelwa inkunkuma emakhaya

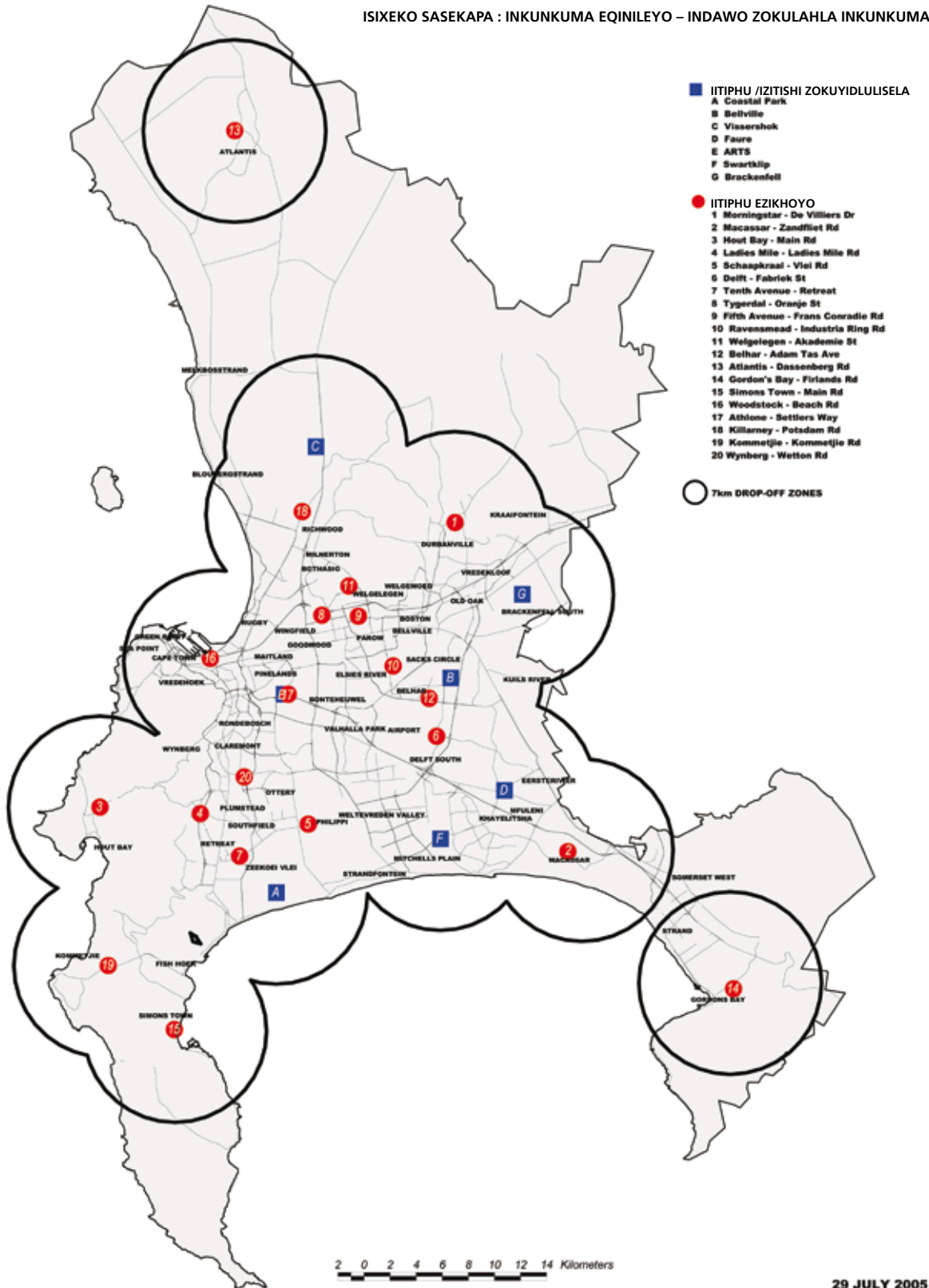
Imirhumo ehlawulelwa inkunkuma isekelwe kumaxabiso nemigaqonkqubo. Yahluka ngokwamaxabiso nobukhulu bemigqomo yemizi ngemizi. Imihlaba nemizi enxabiso Imihlaba nemizi exabisa ngaphantsi kwama-R100 000 ithi ifumane isaphulelo esiyi-100% kwimirhumo kumgqomo wokuqala kangokokuba izindlu ezinomgqomo omnye ziphetha ziyifumana mahala le nkonzo. Imihlaba nemizi exabisa ngaphezulu kwama-R100 000 ihlawula phakathi kwe-R14,00 neR54,00 ngenyanga ngokuthuthwa kwenkunkuma kanye ngeveki ngokwexabiso lepropati leyo. Okwangoku akukabikho zibonelelo nazaphulelo zamali ezikhuthaza ukucuthwa kwenkunkuma kwindlela olwakheke ngayo uluhlu lwamaxabiso erhafu lwethu.



Ukulahlwa kwenkunkuma yasekhaya

Ukuba ufuna inkcukacha ethe chatha malunga neendleko nemirhumo yokuhlawulela ukuqokelelwa kwenkunkuma eqinileyo, iintlobo ezahlukeneyo zeerhafu zokuhlawulela amazala enkunkuma yasegadini, udoti wabakhi ukunikezelwa kweenkonzo, tyelela iwebhu yeKapa ku-www.capetown.gov.za. Cofa kwinkomba ethi Your City. Inkomba ethi The Tariffs Online inikeza uxwebhu oluneenkukacha ezibanzi ngemirhumo yeendawo zokuhlala kwakunye neenkonzo ezinxulumene noko phantsi koLawulo lweNkunkuma esisiQina.

ISIXEKO SASEKAPA : INKUNKUMA EQINILEYO – INDAWO ZOKULAHLA INKUNKUMA



IZOWUNI ZOKULAHLA INKUNKUMA

INkqubo yoLawulo lweNkunkuma yesiXeko



Ngo-2002, iSixeko saqala inkqubo yoLawulo lweNkunkuma. Eli phulo lihlanganisa onke amalinge okucutha inkunkuma, ukulahlwa kwenkunkuma okungekho mthethweni nokungcolisa eSixekweni. Injongo ephambili yenkqubo yoLawulo lweNkunkuma kukwazisa nokufundisa bonke abahlali baseKapa ngeziphumo zokulahlwa kwenkunkuma nokuba bona yinto abanokuyenza ukuphucula imeko yokusingqongileyo yesixeko. Le nkqubo ihlanganisiwe yaye ineeprojekthana (uluntu ekujoliswe kulo) ezintlanu ezizezi:

1. Ufundiso noLwaziso loLuntu gabalala
2. Ufundiso eZikolweni kunye neeProjekthi zeZikolo zokuRisayiklisha
3. Amacandelo eMveliso, uShishino, Amaziko namaCandelo oLawulo
4. Ubuhlakani, iiProjekthi zeNkxasomali
5. Ukuphuhliswa kwamathuba oshishino ekusetyenzisweni kwenkunkuma

NgoMeyi 2006, iSixeko sibe sesinye sezixeko zokuqala ukwamkela nokumisela iSicwangciso soLawulo lweNkunkuma esiHlanganisiweyo. Esi sicwangciso sidlula ngapha kwemiba yoqokelelo lwenkunkuma nokulahlwa kwayo nanjengoko injongo yayo ikukuphumeza iinjongo eziphambili zomgqaonkqubo ezikukucutha imithamo yenkunkuma.

Ukuxhasa oku, iNkqubo yoLawulo lweNkunkuma iye isetyenziswe njengeqonga lokufundisa nokwazisa izintlu zoluntu olukhankanywe apha ngentla. Ngaphezu koku, kuphuhlise isicwangciso esihlanganisiweyo sokumaketha nesonxibelelwano esigxile kulawulo lwenkunkuma, ukucuthwa kwenkuma nokucoca. Esi sicwangciso siso esiya kusetyenziswa kwiphulo lokufundisa nokwazisa uluntu oluchongiweyo yaye sihambelana namaphulo okwazisa uluntu amiselwe ukuphumeza le njongo.

Kushishino, inkqubo yoLawulo lweNkunkuma ixhase yaza yandisa amaqela okwenza ncinane inkunkuma. Kuphuhlise imithetho-siseko kwakunye noxwebhu loluhlu lokuvelisa ngokucekileyo olunika izikhokelo ngobulula benkunkuma ukuze kucuthwe inkunkuma kwakunye nemisebenzi yokungcolisa kwimizi-mveliso namashishini athile. Izifundo zezixokelelwano zokulawulwa kwenkunkuma kwakunye nokwehlulahlulwa kwenkunkuma zisebenze kakhulu ekwenzeni ukuba kucuthwe inkunkuma kwiindawo zentengiso ezinefuthe eliphezulu ekungcoliseni njengodederhu lweevenkile kwaye nepaki yoshishino ngeziphili endalweni iqalisiwe kummandla woshishino esiXekweni. Kananjalo kukwajoliswe ekucuthweni kodoti wokwakha ngokuthethana noshishino lokwakha.

Ukwahlulahlulwa kwenkunkuma yasekhaya

Ukuze **isiXeko sibe nokufikelela ekucuthweni kobuninzi benkunkuma elahlwa etiphini ngama-25%** ngo-nyaka ka-2012, eyona nto iphambili kukumisela isixokelelwano esisebenza ngokukoko sokwahlulwahlulwa nokurisayikilishwa kwenkunkuma. Sele iqalile iprojekthi yovavanyo engu"Think Twice" "Cinga Kabini" kwimimandla ethile yokuvavanya nokujonga iindlela ezinokusetyenziswa ukwahlula inkunkuma yezindlu. Okwangoku, kunikezwa ngeplastiki yenkunkuma enezingxobo zokufaka izinto ezinokurisayikilishwa kwezi ndawo kwenziwa kuzo uvavanyo. Ezi plastiki ziqokelelwa ngolwa suku kuqokelelwa ngalo inkunkuma.

Kutsha nje isiXeko similisele **amanxiwa okurisayikilisha nokothulwa kwenkunkuma ali-19 akumgama okwisithuba se-7km ukusuka emakhaya**. Asi-7 kuwo alungiselelwe inkunkuma erisayikilishwayo. La maziko okothulela inkunkuma asebenza isithuba esiphakathi kwentsimbi ye-07:30 ukuya kwintsimbi ye-17:30, iintsuku ezisixhenxe ngeveki. Amakhaya ngamakhaya aya kukwazi ukuzisa kula maziko inkunkuma erisayikilishwayo

nehlekileyo kuqkwa inkunkuma ye-elektronikhi, okanye 'inkunkuma yobuxhakaxhaka bezitsali nezisebenzisi-mbane neekhomyutha'.

IKapa sisixeko sokuqala eMzantsi Afrika ukuba senze uphando nomsebenzi osisalathiso-ndlela sokulungiswa, ukusetyenziswa kwakhona nokurisayikilisha inkunkuma ye-elektronikhi. **Inkunkuma ye-elektronikhi** ligama eliqukanisa izinto ezininzi ezinjengeeselula, iikhomyutha 'nezixhobo zombane ezimhlophe' (iifriji, i-ayini nezitovu). Izinto ezininzi eyenziwe ngazo inkunkuma ye-elektronikhi zinokuba neempahla eziyingozi kakhulu kwaye akufuneki zidityaniswe nenkunkuma jikelele. Iimveliso ze-elektronikhi nezixhobo zombane zingaqhaqhwa kukhutshwe amalungu athile exabiso anokuphinda asetyenziswe kweminye iimatshini okanye zirisayikilishwe njengempahla okanye isinyithi esinexabiso. Yonke inkunkuma ye-elektronikhi ingasiwa kwitiphu eseWynberg (engunomb 20 kwimephu ekwiphepha 11 okanye kwiZiko lokuLahla iNkunkuma iFootprint (elichazwe apha ngezantsi). Azikho izibonelelo zokulahla inkunkuma yombane kwezinye iitiphu.

Iprojekthi ka "Cinga kaBini" eKapa ibonakalise indlela amakhaya ethu akunqwenela ngayo ukubandakanyeka kumaphulo aqalisweyo okurisayikilisha. Nakubeni nje kunokubiza kakhulu ngokwexabiso ukwenza oku kwiKapa jikelele, into eyakwenza ukuba ibe yindlela ekunokuhanjwa ngayo nexabiso loku libe nako ukufikeleleka kuxa kukho amakhaya amaninzi athabatha inxaxheba kula manyathelo.

Iprojekthi yokufumana inkunkuma efana nale nesaqhubayo yaqaliswa ngonyaka ka-2002 eMarina da Gama. IProjekthi inikeza simahla imizi eli-1 200 iingxowa ezimthubi, nethi le mizi ihlele inkunkuma yayo ngokwayo. Izinto ezinokurisayikilisheka (amaphepha, amakhadibhodi, iiglas, iiplastiki neenkonkxa) zifakwa kwezi ngxowa. Emva konyaka onesiqingatha kuye kwafunyanwa iitoni zempahla esenkunkumeni ezili-173 xa zizonke zaza zaphinda zasetyenziswa. Malunga ne-80% lemizi ekulo mmandla isaqhubeka nokuthabatha inxaxheba kule projekthi.

Iwebhu **yoNaniselwano oluBumbeneyo lweNkunkuma (IWEX)** (edizayinwayo kwakhona) yaziswe ngokusesikweni sisiXeko ngoMeyi ngonyaka ka-2000. Le webhu inikeza iinkampani noluntu jikelele ngendawo eyiyimarike yorhwebo nge-intanethi yokuba bathengiselane ngamajelo nezinto abangazifuniyo nezo bazifunayo. Ezi zinto zibekwe kuluhlu kugxiniswisa kakhulu ekuphungulweni komthamo wenkunkuma enokudala ingozi esiwa ezitiphini kwanokwandiswa kweemarike zokurisayikilisha kwentsusa kwiKapa needolophu ezilingqongileyo. Imibutho yoluntu ekuluhlu lwe-IWEX iquka: iindawo zokothulela inkunkuma, amaziko athenga impahla esuka enkunkumeni, amaziko oogobityholo, iindawo zokubalekela kwabaxhathazwayo, amaziko okuphuculwa koluntu kwanamaziko okudala imisebenzi. Ukuba ufuna iinkcukacha ezingaphezulu, tyelela u-www.capetown.gov.za/IWEX.

Amanyathelo okuqala oluntu lwaseKapa okurisayikilisha



Inani elibonakalayo lamanyathelo okuqala enza inguqulelo naphuhliso okurisayikilisha sele eqalisiwe eKapa.

Iziko lokothulela inkunkuma iFootprints eseWynberg iyiprojekthi ejongene noluntu nengenzi ngeniso, ikwasebenza njengeziko lokusingqongileyo elixhasa intlalo nempilo esisigxina negcinakalayo kuluntu jikelele. Iiprojekthi zeli ziko ziquka ukurisayikilisha, ukwenziwa komgquba, ubulumko bokuphatha amanzi ayinkulelane kwakunye nezitya zokutya okusuka kwiziphili kwakunye nenkunkuma ye-elektronikhi kwanobugcisa obusekwe enkunkumeni. Ukuba ufuna iinkcukacha ezithe vetshe, qhagamshelana noMichelle Sholto-Douglas nge-imeyili gsdouglas@worldonline.co.za okanye ngomnxeba (021) 794 5863.

IProjekthi yokuLawulwa nokuRisayikilishwa kweNkunkuma iOasis ezinziswe eClaremont nase-Elsies River iqashe abantu abakhubazeke ngengqondo abangama-336. Nakubeni nje yayingumbutho owawusekelwe ukumpelesa, le projekthi iphumelele imbasa yenze ishishini elibe nempumelelo engathethekiyo ngokurisayikilisha.

Iziko, amaziko okugcina abantwana neendawo zokusebenzela zakhiwe ngemali engeniswe ngulo mbutho eyenziwe ngokurisayikilisha. Qhagamshelana no-Aubrey Wicomb, UMphathi woRisayikilisho (021) 671 5100 eClaremont nakule nombolo: (021) 933 1586 e-Elsies River.

IQela eleNza iiNtshukumo ngokusiNgqongileyo eKommetje (KEAG) liqela eliphembelela neligayela ezingokusingqongileyo elithi kananjalo lilawule iiprojekthi eziliqela ezingokusingqongileyo. IKEAG ikhokele iProjekthi yePhondo yokuKhathalelwa koNxweme ebandakanya ukuqeshwa kwabantu bamaphulo okucoca iindawo zokudada enxwemeni, ezingquzwini zeentlabathi ngaselunxwemeni, emachwebeni emilambo neendawo zolonwabo. Kananjalo bakwalawula iziko lokurisayikilisha elimanyene **neGumbi lomsebenzi eliBonakalisa uBugcisa boMsebenzi weZandla osekwe kokuseNkunkumeni Ilithalomsa** nezinziswe kwifama i-Imhoff eKommetje. Tsalela umnxeba ku-(021) 783 3433.

Iziko lamajelo angokusiNgqongileyo kwisiTsonga inamaziko okurisayikilisha kwaLanga nasePhilippi. Baziqhenya nangakumbi ngeli lisePhilippi iziko nelenziwe lonke, ukusuka ekuqaleni ukuya kutsho ekugqibeleni, ngezinto ezivela enkunkumeni nezo zinokukwazi ukuhlaziyeka. Iprojekthi yabo ibandakanya abantu abangama-300 abacoca nabenza 'luhlaza' indalo nokusingqongileyo ngemiseteyenzana yokulawulwa kwenkunkuma, ngokulinywa kokutya kwiigadana ezingasemva emakhaya nokuqokelelwa kwenkunkuma kumzi nomzi. Iprojekthi yabo yobugcisa ngokusuka enkunkumeni ivellisa izingxobo neminqwazi. Tsalela umnxeba uSonwabo ku-082 542 3356.

EKhayelitsha, **iProjekthi yokuRisayikilisha i-Inkqubela** yasungulwa ngu-Eunice Roro, ngenkxaso yeCandelo lokuHlolwa kokusiNgqongileyo leYunivesithi yaseKapa kwakunye nangenkxaso-mali esuka e-USAID. Ngethuba yayisasebenza le projekthi, 'uMama uRoro' wayebenzela isuphu yasekhaya abo bamphathele inkunkuma kwindawo yakhe yokurisayikilisha ze abahlawulele inkunkuma yabo.

Inkqubela yayeka ukusebenza, kwaye kananjalo neTsoga ijongene neengxaki zezezimali, nto leyo evusa umbandela wokuma kweeprojekthi zoluntu zokuqokelelwa kwenkunkuma kwimimandla yabasokolayo. Uhlobo lwenkunkuma kwimimandla yabasokolayo izisa imali encinane kunaleyo ikwimimandla etyebileyo kwaye kwezi ngingqi ikakhulu iiprojekthi ezineenjongo ezizizo ziphela zineengxaki zezimali. Iinzame ezinje ngezi zoluntu zibaluleke kakhulu, xa zijongwe ngokokusingqongileyo kwanokudala amathuba engqesho, kodwa ke zifuna inkxaso ethe xhaxhe ukuze zibe nokuba sisigxina.

Ukuba ufuna ukufunda ngakumbi ngokuqokelelwa kwenkunkuma okanye ungathanda ukuqalisa iphulo lokurisayikilisha kwingingqi yakho, qhagamshelana neSebe lemiCimbi engokusiNgqongileyo noKhenketho ukuze ufumane isiKhokelo ekuRisayikilishweni kwenkunkuma eqinileyo iFairst Cape Association (iinkcukacha zisesiphelweni sesi sahluko).

foto: Mark Lewis



Ifoto: Mark Lewis



Ifoto: Mark Lewis



Ifoto: Tamara North

INKUNKUMA EKWIKHAYA LAKHO

linjongo ekujoliswe kuzo ngenkunkuma sisiXeko

IsiXeko sijolise ekuphunguleni ukuveliswa kwenkunkuma ngama-25% ngonyaka ka-2012. Sithetha nje isantya sokwanda kwenkunkuma singaphezulu lee kwesokwanda kwabantu.

Inkunkuma gabalala ekwikhaya lakho

Xa siphonononga inkunkuma yethu singazibona iintlobo ezahlukeyo zempahla amakhaya ethu azilahlayo nacinga ukuba yinkunkuma, lo gama uninzi lwayo lubonakalisa amathuba amaninzi okurisayikilisha nokuphinda kusetyenziswe ezi mpahla kwakhona. Uninzi lwenkunkuma yethu luziziphili (lunokuboliswa). Imifuno, amaxolo eziqhamo, nenkunkuma yamagqabi nengca yasegadini kungenziwa ngayo amazala emigquba nezichumiso zasimahla ezityebileyo zizondlo, ukuze kuchunyiswe izitiya zethu. Amacebo alula okuzenzela umgquba anikwe ngakumbi ngezantsi apha kwakweli candelo. Kwamanye amakhaya atyebileyo inkunkuma eveliswayo yeyohlobo lwesinyithi, iplastiki, iglasi, iphepha nekhadibhodi – uninzi lwayo iba zizinto ebekupakishwe kuzo, nebezinokurisayikilisheka kumathuba amaninzi.

Isiqulatho senkunkuma yesiqhelo kumakhaya abangeniso iphakathi ukuya kwephezulu

Isiqulatho senkunkuma yesiqhelo kumakhaya abangeniso iphantsi



Inkunkuma eyingozi ekhaya

Ikhaya elikumndilili liqulatha phakathi kwe-14 ukuya kuma-45 eelitha zemveliso ezikhupha inkunkuma ehlelwa njengeyingozi. Ukuba ufuna icebo lokulwa nenkunkuma eyingozi funda icandelo elingamaNyathelo aSebenzisekayo ngezantsi apha kwakwesi sahluko. Inkunkuma yasekhaya enetyhefu ngqo okanye ngokungathanga ngqo zezi mveliso zichazwe ngezantsi apha:



enolutsha

Isixhobo esitsaza amadangatye okanye esilumekekayo (ipetroli, iparafini, idizili, imatshisi, ithinasi, ipolishi yeenzipho, ulwelo olutshizwa ngoxinzelelo lomoya kwakunye neemveliso ezine-alkoholi). Kufuneka zingasondezwa emlilweni okanye edangatyeni.



eyingozi

Into etyabulayo (i-amoniya okanye iblithsi). Nceda ulumkele ukuba imveliso leyo isondele kwisikhumba sakho okanye emehlweni kuwe. Kufuneka uyisebenzise unxibe iiglavu ezandleni. Into etyabulayo ingabangela ukuqaqamba nokurhawuzelwa okanye ukudumba kwesikhumba, amehlo, inwebu yangaphakathi okanye isixokelelwano sokuphefumla.



AMANYATHELO ABONAKALAYO

Sibonile ukuba sivelisa inkunkuma eninzi kakhulu, nto leyo yenza ukuba senze ilahleko kwi-eneji, amajelo amanzi acocekileyo, nomhlaba wethu wendalo oxabisekileyo. Ngoko ke, singasicutha njani isixa senkunkuma esisivelisayo? Singaphinda siyisebenzise okanye siyirisayikilisha inkunkuma yethu kodwa inyathelo lokuqala kukusoloko uzama **uku-cutha** isixa senkunkuma nobutyhefu obusenkunkumeni kwasekuqaleni.

Sebenzisa amanqanaba amathathu acetyiswe yiFairest Cape Association namaphulo eemveliso zokucoca zeCandelo loLawulo lweNkunkuma leSixeko angala: Cutha, Sebenzisa kwakhona/Lungisa kwaye Risayikilisha.

Cutha

- Thenga nje oko kukwaneleyo ze ukuphephe ukuthenga iimveliso ezibotshwe ngemfumba yezinto ezingcolisayo.
- Thenga ngokwezambuku (zincinci izinto ekubotshwe ngazo) ezo zinto uzisebenzisa kakhulu. Thenga izinto ezandayo neziphinda zizaliswe kwakhona.
- Thenga iimveliso ezinezinto ezibotshwe ngazo ezenziwe ngempahla erisayikilishiweyo, njengeefayidukhwe zasekhitshini, iibhotile zeshampo ezineplastiki enesiqulatho esirisayikilishiweyo.
- Zama ukuziphepha iimveliso ezilahlwayo, njengeebleyidi ezilahlwayo zakugqiba ukusetyenziswa, iikhamera kwaneepleyiti zephepha.
- Khetha iglasi kunepplastiki nanjengoko iglasi inokuphinda irisayikilishwe. Izinto ezininzi zokubopha zeplastiki azikarisayikilishiki unanamhla eMzantsi Afrika (jonga iiplastiki apha ngezantsi).
- Ziphephe iimveliso eziyityhefu neziyingozi.

Sebenzisa kwakhona

- Xa ungasayisebenzisiyo into yakho khangela omnye umntu onokuba nomsebenzi waloo nto. Izikolo, iimanyano zesisa, amathala eencwadi, kwakunye nezinye iindawo ekothulelwa kuzo inkunkuma zingazamkela iimpahla ezingasafunwayo, ifenitshala, izinto zokudlala, iincwadi, iividiyo neemagazini.
- Zilungise izinto kunokuzilahla. Nika inkxaso kumthungi wengingqi yakho, umkhandi-zihlangu, ivenkile yokulungisa iibhayisikili, nezinye. Eli linyathelo elikwavuselela amthuba omsebenzi kwingingqi yakho.



Ezinye zeengcebiso ezisebenzisekayo zokusetyenziswa kwakhona kwempahla yasemakhaya

- Gcina ukutya kwizinto zokugalela eziphinda zisetyenziswe kwakhona, uphephe izinto ezingarisay ikilishekiyo ezinjengezinto zokujijela ezincamathelayo okanye ifoyile eyenziwe nge-aluminiyam esebenzise amajelo amaninzi.
 - Zisebenzise kwakhona izinto zokujijela izipho namakhadi eminqweno emihle.
- Cinga ngokuzama izipho ezingaphathekiyo njengokukhuphana.
- Sika iphepha elisebenzileyo ngokwezikweri, ulisebenzise njengencwadana yokuthatha amanqaku.
- Sebenzisa amacala omabini ephepha ze ulirisayikilishe.
- Iingqayi zeplastiki kwakunye namakhathuni obisi okanye iziselo enziwe okanye aqatywe iplastiki ngaphandle aziingqayi ezilunge kakhulu zokukhulisela izityalo.

Risayikilisha

- Risayikilisha inkunkuma engenakulungiseka okanye engenakuphinda isebenze ngokuyithuthela kwidephho yokurisayikilisha ekufutshane nawe okanye indawo yokulahla.
- Khetha iimveliso nezinto zokubopha imveliso eziquletke okurisayikilishakayo – khangela umqondiso okhomba ukuba imveliso leyo iyarisayikilisheka.
- Sebenzisa inkunkuma yakho yamaqgabi namaxolo eziqhamo nemifuno ukwenza umgquba.

Ukwenza ikhaya lakho libe likhaya elirisayikilishayo

Ukwahlula-hlula inkunkuma yakho

Indawo elungileyo onokuqala ngayo kukuseka imigqomo emithathu (mhlawumbi ungacinga ngokusebenzisa iibhokisi eziphinde zasetyenziswa) endlwini yakho: umgqomo 'wokuphilayo' wokwenza izala lomgquba, umgqomo wokurisayikilishakayo 'wocomileyo' (iinkonkxa, iplastiki, iibhotile zeglasi, izisongeli zeplastiki, amaqweqwe namakhadibhodi eebhokisi) kwakunye nomgqomo wenkunkuma engarisayikilishekiyo. Oku kuya kunceda ukuhleleka kwenkunkuma yakho kwasekuqaleni, kumthombo wayo.

Inzuzo yokurisayikilisha:



- ukucutha ubuninzi benkunkuma eya etiphini, nto leyo ecutha ukuxinaniseleka ngokwasemoyeni;
- ukudaleka kwezithuba zomsebenzi kwakunye nemali eya ezikolweni nakwimibutho yoluntu;
- ukucutheka kongcoliseko nokusasazwa kwenkunkuma;
- ukonga impahla nezinto ezintsha ekufuneka kwenziwe ngazo 'imveliso entsha'

- ukucutheka kokuthonyelwa kwezinto ezinexabiso eliphezulu zokwenza iimveliso ezintsha;
- ukucothiswa nokuthotywa kwesantya sokucutheka kwamajelo ehlabathi angahlaziyekiyo (i-oyile, amalahle kwakunye nentsimbi) kwakunye naloo majelo ahlaziyekayo (imithi);
- ukucuthwa kwexabiso le-eneji yokwenza izikhongozelo, izinto zokubopha, njalo njalo; kwakunye
- nokongiwa kwamanzi (asetyenziswa ekwenziweni kwezinto zokubopha nakwiimveliso). Ukurisayikilishwa kwephepha kusebenzisa amanzi angama-50% ngaphantsi kunephepha elenziwa ekuqaleni emthini.

Ukukhetha iimpahla zokurisayikilishwa

Ngezants' apha kukho uluhlu olubanzi lwempahla enokurisayikilishwa. Kodwa ke kufuneka ufumanise ukuba ingaba zintoni na idepho yokurisayikilisha yengingqi yakho ezamkelayo. Musa ukusa iimpahla engazirisayikilishiyo idepho leyo – oko kukubaqamqambisela nje ngentloko ngenxa yenkunkuma yakho! Kananjalo impahla eza kurisayikilishwa kufuneka ipurwe phambi kokuba irisayikilishwe. Amanqaku nala manani alandelayo acatshulwe kwincwadi yokufundisa yeDEAT yoKhenketho oluThembakeleyo kwakunye neFairest Cape Association.

linkcenkce nesinyithi

Malunga neetoni ezingama-400 zeenkoxa ziyarisayikilishwa eNtshona Kapa nyanga nenyanga. UCollect-a-Can uthi urisayikilisha ama-66% azo zonke iinkoxa zesiselo eMzantsi Afrika, nto leyo **igxotha ikati eziko kubantu abangaphezulu kwama-37 000**. Isinyithi sisetyenziselwa ukwenza iimveliso ezintsha ezinobulunga obufanayo nezo zentsusa - nto leyo yonga ukusetyenziswa nekwalandolozela amajelo endalo angahlaziyekiyo. **Ukurisayikilishwa kweenkoxa neetoti konga malunga nama-95% e-eneji efunekayo ukuze kwenziwe iinkoxa ezintsha ngentsimbi ekwada**. Kwihlabathi jikelele kukho isidingo esikhulu sesinyithi neentsibi ezindala. UMzantsi Afrika uthumela kwamanye amazwe aphesheya malunga nama-50% eentsimbi ezindala ozifumanayo.

Akukhathaliseki nokuba iinkoxa ezo netoti zibotyokile, zitshile okanye zirusile – zonke zingarisayikilishwa.

Ikhadibhodi nephepha

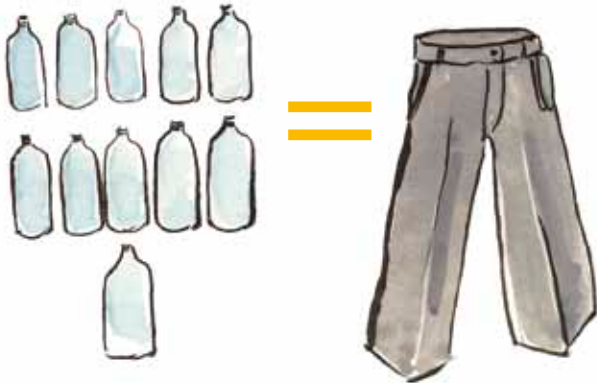
Ikhadibhodi nephepha zimpahla ezikulungele ncaasana ukurisayikilishwa. **Itoni nganye erisayikilishiweyo isindisa imithi eli-17, i-eneji engama-40% ngaphantsi kwefunekayo kwakunye namanzi angaphantsi ngama-30% kwafunekayo ukwenza iphepha elitsha.**

Musa ukurisayikilisha:

- Iphepha elimdaka okanye elimanzi (iphepha langasese nelokosula umbilo, itawuli yephepha, izisongeli-kutya, iphepha elichithelwe zizinto)
- Iphepha eliqatywe okanye elincanyathiselwe iplastiki ukuze kugalelwe ulwelo (iikhathuni zobisi)
- Iphepha elizincamathelekayo (ileyibhile)
- Iphepha lomsizi
- Iphepha lefeksi okanye lefoto elinongwe ngamachiza
- Izingxobo zokutya kwezinja, iingxowa zamazambane, iibhokisi eziqatywe okanye zombathiswe ngeplastiki encamatheleyo.

Iplastiki

Ngokubanzi iplastiki aziwuthi nanjengokuba zenziwe ngamachiza asekwke kwipetroleyam (i-oyile, amalahle negesi). Iplastiki zingayingxaki ukurisayikilishwa kuba amathuba amaninzi zidityaniswa nezinye iimpahla xa zisenziwa. Iplastiki zenziwa ngamachiza eplastiki aneemolekyuli ezininzi ezifanayo (polima). Kubalulekile ukuba iplastiki



libhotile ezili-11 ezirisayikilishiweyo ukuba zirisayikilishwe ngokweepolima zazo zingayenza ibhlukhwe yendoda.

ezifanayo zirisayikilishwe zodwa. Fumanisa kwindawo yengingqi yakho yokothulela inkunkuma ukuba loluphi na uhlobo lweplastiki abalamkelayo.

Ngelishwa ngaphandle nje kohlobo lweplastiki lwePET, iHDPE neLDPE sincinci kakhulu isidingo kushishino lokurisayikilisha eMzantsi Afrika sokufumana iiplastiki emva kokuba kusetyenzisiwe okuphakathi kuzo ukuze zirisayikilishwe, nto leyo ethetha ukuba uninzi lwazo luphelela etiphini okwangoku.



PET



HDPE



LDPE

Ngokwemfaneleko ezi ntlobo zeplastiki zihlelwa kunye ukuze zirisayikilisheke.

PET: ezinepolyethylene terephthalate

HDPE: ezinobunzima-mthamo ophezulu wepolyethylene

LDPE: ezinobunzima-mthamo ophantsi wepolyethylene

PP: ezinepolypropylene

Izinto ezininzi zeplastiki zokubopha nokupakisha unangoku azikarisayikilisheki eMzantsi Afrika konke konke.

Asinako ukurisayikilisha:

- iifoyile zeplastiki ezenziwe ngokudibanisa amacwecwe amaninzi (zokupakisha nokubopha ukutya njen-gebheyikhoni)
- iplastiki yokubopha ebumbeneyo (njengobisi iTetrapak kwakunye neekhathuni zesiselo seziqhamo) – eRhawutini iTetrapak iye iphinde isetyenziswe kwakhona kwaye siyathemba ukuba kuza kwenzeka nalapha eKapa kungekudala
- iitreyi zokutya ezizipolystyrene

Kubalulekile ukujonga ukuba zintoni ezinokuphinda zisetyenziswe kwindawo ekulahlwa kuzo inkunkuma.

Ukungazithengi iimveliso ezipakishwe ngezinto ezingenakurisayikilisheka kuthumela umyalezo ongqingqwa kubenzi bemveliso ukuba bayile kwaye bapakishe iimveliso zabo ngokwendlela ehambisana kakuhle nokusingqongileyo.

libhotile zeglasi neejagi

Ukurisayikilisha ibhotile yeglasi konga umbane onokonela ukulayita isibane esingu-100 W iiyure ezine. **Ngayo yonke itoni yeglasi erisayikilishiweyo, kongiwa iitoni zempahla ekwada e-1,2 neelitha ezili-114 ze-eneji ye-oyile.**

Kubalulekile ukususa iziciko zeebhotile kwakunye nezivalo nemiphezulu yeebhotile zeglasi nezikhongozeli. Ezinye iimveliso zeglasi azinakurisayikilisheka. Kubalulekile ukuqaphela olu hlelo lungezantsi nanjengoko nayiphi na into kwezi zilandelayo ingayonakalisa yonke loo mfumba yeeglasi ibiza kurisayikilishwa.

Musa ukurisayikilisha:

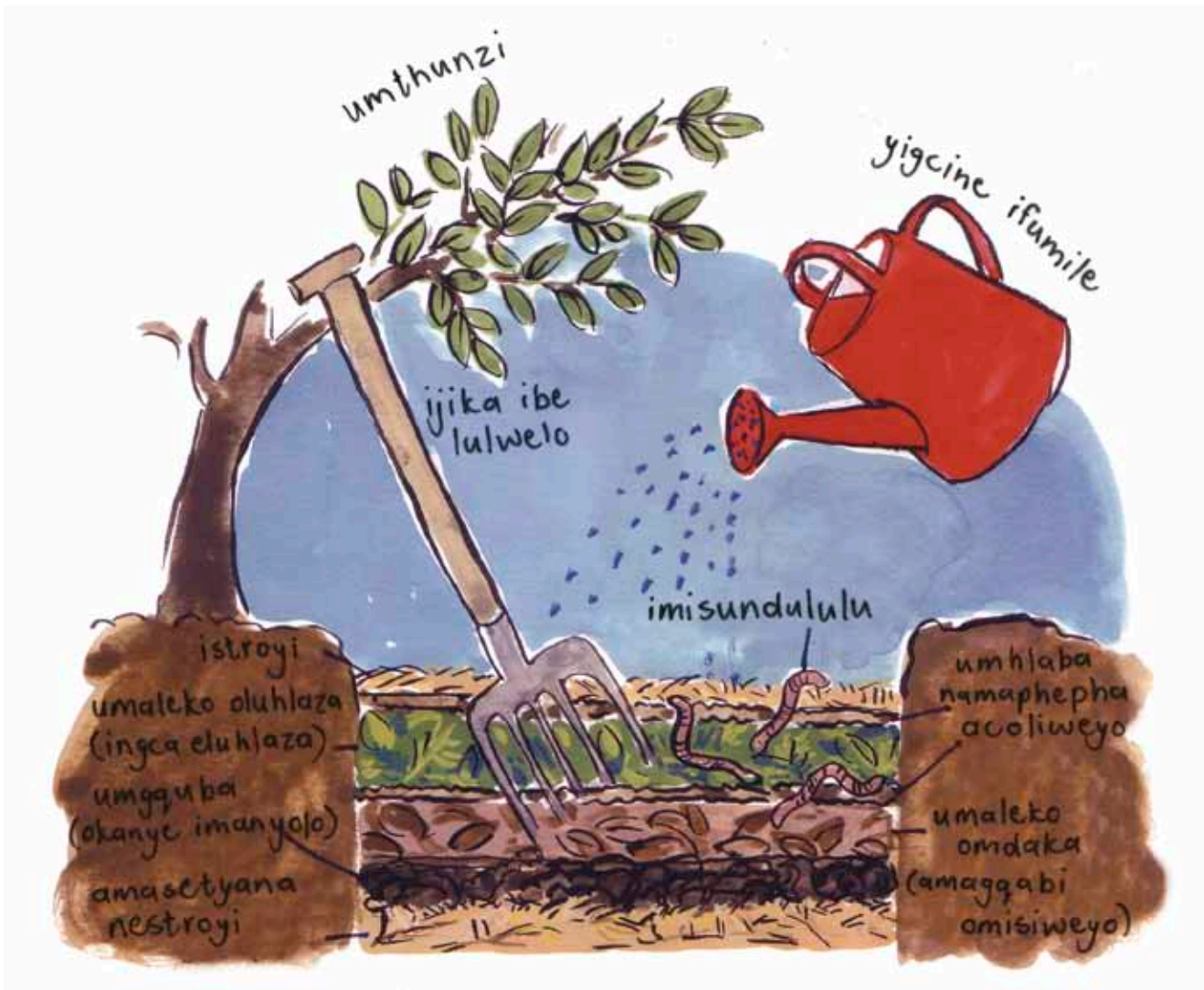
- likomityi, iisosi nempahla yodongwe
- likhyubhu ezibengezelayo
- libhalbhu zokulayita
- liglasi zezipili
- liglasi ezizishiti (iglasi zefestile kwakunye nefestile engaphambili emotweni)
- Izibane zeemoto
- liglasi zokusela idrinki
- liglasi ezibotshelelwe ngocingo
- Iglasi yaselebhu

Inkunkuma yokuphilayo

Ukwenza umgquba inkunkuma yakho yokuphilayo konga isithuba esinexabiso etiphini ze kunciphise umsi wegese yamalale negegalelo ekuGuqukeni kweMozulu. Kananjalo oku kuphindisela izondlo ezibalulekileyo emva emhlabeni. Ukwenza umgquba asinto inzima kuyaphi – nanjengoko kubonisiwe apha kwisicatshulwa esipapashwe nguMasipala woMzantsi woSinga-siqithi weKapa uhlangene neFairer Cape Association (Disemba 1999).

Ungazenzela owakho umgquba ngaphandle kwenkxamleko eninzi. Kukho iindlela ezininzi ezahlukileyo zokwenza umgquba, ngoko ke ungakhetha indlela yokwenza umgquba efanale isixa senkunkuma onaso kwakunye nexesha kwanesithuba somhlaba onaso. Eyona ndlela ilula yokwenza umgquba kukwenza nje izala lenkunkuma yokuphilayo kwikona engenzi nto egadini. Ukuze uligcine izala lakho licwangciseke kakuhle mhlawumbi kuya kufuneka ulenze kwisikhongozeli. Iinkonkxa zomgquba ezibundlu yeenyosi ziyafumaneka kwindawo yokuthengisa izithole. Iinkonkxa zeplanga okaye iplastiki ezinemicu ($1 \times 1 \times 1 \text{ m}^3$) zezona zona zilungele izitiya eziphakathi ukuya kwezikhulu. Isilinda yomngxuma onomnatha wocingo ebukhulu (buyi-1m ngokwesinqumla-sangqa $\times 1 \text{ m}$) ofulelwe ngekhadibhodi okanye ibhokisi yekhadibhodi enkulu yindlela engaxabisi kakhulu yokwenza inkonkxa yomgquba'.

- Khetha indawo enomthunzi nesithileyo yokubeka inkonkxa okanye izala lakho lomgquba.
- Okokuqala beka umaleko wezinto ezirhabaxa eziquka iindiza namasebe (ukwenzela ukufakwa komoya neegesi).
- Beka umaleko umane uwuguquguqule uqale ngowolunye uhlobo ubuye uze ngowolunye uhlobo, kwezi ntlobo zimbini 'ngomdaka' (owamagqabi awomileyo) kwakunye 'noluhlaza' (owengca entsha esikiweyo) ngokomlinganiselo ongama 50:50 kwakunye nomgquba (okanye ingca yaselwandle) njengesiqalisi okanye isilumeki. Sasaza amanzi, isanti nephepha elinqunqiweyo ngokushiyanayo nangokweziqabu phakathi kwezibini zomaleko nanjengokuba umphakamo umde ngokokude uye kuma kwi-1,5 leemitha. Isanti iyimfuneko ukwenza okuphilayo ukuba kube yingqumba. Iintlobo ezininzi zomaleko zingongezelelwa nanjengokuba kufumaneka inkunkuma eninzi.



- Gcina izala elo legqunywe ngomaleko weendiza, umhlaba okanye ikhaphethi endala ukuze kungangeni zimpuku, izinambuzane okanye naziphi na izitshabalalisi.
- Linkcencshele rhoqo izala lakho (ligcine lifumile kodwa lingabi manzi) ze uliguqule ngefolokhwe emva kweenyangana ezimbalwa ukwenzela ukuba izinto zikhawuleze. Ukongeza imisundululwana yokubolisa nako kunganceda.
- Umgquba lowo ukulungele ukuba ungasetyenziswa xa umdaka kwaye uphuqeka kwaye unuka njengomhlaba. Le nto ingathatha isithuba seeveki ezintandathu ukuya kwiinyanga ezintandathu, kuxhomekeke ukuba leliphi na ixesha lonyaka elo. Icebo lelokuba umntu enze amazala omgquba angaphezulu kwesibini ngexesha, nto leyo ethetha ukuba lo gama usazama ukwakha enye, enye 'iyabila' phaya eziko.



Kwezinye iimeko mhlawumbi kungangcono ukungcwaba inkunkuma ephilayo emiseleni (usebenzisa ezi zikhokelo zingentla) okanye emingxunyeni elingana nesixa senkunkuma evelisiweyo. Ungatyala imifuno neentyatyambo zemithi ngqo kumsele womgquba lowo. Enye yezinto ezilungileyo ngokogqunyelwa kwenkunkuma ngesanti kugxotha iimpukane namavumba amabi.

Ukuba ufuna inkcukacha ethe vetshe malunga nokwenza umgquba, tyelela iwebhu yAbalimi Bezekhaya ethi www.abalimi.org.za okanye ubabhalele i-imeyili kule dilesi: abalimi@iafrica.com. Iwebhu yeFairest Cape Association ethi, www.fairestcape.co.za nayo inamcebiso neenkukacha ezininzi ngokwenziwa komgquba kwiindawo ezininzi eKapa.

Inkunkuma eyingozi

Ayikho indlela ekhuseleke gqibi yokulahla inkunkuma eyingozi yasekhaya. Phambi kokuba uthenge imveliso eyingozi qala uzibuze umbuzo wokuba ayikho na imveliso engenye obungayifumana. Cinga ngendlela ekhuselekileyo onokuyilahla ngayo.

Imigaqo elula xa usebenzisa iimveliso eziyingozi

- Khetha ezona mveliso zinetyhefu encinane ezikusebenzelayo ekhayeni lakho. Iimveliso zokucoca ezinophawu lakwaSABS u-A-E 'zamkelele ngokokusingqongileyo' kwaye zivunywe nanguSANS.
- Zithengele isixhobo sokuchwakraza impukane ze ukuphephe ukuthenga amachiza okubulala izinambuzane. Amanye ala machiza anjengeLindane, nathintelwayo ngokomthetho eYurophu nanjengokuba kukholelwa ukuba anxulumene nobukho besifo somhlaza, umbefu nokonakala kwemithambo-luvo.
- Thenga oko ukufunayo kuphela (ngokwezixa ezincinane) ukuphepha ukugcina iimveliso ezinobungozi.
- Funda ilebhile ukuze ufumane ulwazi ngezithako, ngemiyalelo nendlela yokuyisebenzisa, ngendlela ekhuselekileyo yokuyigcina nokuyilahla imveliso leyo.

- Thenga iimveliso ezinezithako ezibonakalisiweyo nezidwelisiweyo apha kuyo. Abasebenzi ngamayeza baya kuyazi indlela yokunyanga ityhefu ethile.
- Qinisekisa ukuba imveliso leyo ibhalwe ngokucacileyo kwaye ugcine isiquqatho semveliso leyo kwisikhongozeli sayo sentsusa.
- Kuphephe kangangoko unako ukusebenzisa ulwelo olutshizwa ngoxinzelelo lomoya. Ezi zitshizi azikwazi ukurisayikilisheka kwaye ayikho indlela yokuzilahla ngokukhuselekileyo.
- Nceda beka iimveliso eziyingozi kude nabantwana nezilo-maqabane emakhaya.
- Ungaze uzixube iimveliso eziyingozi kuba zisenokuxabana nezinye.
- Ngalo lonke ixesha kufuneka zisetyenziswe kwindawo engena umoya kwaye kufuneka zisetyenziswe ngenkathalo enkulu.
- Ungaze utshaye okanye utye lo gama usebenzisa amachiza kwaye kufuneka ngalo lonke ixesha uhlambe izandla emva kokuba usebenzise amachiza.
- Nceda qinisekisa ukuba isikhongozeli sivalisisekile ngalo lonke ixesha. Ukuba isikhongozeli eso siyavuzi, sifake kwisikhongozeli sesibini esiqinisekisiweyo ngokungavuzi, ze usilebhelishe ngombhalo omkhulu othi, 'IYAVUZA'.
- Zigcine kwindawo ebandayo, eyomileyo nemnyama kude nezitovu okanye izifudumezi-manzi.

Ipeyinti, izinyibilikisi, neglu

Kuveliswa itoti ezingama-30 zeyona nkunkuma inetyhefu kakhulu ngetoti nganye yepeyinti ethengiswayo. Ipeyinti, ngenxa yobunzima bazo, zezinye zezixhobo zokwakha eziyitya kakhulu i-eneji. Ezinye iingcobo ezothusayo zezokuba baninzi abantu ababulawa yityhefu elapha emsini kwimililo etshisa izindlu (esuka kwilotho endala yepeyinti nakwezinye iimveliso zasekhaya eziyingozi) kunabo babulawa ngumsi lo ngokwawo. Uninzi oluxhaphakieyo lwezicinalalisi zemithi namaplanga ezisebenza njengezibulali-zinambuzane kwakunye nezibulali-kungunda ziba netyhefu eyingozi neninzi kakhulu emva kweminyaka emininzi imveliso leyo isetyenzisiwe.

Izinto ezikhuselekileyo ezinokusetyenziswa endaweni yezi

- Ukuba izicinalalisi zeepeyinti okanye zemithi zisetyenzisiwe, kufuneka ukhethe ezo zineqondo letyhefu elisezantsi. UBreathcote (ecodesign@mweb.co.za) kwakunye no-EnviroTouch (<http://www.envirotouch.com>) banezinye zemveliso ezilunge kakhulu.
- Xa kugudiswa iplanga, iimveliso ezineboron (ineqondo eliphantsi okanye eliphakathi letyhefu) zingasetyenziswa. Ukucocwa kwamaplanga ngeboron kuhambelana nemiqathango yeSANS. Kodwa ke, iimveliso eziqulathe iboron ziyathanda ukuhluzeka kuloko ke kufuneka ukuba amaplanga apeyintwe ngemveliso yeboron angangcwatywa emhlabeni okanye antywiliselwe emanzini. Ukuba imveliso elolo hlobo isetyenziswe ngaphandle, kubalulekile ukuba afakwe i-oyile eyongezelekileyo okanye anikwe icocwe ngokudyojwa.
- Ipeyinti ezinobulunga obuhle ezenziwe ngamanzi okanye ezinganyibiliki kakhulu, iglu, ivanishi kwakunye nezicinalalisi zisinika izinto esinokukhetha zona ezibuthembakala.
- Yibethelele emgangathweni itapeti kunokusebenzisa iglu.

For more information on timber preservation and environmentally-friendly ways of preserving wood, visit www.greenhouse.org.za.

libhetri

Okwangoku, iSixeko asikabi nayo iNkqubo yoLawulo lweNkunkuma yeeBhetri echaza amanyathelo emakathathwe xa kuququzelelwa izicwangciso zokujonga ukuba iibhetri zinokuphinda zisebenziseke njani. Thina nje sicebisa abahlali ukuba bathethe nabathengi babuze ukuba abanakuzibuyisela na ezo bhethri kwezo ndawo bazithenge kuzo xa ziphelelwe ukuze ziphinde zitshajwe.

liglowubhu zokulayita ezindlwini

ISixeko sisebenzisana noEskom siqwalasela umba wokuba iiglowubhu zasezindlwini azinakuphinda zisebenze na. Okwangoku de kubekho icebo lokuba ziphinde zisetyenziswe, abahlali bayacelwa ukuba bazigcine kakuhle iiglowubhu ezisebenzileyo, bazifake kwizinto ezingazukophuka kuzo.

I-oyile

Ilitha enye ye-oyile ingenza iingwengwezi kumanzi anokuba sendaweni enokuba ngaphezulu kwamabala amabini esoka. Ungaze ugalele isinqandi-kunyibilika okanye nalo naliphi na elinye ichiza emgangathweni, kwimijelo yamanzi ahamba kwimibhobho yamanzi okanye esinkini.

Igaraji ezininzi zithabatha inxaxheba kwiinkqubo zokurisayikilishwa kwe-oyile. Ukuba uyazilungisela imoto yakho ekhaya, buyisela i-oyile esetyenzisiweyo egaraji okanye kwidepho efuna i-oyile endala njengeFootprints okanye iRose Foundation (Ukufunyanwa kwe-oyile endala kusindisa okusingqongileyo), imibutho engasekelwanga ukungenisa inzuzo eqokelela, igcine ze irisayikilishwe i-oyile ethambisayo xa iqatywe. Qhagamshelana nabo kule nombolo: (021) 448 7492. Ukuba ufuna ingcaciso ethe vetshe, tyelela iwebhu u-www.rosefoundation.org.za.

Foto: Mark Lewis



Ukuba imveliso eyingozi ithe yaginywa, thatha umntu lowo ngoko nangoko umse kwiziko elisebenza ngetyhefu, okanye iikliniki okanye esibhedlele. Musa ukuzama ukumbabhisa umntu lowo, nanjengokuba imisi, ivumba nothuli olo lunokungena emiphungeni ze liyonzakalise. Ukuba amachiza ayingozi arhogelwe, umntu watsarhwa, khawuleza umse kwindawo enempepho umntu lowo. Musa ukusondela kwindawo enothuli nomsi lowo. Vula zonke iingcango neefestile.

Tsalela iZiko lokuLawulwa kweTyhefu laseTygerberg xa ufuna ingcebiso (021) 931 6129 okanye iZiko leTyhefu laseRed Cross (021) 689 5227. Ukuba ichiza lingene emehlweni akho okanye lachithekela esikhumbeni sakho, zipre ngamanzi amatsha nacocekileyo isithuba semizuzu eli-15 ukuya kwengama-20.

limveliso ezikhuselekileyo zokucoca

Zama ukuphepha iimveliso zasekhaya eziyingozi ngokukhangela la magama emaqokobheni okanye kwiilebhile:

- Ezingenatyhefu
- Ezingasekwanga kwipetroliyam
- Ezingenayo i-amoniya, idayi nechiza lezichumiso ifosfeyithi



- Ezihambisanayo nokusingqongileyo
- Ezihambisanayo ne-oksijini enevumba elihlaziyayo
- Ziyasebenziseka kwakhona kwaye ziyarisayikilisheka
- Ine-enzayime esebenzayo
- Okuphilayo

Ucoco oluninzi ekhaya lungenziwa ngesiqingatha somxube weviniga nesiqingatha samanzi, okanye isepha elulwelo kunye nesoda yokubhaka. Apha ngezantsi kukho uluhlu lweemveliso eziyimfuneko onokuzithenga ezikhuselekileyo zokucoca xa uphinda uthenga kwakhona:

Isoda yokubhaka (ibhiKharbonati yesoda) idumaza i-asidi kwaye icoca imigangatho emenezelayo ngaphandle kokuyikrwela. Icoza ze ipolishe i-aluminiyam, ikhrom, izihombiso ezinamatye anqabileyo, isilivere, intsimbi engatywa ngumhlwa nenkcenkce. Kananjalo ikwasisithambisi-mpahla esilungileyo, isishenxisi-mabala kwaye yenza amanzi anomkhenkce anyibilike. Isusa ivumba elibi kwizikhenkcisi, kwitapeti ezinukayo, impahla yendlu entofontofo nditsho nemijelo yamanzi amdaka. Kananjalo ingawucima nomlilo wamafutha.



Iboraksi, yiminerali yendalo ezenzekelayo enyibilikayo emanzini, isusa amavumba amabi, ishenxisa amabala, ithomalalisa ukungunda nokuvunda kwaye inika amandla awongezelelekileyo isepha engumgubo nezinye izicoci.



Ijuzi yelamuni ishenxisa amavumba amabi, icoca iiglas, isusa amabala kwi-aluminiyam kwaye yiblitshi engekho bukhali esebenzayo kwizinto zewulu. Into enomdla yeyokuba isebenza kakhulu xa isetyenziswa nesanlayithi.



Ityuwa isisikhuhli esinamandla xa kucocwa okanye kutyulwa izinto ezithile zesinyithi okanye zeplastiki, kodwa ingazikrwela ezinye izinto nemigangatho.



Iviniga ithibaza iziseko-mandla ezinjengeesepha ze-alkali ze yethise nobuninzi be-pH. Isusa amafutha emigangathweni kwaye sinqandi-vumba esiphuma phambili. Kuphephe ukusebenzisa iviniga kumatye agudiswayo okuhombisa nanjengokuba inokwenza imingxuma kumphezulu wamatye lawo. Iviniga emhlophe ikulungele ukusetyenziswa kuwo nawaphi na amalaphu amibala-bala angengomqhaphu nelineni.



Isoda yokuhlamba (isodiyam karboneyithi dikhahayidreyithi) yiminerali esusa amafutha anenkani, amafutha kwizinto zokugcada, iipani nezitovu zokubhaka. Ingasetyenziswa nebiKharbonati yesoda endaweni yezicoci zaselonndri kwaye iyafumaneka ezikhemesti nakwiivenkile ezithengisa ngamachiza.



Ezinye zeeresiphi zendalo zococeko emakhaya

Ezi resiphi zibaluleke kangaka zenziwa nguMuna Lakhani ezenzela i-Earthlife Africa's Toxics Group, kwakunye neCandelo loLawulo lweNkunkuma leSebe lemiCimbi yokusiNgqongileyo noKhenketho.

Izihlaziyi-moya

- Isoda yokubhaka okanye iviniga esosini.
- I-oli yeAromatheraphi.
- Galela ivanila ecuntsulweyo kwibhola yomqhaphu esesosini ze uyibeke ekhaya okanye emotweni okanye kwisikhenkcisi.
- Qukumbela umphantsi webhokisi yenkunkuma ngesoda yokubhaka phambi kokuba ugalele inkunkuma. Le nto iya kugxotha amavumba amabi iintsuku eziliqela.



Isicoci sazo zonke izinto ekhaya

- Iviniga netyuwa.
- Isepha elulwelo nesoda yokubhaka.
- Isoda yokubhaka (ilungu e-1) kwakunye namanzi ashushu (amalungu ama-2).
- Kwilitha yamanzi ashushu, yongeza itispuni e-1 (5ml) yesepha yolwelo, itispuni e-1 (5ml) yeboraksi kwakunye ne-¼ yekomityi (62ml) yeviniga emhlophe engaxutywanga. Kuxube konke oku ze ukugcine kwibhotile yesifefezi ukuze ukusebenzise xa ucoca imiphezulu yeetafile, imigangatho, amadonga neetapeti.



Isicoci sebhafu neshawari

Sula ngevininga ze ukorobhe ngesoda yokubhaka usebenzisa isiponji esifumileyo.

Izisusi-maqweqwe okanye amakhokho

Sebenzisa iviniga yococo-lwelo kumaqweqwe abukalika eziketileni nasezindlwini zangasese. Ijusi yelamuni sisiqholi-vumba esingesinde esinokusetyenziswa kumabala etipoti.



Isibulali-zintsholongwane

Isi-½ sekomityi (125ml) yeboraksi kwisinyibiliko seelitha ezi-4½ zamanzi atshisayo singasetyenziswa njengesicocisi. Iperoksayidi yeHidrojeni (isinyibiliko esiyi-3%) nayo ingasetyenziswa.

Isinyibilikisi-mafutha

Sebenzisa iviniga okanye ilamuni ukususa amafutha.

Isinyibiliko sokususa amafutha singenziwa ngokuxutywa kwesi-½ setispuni (2,5ml) yesoda yokuhlamba (sodiyam kharboneyithi okanye uthuthu lwesoda), amacephe ama-2 (30ml) eviniga emhlophe kwakunye ne-¼ yetispuni (1ml) yesepha elulwelo kwakunye neekomityi ezi-2 (500ml) zamanzi.



Isicocisi somashini wokuhlamba izitya

Umxube wezixa ezilinganayo zeboraksi nesoda yokubhaka (i-15ml leboraksi kwakunye ne-15ml lesoda yokubhaka) ungasetyenziswa njengesicocisi somashini wokuhlamba izitya. Kodwa ke, ukuqinisekisa ukuba oku kukulungele, qhagamshelana nabavelisi bomashini wakho ngokunxulumene neziphumo zokusebenzisa le mveliso kumashini wakho.



Isicoci-mijelo yamanzi amdaka

Ukucocwa rhoqo kwemijelo yamanzi amdaka kwakunye nokugalelwa kwamazi abilayo kule mijelo veki neveki kungakhusela ukwakheka kwentsila ethi ithintele ukuhamba kwamanzi. Sebenzisa le ndlela ilandelayo ukucoca rhoqo imijelo yakho yamanzi amdaka:

1. Galela isi-½ sekomityi (125ml) sesoda yokubhaka kwakunye nesi-½ sekomityi (125ml) seviniga emhlophe esinkini yakho okanye kwimibhobho yemijelo yakho yamanzi amdaka.
2. Kogqume oku ze ukushiye kangangeeyure esi-2.
3. Pura oko ngamanzi abilayo.

Ukuba idreyini yakho ifuna ukuvulwa, sebenzisa iperoxsayidi yehidrojeni (iyafumaneka ekhemesti) kwakunye nesixhobo sokugqogqa impompo. Musa ukusebenzisa oku emva kokuba usebenzise isicoci esithengiswayo.

Isicoci-mgangatho nepolishi

- **Ivinyl okanye ilinoliyam:** isiciko esizeleyo (5ml) se-oli yentsana namanzi.
- **Imigangatho yeplanga:** faka umaleko obhityileyo wezixa ezilinganayo ze-oli yemifuno kwakunye neviniga emhlophe. Hlikihla kangangoko.
- **Imigangatho epeyintiweyo yeplanga:** itispuni e-1 (5ml) yesoda yokuhlamba exutywe neelitha ezi-4 zamanzi ashushu.
- **Ithayile zamatye neebhloko:** ikomityi e-1 (250ml) yeviniga emhlophe exutywe neelitha ezi-4½ zamanzi.
- Pura ngamanzi acocekileyo emva kwayo yonke inkqubo.

Ilzigxothi-zinambuzane

Sebenzisa iingcambu nezipayisi eziqholeke kakhulu nezinamavumba amnandi. I-oli yesitrasi, ilavenda, irozmeri, iinkozo zepepile, itshilisi ebomvu egutyiweyo, inxina, amagqabi omthi ibheyi, i-oli yeklovu nomsedare zonke zizigxothi-zinambuzane ezikhulu.



Izicoci zesinyithi nepolishi

- **I-Aluminiyam:** sebenzisa intlama eyenziwe ngocwambu lwethathari namanzi.
- **Ixina:** intlama yejusi yelamuni kunye nesoda yokubhaka OKANYE isinyibiliko seviniga netyuwa.
- **Ikhrom:** i-oli yeentsana kunye neviniga OKANYE ifoyile ye-aluminiyam eneli cala limenyezelayo lijonge ngaphandle.
- **Ubhedu:** bilisa izinto ezo zobhedu kumxube wetyuwa (icephe eli-1/15ml), iviniga emhlophe (ikomityi e-1 /250ml) kwakunye namanzi atshisayo.
- **Isilivere:** yondlala ipani okanye imbiza ngefoyle ye-aluminiyam ze ke ubilise izinto ezo emanzini anetispuni yesoda yokubhaka kwakunye netispuni yetyuwa.
- **Iintsimbi neenkcnce ezingatywa-mhlwa:** sebenzisa iviniga emhlophe engaxutywanga ukuzicoca.

Isisusi-kungunda

Kuhla amachaphaza okungunda ngesi-½ sekomityi (125ml) yeboraksi kwakunye neelitha ezi-4 zamanzi usebenzisa umqamelwana wenayiloni wokukhuhla. Ukuthintela ukwenzeka kwakhona kokungunda, musa ukuyipura iboraksi. Intlama yokutyula yetyuwa neviniga nayo ingasebenza.



Isicoci sesitovu sokubhaka

Yenza intlama engqindilili ngamanzi kunye nesoda yokubhaka ukuze ucoce ngayo isitovu sakho sokubhaka esimdaka. Emva koko ke yishiye kangangemizuzu emi-3. Kuhla ngomqamelwana wokutyula wenayiloni. Ukuba isitovu singashele ngamafutha, yongeza amathontsana ambalwa esepha yolwelo apha emxubeni. Isinyibiliko samanzi neboraksi (amatispuni ama-2 kwilitha yamanzi) esifefezwe apha eludongeni lwesitovu sokubhaka naso singasebenza kakuhle nje. Sebenzisa istiliwulu esicoleke kakhulu ukususa amachaphaza.

Yithi sasa ityuwa kwezi ndawo zichithekelweyo ngeli xesha isitovu sokubhaka siseshushu khon' ukuze oko kukwenze lula ukusuka kwawo sisakuphola isitovu.

Isisusi-mabala kumalaphu

Xuba ilungu eli-1 legliserina nelungu eli-1 lolwelo lwesicocisi sokuhlamba izitya zidityaniswe namalungu asi-8 amanzi ze kufakwe kwezo ndawo zinamabala ngokukhawuleza okukhulu. Liyeke ilaphu apho kangangemizuzu engama-20 (landise ixesha elo lokulinda kumabala anetshiki) ze uyihlambe into leyo ngokwesiqhelo nezinye impahla. Wugcine lo mxube kwisikhongozeli ezicudisekayo.

Imveliso zokucoca izindlu zangasese

Zama oku kulandelayo:

- Faka iblitshi (engenasiseko-mandla seklorin) ngqo ngaphandle kwezinye izinto zokucoca.
- Isoda yokubhaka neviniga.
- I-¼ yekomityi (62ml) yeboraksi kwisihlalo sendlu leyo yangasese ze uyishiye iiyure ezimbalwa okanye ubusuku bonke, ze ke emva koko ukhuhle ze ugungxule.

Ijusi yelamuni nayo ingadityaniswa ukwenza ivumba elimnandi.

Isicoci seefestile neeglas

Sebenzisa amanzi adikidiki anejusi yelamuni (amacephe ama-2 /30ml) okanye iviniga (i-¼ yekomityi/62ml). Kuxube oku ze ukugcine kwibhotile yokufefeza.

Ukuthintela izitshabalalisi

Iimbovane: Isifezezi esinamandla, ipepile yetshilisi ebomvu, umfuno obabayo ipaprika, inxina eyomisiweyo okanye iboraksi xa iimbovane zingena ekhayeni lakho.



Amaphela: Yenza intlama yeboraksi, iflawu neswekile (zonke ezi mazilingane ngezixa) ze ugalele itispuni yeTCP ze usasaze kumgangatho okummandla ozaliswe ngamaphela. Kuphinde oku emva kweentsuku ezine ze uphinde kwakhona emva kweeveki ezimbini.



Amanundu: Yoneka iimpahla elangeni ze uzifake kwisikhongozeli okanye kwiqokobhe elingangen moya (njengesingxobo seplastiki) kunye neepakethana zelavenda okanye ingququ yomsedare.



Iintimba: Gxotha iintimba ngokubeka umxube weboraksi, iswekile kunye neviniga ezikhabhathini nasezityesini.



Ukuba kuthe kwanyanzeleka ukuba uqhagamshelane neshishini eligxotha izitshabalalisi ukuba lize kugxothela izitshabalalisi endlwini yakho, khangela eyona yenza imisebenzi yayo iyinakekele indalo, ikuthanda okusingqongileyo. Inkampani enjalo iyakuya ngqo kwingxaki yakho yezitshabalalisi kwaye bayakuqinisekisa ukuba abasebenzisi imveliso enobungozi jikelele.

Izigxothi zezitshabalalisi zendalo ezigadini nakwizitya zemifuno

Endaweni yokusebenzisa izibulali-zinambuzane nezibulali –zitshabalalisi egadini yakho, tyala izityalo eziziinkulelane, lususe ngokuluhlakula ukhula ngesandla, ze utshive izityalo zakho ngamanzi anesepha ukunqanda izinambuzane. Oku kuya kunciphisa ukufuna kwakho iimveliso eziqulathe izithako ezinobungozi neziyilimazayo indalo zitshabalalise okusingqongileyo kwaye zibe zingakhuselekanga.

Xa utyala imbewu yakho, kungcono xa 'utyala ngokuxuba'. Ngamanye amazwi oku kuthetha ukuba izithole zakho zetswele zikhule phakathi kweminqatha, eli vumba lixubeneyo liyazixakekisa izitshabalalisi ze likhusele isitya sakho semifuno ekhulayo ekutyiweni zizitshabalalisi. Ezinye 'izingqandi' ezilungileyo ezinokutyalwa phakathi kwemifuno ziquka amahlamvana okunonga anevumba elinamandla okanye izityalo ezifana nesivumba-mpunzi, itswele eliluhlaza neemarigold. Itshayive negalika zigxotha iintwala zemithi ezintyatyambeni. Irozmeri, inxina, inastushemna, isejji kwakunye nebheyizile zonke zisetyenziselwa ukugxotha izinambuzane ezibhabhayo neembovane.

IINKCUKACHA ZOQHAGAMSHELWANO NEZIBONELELO EZIKHOYO

IiNkonzo zokuThuthwa ukuCocwa nokuLahlwa kweNkunkuma kwisiXeko saseKapa (siquka iinkcukacha eziphathelele kumaziko ekusiwa kuwo inkunkuma nokubika ukulahlwa kwenkunkuma okungekho mthethweni: Imibuzo jikelele: 0860 10 30 89.

IPhulo LobuLumko beNkunkuma lesiXeko saseKapa: Umnxeba (021) 400 3298/2292 okanye tyelela iwebhu yabo ku-www.wastewise.org.za.

INkqubo eBumbeneyo yoNaniselwano ngokusuka eNkunkumeni yaziswe ngokusesikweni sisiXeko saseKapa ngo-Meyi kunyaka ka-2000 ngenjongo zokucutha isixa senkunkuma eyingozi esiwa ezitiphini. Tyelela u-www.capetown.gov.za/IWEX ukuba ufuna iinkcukacha ezithe xhaxhe.

IZiko loLawulo lweNkunkuma lixhasa ulawulo lwenkunkuma olwamkelekileyo ngokusingqongileyo kwanoluxabisa ngokufanelekileyo ngenjongo zokukhusela okusingqongileyo nokukhusela uMzantsi Afrika kuLawulo lweNkunkuma olugwenxa: www.iwmsa.co.za.

ISebe likaZwelonke lemiCimbi yokusiNgqongileyo noKhenketho luyile iincwadi ezilunge kakhulu zokusebenza ngenkunkuma. Icandelo eliphezulu loLawulo lweNkunkuma (012) 310 3911, okanye: www.environment.gov.za.

IFairest Cape Association ngumbutho ongenzi nzuzo nongekho phantsi kolawulo lukaRhulumente eNtshona Kapa. Uxhasa indalo nokusiNgqongileyo ngokuphilileyo nokucocekileyo ngokuvumela abantu ukuba babe nenxaxheba kwaye babe nemfanelo ngenkunkuma: (021) 462 2040 okanye tyelela iwebhu yabo u-www.fairestcape.co.za.

INatural Step yenza imithetho-siseko yophuhliso olusisigxina ukuba isebenze ngokubonisa isakhelo salo kwimibutho yoluntu. Tyelela u-: www.naturalstep.org/about/international.php#SouthAfrica.

Omnye umthombo olungileyo nguLakhani, Muna, Indlela yokwenza Ikhaya eliKhuselekileyo, Phucula iPilo Yakho nokusiNgqongileyo Kwakho. Iveliswe ngabakwa-Earthlife Africa Toxics Group, Novemba 2002.

IZiko eliyi-Institute for Zero Waste in Africa: i-imeyli: zerowaste@iafrica.com.

IMIBUTHO ERISAYIKILISHAYO

KwaSappi Waste Paper	(021) 930 7145
KwaNAMPak Recycling	(021) 507 4300
KwaMondi Recycling	(021) 931 5106
Kwa-Oil Rose Foundation	(021) 448 7492.
Kwa-Oasis Recycling and Waste Management Project	(021) 671 5570
ETsoga Environmental Centre, Langa	(021) 694 0010
KwaFootprints	(021) 794 5586

Abalimi Bezekhaya izitya zemifuno	(021) 447 1256
IKommetjie Environmental Action Group	(021) 783 3433

Imibutho yesisa eyamkela ngovuyo iimpahla ukuze izilungise okanye izisebenzise kwakhona

Imibutho yesisa emininzi yamkela ngovuyo impahla yokuxhasa amakhaya ahlelelekileyo, okanye enokuthengiswa ukuze kwakhiwe ingxowa-mali yemisebenzi yabo. Iimpahla ezi ziquka iimpahla zokunxiba, ifanitshala, iincwadi, izinto zokudla nezinto zokusebenza. Kwiimeko ezininzi, imibutho le ingenza isicwangciso sokuba iimpahla ezo zilandwe ekhayeni lakho.

I-Aids Action	(021) 948 7699
ICAFDA	(021) 706 2050
ILifeline	(021) 696 2100
IRed Cross Abantwana's Hospital Friends of the Abantwana's Hospital	(021) 658 5243
ISalvation Army	(021) 761 8530

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 ngeenkonzo 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, ulondolozel okusingqongileyo kunye nemali yakho.



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