



our environment tikoloho ea rona

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NES: Paballo le Ts'ireletso ea Lihloliloeng le Tikoloho ka Kopanelo

Re lebohela le ho thoholetsa qaleho ea khatiso ea koranta ena ea rona e bitsoang *Tikoloho ea Rona*. Mohlomong ha u tsebe letho ka boteng ba rona le hore na re sebetsa'ng; ka hona ke monyetla oa hau hore u re tsebe re u tsebel!

Lekalana lena le qalile ho sebetsa ka 'Mesa, 1994 tlas'a ofisi ea Tona-Khoho. Lekalana lena le filoe boikarabelo ba ho hokahanya mesebetsi eohle ea ts'ireletso le polokeho ea tse hlalisoang ke lihloliloeng ka kopanelo le Makala a 'Muso a amehang, Mekhatlo eo eseng ea 'Muso, Bahoebi le sechaba ka kakaretso.

Merero le boikemisetso ba Lekalana lena ke ho kenyeletsa "Tlholeho Molaong"; 'me lekalana lena le entse kakaretso ena ea moralo ka 1995. Ka lebaka la molao ona, ho tla ba bobebe ho ntlafatsa melaoana e akaretsang ts'ebetso ena ka ho e matlafatsa le ho e fitisa ka paramenteng ha e qetilo.

Botsamaisi ba khokahanyo ea lekalana lena bo se bo ntse bo tsoela-pele ho ngola "Tlaleho ea Pele holim'a "Tlholeho le Lihloliloeng Lesotho". Ba bileng le kabelo tlalehong ena, ebile ba 'maloa ba kang 'Muso, Sekolo Se Seholo - Roma, Mekhatlo eo e seng ea 'Muso le litsebi tse ikemetseng.

Thuto le litsebo ka kopano metseng - Lekalana lena le reretsoe ho kopanya sechaba le merero ea sona metseng ka litumellano le kutloisiso ha ho etsoa mesebetsi haholo-holo ea lihloliloeng le tikoloho.

Mesebetsi ea mathomo e akaretsang lihloliloeng le tikoloho, ho tsoelosa moea oa ts'ebetso e se e qalile ho potoloha le naha. Ha mosebetsi eo e qetoa, ho tla hlaka he hore na mekhoha ea ts'ebetso ea boitsebelo ho akofisa ts'ireletso ea lihloliloeng le tikoloho e atameloa joang.

Ho se ho ntse ho ena le ts'ebetso ea ho ruta bana likolong hore ba tsebe le ho rata naha ea bona ka lihloliloeng tsa eona.

Ka Sechaena ho thoe Ha o batla ho lema lemong sena - lema "rice" (mabele); ha o batla moralo oa lilemo tse leshome - lema lifate; ha o batla moralo oa lilemo tse lekhoho - ruta.

Ke ka maele ana ao Lekalana lena le tsitlaletseng merero ea thuto ka lihloliloeng le tikoloho e le ho ruta Basotho ho ikhethela ka bohlahe meralo le litsela tsa ts'ebetso. Lekalana lena le bile le hokahanya "Kopano ea Machaba ho tsa lihloliloeng le tikoloho" tse kang maemo a leholimo, Liphetho Bophelong le Bolehoatata. Tsena ke tse tla fumaneha kahar'a phatlalatso ena.

Boemo ba naha le machabeng, ho tsa Metsi a Lihlaba tsa Lesotho, ha ho makatse hore Environmental Impact Assessment (EIA) and Monitoring Division e kopanetse ts'ebetso eo le

Phase 1A le Phase B ea morero eo. Lekalana le boetse le nthla li peli komiteng ea Likhoere-khoere le Thotobolo e ikarabellang selibeng sa Lekhotla la Toropo ea Maseru. Ka ho ts'oana, Lekalana le tsamaisitse EIA ea lihotele tse ngata tse tlasa Lesotho Tourist Board.

Ka kakaretso Lekalana lena le ikarabella ts'ireletso ea Lihloliloeng le Tikoloho tlas'a kopanelo ea meralo, boeletsi, bolaoli, liphatlatso le botsamaisi holim'a lihlalisoa tsa lihloliloeng ka uena le 'Na, le bana ba rona, litloholo tsa rona le meloko e tiang.

Ka holim'a mona Lekalana lena le na le morero oa tikoloho oa bacha ho nts'etsa pele e meng ea mesebetsi ea paballo ea lihloliloeng. Fumana ka bottalo leqepeng la boraro seo morero ona o se etsang.

Lekalana la paballo ea tikoloho le lihloliloeng ke lona mohokahanyi oa mantlha oa litaba tsa tikoloho. Lula u lebeletse ho bona phetoho e tlisang tikoloho ea rona maamong a amohelang. 'Me sena u ka se fihlela feela ka ho kenya letsoho le uena.

Lepetjo sa lekalana la tikoloho le lihloliloeng ke lehala-kharetsa, semela se famanehang Lesotho mona feela. Ka hona lekalana lena le na le mosebetsi o moholohali oa ho tsireletsa semela sena hammoho le tse leling tsohle tse boemong ba ho fela.



NES: Environmental Protection, Conservation and Partnership

Welcome to the first issue of the National Environment Secretariat (NES) newsletter *Our Environment*. If you are unfamiliar with NES, this is the time to catch yourself up to speed. To begin, the logo of NES is the spiral aloe, which is indigenous to Lesotho. The spiral aloe is now an endangered species and serves as a visual reminder of NES' primary mission to protect the natural environment of Lesotho.

NES was established in April 1994 under the auspices of the office of the Prime Minister. It has been charged with the responsibility of coordinating activities that affect Lesotho's environmental resources. This is done in partnership with various stakeholders such as government agencies, the private sector, non-governmental organisations (NGOs) and local communities at large.

NES undertakes a number of activities such as establishing an environment policy and framework law for the country. A comprehensive national policy was completed in 1995. Using the environment policy the environmental framework law was drafted for Lesotho. The final draft Environment Bill will be tabled in Parliament in the near future.

The Data Management Unit of NES has been set up and is currently engaged in producing the first State of Environment Report for

Lesotho. Contributors to this report were solicited from a wide spectrum including government, the academic community, NGOs and independent consultants. The Data Management Unit is also setting up a meta - database, which is a file of data on Lesotho's environment that will enable NES to track and forecast environmental trends.

There is also an Education and Outreach Division of NES which develops outreach programmes. These programmes are geared toward building popular participation in the crucial stages of development projects from consultation to implementation.

Preliminary work on the National Environmental Awareness Survey has already begun and the results will be communicated nationwide. Information and data collected from this survey is essential for designing and selecting techniques to promote environmental awareness. In the meantime other sensitization and awareness-promoting activities have begun in schools. The education and outreach division follows the idea behind an old Chinese saying: if you plan for year - plant rice, if you plan for ten years - plant trees; if you plan for hundred years - educate. With this in mind, NES has embarked on a number of other environmental education projects so that people are able to make informed choices.

NES plays a leading role in the national implementation of international environmental conventions such as climate change, biodiversity and desertification. Details on these conventions will feature in the coming issues.

Given the national and international interest in the progress on implementing the Lesotho Highlands Water Project it is not surprising that the environmental impact assessment (EIA) is mandatory. The Monitoring Division of NES has coordinated the reviews of EIA for Phase 1B of the project with the assistance of the United Nations Development Programme (UNDP)/United Nations Education and Science and Communications Organisation (UNESCO) team. The division has also jointly spearheaded, with the NES Committee on Waste Management (COWMAN), the auditing of Ts'osane Landfill. The division recently directed the EIA for a number of hotels under the auspices of the Lesotho Tourist Board.

National Environment Youth Corps (NEYC) has been established as a NES project to activate and train youth on environmentally-related skills and activities. See page 3 for more information.

NES, the national vehicle for environmental coordination and management, continues to grow in leaps and bounds so keep an eye on Lesotho's environment as it changes for the better.

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The National Environment Secretariat logo bears the spiral aloe, a plant indigenous to Lesotho. The spiral aloe represents one of NES' commitments: environmental protection of this and other endangered species.

MOTHATI ONA

BACHA BA NAHA TKOLOHONG
SETSISA TIKOLOHO SE MASIANOKENG
MORERO OA KHAHO EA MATLO LE NTSETSOPELE
MERAFO LESOTHO
TLALEHO HOLIMA BOEMO BA TIKOLOHO
TAOLO EA LIKHOEREKHOERE
METS!

THIS ISSUE

NATIONAL ENVIRONMENT YOUTH CORPS
MASIANOKENG ENVIRONMENTAL CENTRE
LHLDC
MINING IN LESOTHO
STATE OF ENVIRONMENT REPORT
WASTE MANAGEMENT
WATER

“Puo holim’a tikoloho...”

Molaetsa ka Mongoli kakaretso oa tsa Lihlohiloeng - NES

Phatlalatsa ea Koranta ena ea *Tikoloho ea Rona* e paka boitseko ba litokelo ho fihla sechabeng. Tlatsetso ea mantlha e khoho leka ho phethahatsa morerohali ona oa rona e hlahile e tsoa ho U.N.D.P. e ileng ea phalla ka litsebi le thepa ea ts’ebetso. ‘Musu oa tlatsetsa ka basebetsi ba seng ba kae ho phethela morero ona. Komiti ea Tlatsetso e ahiloe ka baithaopi ba tsoang kantle le kahare ho Makala a ‘Musu. Ha e ne e se ka boikitlaetso bona ba boithaopo re ka be re ntse re luba thankha le joale ho leka ho fihlela morero oa boitsebiso sechabeng le machabeng ka ho ts’oana ka mathata le meralo ea lihlohiloeng le tikoloho. Kajeno re motlotlo ho leboha ka lipelo tsohle ts’ebetso e babatsehlang ho ba kentseng letsoho katlehisona ea morero ona o moholo.

Khoholeho ea Mobu ka bomalimabe e fetohile karolo ea bophelo hoo re seng re sa e ele hloko. Re leka ka matla ho ehlisa sechaba ka ho fela hoa naha ho bakoang ke mekhoha e fosahetseng ea ho sa baballe mobu. Re boetse re tsonyehile haholo ke khoho e potlakileng ea sechaba se hlokanang mobu ho qetellang ka tlala le bofuma. Tahlehelo ea mobu le tse beoang ke ona, ha li fetoleloa cheleteng li lileha li khina tsoelopele ea ntlafatso ea moruo le bokamoso ba motho e mong le e mong. Phepetso ho rona ke ho chechisa boemo bona.

Lesotho ke karolo ea lelapa la machaba ‘me tsohle tse le amang li tla ama linaha tsohle tsa lefatse, hape le moo khoholeho ea mobu e leng bohlokoa tikolohong. Leha ho butuleha ha mobu ho bana o potlakiso ea ho futhumala ha lefatse, basebelisi ba mobu ba nka taba ena hanyenyane. Bale Tikoloho ea Rona kamahleha ho rua tsebo ka se boleloang mona.

Boemo ba liphetoho tsohle tse etsahalang nakong ea bophelo ba rona bo susumetsa ho potlakisa ho timela ha moloko o tla phela lefatse. Le ha re tla ba sieo lefatse ho pakahatsa boemo bona, na re ka se tsoelle bokamoso ba babang ha bo senyeha.

Mongoli kakaretso
oa tsa Lihlohiloeng
Lesotho Monghali Bore
Motsamai



Ha Lekalana lena (NES) le qala ka 1994, le leka ho phatlalatsa sechaba bohlokoa ba ts’ireletso le ts’oaro ea tikoloho le lihlohiloeng, ebile lehoetla ho Basotho empa e ntse e le joalo le joale! Tlhokomelo ea Lihlohiloeng le Tikoloho e nkoa e le tsela ea sejoale-joale ea bophelo eo mohlomong e tla fetoleloa ho ho hong ho hocha neng-neng! Empa ‘nete ke hore Tlhokomelo ea Lihlohiloeng le Tikoloho e sa le ele le teng le mengoaheng e fetileng. Ho mpa ho bonahela mats’oao a ts’osang joalo ka khoholeho ea mobu eo joale re seng re entse setsoalle le eona! Re ts’oosa morao tjena ke mocheso oa lefatse eng le ho fela ha lera la leholimo (ozone layer).

Ke lakaletsa babali ho bala ha monate. Ke boetse ke kopa tlatsetso le maikutlo moo a hlokalang e le ho etsa hore a *Tikoloho ea Rona* e be lentsoe la Lesotho lefatse.

Ha u bala Tikoloho ea Rona u fumana hore litaba tsa tikoloho ha se setlabocha, empa ke karola la bophelo bo tloha khale ho ea ngoalieng tse tlang.

Bore Motsamai **ter**

“Speaking of the Environment...”

A Message From The Secretary General of NES

National Environment
Secretariat
Secretary General
Bore Motsamai

awareness about the impact of Lesotho's land degradation which is caused by poor land management practices. We are also concerned about the ever-increasing human population and consequent landlessness, hunger and poverty. This loss of soil resources, quantified in monetary terms, retards the economic development and welfare of every citizen. A challenge for us at NES is to relentlessly pursue and reverse these trends.

Lesotho is part of the global village and, as such, anything which adversely affects Lesotho will also affect other members of this global community. This is, again, where land degradation appears as a protagonist in the environment. Although land degradation accelerates global warming, it remains to be an issue taken lightly by the land users. Read *Our Environment* regularly to understand how this happens. Consequences of all the changes occurring during our life time will lead to the quickened extinction of our future generations from this planet. Although we may not be on earth to witness the consequences, should we be casual about the suffering of those who will be destined to endure such a future?

When the National Environment Secretariat (NES) was established in 1994 and making its first attempts to place environmental protection and management as a public priority, it was and still continues to be regarded as a fashionable idea. “Environmental management” has been regarded by many as no more than a fad; a catch word that may one day be replaced by something else - yet and still, environmental management has been with us through generations. As you read through *Our Environment* you will find the environment is far from a fashion. Environment is, in fact, sustenance of life now and in the future.

I wish all the readers enjoyable reading. I also invite contributions and comments from our readers in order to make *Our Environment* a voice for Lesotho in the global village.

Bore Motsamai **oe**

Re amohela mangolo, lipotso le lithahiso ka tikoloho le lihlohiloeng tse tsoang ho babali ba rona! Re fumaneha atereseng e ka tlase.

We welcome letters, questions and ideas about the environment from our readers! Contact us at the address below.



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Tiholisano ea Bacha ka Boqapi ba bonono ka tsa Tikoloho le lihlohiloeng

Litholisano tsa Machaba tsa bana ka mesebetsi ea ho “penta” li ts’oaroa selemo le selemo ka kopanelo ea mokhatlo oa Machaba oa Tikoloho (UNEP) le Mokhatlo oa Khotso le Tikoloho (FGPN). Tiholisano e rereloa barutoana ba likolo tsa mathomo le tse bohareng ka lefatse le hohela barutuo ba lipakeng tsa 6,000 le 10,000 selemo le selemo. Mekhabiso e ts’oanetse ho romeloa lipakeng tsa Loetse le Ts’itoe.

Mekhabiso e metle ea khethoa ‘me e sebelisoa ka mekhoha e mengata; tse ling li etsa sets’oants’o bakeng sa Letsatsi la lefatse la Tikoloho le Bonono bakeng sa Alemanaka ea Mokhatlo oa Machaba oa thuto ea Bana. Lits’oants’o tse ling li sebelisoa liponts’ueng tsa Bana tse ts’oarelolang ntlho-kholo ea Machaba New York selemo le selemo. Liponts’o li boetse li ts’oaroa libakeng tse ngata naheng ea Japan. Baqapi ba banyenyane lilemong ba memeloa lithupelong holim’a lits’oants’o tsa pente Japan. Qetellong lits’oants’o tse ntlehali li ea bokelloa ‘me ho etsoa bukana ea lits’oants’o.

Monghali Kiyoshi Awazu, Molula-setulo oa Mokhatlo oa Khotso le Tikoloho o bolela hore “Tse ling tsa lits’oants’o tseo re li fumanang lia khahla le ho khothatsa le ho feta tebello ea rona ka ho khetholoha ha tsona. Hona ke sesupo sa hore bana ba ts’oenyehile haholo ke tikoloho ho feta kamoo re hopolang kateng”.



Mokhatlo oa machaba a kopang ho tsa tikoloho o ts’ehetsa litholisano ea selemo le selemo ka lichelete. ‘Me o hatisa buka ho bonts’a ba hlotseng.

United Nations Environment Programme (UNEP) sponsors the annual contest and publishes a book of winning entries.

Bakeng sa Lithaloso tse ling

Bakeng sa lithaloso tse ling, ikopanye le ofisi ea: National Environment Secretariat, Development House, Block B, 6th Floor, Kingsway Maseru 100. Mohala 09266 - 311767. Fax 09266 - 311766. E-mail neyc@lesoff.co.za

For More Information

Contact either NES or the Foundation for Peace and Environment, 401 Howamita Tsunazaka Building, 2-7-7 Mita, Minato-ku, Tokyo 108, Japan. Tel. 81-3-5442-3161. Fax 81-3-5442-3431.

Monongoaha haeba lits’oants’o li le teng bakeng sa liponts’o, setsi sa tikoloho se ka li fetsetsa Mokhatlong oa Machaba oa Tikoloho. Lits’oants’o li ts’oanetse ho fihla pele ho la 15 Ts’itoe monongoaha.

Re amohela mangolo, lipotso le lithahiso ka tikoloho le lihlohiloeng tse tsoang ho babali ba rona. Re fumaneha atereseng e ka tlase.

Environmental Art Contest for Children

The International Contest of Children's Paintings is held annually as a joint effort between United Nations Environment Programme and the Foundation for Global Peace and Environment. The contest, intended for elementary and junior high school children around the world, attracts between 6,000 and 10,000 entries each year. Paintings for the contest must be submitted between 1 September and 31 December.

Best paintings are selected are used in several ways. Some become the poster for World Environment Day and art for UNICEF calendars. Others are featured in the annual Make Children's Wishes Known to the World Exhibition of Children's Paintings at the UN Headquarters in New York. Exhibitions are also held in many places around Japan. Some young artists are invited to Japan to the Children's Workshop to be taught the joy of painting. Finally, best paintings are compiled and printed in a picture booklet.

Again this year, if there are submissions for the contest, NES will provide courier delivery of children's paintings to UNEP. All paintings must be delivered to NES no later than December 15, 1997.

Mabotho a Bacha a Lekalana la Tikoloho

e ngotsoe ke R. L. Ntokoane

Lekalana la Naha la Tikoloho le ile la thakhola ka molao Mabotho a Bacha a Tikoloho ka Hlakola selemong sena e le ho fana ka menyetla ea koetliso le khiro ho batho ba bacha. Ba bang ba bacha bana ba koetlisoa holim'a litaba tsa tikoloho joaloka ho kata mangope le ho etsa marakoana ka mangopeng. Ba bang ba sebetsana le ho etsa lintho ka lisebelisoa tse sebelitseng 'moho le temo ea lifate. Khatelo-pele e se e le kholo ka likhoeli tsena tse 'maloa tse fetileng.

Ho kata mangope ho etsahala libakeng tse khethiloeng ke sechaba sa libaka tse joalo. Marakoana a mangopeng a ahoang ke bacha ho tsoa sechabeng sa tikoloho eo ona a thusa ho thibela khoholeho ea mobu le ho busetsa naha e hoholehileng ho sebelisetsoa ho aha mahae le temo. Lihlopha tsa bacha tse katang mangope li se li thehiloe literekeng tsohle tsa naha ntle le tsa Maseru, Mokhotlong le Botha-Bothe. Litereke tsena li tla be li thehile lihlopha tsena tsa bacha pele ho mafelo a selemo.

Bacha ba khethiloeng ba rupeloa holim'a ho etsa lintho ka lisebelisoa tse sebelitseng ba motse-moholo Maseru, Mafeteng, Mohale's Hoek, Berea le Maputsoe ba boikemisetsong bo boholo ba ho hloekisa libaka tsa habo bona. Sechaba sena se mosebetsing oa ho ntlafatsa tikoloho ea habo sona.

Bacha ba khethiloeng libakeng tse boletsoeng ba tla tsamaea libakeng tsa mahae a litoropo tsa habo bona ba phutha thepa e lahliloeng kapa lithoele. Ba tla arola thepa ena ka ho ts'oana ha eona joaloka lipampiri, likhalase, le makotikoto a lino 'me tsena li sebelisoa hape.

Koloi ea Mabotho ana a Bacha a Tikoloho e tla bokella thepa e arotsoeng e lahliloeng 'me e sebelisoa morerong oa bacha ea ho e sebelisa hape. Chelete e tla fumaneha e tla thusa ho tsamaisa morero ona le ho rupela bacha ba Basotho ho ikhira ka mesebetsi ea ho sebelisa thepa e seng e lahliloe.

Karoloana ea bacha ea temo ea lifate eona e rupela bacha litsebo tsa ho etsa maifo a ho hlahisa sethopo sa lifate le ho baballa sethopo le lifate tse kholo. Lifate le limela tsena li tla lengoa libakeng tse hlobotseng le mangopeng hamorao.

Bacha, joalokaha ho hlalositsoe tokomaneng ea morero, ke batho ba sa hiroang ba bacha ba lilemo li 15 ho isa ho 24 'me ba tsoileng sekolong bonyane lilemo tse peli.

Mabotho ana a Bacha a Tikoloho a atamela sechaba ka mekhatlo eo e seng ea 'muso, mekhatlo ea likereke, likolo, metse le ka bahoebi.

Morero oa Mabotho a Bacha a Tikoloho o rupela bacha ka litsebo tsa ho ikhira ebile ka ntse ba ntlafatsa tlhohleho le tikoloho ka nako e ts'oanang. Bacha ba aha matangoana (kaholimo), ba bokella lintho tse lahliloeng sebakeng sa ho li sebelisa hape (bohareng) le ho lema lifatjana tsa meru (ka tlase).



The NEYC project trains youth in employable skills while repairing the environment at the same time. Youth build check dams (top), collect waste materials for the recycling project (centre), and grow seedlings for forestry (bottom).



The youth selected in the districts mentioned will move around residential areas in their respective towns picking up waste materials. Separating waste into categories such as paper, glass and aluminum, the materials will be used in recycling.

The NEYC compactor truck will collect the separated waste and use it for the NEYC recycling project. The money earned will be used to keep the project running and to teach Basotho youth new employable skills in the recycling industry.

The NEYC forestry component teaches youth skills in maintaining and managing nurseries for plants and trees. The trees and plants are later transplanted to barren areas and reclaimed dongas.

Youth, as defined by the NEYC project, are unemployed young people between the ages of 15 and 24 who have been out of school for at least two years.

NEYC reaches local communities primarily through non-governmental organisations, church groups, schools, local communities and the private sector.

Selemo sa 1997

| | |
|-------------------|------------------------------------|
| La 22 Tlhakubele | Letsatsi la Lefats'e la Metsi |
| La 23 Tlhakubele | Letsatsi la Lefats'e la Tsa Bolepi |
| La 31 Mots'eanong | Letsatsi la Lefats'e la Ho ila Koa |
| La 5 Phuptjane | Letsatsi la Lefats'e la Tikoloho |
| La 17 Phuptjane | Letsatsi la Lefats'e la Bohoatata |
| La 16 Loetse | Letsatsi la Lera la Sepakapaka |
| La 4 Mphalane | Letsatsi la Lefats'e la Phoofo |
| La 5 Mphalane | Letsatsi la Lefats'e la Bolulo |
| La 5 Mphalane | Letsatsi la Lefats'e la Lijo |
| La 8 Pulungoana | Letsatsi la Lesotho La Tikoloho |

On The 1997 Calendar

| | |
|--------------|---------------------------|
| March 22 | World Water Day |
| March 23 | World Meteorological Day |
| May 31 | World No Tobacco Day |
| June 5 | World Environment Day |
| June 17 | World Desertification Day |
| September 16 | Ozone Layer Day |
| October 4 | World Animal Day |
| October 5 | World Habitat Day |
| October 16 | World Food Day |
| November 8 | Lesotho Environment Fair |

LIPONTS'UOA'MINOLIT'SOANTS'OLI-VIDEOLITLHOLISANO

Fumana haholo ka litaba tsa tikoloho ea hau
Liponts'ong tsa Tikolohho!

Ho tla ba le liponts'uo, lits'oants'iso, li-video, 'mino le litholisano.

Haeba uena kapa mokhatlo oa heno o lakatsa ho kenela liponts'uo tsena, ikopanye le Mof. Malephane Lefapheng laTikoloho.

KINGDOM IN THE SKY



Find out more about your environment at the annual **Environment Fair!** There will be exhibits, theatre, videos, music and competitions.

If you or your organisation would like to participate, contact Ms. Malephane at NES.



EVERY NOVEMBER



EXHIBITSMUSICTHEATREVIDEOSCOMPETITIONS

Metsi: Seno Sa Bophelo

Lits'oants'o tsa libaesekopo le buka tsa boithabiso tse se nang palo tsa matsatsi ana li its'etlehile holim'a seo lingoli li lehang e tla ba bophelo ba kamoso ba rona lefats'eng joaloka masabasaba a naha e fetohileng lehoatata le hloakang metsi kapa a fokola haholo. Bohoatata joalokaha o tseba bo hlahisoa ke khoholeho ea mobu le pheletso ea bophelo ba limela kapa joang. Bohoatata bo bakoa ke liketso tsa batho (mohlala: phuliso le ho silafatsa naha) le liketso tsa tlhohleho (joaloka likhohola le komello). Joale metsi ke ntho ea bohlokoahali eo motho a ka bang le eona hobane ke eona ntho feela eo lintho tse phelang li e hloakang ho phela.

Lintho li ngata ho potoleheng le ho fetoheng sebopeliso ha metsi 'me re ka nolofatsa litaba tsena ka mokhoa o latelang: lehloa, leqhoa le pula ha li nela fats'e li bitsoa metsi a *kaholimo*.

Metsi a katlase ke hoo re ho bonang ha seliba se kolla kapa metsi a kolla lipakeng tsa mafika. Metsi a katlase a nosetsa limela le lifate. Metsi a kaholimo ona a tlatsa mats'a le linoka. Metsi a kahar'a mats'a le linoka ha a chesoa ke letsatsi a fetoha 'muoane o khutlelang fats'e e se e le pula le lehloa 'me ho potoloha hona ha metsi ho etsahala hape.

Mona Lesotho, botle ba metsi a ka tlas'a mobu kapa a ka holim'a mobu bo angoa ke lits'ebetso tsa rona tsa letsatsi le letsatsi. Ha Thetsane, ho etsa mohlala, Lakalana la Naha la Tikoloho le phethetse lipuisano le borakhoabo ka taba ea lithole tse tsoang lifemeng tse silafatsang noka ea Mohokare. Lits'ila tsa lihlahisoa tsa lifeme tsena tse sa hloekisoang, li lahleloa nokeng 'me li silafatsa metsi a noka le a ka fats'e.

Sena se ts'oana le se etsoang ke batho ba hlatsoetsang liphahlo tsa bona linokeng ka lisepe tse kotsi ho tlhohleho. Lisepe tse ngata li boleloa li se kotsi ho tlhohleho e leng ho bolela hore tlhohleho e ka bolaea bokotsi ba tsona ha li sebelisitse. Lihlahisoa tse seng joalo mohlomong li kotsi ho tikoloho ea rona. Sehlahisoa sefe kapa sefe se sebelisoang le ho lahleloa ka nokeng kapa mobung se ama bohloeki ba metsi a ka holimo kapa a ka fats'e.

Leha motho ka mong a ke ke a silafatsa mehloli ea metsi ka bongata, empa re le sechaba sa Basotho se haufi le limilione li peli na ke ts'enyeha e kae eo re e etsang ka letsatsi ho silafatsa metsi a hloekileng ao re nang le o na. Na ha re hloka metsi a hloekileng a ho noa, ho hlapa le ho itola e be re tla etsang?

Mekhoa e mengata ea ho hlokomela mehloli oa hau oa metsi e le hore metsi a ona e be a hloekileng 'me a fanang ka bophelo bo botle. O mong ke ho koahela linkho tse ts'etseng metsi a bolokiloeng. Hona ho sitisa likokoanyana ho behela mahe a tsona kahare kapa pel'a sets'eloa. Haeba mehloli oa hau oa metsi ke tanka e behiloeng kantle



le eona e lokela ho koaheloa. Ho ena le ho sebelisa metsi a tsoang mehloling ea liliba tse ka tlas'a mobu

a leng matle sebakeng sa ho nooa, sebelisa metsi a ho itlhatsoa sebakeng sa ho hlatsoa ebile u sebelisa sesepa se seng kotsi ho tlhohleho. Sesepa sena se ka ba sa sebetsoa ho bolaea likokonyana. Qetellong, ho ena le ho hlatsoetsa metsing a noka a mathang, u ka kha metsi a joalo, ua hloatoetsa le ho qhalla metsi ka thoko ho noka 'me u sebelise sesepa se seng kotsi ho tlhohleho. Mokhoa o mong oa ho baballa metsi ke ho a kotula.

Ho kotula metsi ke ho bolela feela ho bokella metsi a pula sebakeng sa ho sebelisoa ke lelapa. Mokhoa ona ha se feela ho u bolokela lits'enyehelo tsa theko ea metsi le ho nts'a a sa hloekang empa o thusa metsi a linoka ho itlhoekisa ts'ilafatsong e etsoang ke batho ba hloakang tsebo. Mekhoa e meng ea ho kotula metsi e thata, empa kaofela ha eona e its'etlehile ka ho bokella metsi a hlahang marulelong nakong tsa lipula. Metsi ohle a hlahang marulelong a khakeletsoa le ho bokelloa sets'elong se sehlo 'me metsi ana a ka sebelisoa ho hlapa, ho hlatsoa liphahlo le ho ts'ella lijalo lirapeng.

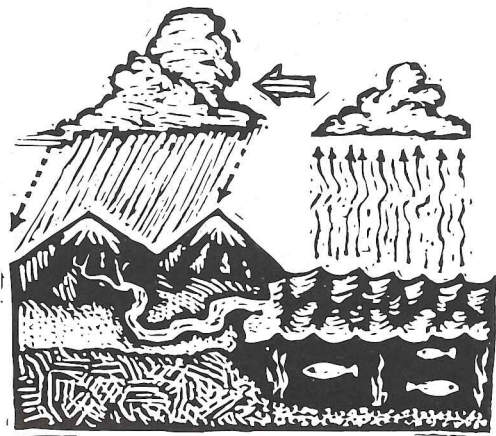
Qalong ho ka ba thatanyana ho etsa liphetoho tsa ho sireletsa mehloli ea rona ea metsi empa le teng ho thata haholo ho phela re hloka metsi a hloekileng.

ter

Lehloa, leqhoa le pula li monyela mobung. Hona ke metsi a ka fats'e.

Metsi a sa monngoeng ke mobu eba metsi a mathang liphororo. Metsi a monyetseng fats'e ke ona a fepelang limela le lifate. Metsi a mathang liphororo ona ke ona a tlatsang mats'a le linoka. Metsi a mats'eng le linokeng ha a chesoa ke letsatsi a etsa

'muoane o khutlelang fats'e e le pula le lehloa.



Snow, ice and rain are absorbed by the earth. This water is called ground water. Any water that is not absorbed by the earth is called surface runoff. Ground water is what we see wherever there is a small spring or water seeping from rocks. Ground water feeds plants and trees. Surface runoff fills the lakes and rivers. Water in lakes and rivers is evaporated by the sun and returns to the earth as rain and snow.

Water: The Drink of Life

Countless movies and novels these days are based on what the writer predicts will be our future life on earth: endless kilometres of land that has succumbed to desertification with little or no water in sight. Desertification, as you are aware, is the process of soil erosion due to depletion of plant life, or vegetation. Desertification is caused by human activities (grazing, pollution, etc.) and natural causes (storms, draught, etc.). Water, as a result, becomes the most valuable asset that one can possess because it is the one element that every living thing must have to survive.

In Lesotho, the quality of ground water and surface runoff are affected by the everyday activities of people and businesses. In Thetsane, for example, National Environment Secretariat (NES) has been compelled to hold dialogue with area businesses about the industrial waste, called effluents, that are now polluting the Caledon River. The untreated waste that is being dumped into the river is not only polluting the river, but the ground water as well.

This is also the case with people who wash their clothes in rivers with detergents or soaps that are not environmentally friendly. Many detergents and soaps are labelled as environmentally friendly, meaning that the natural environment is able to destroy the waste that is left behind once the product has been used. Products without such labels are probably not environmentally safe. Any type of product used or disposed of in the river, or on the ground, affects both surface water and ground water.

Although we may not create a lot of pollution against our water resources as individuals, the total amount of pollution we are creating as nearly two million Basotho every day of every year is destroying what clean water we do have. Without clean water to drink, bathe and wash, what would you do?

There are many ways of protecting your source of water to be sure it is clean and healthy. One is to cover any open containers of water being stored. This prevents insects from laying eggs in or around the container. If your water source is an outdoor storage tank, you should keep it covered as well. Instead of using precious ground water that you could drink, use old bath water, being sure that the soap that was used is environmentally friendly. The soap, by the way, will serve as an insecticide. Finally, instead of washing your clothes directly in the river, take the river water away from the river's edge and, using an environmentally friendly soap or detergent, wash your clothes and dispose of the water there. Another way to conserve water is through water harvesting.

Water harvesting is basically collecting rain water for household use. Not only does this method greatly reduce your water and sewerage expenses, it also gives the river water a chance to cleanse itself of pollution being dumped there by people less informed than you. Some water harvesting systems are quite complex, however they are all based on the simple system of placing a gutter along a roof where water runs off during rain. The gutter, which catches the water, sends the water into a large container. This water can be used for bathing, washing or watering the garden.

It may be difficult at first to make changes that will protect our water resources, but it would be more difficult to try surviving without it.

oe

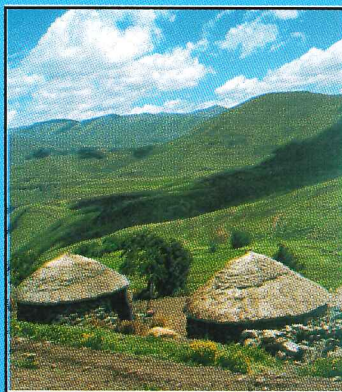
Artist Needed

How do you picture Lesotho's environment? What message would you like to convey about it?

NES invites amateur and professional artists, as well as interested members of the public, to submit proposals for the cover design for the State of the Environment Report. The artwork will also be produced for the poster launching the Report. For more information about the report, see page 5 of this newsletter.

You are welcome to deliver your submissions by hand at our offices: 3rd Floor, Mortgage Building (opposite Victoria Hotel), Kingsway, Maseru or mail them to: Secretary General, National Environment Secretariat, Prime Minister's Office, P.O. Box 527, Maseru 100, Tel: 316604, Fax: 310506.

If you have any questions, contact Mr. Hassan Partow for further information.



Planning to set up business in Lesotho?

Contact the National Environment Secretariat for information on environmental impact assessment (EIA) guidelines and reviews.

Taolo ea Likhoerekhoere

e ngotsoe ke Mpinane Senekane

Lekhotla la Motse Moholo Maseru ka lekalana la lona la Tikoloho le Bophelo le ikarabella thibelong le taolong ea mafu a bakoang ke tsilafatso ea tikoloho. Hara mafu ana re ka qolla mafu a fumanoang lijong le metsing a sa hloekang. Ho etsa mohlala, Lekhotla la Motse oa Maseru hara moralo oa lona lena le lekalana le ikarabellang ka ho otloloha litabeng tsa bophelo bo botle le tikoloho e hloekileng.

Ho ea ka lipatlisiso tsa lekhlotla ho bonahala ho ena le mathata taolong ea metsi a likhoerekhoere litsing tsa mesebetsi e meholo (lifemeng) le likhoebong ka kakaretso.

Lits'ila tse tsoang lapeng li likarolo tse peli, e leng lijo tse lahloang kapa mantle, ao amang a oona a tsamaisoang ka mathopo. Ka lehlakoreng le leng likhoerekhoere tse tsoang likhoebong tsona li bile lina le mero e ka bang chefo.

Lekhotla la Motse oa Maseru le ntse le leka matsapa a ho bona hore hobe le libaka tse ts'ireletsehileng tsa ho qhalla metsi a litsila. Hape lekhlotla le thusa ka mekhoe e bolokehileng ea ho qhalla mantle a tsoang matloaneng ka ts'ebeliso ea makoloi a etselisoeng mosebetsi ona.

Lihlahlobo li bonts'a hore ho lutla hoa mekoti ea ho qhalla mantle malapeng a sebelisang matloana a ka tlung ho bakoa ke kaho e sa lekanyetsoang basebelise ba mekoti, mohlala mekoti e menyenyane e sebelisoang ke batho ba bangata haholo, ea bobeli ho nka nako e telele pele mantle a qhaloa ho fihlela likoti li tletse ho feta tekanyo.

Ele ho etsa bonnete ba hore beng ba lits'a (tsa mesebetsi e meholo, likhoebo le bolulo) ba latela mekhoe e nepahetseng ea ho qhala litsila,

Lekhotla le na le tokelo ea ho nka likhato tsa molao ho ea tloang molao kapa ho iphanyetsa likhothaletso tsa lona.

Tikoloho e hloekileng e laoloa feela ke maemo a nepahetseng a libaka tsa ho qhalla likhoerekhoere, e kaba lapeng kapa likhoebong.

Ka hoo malapa a sebelisang matloana a metsi a ka tlung a khotlaletsoa ho qhala mekoti ea mantle khafetsa. Bohle ba qhalang likhoerekhoere tse tsoang lits'eng tsa mesebetsi e meholo ba kopuoa ho fumana tlhahiso leseling liofising tsa Lekhotla la Motse oa Maseru.

Lekhotla la Motse oa Maseru le arotsoe ka mabatooa a 16 'm'e mabatooa a okametsoe ke bakhethoa. Lekhotla le na le le basebeletsi ba ka bang 200 ke kalaneng la Tikoloho le Bophelo. **ter**

MCC Liquid Waste Management

by Mpinane Senekane

Sewage flowing through clean water pipes could possibly cause water contamination.



Metsi a litsila a itsamaela feela a sa laoloe, a feta peiping ea metsi a hloekileng 'me ho ka 'na ha eba le ts'ilafatso ea metsi a hloekileng.

Maseru City Council (MCC) Health and Environment Department is responsible for the prevention and control of diseases that are of an environmental nature. These diseases include food-borne, water-borne, occupational and excreta related diseases.

Due to improper waste disposal and waste treatment, what begins as diarrhoea, skin rashes, headaches and dizziness are later identified as symptoms of serious diseases such as typhoid, cholera, asbestosis or botulism.

Results of MCC surveys have shown that liquid waste management is problematic in both the industrial and commercial sectors. In many cases the properties do not have drainage systems while other properties are located where main sewer lines have yet to be introduced.

Domestic waste usually consists of sillage and sewage, while commercial effluent consists of sewage and different chemical solutions. MCC carry out routine inspections and facilitate the emptying of septic tanks.

Inspections have revealed that leakage to conservancy tanks is caused by improper construction, irregular emptying or inadequate capacity of tanks. In the event property owners do not comply with MCC's recommendations to correct defects, usually legal action is taken.

A healthy environment is dependent on proper and well maintained disposal facilities for liquid waste in both domestic and commercial areas.

MCC recommends that conservancy tanks be emptied from time to time, and those discharging industrial effluence seek guidance and direction from MCC. MCC is comprised of sixteen wards, each represented by a councillor. MCC has dedicated a staff of nearly two hundred to its Health and Environment Department. **oe**

Setsi sa Tikoholo sa Masianokeng

e ngotsoe ke Jane Mokone

Oh! u re moaho o ruletsoeng ka masenke a maputsoa pele u tjeka ka 'mila o lebang Roma? Ke o feta mehla ena empa ha ke tsebe hore ke setsi sa tikoloho.

Ena ke karabo eo u e fumanang ha u hlalose batho ka Setsi sa Tikoloho sa Masianokeng.

Setsi sena se fumaneha likilomethara tse ka bang 15 ho tloha Maseru. Setsi se jareteng e le 'ngoe le sekolo se seholo sa Masianokeng (Masianokeng High School). Mabala a Setsi a khahla mahlo. Setsi se na le matamo ao ho ona ho phelang lithapi le makau. Hape setsi se na le polokelo ea libuka tse holim'a temo ea lifate, metsi le thibelo ea khoholeho ea mobu, paballo ea mobu esita le temo ka kakaretso.

Batho ba bonoang ka bongata setsing ke bana ba sekolo. Ba bonoa ba e-ea ntlong tsa ho ithutela le ntlong ea poloko ea libuka. Ntlo ea poloko ea libuka ke sebaka se khutsitseng seo bana ba sekolo ba se sebelisang sebakeng sa ho ithuta le ho etsa lipatlisiso ka lintho tse fapakaneng.

Setsi ha se sebetsane le poloko ea libuka feela. Setsi se na le lefapha le khotlaletsoeng thuto ea tlhokomelo le ntlafatso ea lihloholoeng sechabeng holim'a tahlehelo ea mobu. Mobu ke ntho ea bohlokoa temong empa Lesotho le lahlehela ke mobu o litone tse 40 milione ka selemo.

Basebetsi le setsi ba etela metseng ho ruta batho ka thibelo ea khoholeho ea mobu le paballo ea naha ka kakaretso.

Sebaka sa temo Lesotho se fokotsehile ho tloha ho 12% ka 1960 ho isa ho 9% kajeno. Tahlehelo ena ea sebaka sa temo e bakoa ke

khoholeho ea mobu. Khoholeho ea mobu e bakoa ke lintho tse kang ho chesa hlaha, ho rengo ha lifate le ho tlosa litlama le phuliso e mpe ea makhulo. Hape khoholeho ea mobu e bakoa ke ntho tse kang pula le meea.

Setsi se buloa ho tloha ka Mantaha ho isa Labohlano ka hora ea 8.00 hoseng ho isa 4.30 mantsiboea. Ka Moqebelo ho buloa ka 8.30 hoseng ho isa 12.30 mantsiboea. Setsi ha se buloe ka Lisontaha le ka matsatsi a phomolo. **ter**

Masianokeng Environmental Centre

by Jane Mokone



Lesotho lena le bokhani ba ho khutlisetsa naha malulong ao eneng ele ho eona khale. Setsi sa Tikoloho sa Masianokeng se ruta sechaba ka tikoloho ka lithupelo.

Lesotho has the potential to rehabilitate its environment. MEC educate Basotho about the environment by giving lectures and providing an environmental library.

"Ohhhh...you mean the building off the south road, just before the Roma turnoff, with the blue roof! Really?! I pass it all the time, but I never knew it was an environmental centre!"

If you've ever tried to explain the whereabouts of Masianokeng Environmental Centre, this is the response you got. The centre, about 15 km from Maseru city centre, shares a site with Masianokeng High School. The grounds are impressive. Two dams are home to ducks and fish. Masianokeng also boasts a well-maintained library and resource facility that emphasises tree planting, water and soil conservation, and agriculture.

The traffic outside is made up of students hurrying between classes and the library facility; the road traffic and its noise are a small distance away. Once inside the library, all is calm with students studying and researching a wide range of topics.

The centre is more than a library and has been developing in leaps and bounds. With agriculture as a primary concern, there is an outreach and public education programme to inform individuals and communities about the loss of top soil. Top soil is essential in agriculture, however Lesotho loses approximately 40 million tons of top soil each year. Visiting rural communities, the staff of Masianokeng has been able to discuss the importance of taking measures to protect top soil and therefore arable land. The amount of arable land in Lesotho has fallen from 12% in 1960 to 9% to date. The primary cause of this loss is soil degradation. Soil degradation is the result of activities such as burning velds, tree and vegetation removal and overgrazing. In some cases, soil degradation has been the result of natural causes such as rain and wind.

Masianokeng Environmental Centre is open Monday through Friday from 8 am to 4:30 pm, and on Saturdays from 8:30 to 12:30. The centre is closed on Sundays and public holidays. **oe**

Koporasi ea Mehaho Tlhokomelong ea Tikoloho

e ngotsoe ke Margaret Genevieve Mokhothu

Boemo ba moruo Lesotho bo ritsitse ho tloha moo bo neng bo itsetlehile haholo holima temo, ho ea khoebong ea mesebetsi e meholo. Boemo bona bo bonahala ka ho hola ho phahameng ha lifeme, mabenkele, le mesebetsi e meholo metseng ea liforopo. Kholo ena ea mesebetsi e baka tsubahlellano ea batho metseng ea litoropo le mathoko a eona. Ho tloha ha batho mahaeeng ho ea litoropeng ho imetsa litsebelletso (services) ho baka khaello ea matlo a bolulo.

Mathata a phumaneho ea bolulo esitana le palo e phahameng ea batho ho tloha metseng ea bona ho tla litoropeng ho entse hore ebe likoporasi tse kang ena lia thehoa e le ho tliša maemo tlas'a taolo.

Koporasi ea matlo e fana ka litsebelletso tse kang metsi a hloekileng, mebila, motlakase le tsamaiso ea

likhoerekhoere. Litsebelletso tsena lifokotsa ho theoha ha boemo bo botle ba libaka tsa bolulo liforopeng le ho matlafatsa tikoloho hore e bohehe.

Koporasi e netefatsa hore polokeho le tsireletso ea lihloholoeng e lula e le maemang a amohelang mererong eohle ea eona. Mehlala e bonahalang ke morero oa Khubetsoana le Thetsane. Pejana ho hore beng ba matlo ba lule ho ona mane Khubetsoana, koporasi e ile ea khothalletsa temo ea lifate. Hang hoba beng ba matlo ba kene matlong a bona ho bile le tlholisano eo lepetjo la eona eneng ele "Tlafatsa Motse oa heno". Tlholisano ena e bileng le katleho e kholo e ne e tseelitsoe ke ntlo ea boemeli ba Majeremane Lesotho. Ho ileng ha bonahala ka mora lilemo tse lesome ka morao ho tlholisano tseo, ke hore malapa a ntsetsapele temo ea meroho le litholoana majareteng. Ho hlakile hore morero o atlehile ho tafatsa tikoloho ho hlakisa meroho e sebelisang ka lapeng, esitana le e rekisoang ho kenya chelete ho phelisa lelapa.

Morero oa Ha Thetsane oona o sebakeng se mothuleng moo khoholeho ea mobu e jeleng setsi libakeng tse tlasana tsa sebaka seo. Ele hona ho thibela khoholeho ea mobu esitana le ho busetsa karoloana e 'ngoe ea mobu o hoholehileng, baahi ba leshome le motso o mong ba sebaka sena ba ile ba lumelloa ho eketsa majarete a bona 'me ba khothalletsoa ho lema lifate tsa litholoana le joang e le ho akofisa thibelo ea khoholeho ea mobu. Hona mona ho boetse ho na le litsa tse ling tse mashome a mahlano tse amehileng habohloko ke khoholeho ea mobu 'me tsona li ile tsa rekisetsoa ba morero oa metsi a lihlabana tsa Lesotho ba ileng ba atleha ho kata mangope sebakeng seo.

Ka-mora ho hore ho katoe mangope, ba morero oa metsi a lihlabana tsa Lesotho ba ile ba haha matlo a matle bakeng sa malapa ao matlo a bona angoeng ke mila o moholo oa Maseru. Hona ke sesupo sa hore mangope a ka sebelisoa molemong oa sechaba.

E tsoela pele leqephe 8

LHLDC and the Urban Environment

by Margaret Genevieve Mokhothu

The development of the economy in Lesotho has entailed a shift from a predominantly agricultural economy to industrialization. As a result, industrial growth which has largely occurred around urban cities is often accompanied by population increases in the urban areas as workers and their families move near the source of employment. Rapid urbanisation places enormous strain on existing social services and infrastructure, much of which will not be able to expand at the same rate as that of the urbanisation process.

Lesotho Housing and Development Corporation (LHLDC) identifies residentially zoned areas for her settlement development. It provides the necessary infrastructure which will minimize major threats to environmental degradation and establish healthy living environments. In almost all its projects the Corporation ensures the

building of storm water drainage systems where storm or rain water is channelled through lined ditches. Similarly road design is based on the topography of the area in order to control the run off which further aggravates the problem of soil erosion. In its planning process LHLDC also makes provisions for open space or green areas, parks, sanitation facilities,

refuse removal, etc.

It is also cardinal that when planning new settlements, they should positively impact on the old surrounding settlements. For instance in the case of the Khubetsoana Site and Service Project the existing schools in the area were upgraded, the nearby villages also benefitted from the public water stand pipes, civic centre, clinic, shopping facilities and the nursery schools in the project.

LHLDC undertakes environmental management and control measures in its project sites. Two success stories are from the Khubetsoana site and service project, and the Thetsane serviced site projects in Maseru. The Khubetsoana project is situated about five kilometres from the centre of town on the main North One road. It provides housing to 865 households with more than 4,000 people. Prior to occupancy of the housing units, beneficiaries were encouraged to plant trees which were provided free of charge. Immediately after all beneficiaries had moved into their new houses, "greening your area competitions" were held and all the beneficiaries took part.

The competition which was a complete success was funded by the German Embassy and winners received various prizes as an incentive to participate. Today, ten years later, each homestead has a well-maintained backyard vegetable garden and fruit trees. The project achieved three things: greening the area, production of a variety of vegetables for home consumption and for income generation.

The Thetsane project site is approximately 5km south-west of the Maseru Central Business District (CBD), adjacent to the main LNDC industrial area. The project is situated on a hill with gently sloping sides, and substantial soil erosion has taken place in the lower lying areas. A number of remedial options are put in place in order to reclaim the eroded land and to minimize further soil erosion in the area. Following are some attempts made by the corporation:

Continued on page 8



Koporasi ea Mehaho ea Lesotho e ikitlaetsa ho ntlafatsa maemo a bophelo a batho ba litoropeng ka ho fana ka lits'ebellets'o tsa bolulo.

LHLDC aims to improve the standard of living of urban communities by catering to the physical and social well-being of the communities it serves.

Merafo Lesotho: Lema o le Ntlha Lipeli

e ngoetsoe ke Lira Molapo

Ha ho makatse hore ho chekoa ha lirafshoa le ntlafatso ea tsona li ama tikoloho ka tsela e itseng. Mathata a bakoang ke merafo Lesotho mona a kenyeletsa khoholeho ea mobu, lerole le lerata.

Meroko ea lefatse morall hangata o fumanaha libakeng tse methipolohong ka baka Leo ha likoari tsa teng li sa katoe kamora horafa, khoholeho ea mobu e ea eketseha. Likoari tsa mofuta ona hangata li sala e le magopehali hobane ha li katoe.

Libaka tseo ho rafshoang litaemane ka hara naha li supile. Tsona ke Kao, Liqobong, Koalabata, Nqechane, Sekamaneng le Boranta. Hara libaka tse kaholimo, Liqobong le Kolo ke tsona feela tse sebetsoang ka boikopanyo, ha ele tse ling bacheki ba itsebeletsa ka bo mong litseng tsa bona.

Kao e batla e fapane le libaka tse ling ka hore ka ntle ho ba chekang ka bomong ho na le motho ea nang le setsa se sehloanyane moo a chekang a sebelisa mechini e tsoetseng pele.

E tsoela pele leqephe 8



Morafa ona o kotsi: mokoti ha o na bots'ebetso kantle, me morafa o tletse metsi.

This mine is unsafe: the outlet has no interior support and is full of water.

Mining in Lesotho: A Double-edged Sword

by Lira Molapo

It is not surprising that during the extraction of minerals from the ground and their subsequent processing, environment is to a certain extent affected. In Lesotho, environmental problems emanating from mining activities are mainly physical in nature.

There are numerous dolerite dykes and sills and the method of mining is haphazard. Most dykes criss-cross steep terrain and, left unrehabilitated, increase chances of soil erosion. Rehabilitation is not taking place due to the practice of creating borrow-pits. A borrow-pit is where one company quarries a certain volume of aggregate, leaving the area open and the next company does the same thing.

Seven kimberlite deposits which are presently being mined for the purpose of winning diamonds. These deposits are Kao, Liqobong, Koalabata, Nqechane, Sekamaneng, Kolo and Boranta. Of all the mentioned areas, Liqobong and Kolo are being run on cooperative basis. The rest are under individual arrangement whereas a person is allocated a plot of 9 square metres.

Kao is slightly different from others in that in addition to the individual diggers there is a medium scale operator working at his own leased area.

Despite operational differences, diamond mining involves the excavation of ore, and processing where the concentrate is treated with water to wash away the sediment. Because the bulk of soil excavated from the deposit is washed away downstream, it follows that rehabilitation will not be done.

Of all mining areas, Kolo is the only one to take measures against water pollution. The cooperative running the mine has constructed some slimes dams using the tailings. The water which seeps through the gravel walls is actually cleaner than the feed water.

Continued on page 8

U Na le litletlebo malebana le tikoloho?

Ikopanye le ofisi ea mongoli kakaretso oa lefapha la lihloholoeng haeba u na le litletlebo malebana le ts'enyeho e bakoang tikolohong ea Lesotho. Ha molao oa tikoloho o se o sebetsa, basenyi ba tla lefella liketso tsa bona tsa ts'enyho.

Environmental Complaints?

Contact the office of the Secretary General of National Environment Secretariat if you have complaints about environmental damage being caused in Lesotho. With environmental legislation developments, polluters will have to pay fines for their actions.

U etstang ka paballo eo tikoloho? Na kereke kapa sekolo sa haeno se kene more osing oa paballo ea likoloho? Romella bopaki ba mesebetsi eo le etsang ho thusa babang!

Taolo ea Lithole: Tse Hlokang ho Tlosoake Pelepele

e ngotsoeke Godfrey Mvuma

Ho hlakile hore ho phahama ha boima ba lithole, tse tsoaloang ke bophelo ba litoropong e le qholotso e kholo linaheng tse tsoetseng pele e sita le ho tse ntseng li hola. Ha e le litoropong tsa linaha tse ntseng li hola, bothata-thata ke ho fihlisa e sita le hona ho ntlafatsa litsebetso tsa phutho ea lithole ho fihlela ho mafutsana e leng ona a etsang bongata ba sechaba se phelang litoropong.

Ka tloaelo makhotla a litoropo ke eona e filoeng mesebetsi oa ho bokella, ho thota e sita le ho qhala lithole. Tsebetso ena makhotla amang a bile le katleho ha a mang a sa atleha. Ke ka hona liphuputso tsa mekhoha e khotsofatsang, ha holoholo mekhoha e kenyeletsa sechaba le bahoebi e ntseng e ntsetsoa pele, linaheng tse tsoetseng pele le tse ntseng li hola.

Lipatlisisong tsa morao li bontsa hore taolo ea lithole ha e sale e sa fuoe bohlokoa bo tsoaneleheng mererong eohle ea ntlafatso ea naha. Leha ho le joalo menolo ea morao-rao tjena e qalile ho bontsa ha taolo ea lithole e le e ngoe ea tsebetso ea bohlokoa taolong ea tikoloho le ntsetsang pele ea moruo, mohlala, ke moralo oa paballo ea tikoloho (National Environment Action Plan).

Lipalo-palo li bontsa ha palo ea sechaba se phelang Maseru Le Maputsoe li batla li menahane ho tloha 1986 ho fihlela 1996, eleng ho hong ho bontsang hore litoropo tsena tse peli ke tsona khubu ea kholo ea moruo (Maseru e ne e na le batho ba 109,390 ka 1986 ba nyolohela ho 219,250 ka 1996; ha Maputsoe ene ena le batho ba 16,260 ka 1986 ba nyolohela ho 33,000 ka 1996).

Nyoloho ea palo ea sechaba litoropong tsena tse peli ha ea ka amana le ntlafatso e rariloeng ea kholo ea litoropo (Planned Urban Development) 'me e tsoetse tikoloho e litsila e sita le hona ho baka mafu a bakoang ke litsila. Ho hlokala ha litsebetso tse khotsofatsang tsa pokello le tahlo ea litsila ke e ngoe ea liqholotso tse kholo tsoelong pele ea Maseru Le Maputsoe. Ha se lekunutu hore taolo ea litsila ka mokhoa o nepahetseng e ka tsoala mesebetsi e sita le hona ho ntlafatsa tikoloho, lefahla le ntlafatso ea moruo.

Ka selemo sa 1994 'muso ka tlatsitso ea lekhohla la machaba la kholiso ea moruo (UNDP), o ile oa theha setsi sa naha sa tikoloho (National Environment Secretariat - NES), ka morero ho ba le molisa tsebetso tse amanang le tikoloho. Ele ho akofatsa tsebetso, NES e ile ea theha likomiti, tseo hara tsona re ka hloaeng komiti e shebang le taolo ea lithole (COWMAN).

E ngoe ea litsebetso tse ipabolang ea komiti ena e bile hlahlobo ea sebaka sa pokello ea lithole Ha Tsosane, esitana le boemo ba taolo ea lithole Maputsoe. E le ho fenyha mathata a bonahetseng sebakeng sa Ha Tsosane sa lithole, litokiso li se li entsoe ho haha sebaka se secha, ka lithuso tse tsoang musong oa Denmark. Mohato o mong oo muso oo nkileng e bile ho theha mokhatlo oa bacha oa paballo ea tikoloho (National Environment Youth Corps) tlasa NES. E meng ea sepheo sa mantlha sa NEYC ke ho bokella lithole ka hore libusetsoe tsebetso hape (recycling). Tsebetso ea pokello e se e qalile litoropong tsa Mafeteng, Mohale'shoek, Maseru, Berea Le Maputsoe.

Ke taba ea bohlokoa hore sechaba se elelliso e bohlokoa ba taolo e nepahetseng ea lithole ka ha lithole tse sa laoloang hantle li ama tikoloho. Tikoloho e sa hloekang e ama moruo oa naha ka ho mpefatsa maphelo a batho, mobu, esita le metsi a noang ke batho le liphoofofo. Lithole tse kang lipampiri, liplastic, likhalase le makoti-koti ke chelete ha li phuthiloe hantle!

Morero ona ka bona o hloka ts'eketso e matla ho tsoa makaleng a 'muso esita le makaleng a ikometseng a amekang 'moho le sechaba. Htlo e bohloko ka ho fetisa ke hore, ha o sheba lefaatsi ka bophara esita le tikolohong eo re le ho eona, o fumana hore motho le eena sesosa sa tseno ea tikoloho.

Ka lebaka lena, sena ke susufo sa hore ts'enyoo ena eohle, ke boikarabello ba rona ho bona hore rea bo felisa.

ter

What are you doing about the environment? Is your church, school or community taking environmental action? Send us information and photos to share with others!

Solid Waste Management: Urban Priority for Action

by Godfrey Mvuma

The growing volume of waste spawned by the consumption inherent in city life is a formidable challenge to cities in developing and developed countries alike. For low-income cities, the main solid waste problem is how to extend collection services to the poor; often 50 percent of the population is without service. Improving efficiency in cities is the key to solid waste management.

The traditional approach to solid waste management is that municipal governments handle all aspects of collection, transport, and disposal. This approach has been, at best, a mixed success. The search for more efficient and economical solid waste collection programmes has taken cities in several directions.

Most notable programmes involve new partnerships with communities or the private sector that employ economic policy instruments such as recycling credits (payment to recyclers), landfill disposal levies (taxes at landfill sites to reduce amount of waste land filled), product charges (a packing tax to discourage over packaging), and formalising the scavenging activities (creating satellite collection points and using low

cost mode of transport).

Waste management has received very little attention in Lesotho's development planning history. Although the first legislation governing public health was passed in 1970, followed by regulations in 1972, it was not until the mid-1980s that policy makers in Lesotho began to address issues of waste disposal.

The National Environmental Action Plan (NEAP), 1989 recognized a set of environmental problems that were attributed to inadequate urban development planning. The problem was said to have

been exacerbated by lack of a well-articulated policy on waste disposal, pollution control regulations and effluent standards. Additionally, there was no institutional structure to monitor compliance with the existing regulations.

Rapid urbanization of Maseru and Maputsoe and the associated growth of industry and services are key features of economic and demographic development in Lesotho. The population of Maseru rose from 109,382 in 1986 to 219,250 in 1996, an increase of 100% in 10 years. The population of Maputsoe was 16,260 in 1986 and grew to 33,000 in 1996. Due to these concentrations of population, Maseru and Maputsoe towns are accepted as the main catalysts of urban and economic growth in Lesotho.

The most important environmental consequence of the process of urbanization in Maseru and Maputsoe is the immense amount of solid wastes, most of which remain uncollected and are often dumped on vacant land or into river beds.

Solid waste collection is clearly an answer to the problem. To achieve efficient solid waste collection management, both waste reduction and waste recycling must be essential components of the system. A sustainable urban waste management system is desirable in terms of both job creation and an overall improved environment.

National Environment Secretariat (NES) currently coordinates the Committee on Waste Management (COWMAN) whose primary objective is to create conditions for environmentally sound waste management systems. The membership of COWMAN is drawn from line Ministries, Maseru City Council, National University of Lesotho, Water and Sewerage Authority and non-governmental organisations. One of the most important and outstanding activities undertaken by this committee is the audit of the HaTsosane Landfill site and general reviews of waste problems in Maputsoe.

The audit disclosed that the HaTsosane Landfill is located in the middle of a high density area which exposes people and animals to smoke (from spontaneous fires) and toxins from the landfill. The landfill is also situated within 500 meters of Maqalika Dam which supplies water to Maseru. Waste and toxic materials are being washed into the dam. In Maputsoe, waste dumping is done indiscriminately.

COWMAN recommended to Maseru City Council to move the landfill to a new site. In this regard, a multi-million maloti project proposal was submitted to the Danish Cooperation for Environment and Development (DANCED) on behalf of Maseru City Council. The proposal received a favourable response and construction of a new landfill will begin soon.

The project itself needs greater support not only from ministries and organisations concerned, but the community at large as well. The most disturbing factor is that when looking at the situation globally and locally, one finds that human beings are the source of all the pollution that exists. Clearly, then, it is our responsibility to correct and clean-up the pollution we have created.

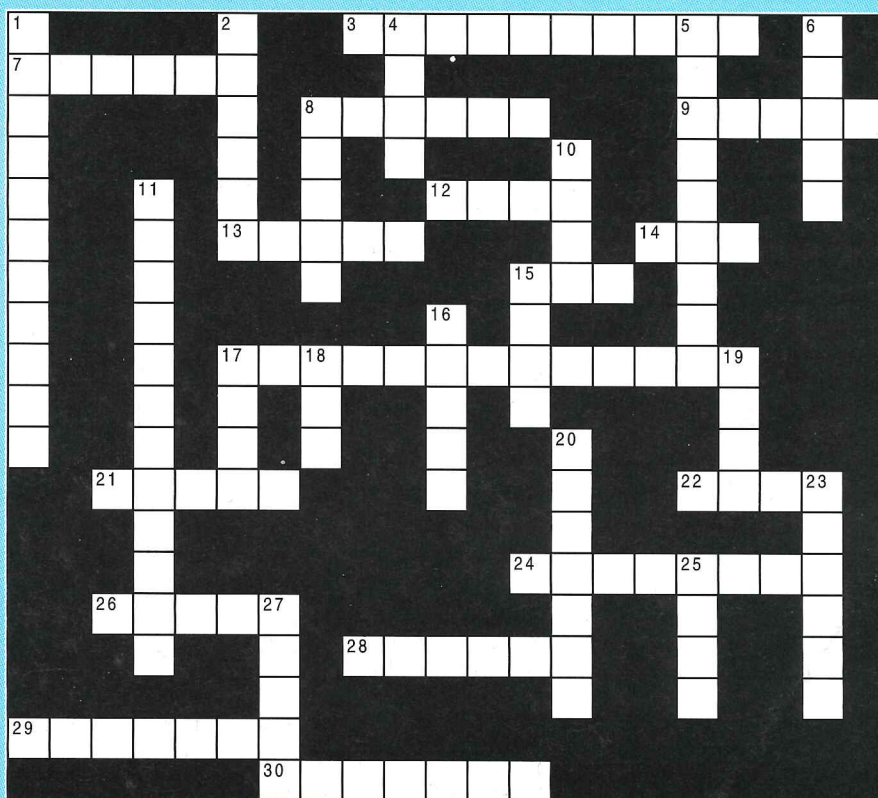
OE



Sekoti sa lithole Maputsoe hase hlokomeloe.

Waste dumping goes unchecked in Maputsoe.

ENVIROCROSS



ACROSS

- 3 ecological excursion
- 7 total of all existing things
- 8 river in Lesotho that also flows through Botswana, Namibia and South Africa
- 9 excavations in the earth
- 12 rain (Ses.)
- 13 large barren gully caused by soil erosion
- 14 Kingdom in the _____
- 15 a principle governing the affairs of man
- 17 artistic heritage of region's original inhabitants (4,10)
- 21 refuse
- 22 spiral ____: plant indigenous to Lesotho
- 24 undomesticated plants and animals
- 26 of or pertaining to the sun
- 28 ____ global agreement on development and environment
- 29 inappropriate waste disposal
- 30 convert waste into reusable material

DOWN

- 1 a surrounding or locale
- 2 all creatures ____ on each other for survival in the food chain
- 4 hard black rock used as fuel
- 5 ____ Falls: the largest waterfall in Lesotho
- 6 colour associated with the environment
- 8 colourless unstable gas
- 10 prosperity (Ses.)
- 11 the careful guarding of an asset
- 15 solid part of the earth's surface
- 16 natural liquid with no taste, odour or colour
- 17 point of origin from which plants grow
- 18 chloro fluoro carbon (abbrev.)
- 19 upper layer of earth in which plants grow
- 20 natural environment of an animal or plant
- 23 capacity or power for work
- 25 largest water project in Southern Africa
- 27 natural stream of water flowing through land

Solutions to Envirocross to appear in the next issue of Tikoloho ea Rona/Our Environment.

Tlaleho Holim'a Boemo Ba Tikoloho e s'e le Tseleng

ngoetsoe ke Hassan Partow

Lekhetlo la pele tlas'a khokahanyo ea Lekala la Tikoloho le Lihloholoeng ho tla nts'oa tlaleho ka boemo ba tikoloho Lesotho. 'Me lintlha tsohle tse amehang ho latela bohlahlobi bo hloahloa ba litsebi ho tsa mahlale, barutehi le liofisiri tse phahameng tsa 'Muso tse ka bang mashome a mararo li tla khokohangoa 'moho ho etsa tlaleho ena. Tlaleho ka boemo ba tikoloho Lesotho e hlahloba lintlha tsa sehloho le kamano pakeng tsa tikoloho le boemo ba moruo ba naha. E nyakurela lits'ebetso tsa motho tse tliang phetoho tikolohong le hore na sechaba sona se ameha ha kae. 'Me ntlha-kholo ke hore nako le nako ho be le ts'alo-morao ea liphetoho tse ka etsahalang tikolohong, 'me sena se ngoloe.

Lihloholoeng tse leshome le metso e ts'eletseng tsa tlaleho ho kenyelletswe lintlha tse amang sechaba ka kotloloho joaloka ho senyeha ha naha, khoholeho ea mobu, bosehaba le kholo ea litoropo. Le tse ling tse ipetsang morao-rao tjena tse amang lefats'e ka bophara tse kang phetoho ea tsa boemo ba leholimo, lera la sepaka-pakeng le boieane ba tlhohleho, li tla talingoa. Metsi, sepaka-paka le naha ke tsona tsa mantlha litabeng tsa tikoloho; ha merafo, temo ea masimong, temo ea meru le matla li ama boemo ba moruo Lesotho.

Leano la tsa tikoloho le fetisitsoeng ke Cabinet ka Hlakola 1996 le sebopeliso sa molao oa tikoloho li tlama Lekala la Tikoloho ho nts'a khafetsa le khafetsa tlaleho ka boemo ba tikoloho Lesotho.

Sepheo sa tlaleho ke ho fana ka tsebo ka boemo ba tikoloho e le hore Basotho ba tsebe ho etsa liqeto malebana le tikoloho. Haele hantle tlaleho ena e lokela ho ba sebetsa se tla sebelisoa ho fenyha mathata le hore ba ka etsang liqeto ba ipapise le se ts'etsoeng ka tlalehong.

E le ho tlatsetsa molaong oa motheo oa naha, boteng ba tlaleho bo tla nyolla maemo a ponaleto holim'a leano la 'Muso leo boikarabelo ba lona har'a tse ling e leng "Ho netefatsa hore baahi bohle ba na le tikoloho e ntlafetseng". Ha ho le joalo he tlaleho ena e ea ho 'Muso, ha se tlaleho ea 'Muso. Linaha tse tsoetseng-pele li se li nts'e tsa tlaleho ea boemo ba tikoloho khafetsa le khafetsa. Karolong ena re ka bala Mauritius, Tunisia, Uganda, Zambia le Zimbabwe tse seng li hatisitse litlaleho. Tlaleho ka boemo ba tikoloho karolong ea Africa Boroa e hatisitsoe ka 1994. 'Me South Africa e se e nts'e e lokisa tlaleho ea eona. Kamor'a seboka sa machaba a kopaneng holim'a tsoelo-pele le tikoloho sa 1992, Lesotho le ile la ananela ka boitlamo ho tse ling tsa litumellano tsa machaba 'me tseo litlhokahalo tsa tsona har'a tse ling e leng ho tlaleha ka mesebetsi le merero ea tsa tikoloho; 'me tlaleho e tla tsoa ho ea mafelong a selemo sena sa 1997. Ak'u bale papatso bakeng sa Seteroi/Bonono leqephe la bone.

ter

KOPORASI E tsoela pele leqephe 6

Teko e ile ea etsoa ke koporasi ka 1990 ho lema lifate tse ngoata ha matala, moo khoholeho ea mobu e neng e qala ho bonahala. Ka lebaka la komello le phuliso e mpe lifate li ile tsa sitoa ho hlomela. Ha ha joale morero ke hore sebaka sena se ntlafatsoe ka temo engoe hape ea lifate, ka ho khotalletsa baahi ba haufi le sebaka seo ho nka karolo. Sepheo e le ho thibela ho hoholeha ha mobu sebakeng sena.

Koporasi e tla tsoela pele ho itahlela ka setotsoana tabang tse amang tikoloho metseng ea litoropo.

ter

LHLDC Continued from page 6

All buyers whose plots have been affected by soil erosion were allowed to extend their plots and reclaim the dongas by planting orchards or grass.

There are areas that were hopelessly affected by soil erosion and had deep gulleys. These 50+ sites were sold to LHDA. After backfilling the gulleys LHDA serviced the area to their requirement and pitched up a housing project as compensation to those households affected by the Maseru bypass. Here is a successful environment rehabilitation programme that can be replicated countrywide, particularly in areas that are already severely eroded.

Interest has been shown by the Lesotho Olympic Committee who were approached to purchase some of the affected areas to develop a national recreation centre for Maseru town. This would put to good use land that individual households on their own cannot rehabilitate even if given the opportunity to do so.

Matala Phase I project is located about six kilometres from the centre of town, along the main south one road. The site is bounded on the north by the old Matala village. The project caters for about 223 households.



ATMOSPHERE:
Drought-stricken farmland is common occurrence when the rainy season arrives late in the year.

SEPAKA-PAKA:
Boemo ba komello masimong bo tloaelehile haholo ha lipula li na ho ea mafelong a selemo.

BOIEANE BA TLHOILEHO:
Sehloko ke setlama se thunyang, se etsang moriana 'me se melang Lesotho. Lebeso le tsoang ho sona ke moriana.



BIODIVERSITY:
Sehloko is a flowery medicinal plant grown in Lesotho.



KHOHOLEHO EA MOBU:
Lehoatata le bakoa ke ho roalloa hoa khapane ho etsa libeso le phuliso e sa nepahalang.



LAND DEGRADATION:
Collecting dung for use as a fossil fuel and overgrazing accelerate desertification in Lesotho.

Lesotho SOE Report in the Pipeline

by Hassan Partow

The Lesotho State of the Environment Report (SOE) is the first all-embracing assessment of the condition of Lesotho's environment. Co-ordinated by NES, the Report is the collective work of more than 30 of the country's leading scientists, academics, senior technical officers in government and environmentalists.

The Lesotho State of the Environment Report examines key aspects about the relationship between the environment and socio-economic conditions. It considers the impacts of human activities, how they effect the environment and society's response to reduce these pressures. The objective is to document, analyse and monitor changes in Lesotho's environment.

In sixteen chapters the report addresses a broad range of topics, especially issues of pressing national concern such as land degradation, soil conservation, cultural heritage and urbanisation. New and emerging issues of international significance (climate change, ozone layer and biodiversity) will also be discussed. Water, atmosphere and land represent core environmental media issues while mining, arable agriculture, forestry and energy represent economic sectoral activities in Lesotho.

The National Environment Policy, adopted by Cabinet in February 1996, and the draft Environment Bill, mandate NES to regularly issue State of the Environment Reports for Lesotho. The overall aim of the report is to provide objective information about Lesotho's environment with a view to empower Basotho to making environmentally responsible decisions. Ideally, the report should be used as a problem-solving tool that binds and strengthens the information flow to decision-makers at all levels of society.

By providing a "bill of health" on the environment, the report will also promote the accountability of Government's policy and development performance in realising its constitutional responsibility 'to assure all citizens a sound and safe environment'. The national report is therefore a report to Government, not a Government Report.

State of the environment reports are now produced regularly by most industrialised countries. In Africa, Mauritius, Tunisia, Uganda, Zambia and Zimbabwe have published reports. A State of the Environment Report for the Southern African Region was published in 1994 and South Africa is currently preparing its Report.

Following the United Nations Conference on Environment and Development (UNCED) in 1992, Lesotho acceded to a number of international conventions and under the terms of these agreements is required to report on its environmental programmes and activities. The Lesotho State of the Environment Report is to be released towards the end of 1997. See advertisement on page 4 for an artist needed for the report.

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MINING Continued from page 6

An example of the result of unregulated mining is the medium-scale sandstone quarry which is close to White City, a residential area. Though the quarry is fenced and guarded, the dust is especially intense during windy seasons. The area could become a hazard to children and animals after closure because Government does not have a formal agreement with the company concerning rehabilitation.

Sand is one of the essential commodities in the construction industry. The mining of this resource is carried out predominantly by informal miners. The main ecological effect resulting from this activity is the acceleration of soil erosion. The ruts created by vehicles bringing sand from the river create a perfect environment for a new gully to form.

Lesotho is in the process of adopting two laws (Mines and Minerals Bill of 1996 and Environmental Bill of 1996). The bills adequately address ecological care. The challenge will be to win the support of mining companies for the ease of compliance with these laws.

Winning the support of mining companies involves educating miners on environmental issues relevant to their activities. Ideally, this would ensure that companies are responsible in all their endeavours, particularly where the environment is concerned.

Sustainability can be realized if government and mining companies work as partners. Experience shows that coercive ways of bringing about compliance do not work and above all are costly in terms of manpower and other resources.



Mothati o Hlahlamang:

Bokamoso ba molao oa tsa tikoloho, Temo ea Mariha, Tlhoeko ea moea

Next Issue:

The Future of Environmental Law, Winter Gardening, Air Quality