

Unfiltered, uninhibited... just the gruesome truth

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Climate change legislation takes shape ... brings hope to farmers facing uncertainties to their livelihoods



By JOYCE CHIMBI

Daniel Njau is torn between switching to food crops and waiting for the Government to put in place measures to cushion his six hectares of tea from severe climatic changes.

The small scale farmer in Nyeri County says: "Tea is very sensitive to climate change. Any drastic weather changes spells doom for the cash crop. In recent years, I have made more losses than gains."

However, according to Joshua Kosgei, an agricultural extension officer in the Rift Valley region: "Njau is only one of the estimated 500,000 small scale tea farmers who are facing uncertainties to their livelihoods."

As the farming sector continues

to buckle under the weight of severe climatic changes, experts are blaming low adaptive capacity on lack of a national policy and law on climate change.

Warning

United Nations scientists have already warned that as maize growing areas become warmer, production of maize — the country's main staple crop — will reduce by a fifth and yields on other staple food including beans will shrink by 68 per cent.

Kosgei says in Rift Valley region alone at least 300,000 maize farmers are affected.

Kenya's climate change legal framework is sectoral and fragmented, each sector has its own legislation which

includes the Water Act and Environment Management and Coordination Act 1999.

However, Evans Kituyi, a climate change expert at the International Development Research Centre (IDRC) says that with the coming of the 2010 constitution "most of these laws have been reviewed or harmonised to eliminate ambiguities."

According to John Kioli, chair of the Kenya Climate Change Working Group whose main mandate is to combat climate change and the brains behind the Climate Change Authority Bill 2012, sectoral laws cannot meet the challenge of severe climatic changes.

"We carried out research on the effects of climate change on various sectors including agriculture and

Dried Nairobi River is just one of the signs of negative effects of climate change. Small scale farmers suffer most.

Picture: Joseph Mukubwa

concluded that there were significant legislative gaps," Kioli says.

Laws

He explains: "Though there are more than 100 sectoral laws and policies relevant to climate change, none of them addresses climate change in any comprehensive way."

Kioli says that the country's first tangible commitment to combating climate change was in the December 2009 with the promulgation of the National Climate Change Response Strategy, a plan that would ensure robust measures were put in place to combat climate change.

The fourth Globe Climate Legislation study released in February, seeks to provide an authoritative annual audit of climate change related laws. It hails Kenya for adopting the 2013-2017 National Climate Change Action Plan to operationalise National Climate Change Response Strategy.

However, experts say National Climate Change Response Strategy is not a policy document.

Judith Gicharu, a scientist and environment expert says: "Though significant, National Climate Change Response Strategy is just a plan of action. The country does not have a na-

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Students fall prey to chewing khat

By ROBERT NYAGAH

Parents in miraa-growing areas are worried about its effect on their school-going children.

This follows reports that many school-aged children are falling prey into chewing the mid-addictive drug in many parts of Kenya.

The green shrub is grown in many parts of Meru, Embu and Coast counties where it is greatly consumed.

In some parts of Embu County, parents have sworn to uproot hundreds of acres of miraa altogether despite the economic gains associated with the shrub locally known as 'muguka'.

Alternative

Some of the residents of lower parts of Embu where 'muguka' is widely grown are also seeking alternative means of income generation to avoid investing in miraa.

"The Green Bag" because that is what the Embu variety miraa is known courtesy of the green polythene bags in which it is packed for sale, with prices ranging between KSh300 to KSh4,500 depending on peak and dry season respectively when the shrub attracts some of the best prices.

According to John Munyi, a miraa farmer: "In a good day during the dry season, a crop of about 150 stems could produce at least five green bags and that easily translates into KSh65,000 per month after three harvests."

A leading educationist in the county was recently forced to spend more than KSh3 million to acquire two acres of a miraa crop next to one of the county's secondary schools.

After acquiring the miraa farm, he quickly uprooted the entire crop and actually supervised the destruction of the stumps by fire. The stumps could have been sold or transferred to another farm.

This was in a bid to save the students from the vice, this was after it dawned on him that a number of students were sneaking from the institution to buy miraa from the



Joyce Wambeti tending to her miraa tree in Kiamuringa area in Embu County. Many parents are worried that the shrub, which is chewed as a mild drug will ruin school aged children who could be abusing it. Picture: Robert Nyagah

farm and chewing it in the dormitories.

"The acquisition of the land was a sacrifice on his part but it saved a large number of students from being initiated into chewing the mild drug and even falling into addiction," said Wanjovi Wandavano, a neighbour at the schools who had on several occasions witnessed groups of students entering the farm to buy miraa.

"I am hesitant to start growing miraa on my one-acre farm in Gantondo area where the crop does well because I fear I could be promoting abuse of drugs. I think miraa is a drug and should be controlled," says Mary Mugo, a small-scale farmer.

In one school in Mbeere area of the Embu County, three boys in lower primary were caught with miraa in school after teachers found them behaving strangely and suspected that they could have been chewing the addictive drug.

Punishment

The school's Parents and Teachers' Association (PTA) prescribed a punishment for the boys.

However, a cross-section of parents expressed worries that with the availability of miraa in many

farms and the fact that it is sold and chewed openly may eventually make it difficult to control abuse of the shrub by children.

"Miraa may be a cash crop but the fact that there are no legal ways to control its harvesting, packing, distribution and sale remains a threat to the youth who could easily start consuming the stuff and eventually become addicts," says Mary Ndwigah, a farmer.

The debate on miraa control has been raging with Meru County leaders led by Elizabeth Kajuju launching campaigns to have the shrub classified as a cash crop and not a drug. The British government recently placed miraa under narcotic drugs and banned it from being imported into the country.

Controversy over the plant has not been spared from religious interjections.

One Anglican Church of Kenya (ACK) elder who sought anonymity confessed to having been coerced to allow a commercial miraa crop on his land after his grown up children insisted that they accept it like any other cash crop since it had become a leading source of income generation in the lower parts of Embu County.

In the Coast region, those opposed to the sale and chewing of miraa say failure by the Government to come up with regulations to control its farming and trade was to blame for its continued abuse by the youth.

Anti-narcotics campaigners in Malindi who have in recent times demanded a ban on miraa trade warned that unless farming and trade was controlled, the price of miraa will continue to be increased at the expense of family income.

Regulate

Mohammed Famau, chairman of Malindi Maarufu Anti-Drugs Association says: "We want miraa to be controlled with legal regulations. The government should not fear to deal with the crop which has been known to be a mild and addictive drug." He added: "Income from local sales and foreign exchange associated with miraa should not be used as an excuse to destroy the youth in this nation."

Famau says: "Khat has been destroying families not merely because of health issues associated with addiction to the shrub but due to the high cost which has negatively affected family incomes."

Evil spirits render school helpless as they attack students

By YUSUF AMIN

Parents, teachers and other stakeholders in Kilifi have expressed fears over the falling standards of education in the county and are worried that schools may be forced to close due to alleged attacks from demons.

They are worried that if a permanent solution is not found in dealing with the problem then learning and the education standards in whole county will be greatly affected.

The situation has been worsened by fear of witchcraft and sorcery practices that have seen many elderly people killed.

Terror

The recent demon attack is alleged to have taken place at Bahari Primary School in a case that left parents and teachers in shock when a preacher who had come to pray for the school was also attacked by the demons.

According to Constance Kazungu, a senior teacher, school had been suffering from attacks by demon, a situation that forced the school management to call for a prayer meeting that was attended by parents and students.

"When the first incident occurred where three students were possessed by the demons, the school management committee decided to seek the services of the preachers to exorcise the demons," explained Kazungu.

About nine preachers went to the school and together with the teachers started to pray for the students. However, as the preachers were praying, the students for the second time in a row were possessed and began to speak in tongues to the amazement of the parents who were seemingly shocked.

Possess

The students cried and rolled on the ground. There was even more drama after a preacher who was praying for one of the girls was possessed by an alleged demon that had come off from the student.

Saumu Maitha from Jerusalem Church in Tezo collapsed and started to speak in tongues to the amazement of her fellow preachers. By this moment, the school was filled with noise emanating from both prayers and the possessed students who were crying uncontrollably.

Led by Pastor Samson Joffa Lazaro of Safina Ukombozi Church, the preachers had gone to the school expecting to calm the situation their efforts were futile.

On noticing that the situation was getting out of control, chairperson of the school management board who is also Kilifi County Assembly member Pricilla Zawadi called Bahari Zonal Teachers' Adviser officer Munga Kaginya to explain about the scenario.

Kaginya was the forced to call for a temporary closure of the school.

Closure

"The zonal teachers' adviser Munga Kaginya called for a temporary closure of the school to enable things come under control, explained Zawadi," she said.

According to Kazungu, the demons first attacked the students at the school.

Parents who attended the meeting were not sure about the preachers as some of them said that the move to pray was agitating the demons.

"These pastors are tempering with the demons, they will get furious and attack them," a parent was quoted as saying.

Low levels of retention in schools worry experts

By DUNCAN MBOYAH

African governments have been challenged to ensure that quality education system is offered in private and public schools to help retain as many children as possible.

"The education system should integrate the most disadvantaged children such as those that are physically challenged as well as those from extremely poverty stricken families," reiterated Roland Angerer, Regional Director Plan International for Eastern and Southern Africa.

Speaking during the commemoration of the Day of the African child, Angerer observed that the education offered should not only be qualitative and inclusive for both boys and girls, but should also be child-centred and friendly.

Access

He noted barriers that prevent children from accessing and completing their education must be removed to enable them compete favourably with their counterparts

locally and internationally.

"It is unfortunate that education in most African countries is still characterised by poor completion rates particularly for the girl-child as well as poor transition rates to secondary schools and beyond," Angerer said.

Most African countries in collaboration with development partners have made considerable investment in education and helped achieve universal education and gender parity in primary schools.

However, it is worrying that a significant percentage of approximately 10 percent of girls and boys are still unable to access or benefit from education in a meaningful way in relation to qualitative and inclusive education for all children.

Launching a report "Violence against Children in Eastern and Southern Africa", Angerer said that child labour and early child marriages are to blame for the low number of school attendance.

The report called for the strengthening of community and

religious leaders and other stakeholders in preventing child marriages, labour and trafficking.

Establish

It also called on the state to combat child marriage through setting the minimum age for marriage at 18 years for both girls and boys besides establishing an effective mechanism for registration of birth and marriage as well as termination of marriage.

The study done in Ethiopia, Kenya, Mozambique and Uganda between March 2013 to January 2014, called on respective governments to embark on supporting capacities of families and caregivers to enable them adequately protect children by enhancing their economic capacity through child sensitive social protection schemes.

"There is need to involve parents in programmes that promote positive, non-violent and non-discriminatory forms of child rearing," the report notes.

Alarm over maternal deaths due to HIV

Multiple factors hinder any likely progress within Africa

By JOYCE CHIMBI

Experts are concerned that advances in the prevention of mother to child transmission in HIV throughout Africa have not matched other pillars needed to eliminate maternal mortality caused by the virus.

Preventing new HIV infections among women and unintended pregnancies among women living HIV, as well as eliminating social barriers to accessing antiretroviral therapy (ART) are just some of the pillars.

Mary Pat Kieffer, senior director at Elizabeth Glaser Paediatric AIDS Foundation (EG-PAF) says that pregnant women with HIV die at a much higher rates than women without the virus.

Kieffer explains that HIV increases maternal mortality directly from the progression of AIDS and indirectly through higher rates of sepsis, anaemia and other pregnancy-related conditions.

She notes that studies have revealed the risk of pregnancy related death is six to eight times higher for HIV positive women than their HIV negative counterparts.

Kieffer also says that pregnant women become infected with HIV during pregnancy at fairly higher rates.

Statistics

In southern African countries “as many as five percent of pregnant women who tested HIV-negative during their second trimester of pregnancy become infected with HIV later in pregnancy or during breastfeeding.

According to UNAIDS, though there are now more HIV positive women on treatment thanks to Option B+, HIV still accounts for 25 to 30 per cent of maternal deaths in sub-Saharan Africa.

The Option B+ is lifelong antiretroviral therapy for all pregnant and breastfeeding women with HIV, regardless of disease stage.

While ARVs for prevention-of-mother-to-child-transmission (PMTCT) of HIV are key to reduction of maternal mortality “fighting HIV is about more than pushing ARVs into health systems,” says Kieffer.

There is need to relook PMTCT “not just as a way to keep the infant from acquiring HIV but as an essential part of maternal and child health care for all women.

According to Dr Sanjana Bhardwaj, Chief of Health and Nutrition UNICEF South Africa, “there is universal coverage of PMTCT in South Africa” but HIV still accounts for nearly half of all maternal deaths in this Southern Africa nation.

UNICEF also draws similarities to Lesotho where in spite of improved ART regimen, more than 50 per cent of maternal deaths are attributed to HIV-related complications.

Naseem Awl, HIV Specialist UNICEF Lesotho, says “Lesotho recognizes that much work remains to be done besides the provision of medicines, including, ensuring women deliver in a health facility”.

WHO statistics show that in sub-Saharan Africa only about 40 per cent of pregnant women deliver their babies with the assistance of a skilled health professional.

Lesotho

In Lesotho, while at least 90 percent of women attend at least one antenatal visit, more than half do not deliver in the care of a skilled birth attendant.

Experts say the potential of ART to significantly reduce new infections and to broaden reproductive health options for women living with HIV is yet to be fully exploited.

Kieffer says there is need to pay attention to the conditions in which services are delivered and that of health care workers providing those services.

“A good number of health workers believe that HIV-positive women have no right to get



pregnant,” she says.

In a study in Swaziland on barriers to accessing ART for pregnant women, what made the difference was the quality of counselling



“As many as five percent of pregnant women who tested HIV-negative during their second trimester of pregnancy become infected with HIV later in pregnancy or during breastfeeding.”

— Mary Pat Kieffer, senior director at Elizabeth Glaser Paediatric AIDS Foundation

Not all mothers survive the rigors of child birth, especially those living with HIV.

Picture: Joseph Mukubwa

and empathy from the health care worker and support from family or friends.

Addressing unwanted pregnancies among girls aged 15 and 24 years is yet another pillar. UNICEF says that this category is two to four times more likely to be infected with HIV than men of the same age.

They are also twice as likely to die from pregnancy related complications compared to older women.

However, the staggering unmet needs for contraceptives present a major challenge.

Angela Travis of UNICEF Malawi says that although the country is providing the best ARV regimen, “unmet need for contraceptives is nearly 26 percent”.

Even where contraceptives are available “ART clinics are overcrowded and overwhelmed. They have resisted putting emphasis on family planning because they just do not have the capacity,” says Kieffer.

Although Botswana has taken the lead in providing wide-scale PMTCT services, a significant number of women here and in Malawi are refusing the best ART regimen possible.

Stigma

Experts attribute this to stigma, lack of knowledge on benefits of ARTs and fear of side effects are frustrating efforts to reduce maternal deaths caused by HIV and AIDS.

“The ART regimens are strong drugs which are good but it can be difficult for the body to adjust. In the first few weeks, women may com-

plain of feeling nauseous, dizzy and fatigued,” explains Kieffer.

She says that if a woman felt healthy to begin with, “it can be very hard to manage these symptoms if they have not been adequately prepared and lack adequate support”.

Kieffer says that in Swaziland where stigma is high and misconceptions about ART prevalent, there are reports that women do not want to move to Option B.

She says that in Zimbabwe, women are counselled so that they at least take the drugs during pregnancy and when breastfeeding without having to make a lifelong commitment that they may not be ready for.

Disclosure is yet another challenge. “Women who have not yet disclosed their status to their partner will have a more difficult time keeping the secret with the triple drug regimen (Option B+) as opposed to a single AZT pill,” she says.

While male involvement is key, Kieffer says that it is more than having a man come to the antenatal clinic for an HIV test.

“Many clinics do not have the capacity to add the partners to an already overflowing clinic, and they usually do not offer any services for the men,” she says.

Distance from home to the clinic is another problem. According to data from Kenya’s Ministry of Health, in Kisumu within Nyanza Province, the average distance to the health facility is about 5.8 kilometres while in Mandera, North Eastern Province, it is 20 kilometres.

Ordeal of a loving Siaya mother and her baby

By **GEORGE OCHIENG**

What began as a simple itch has turned to be a nightmare for a 24-year-old woman who is currently undergoing medical examination at Siaya County referral hospital after her breasts mysteriously started growing abnormally bigger.

Jackline Awino, who hails from Ambira village in Central Ugenya location, now lives in agony with her breasts excessively enlarged and painful, and she explains that they started itching her seven months ago.

"My breasts started itching and due to this, I could not avoid scratching them, but surprisingly they kept growing excessively bigger day by day," She said.

Suspicion

Awino, who is a mother of two, explains that the ailment which has since not been known started in January this year and since then she has visited several health facilities including Rang'ala Health Centre, Yala sub-county hospital and Ambira sub-county hospital for treatment, but in vain.

She reveals that at the health facilities she only used to be given pain killers and that some of the health workers who attended to her at times gave her prescriptions of some pain killers to check at the local chemists whenever she was feeling pain.

Awino, who is a standard seven primary school drop-out, remembers that they kept on telling her that they suspect she could be developing breast cancer, which is still at an early stage.

She spoke to the media on her hospital bed at the Siaya County Referral Hospital and narrated how she has just been suffering in silence with no other option due to inability of her elderly mother, Josephine Auma, to raise funds to enable her to seek further treatment in advanced hospitals.

"I have never gone for any check up in bigger hospitals due to lack of funds, because I stay with my elderly

mother who is also a widow and she cannot raise the money that would be required for my treatment" posed Awino, while writhing in great pain at her bed.

She is left with no option but to appeal for assistance from the leaders and well-wishers to come to her aid so that she can get proper treatment.

Curse

Awino, who had been married to an electrician, Naphtali Otieno Orianya, with whom they were blessed with the two children, a boy and a girl, told journalists that she is equally unable to raise any amount even through her husband since the husband also decided to disown her and sent her away after she developed the mysterious ailment.

"My husband currently works in Ugunja town, but he has since disowned me, he said he cannot stay with me any longer because I would be a curse to his family" added Awino, who says the husband sent her to go and seek traditional treatment and only return when she will be healed.

She says that she now misses her children whom were snatched away from her by the husband, adding that her mother's attempts to bring the children even for a day or two has also proved futile because her husband had become very arrogant and does not want to hear anything about her.

Awino, who was working as a hair saloonist at Ugunja town before she developed the ailment, says that at the moment she cannot afford a better meal because she cannot do anything due to the pain that she is under going.

Pregnancy

Fortunately after her cousin Jacob Gwadi shared the issue of her mysterious illness on social media through his Facebook page, the woman was picked by Siaya County government's health department through the intervention of County Director of Health Dr. Omondo Owino and brought to the referral hospital



Jackline Awino, from Ambira village in Central Ugenya location lives in agony with her breasts excessively enlarged and painful. They started itching her seven months ago.

Picture: George Ochieng

where she is still undergoing medical examination.

Surprisingly after primary evaluation through an ultra sound service at the Siaya Referral hospital she was discovered to have been pregnant, but she never knew, and to make matters worse for her, her baby later died without her knowledge.

Siaya County Referral hospital Medical Superintendent Dr. Jackton Omotto, who confirmed her situation, said however that she is in a stable condition after an 8 months old fetus was discovered dead inside her womb and removed.

He added nonetheless that they are still not sure of the exact ailment that Awino could be suffering from, noting that they are yet to do a diagnosis in about two weeks after her recovery from the theatre to establish if the mysterious swelling and enlargement of the breasts could be as a result of the pregnancy.

"We want her to recover for about

two weeks after which we will now evaluate the breasts to find where the problem could be, but so far we have given her some drugs to dry the breasts because they were producing some milk." The doctor said.

Dr. Omoto suspects that the situation could have resulted from her ignorance of the pregnancy which was not ectopic, and blames this on the negligence of the health workers who had been attending to her during that period of up to seven month of suffering.

The medic said that they will try their best to treat Awino, adding that since she was discovered to have a maternity related case, she will be treated for free unless she is found with a separate abnormality.

"We are going to treat her for free given the Government policy on free maternity services, but should we find a separate abnormality then they may be forced to pay for further treatment," says Dr. Omoto.

Climate change legislation takes shape

Continued from page 1

tional policy or law specifically on climate change."

Although it has not enacted by the National Assembly and is, therefore, not legally binding, it is an important framework implemented through an Act.

Gicharu says that the National Climate Change Action Plan "accomplished the difficult task of highlighting the need to have a policy and law specifically on climate change."

She notes that these efforts have placed Kenya among few other African countries including Ethiopia, Rwanda, Mozambique and South Africa that are taking domestic action to tackle climate change.

It is for this reason that the Globe Study reveals that the international community had been following the process of enacting the Climate Change Authority Bill 2012.

Had the Bill been enacted it would have established an independent Climate Change Authority with legal powers to self-regulate and a Climate Change Trust Fund to finance adaptation projects.

Public involvement

According to Joyce Laboso, Deputy Speaker in the National Assembly the 2012 Bill was rejected by the immediate former President in 2013 citing lack of public involvement in its discussion.

"The new Climate Change Bill 2014 has garnered significant political goodwill," says Laboso. She adds: "The Bill was introduced in Parliament in January this year. It has already gone through the first reading and is now at the committee level awaiting its second reading."

Laboso says that the Environment and Natural Resources Committee together with the Ministry of Environment, Water and Natural Resources have been meeting with various stakeholders including the senators and the Members of County Assembly to iron out any contentious issues and to make relevant amendments to the Bill.

"The amendments will be tabled in Parliament in a report together with the Bill for discussion once the august House resumes from recess in June," says Laboso. She adds: "The pace is good since both the national policy on climate change and the 2014 Bill are been developed concurrently."

The National Policy has been dubbed the Climate Change Framework Policy 2014.

Policies

A statement by the Climate Change Network of Kenya, an organisation that advocates for policy around climate change read in part: "We had working been on the Climate Change Bill ahead of the Climate Change Policy, upon rejection of the Bill, we agreed to fast track the policy because it should precede the Bill."

Kioli says that in as far as legislation is concerned the country is heading in the right direction although challenges abound.

"The lack of understanding on the difference between environment and climate change, remains a big challenge," he observes.

According to Kioli this is evident from the fact that some quarters have been calling for revising of the 1999 Environment, Management and Coordination Act to serve as a solution to climate change.

"Allocation of funding for climate change remains another challenge," he says.

Government estimates show that the five year National Climate Change Action Plan will require a substantial investment of about \$12.76 billion. This is equivalent to the current 2014-2015 national budget.

Siaya County eliminates home delivery

By **HENRY KAHARA**

When 20 years old Roselyn Odhiambo got pregnant she was confused of the next step. Single with no permanent job and no close relatives on her side above all inexperienced.

Roselyn a resident of Siaya County admits that things were not easy for her at that moment since most of her relatives lived away from her.

"I was a bit confused since am single and a casual labourer" says Roselyn.

But two days ago Roselyn became a happy mother of a boy child, thanks to Community Health Volunteers in Siaya County who have walked with her in the nine months journey.

"Pamela used to come on monthly basis and check on how am fairing on. She advised me on proper diet and also advised me to make sure I sleep under treated net," she says noting that Siaya County is Malaria prone area.

Pamela Odhiambo a community volunteer in Magombe B an area where Roselyn resides gives a testimony of how she has walked hand in

hand with Roselyn and many other women in their pregnancy journey.

"As a Community Health Volunteer I had to take her through what she needs to do," says Pamela.

Pamela says that many women in Siaya never knew about the importance of visiting the hospital during pregnancy but due to the presence of Community Health volunteers the trend has changed.

"We educate them about the importance of going for antenatal clinic and exclusive breast feeding. We further follow them and make sure they practice what we tell them," adds Pamela.

The Antenatal Clinic aims to provide increased continuity of pregnancy care. Midwives are available at all hospitals in Kenya for antenatal clinics.

Women with normal pregnancies are seen by a midwife for all pregnancy care and referred to a specialist clinic if any problems arise.

A pregnant woman is supposed to visit hospital for antenatal clinic for at least four times.

Each Community health volunteer notes the pregnant mothers in their area and walks with them on that journey.

For now Siaya County has absolutely gotten rid of home delivery courtesy of Community Health Volunteers.

Before Nyanza province which comprises of Siaya County was among the provinces leading in home delivery but the campaign by the Siaya government via Community Health Volunteers home deliveries are no more.

Siaya County has 2,148 Community Health Volunteers who cover all villages in its five constituencies that is Ugenya, Alego, Siaya, Bondo and Rarieda.

Currently Siaya County has approved a bill to pay stipends to all Community Health Volunteers due to the great work they have been doing.

"This is a voluntary work and they are not supposed to work full time because they have other needs," notes John Odera, Siaya County Community Health focal person.

Global climate change deal likely to succeed

By DUNCAN MBOYAH

Chances are high that countries are likely to reach an agreement on climate change by the end of 2015.

This is according to the United Nations Secretary General Ban Ki-Moon who revealed that the Heads of States summit on climate change that will be held in New York under his chairmanship in September will draw a final roadmap ahead of the December 2015 meeting.

Change

"As climate change causes temperatures to rise and precipitation patterns to change, more weather extremes will potentially reduce global food production at a time when the population will continue growing in developing countries," Moon said, in Nairobi at the end of the inaugural United Nations Environmental Assembly.

Ban Ki Moon said effects of climate change are a major problem in Africa and other continents where almost over 80 percent of smallholder farmers own less than two hectares of land that is not enough to sustain them amicably.

"World leaders must make a radical decision to help improve lives of majority of populations that have tried to adapt to these changing conditions in order to feed this growing population in vain," Ban ki Moon said.

He called for the preservation of ecosystem and wildlife as a potential to development adding that the United Nations and the Kenya government are working jointly in ensuring that poaching and illegal trade in wildlife products is reduced to zero.

Ban ki Moon who adopted a six month-old lion cub, known as Tumaini (Swahili for Hope), called for peaceful co-existence with wildlife as they form an important segment of nature.

Ban ki Moon challenged Governments to promote renewal energy as a boost to electricity supply to the citizens. He noted that the 1.4 billion people who are currently living without electricity in their homes can be served bet-



ter with development of renewal energy sub-sector.

Ban Ki-moon (squatting at the middle) familiarizes with the lion cub he adopted during his visit in Kenya. The UN Secretary general is worried that climate change is negatively affecting agriculture in Africa. Picture Courtesy

Lead

"Kenya is currently the world leading renewal energy supplier and world governments must copy this to help supply their population as well," Ban ki Moon said.

He challenged countries in Africa where it is sunny for most part of the year to start serious solar and wind power generation that are cheaper to help supply power to the populations and in-

dustries.

He revealed that the United Nations is concerned about the escalating acts of terrorism in West and East African region.

Ban ki Moon noted that besides peaceful negotiations with the terrorism, world leaders have to initiate income generating activities that could absorb jobless populations.

"Lack of jobs and discontentment are partly to blame for the current wave of terrorism that has hit some parts of the world," Ban ki Moon observed.

He disclosed that the United Nations has developed a global terrorism strategy that will involve governments in helping check the upsurge of the illegal activity.

He announced that the United Nations is set to start training Kenyan security forces to help enhance their capacity towards finding how best to handle terrorism activities in the country.

Of late terrorism activities have heightened

in Nigeria where Boko Haram militia groups last month abducted over 200 schoolgirls who are yet to be released. A number of people have also lost their lives to explosions in major cities in the country.

Responsibility

In Kenya, Al-Shabaab terror group has claimed responsibility for killing over 60 people in the last three weeks in the coastal County of Lamu. Late last year, 67 people lost their lives to the same terrorists group when they raided the Westgate Shopping Mall in Nairobi.

"We have approved a package of support to the Nigerian government to help families of the missing children and also in preparation to help counsel the victims once they are released by the terrorists," Ban ki Moon said.

He called for the solidarity of all nations in the world to help tame the emerging trend of terrorism.



"World leaders must make a radical decision to help improve lives of majority of populations that have tried to adapt to these changing conditions in order to feed this growing population in vain."

— Ban ki Moon, UN Secretary General

UN warns against exclusion of women in environmental management

By FAITH MUIRURI

The exclusion of women at all levels of decision-making continues to undermine the tenets of gender equality and women's empowerment which is an integral aspect of environmental management.

UN Women Deputy Executive Director, Kenya Country office Lakshmi Puri warns that overlooking gender equality issues and ignoring the voices, needs and priorities of half the world's population in environmental responses, including climate change, will not only yield sub-optimal results; it will also lead to the exacerbation of existing inequalities and reverse progress already made on environmental sustainability and on gender equality and women's empowerment.

Puri said the adoption of Beijing Declaration and Platform for Action, 20 years ago paved the way for the active involvement of women in environmental decision-making at all levels, integration of their concerns as well as perspectives in policies and programmes, and establishment of ways

to assess the impact of development and environmental policies on women.

"However, the Platform for Action remains an unfinished agenda that requires political recommitment and accelerated implementation, including for the critical area of concern of 'women and the environment,'" she said during the just concluded UN Environment Assembly in Nairobi.

Campaign

Puri revealed that UN Women has already launched a Beijing+20 campaign entitled "Empowering Women, Empowering Humanity: Picture It!" besides putting special emphasis on

women and the environment.

"We hope that our efforts will have a multiplier effect to create mass awareness and a broad movement in support of gender equality and women's rights, not just among the general public but also among new constituencies and among leaders and decision-makers," Puri explained.

She reiterated that gender perspectives must now be mainstreamed in all other goals, especially those with a strong environmental dimension such as access to water and energy.

"It is critical to ensure that environmental dimensions are captured in a stand-alone Sustainable Development

Goal on achieving gender equality and women's empowerment," Puri stressed.

According to Puri, women are environmental leaders and actors and therefore, there can never be comprehensive environmental management and decision-making without their full participation.

Impact

"Women are holders of traditional knowledge, managers of resources, environmental activists, innovators, caretakers of livelihoods, CEOs, parliamentarians, Heads of State and ministers," she pointed out.

Puri said that all regions have now

witnessed the very concrete impacts of climate change. "It is now more urgent than ever to put in place adaptation and mitigation strategies and it is essential that these strategies take gender perspectives into account," she explained.

Puri noted that women are the hardest hit by the phenomenon which was evident in areas where women play a central role such as food security, sustainable agriculture, energy, livelihoods, health and natural resource management and use.

She underscored the need to put in place a conducive environment that allows women to exercise their voice and agency as resilient leaders, innovators and contributors in all aspects of environmental management to help deliver the highest returns.

Puri called on governments and stakeholders to uphold their commitments in Rio Summit by ensuring that women benefit from equal rights, access, participation and leadership in the economy, society, decision-making and resource allocation, so that they can truly fulfill their role as environmental leaders.



"Women are holders of traditional knowledge, managers of resources, environmental activists, innovators, caretakers of livelihoods, CEOs, parliamentarians, Heads of State and ministers."

— Lakshmi Puri, UN Women Deputy Executive Director, Kenya Country Office

Rain fed irrigation changes livelihoods in Embu

By **ROBERT NYAGAH**

Farmers in the lower parts of Embu County have now moved away from traditional food crops such as maize and beans and adapted to cash crop farming mainly in the horticultural sector.

Karurumo, Kiamuringa and Kawanjara area in Embu were in the past areas rarely associated with cash crops, such as butter nuts, tomatoes and bananas, but they have since accepted it and are literally smiling all the way to the bank.

This is because scarcity of irrigation water remains the largest drawback to farming in the lower parts of Embu County where rainfall is low and unreliable.

Agricultural and livestock development extension officers have been encouraging innovative ways to farming. Farmers who adapted to some of the innovations have recorded success in their projects.

Today, traders such as John Njeru, who operates a vegetable outlet at the Embu Municipal Council Retail Market, are trooping to Karurumo, a one hour journey to purchase fresh produce for their establishments.

Success

"I find it easier to travel to Karurumo and Kanyuambora areas to buy fresh horticultural produce from the many young farmers who are doing very well after they embraced irrigation," explains Njeru as he unpacks a heap of onions, tomatoes and butter-nuts bought from the area.

As the sun rises Karurumo trading centre, John Nguru, arrives armed with fresh produce from his nearby farm.

Nguru's is a success story. He is among the pioneer farmers who embraced irrigation and new technology to make a difference in the semi-arid area.

Through support from agricultural experts, the farmer invested in a small dam or open ground water reservoir which is fed by rain water and is utilized for between one to three months to irrigate his crops.

"The open water reservoir is rain-fed through run-off water and when well-prepared it can retain the water for a long time and sustain the farmer's need for irrigation water," explains James Njeru, an expert on irrigation, water harvesting and storage from the Ministry of Water and Irrigation.

Profit

Njeru has been working with farmers to improve food and cash crop production through irrigation.

Most of the water dams in this area are between five and 10 feet deep. Farmers who are using irrigation are earning between KSh5,000 to KSh20,000 in profits.

"We are a happy because as small-scale fresh food traders in this area because we are able to buy the produce directly from the farmers and make a profit through retail or wholesale to buyers from Embu town," says Jane Wambeti, who previously used to fetch fresh produce for his customers from Embu or Kithimu market, more than 60 kilometres away.

According to Wambeti, availability of fresh produce closer home has ensured that they can now operate with a better profit margin and even sustain orders from wholesale traders and institutions.

Kariuki Nyagah, a small-scale irrigation farmer who also uses a pond fed by rain water is happy with his tomatoes, water melons and cucumber harvests for the last one year.

He is happy that innovative ways of farming have opened up new opportunities especially to the idle and unemployed youth who now have a source of income and work to do.

"These young farmers have come together and are undertaking table-banking and merry-go-round within the groups they have formed," says Nyagah. He adds: "They now have a steady source of income from sale of farm produce."

Many families in the area are well fed and happy with majority of them living healthy lives.

The success across the region is attributed to the entry of Farm Concern International (FCI), an organisation whose aim has been to strengthen small scale farmers to achieve profit from farming.

Foremost among the farmers has been the acceptance of the Village Budget Drip, a contraption which includes a drip irrigation system that serves an area measuring 15 by five metres, a water storage tank and a hand operated push and pull water pump.

Harvest

"This kit costs KSh6,000 and a farmer can easily get returns and profits within one successful crop," says David Kimotho, regional officer in charge at Farm Concern International.

Kimotho notes that drip irrigation ensures the water harvested in fully utilised because no wastage is recorded under this system.

"Apart from profits gained from



A buyer checks the quality of butter nuts grown under irrigation at a farm in Kanyuambora in Embu County. Production of butter nuts, tomatoes and onions among of other crops has increased due to adoption of rain run-off water dams' irrigation. Picture: Robert Nyagah

farming, the success of irrigation, which is widely affordable to many rural people is keeping the youth busy and creating food security at family level," observes Kimotho.

According to Salesio Ngare, a community leader in the area says due to the new technology dependence on relief food has been reduced drastically and will be totally eradicated with time.

According to Dave Musau, an agricultural extension officer who has been promoting such projects in Kanyuambora area, adoption of these farming techniques has led to appreciation

of water pans to spur agro-business by farmers.

So far, many self-help groups linking up young farmers and those mainly involved in irrigation based farming have come up and are legally registered under the Department of Social Services.

One such organisation is the Kanyuambora Young Farmers Commercial Village Organisation, whose chairman is Peter Murithi.

Murithi says the savings have enabled members expand their projects and also invest in other income generating projects.

UNEP gets more powers to fight pollution

By **DUNCAN MBOYAH**

The United Nations Environmental Assembly (UNEA) has given United Nations Environmental Programme (UNEP) the mandate to lead activities aimed at improving air quality globally.

UNEP has also been given the mandate to come up with ways of eradicating over 100,000 chemical substances that have environmental and health negative impact in the world.

Speaking at a press briefing, Achim Steiner, UN Under-Secretary-General and Executive Director at UNEP said: "UNEA member states have called on governments to give priority in reducing pollution in world cities to help reduce the number of deaths that currently stands at seven million people per year." He added "We are also going to take charge of litters and plastics that have been affecting marine life in the world."

United Nations member states and civil society organisations are concerned that the Sustainable Development Goals (SDGs) in the Post-2015 Development Agenda could become an "unfunded" mandate.

Even as UNEP was given the

mandate to clean up the environment, it was noted that this can only be achieved if issues of gender inequality and discrimination as well as poverty are addressed.

"Inequality, poverty and environment are linked and require a business unusual approach for the success of the goals," noted Hellen Clark, United Nations Development Programme (UNDP) administrator.

Clark called on countries to put their country specific goals aside and unite in achieving the new goals.

Janez Potocnik of the European Commission Commissioner for Environment asked UNEP to play an important role in setting the post-2015 development agenda.

"Nature provides solutions but sustainable development cannot be achieved without well-functioning ecosystems," Potocnik observed.

The delegates recognised that Sustainable Development Goals were a universal concern and that developed countries should provide leadership in promoting the shift.

The environmental experts also discussed the architecture for financing sustainable development after 2015 and approval of UNEP's bi-annual budget given that UNEP's mandate has expanded.



Indian ocean in Mombasa polluted with plastic bags and other wastes. United Nations Environmental Program is now mandated to control and eradicate such pollutions. Picture: Courtesy

Water scarcity amid plenty in Kwale



By OMAR MWALAGO

A woman washing cloths in Mkurumudzi, the same water is used for drinking and other domestic use. Picture: Omar Mwalago

Access to clean water for domestic use remains a challenge for many household in Africa. The situation is not any different from families in Kwale County, Coast Province.

Residents of Kinondo and Msambweni locations in Msambweni Constituency in Kwale County are forced to walk for many kilometres to fetch clean water from a borehole that has been constructed strictly for drinking.

This is despite the fact that the County lies on the Indian Coast with a number of rivers flow through it from Shimba Hills to the ocean.

Scarcity

For long time the villagers of Zigira, Kilege, Mwandimu, Masindeni, Msangatifu, Vidziani and Baselona were depending on fresh water from Deki Dam. However, due to prolonged drought that affected the area a decade ago the dam dried up forcing them to trek for hours in search of clean and fresh drinking water.

Although Kwale International Sugar Company Limited revived the dam, area residents say the water is not safe for domestic use and hence a threat to their health as the dam is shallow and the water dirty.

They also note that the sugar firm is using the same dam to irrigate their plantations.

This means that for domestic purposes, the residents are forced to fetch water from Mkurumudzi River.

Mwanahamisi Omar laments that she has to trek for hours to get clean water from Mkurumudzi River. In order to avoid the scorching sun during the day, she has to wake up by 5am together with her three children to make two hour journey to the borehole.

"The scorching sun will tire you especially when walking with a jerri can on your head. That is why I prefer going for water early in the morning," she explains.

When it rains, Mwanahamisi taps water to avoid the long journey and also save her children the agony of fetching water before going to school. She says if they could get a nearby water source it would save them a lot of trouble.

According to Juma Saidi from Masinde Village, they managed to get a bore hole that is

serving the whole community with the help of Kwale Sugar Company.

Kwale County, which has an estimated population of more than 600,000, lacks fresh water.

The only fresh water sources, Tiwi boreholes and Marere Water Works that produces 20 million litres. Of these, 14 million litres are supplied to Mombasa County.

The counties of Kilifi, Taita Taveta and Kwale supply Mombasa with between 50 to 60 million litres of water every day. This is the cause of water shortage in Kwale.

To find a solution to this problem, Kwale County Governor, Salim Mvurya plans to hold talks with Coast Water Service Board over water being supplied to Mombasa city from Tiwi boreholes and Marere Water Supply.

At the beginning of the year, three of the five governors from the Coast, namely, John Mruttu (Taita Taveta), Salim Mvurya (Kwale) and Amason Kingi (Kilifi), demanded part of the revenue generated from the water supplied to Mombasa county residents.

According to Hemed Mwabudzo, Kwale County Executive Member for Water Services, Urban Planning and Decentralised Units, the County government inherited Kwale Water and Sewerage Company (KWAWASCO) with heavy debts including those of Kenya Power Company at KSh15 million, Coast Water Board at more than KSh37 million and staff salaries at KSh4 million.

Debt

Mwabudzo notes that due to the debts, Kenya Power has been disconnecting power regularly, and the effect of this has been frequent water shortages.

When the County government came on board, Kwale Water and Sewerage Company was operating without a board which meant the management did not have stakeholder guidance on how to improve on water service delivery.

"The County government of Kwale inherited a water company with heavy debts. Today the company lacks sufficient technical staff to effectively deliver expected water distribution

services," says Mwabudzo.

At the end of 2013, the County government had paid KSh6 million to Kenya Power Company and another KSh3 million on June 13, 2014.

"The County government is committed to clear the balance of KSh12 million before December 31, 2014 to ensure there are no more disconnections and Kwale County residents get uninterrupted flow of water," explains Mwabudzo.

He adds: "Besides efforts to clear the debts, the County government has also put in place a board to oversee operations of the water company."

Audit

The board is also in the process of carrying out staff audit to determine personnel requirements to run the company efficiently so as to increase revenue from water services.

The County government also bought two new and more powerful water pumps costing KSh6.4 million to boost supply to Kwale town and its environs.

The County government has also inspected all water distribution stations in the County and identified some weaknesses related to old pumping machines.

Other challenges identified were inadequate water service lines in Tiwi, Ukunda, Kinango and Lunga Lunga. Accordingly the County Government will soon replace the aged and rotten pipes and repair leaking tanks.

The rehabilitation of Kibaoni-Kinango Water Pipeline will be done in the 2014-2015 financial year and will increase water supply to Kinango town and its environs.

Since improving and increasing water service lines requires heavy investment, the County government is in discussion with potential partners to invest in the water sector.

"We would like to ensure residents of Kwale that despite challenges inherited from previous governance systems, we are committed to solving them within the financial year 2014-2015 so that people may enjoy reliable water supply," reiterates Mwabudzo.

Water towers noted as sources of food in East Africa

By DUNCAN MBOYAH

A study conducted by the United Nations Environmental Programme (UNEP) in Kenya in 2012 revealed that the country's water towers provide all East African agriculture with water and 40 per cent of electricity.

The report noted that Nairobi County is supplied with water from the Aberdares Forest and is something that has proven to be useful for application in most cities of the world.

Study

"A similar study is already being done in Somali, Panama, Zambia, Indonesia and Tanzania to help inform the governments of the role played by the water towers," noted Dr Tim Christophersen, UNEP's Senior Programme Officer, Forests and Climate Change.

Christophersen was speaking during the United Nations Environmental Assembly meeting when he said that from the evaluation, forests are more than three times the drivers of the economy but fail to be factored in decisions made by governments.

According to Christophersen, UNEP is in the process of using economic language to help change policy makers attitude towards conservation and resort to forest restoration as opposed to mere conservation.

"Many private organisations are today involved in valuing carbon credits in the forest with the aim of funding the sector," Christophersen observed.

He disclosed that Unilever, an international company in the tea sector is currently engaging tea farmers in Kericho region with the aim of protecting indigenous forests and reducing negative environmental impact by encouraging the uptake of sustainable farming methods.

"Brazil has made tremendous stride in reducing forest degradation in the Amazon through partnership with various stakeholders from private sector," said Christophersen.

Echoing the same sentiments, Dr Charles Anderson, Director of Finance Initiative in UNEP noted that progress towards restoration of forest has slowed down due to the fact that the private sector has been left out of initial plans yet two thirds of the global economy is managed by private sector.

Engage

"UNEP is now in the process of engaging with the private sector by putting the economic value of conservation and restoration of the environment and how they can invest and benefit through the carbon credit schemes," said Anderson.

He noted that a methodology to help private companies that have already made their evaluations to understand the cost and value of carbon trade has been developed and that governments must now come in handy to help.

Ethiopia launched its green economy in 2010 and has developed national REDD economy with the involvement of the private sector.

"This is meant to develop forest sustainability efforts as land has been given to individuals to plant and benefit from trees," explained Teret Solomon, senior forest advisor.

According to Lineth Arcia, Panama's national Director of Quality Protection, due to lack of water, the government has engaged indigenous people and institutions in improving forest cover and degradation.

Christophersen said communities in Tanzania are today gaining the benefit of restoration of a desert that was initially left unattended.

He disclosed that REDD Plus in Kenya is the largest funded initiative in the region by company's pilot process and recently received \$700 million.

However, Christophersen noted that Kenya's vision 2030 is over ambitious in doubling trees cover as no efforts have been rolled out yet.

He said that the solution to Africa's forests requires sustainable management to help reduce logging for fuel wood and charcoal by adopting the use of modern cook stoves.

Human cost of climate change leaves African women disproportionately affected

By JANE GODIA

Her face is familiar on Kenyan television anytime the Nyando River floods its banks. The call of “*serikali saidia* (Government help)” has become so popular to the point of ridicule that many have turned it into their telephone ringtones.

While the case Jane Anyango Adika might be taken as a joke, her face is the true story of the effects that climate change has on women.

Adika just runs up to the higher zones and comes back once the flooding has subsided. Her case tells the story of how lack of education and often poor or interventions from government, means that women will have no alternative but to remain in or return to disaster prone areas with diminished assets. This paints the grim picture of how Governments in African countries have failed to address the social impact of climate change and its effects.

Poverty

Currently there is a lot of climate change and global warming taking effect across the globe. The effect of this has been substantive. While climate change affects women and men differently, no one is immune from the effects of climate change. However, climate change has a disproportionate effect on the lives of poor people, where poverty increases vulnerability to its harmful effects. Women are the poorest in the world and hence the feminization of poverty as a great majority of those who are poor are women.

The opportunities and challenges that men and women face when responding to climate change are uncertain and unclear in terms of precise shape, timescales and impact of projected climate vulnerability at different environmental settings.

The human cost of climate change and its effect on women in Africa has never been measured because gender issues have not been considered in the wider climate change discourses and initiatives. Yet gender specific implications of climate change can be found in human, food, livelihood and security issues among others.

Mitigation

This is because the international response to climate change has largely focused on mitigation and has directed less attention to adaptation strategies that include assistance with adapting to the adverse impacts of climate change on food, livelihoods and human security.

Predominant approaches and policy responses have focused on scientific and technological measures to tackle climate change. There has been almost no recognition of the social implications of climate change outcomes and threats on poor women and men.

Since climate change agenda is set by the rich and powerful, in male dominated forums, it tends to exclude poor and less powerful who are women within their variously constrained contexts. Women's perceptions and needs are not included in policy formulations.

The gender division of labour affects the way women and men cope

with environmental change and response to disaster. The differences are largely due to the unequal gender relations that determine women's and men's behaviour and responsibilities in the household, workplace and community. These roles and responsibilities determine access to income to tap into material and productive resources that can provide security, protection and recovery. These roles determine individuals' power to influence and control resources that affect them.

The differentiated power relations and levels of access to resources are key to understanding men's and women's vulnerability, their exposure to risk, their coping capacity and their ability to recover.

Climate change has severe implications on food security and livelihoods, especially on women. This is because women are dominant in climate sensitive livelihoods such as horticulture, agriculture and livestock. When there are floods, or rains are delayed, the women feel the effect of food insecurity as they are not able to feed their families or take produce to the market.

Poor people, mainly women, live in overcrowded temporary human settlements or structures erected in unsuitable land are at great risk of flooding and landslides.

Unpredictable and untimely rains mean that women cannot plan their work, they have to work longer hours and more intensely or face crop failure and poor harvests. Poor women who eke out a living from subsistence farming have no savings or assets to insure them against external shocks.

Asset

For households dependent on agriculture, land is the most important productive asset. However, customary and statutory laws in Africa restrict women's land rights which in turn make it difficult for women farmers to access credit. Women do not own land neither do they inherit land in most African communities. Without credit, women cannot buy the crucial inputs needed to adapt to environmental stress.

Lack of sanitation and limited access to clean water, poor diet and inadequate health care provisions will often undermine resistance to disease.

A lack of social status and the remoteness of settlements means that most people, majority being women will not receive information on warnings regarding impending disasters. Women lack of access to information as men tend to dominate information channels such as radio, television and newspapers.

During disaster, a woman will usually be the last to leave because she has to ensure that all her children are

together and with her. She will also want to ensure that she has packed food, cooking utensils, beddings and a set of clothes. The man will however, scamper to safety in a case of me, myself and I... Every man for himself and god for us all.

The last time the Nyando River bust its banks, Adika was all alone with her children. “I do not know where my husband is,” she was quoted as saying.

Often when there has been a flooding, it becomes more difficult for a woman to return to work because of increased domestic and care responsibilities. She will not only care for her immediate family, but the extended relations and the community at large.

Prolonged drought often forces men in Africa to migrate with animals in search of pasture and water or employment, leaving women behind with increased domestic and care responsibilities, making it difficult for them to engage in income generating activities. It is also sad that unpaid work of care giving is not recognised within African economies.

When a mother's domestic and care load is increased, it's the girls who are withdrawn from school and kept at home to help with the household duties.

Climate change can be said to have put an extremely severe pressure on availability of resources that women need and as a consequence takes up much of the woman's time and resources. Prolonged drought places women under strain as they have to trek further covering long distances in search of firewood and diminishing vegetables, as well as water shortages. This search also affects young girls who are forced out of school to follow their mothers in the search for food, water and firewood, a move that greatly affects their performance in school.

There is an increase of the number of households in Africa that are headed by women in the agricultural sector which majorly predominates the region. Women in female headed households take on men's farming roles in addition to existing domestic and agricultural responsibilities. Climate change is putting pressure on resources that women need and as a consequence on women's time and labour.

Climate change has the potential to create widespread additional health problems. These are likely to increase women's workload further, since in Africa women are traditionally responsible for caring for the sick and elderly. Women's health may also suffer as a result of their



Jane Anyango Adika, resides at the banks of River Nyando and has always suffered the consequences of flooding. Women have always suffered more when there is flooding. Picture: Courtesy



Turkana woman who cooked a dog for her children because of drought. Picture: Courtesy

existing lower access to health services, reduced nutritional status and the requirement to juggle multiple roles. Men's health may also suffer as men are likely to talk or seek counselling for trauma, as a possible outcome of experiencing disaster.

Skills

In many African communities, girls are not equipped with the same skills as boys. Or because of restrictions on female mobility they remain particularly vulnerable because of the differences in socialisation. Cultural constraints therefore, make it difficult for women and girls to move in times of drought or flooding.

Women and girls are more likely to become victims of domestic and sexual violence after a disaster particularly when families have been displaced and are living in overcrowded emergency or transition housing where they lack privacy. It is often noted that adolescent girls report especially high levels of sexual harassment and abuse

in the aftermath of disasters. The increase in violence is attributed partly to stress caused by lack of economic opportunities in the period following floods or prolonged drought compounded by longer term unemployment and threatened livelihoods.

With climate change there is already an experience in growing scarcity of natural resources such as water and arable land in Africa. With heightened competition over diminishing and unequally distributed resources, conflict is set to increase. For instance, in Darfur in Sudan, sexual violence against women and girls occurring in villages and internally displaced people's camps and outside the camps when scarce resources such as fuel and water are being collected.

Gender issues and concerns must therefore be integrated in ways and policies that will bring positive change in effects to deal with climate change.

Extra information from Internet sources



Air pollution blamed for rise in respiratory infections

By DUNCAN MBOYAH

In Kenya ambient air quality has deteriorated over the years resulting in increased upper respiratory throat infections. In Africa, it was noted by the World Health Organization that over 176,000 people died due to outdoor air pollution in 2012.

According to Jane Akumu of the UNEP's Division of Technology, Industry and Economics, in that same year it was estimated that pollution caused 3.7 million premature deaths worldwide due to exposure to small particulate matter of 10 microns or less in diameter.

"Out of that number, 600,000 were from household air pollution per year," Akumu said at the United Nations Environment Assembly in Nairobi.

This was reiterated by Prof Geoffrey Wahungu, Director General of National Environmental Management Authority (NEMA) who said that the problem was also linked to indoor pollution that has led to health concern in the country.

"NEMA has formulated a draft air quality regulation that outlaws open-burning of waste, stipulates emission limits for incinerators and of recycling of plastic containers and papers," said Wahungu.

Plans are also under way to promote the uptake of cleaner fuels such as Liquid Petroleum Gas (LPG) to reduce indoor air pollution and cleaner cooking stoves and solar lanterns and reduce reliance on kerosene lamps.

The Government has zero-rated duty on solar panels imported into the country to reduce reliance on kerosene lamps and at the same time subsidised rural electrification activities to increase access of electricity in



Carbon emission has increased the rate of air pollution which contributes to the high rate of respiratory infection. Picture: Courtesy

the rural areas.

"The cost of air pollution in African cities can be as high as 2.7 percent of Gross Domestic Product (GDP)," Akumu revealed.

She said that a recent University of Nairobi study on economic loss per year due to vehicle emissions is KSh115 billion (\$1.3 million).

Emit

Carbon dioxide emissions from transport increased 53.7 per cent between 1990 and 2010 in Africa yet cost effective solutions exist.

"It is time for Africa to take advan-

tage of new technologies, monitor the pollution to document impact and progress to be able to take up appropriate measures," noted Akumu.

In Accra, Ghana, pollution is highest in residential, industrial, commercial and road side locations. Roadside and commercial sites recorded highest pollution levels just as the dry Harmattan winds.

Acute Respiratory Illness is second and third place among the top 10 causes of outpatient hospital visit in the country.

In Dar-es-Salaam, Tanzania cement industry, vehicles emissions are

the main sources of pollution.

In Maputo, Mozambique and Nairobi, transport emissions are a major source of air pollution.

In Kenya ambient air quality has deteriorated over the years resulting in increased Upper Respiratory Tract Infections (URTI), which has become a national burden of diseases that reached 31.1 percent in 2012.

A licensing system on emission levels for controlled production of pollution has been put in place. The Government has stipulated emission limits for various types of industries.

"Our biggest challenge is the use of

obsolete technologies given that machines that are currently in operation are far too old," explained Wahungu.

Regulate

So far, the Government is facing challenges on the implementation of air quality regulations, enforcement of the vehicular emission standards, setting up of vehicle emission testing centres and establishment of monitoring system for ambient air quality.

Other challenges include establishment of an emission monitoring system, adoption of cleaner production technologies, provisions to reduce impacts of air pollution and development of a guidelines to minimise greenhouse gases.

The Energy Regulatory Commission has put in place stiff penalties amounting to one million Kenya shillings to discourage adulteration of fuels.

The Government has also embarked on the development of alternative renewable energy sources such as geothermal and wind power.

In the past 10 years, the Government set the age limit for imported vehicles at eight (8) years, phased-out use of lead in gasoline, reduced the standard limit of sulphur in fuel from 10,000ppm to 500ppm and also developed air quality regulations draft to regulate vehicular emission limits as stipulated in the Kenya Standard 1515.

To help decongest Nairobi city centre, the government has completed construction of the Eastern, Northern and Western by-passes, rehabilitated and extend the commuter rail transport within the Nairobi city and is in the process of constructing a standard gauge rail from Mombasa through Nairobi to Kampala, Uganda.

Land registration fails to inspire development among farmers

By ROBERT NYAGAH

Acquisition of title deeds for small scale farms in has not translated to growth in the agricultural sector.

This is according to a study titled "Land Registration and Its Impact on Small Scale Farming in Kenya" by Esther Wangari which concentrated on small scale farmers in Mbeere District in Embu County.

According to Wangari, acquiring a title deed is necessary as it may give security to a farmer and but it is not a sufficient condition for agricultural development.

"Land registration has mainly been seen as providing security and increasing incentives to improve land," says Wangari.

Quoting a past study, Wangari notes that nearly three quarters of the 77 registered people sampled in the study indicated that registration meant increased security of tenure.

Investment

"Majority of those samples indicated that registration gave them rights over their holdings," says Wangari. She adds: "However, people who owned land jointly did not feel more secure a result of registration."

Wangari argues that this was partly due to the disputes they experienced among themselves.

"For example, it emerged that people had not changed their attitudes towards planting permanent trees because of registration," she explained.

"Any increase in investment on the farm after registration was due to a farmer's capacity to invest," says Wangari.

The research notes there was no correlation between security of tenure and investment in

development of land in many parts of Kenya.

It emerges that since small scale farmers produced merely the means of subsistence for their families, they were bound to develop their holdings more productively simply because of land registration.

The study reveals that registration resulted in many people losing rights to cultivate land. In Mbeere region for instance, registration affected communal land use with clan members losing rights to access land freely.

The study confirms that before registration, clan members in Mbeere area were able to utilize communal land and as such, landlessness did not exist especially before land adjudication.

Registration is noted as having brought about the decline of the family and clan leading to increase in selling of land which in essence caused another aspect of disorganisation.

The research established that land registration has not always been followed with some agricultural transformation although small scale farms remained more productive than large farms as a result of intensive labour use.

The implication on this is that increased productivity is translated into high incomes and perhaps more farm employment through hiring of workers for basic labour.

Impact

According to Wangari, landlessness had increased due to individualization once land is registered although that offered a challenge to farmers to improve their methods of production.

Wangari argues that accessibility of farmers to credit would enable them to purchase productivity, increasing technology resulting in an increase in farm output as well as income for

farmers.

"They have the capacity to repay loans because incomes from farming and business are expected to be high even before acquiring credit," observes Wangari.

She found that in the same way conditions of farm managers and their personal contributions are expected to be good and as such, they were in good standing with financial lending institutions.

Education

The study reveals that farmers with education were found to be more receptive to agricultural innovation and more willing to adopt new techniques than uneducated farmers.

However, she notes that one may also argue that this could be so only to a certain extent because "one would expect that the more educated one is, the less time one spends on his or her farm although this would be the case only if the educated person is fully occupied in farming".

Says Wangari: "One could also argue that a person who has gone through, say seven years of primary education is less receptive than a person who has gone through secondary school."

This means that there is a positive correlation between education and agricultural innovation.

While education is a factor which could be contributory to innovation, Wangari found that adoption of new techniques would also depend on various factors. Such factors are costs of inputs, reliability of rainfall, accessibility to new techniques, markets and perhaps a rise on real wages.

"Farmers will adopt a new technique if the costs of material puts such as credit, new seeds, fertilizer and other inputs in agricul-

ture are less expensive relative to labour," she notes.

Wangari clarifies that a new technique was acceptable and profitable to those who paid low wages relative to costs of material inputs.

"The cost of inputs while relatively cheaper to large farmers is rather expensive to smaller farmers and this is because small scale farmers tend to adopt techniques which are labour-intensive," she explains.

The uncertainty of rainfall was noted as a limiting factor to adoption of a new technique meaning that, if for instance, rainfall is not reliable in all seasons, farmers may shy away from increasing output due to risks in crop failure.

Instead, the farmers would be concerned with their means of subsistence and new technique would be accepted if farmers were assured of higher output in average year and few bad years.

Power

Interesting issues also emerged in the research findings with an indication that progressive farmers who were at the same time influential persons who usually enjoy political power to influence resource institutions to cater their needs.

The study done in Embu found out that it was the influential person and civil servant who used their knowledge of the law to acquire greater acreage of land at the expense of the poorer, less influential and less knowledgeable members in the region and the community.

Accessibility to new technology, therefore, determines the pace and direction of innovation in rural areas. Innovation, that is, increase on labour productivity through technical change may have a positive correlation with output increase.

Plastics pose grave danger to environment

By **DUNCAN MBOYAH**

Concern is growing over the threat that widespread plastic waste poses to marine life, with conservative estimates of the overall financial damage of plastics to marine ecosystems standing at \$13 billion annually.

For this reason, Achim Steiner Executive Director United Nations Environmental Programme (UNEP) is asking member states to develop a healthy society and environment by recycling plastic materials.

Recycle

“Plastics have come to play a crucial role in modern life, but the environmental impact of the way we use them cannot be ignored,” said Steiner, who is also a United Nations Under-Secretary General, told a press conference during the first United Nations Environmental Assembly (UNEA) in Nairobi.

He noted that reducing, recycling and redesigning products that use plastics can bring multiple green economy benefits from reducing economic damage to marine ecosystems and the tourism and fisheries industries.

Steiner praised Rwanda for banning the use of plastics bags and urged other states to emulate the East African country.

He observed that young economies are in the process of growing their economic base at a time when climate-change's impact on species and over use of resources is fast affecting their plans.

“There is urgent need for a revolution in the energy sector to help solve the next economies for all nations through development of solar power and new energy saving friendly technology,” Steiner said.

He commended governments for their recent moves towards eradication of lead, mercury and sulphur, noting this was a step in the right direction.

Conserve

“The solution to climate change effect lies with the world leaders who must support new technological development to help conserve the environment,” reiterated Steiner.

On the other hand, Dr Jaqueline McGlade, UNEP's Chief Scientist revealed that 200 million tonnes of debris that enter the oceans every year



Plastic bottles and garbage waste from a village in Timor-Leste wash on the shores of a river and then spill into the sea. Picture:UN Photo/Martine Perret

was causing grievous harm to many unsuspecting people.

She noted this could be arrested if the number of people using firewood was reduced through adoption of new cooking stoves.

In order to solve environmental problems in the world, funding to scientific research. This was said by Oyun Sanjaasuren, first President of UNEA and Mongolian Minister of Environment and Green Development who called on governments to stop dumping of wastes as a way towards saving lives of fish and people who consume the water.

“We should apply success stories in implementing environmental programmes instead of applying the same old habits that are irrelevant,” Sanjaasuren reiterated.

Launching the *UNEP Year Book*

2014 during the UNEA conference, McGlade noted that the overall natural capital cost of plastic use in the consumer goods sector each year is \$75 billion with financial impact resulting from issues such as pollution of the marine environment or air pollution caused by incinerating plastic.

Pollute

The *UNEP Year Book 2014* notes that over 30 per cent of the natural capital costs of plastic are due to greenhouse gas emissions from raw material extraction and processing. However, it notes that marine pollution is the largest downstream cost, and that the figure of \$13 billion is most likely a significant underestimate.

A large and unquantifiable amount of plastic waste enters the ocean from littering, poorly managed landfills, tourist activities and fisheries. Some of this material sinks to the ocean floor, while some floats and can travel over great distance on ocean currents — polluting shorelines and accumulating in massive mid-ocean gyres.

“The 2014 Year Book shows how scientific endeavours and policy actions have led to innovative solutions and vital advancements,” explained McGlade. She added: “It reconfirms the critical role that the environment plays in maintaining and improving the health of people and ecosystems; from well-managed soils and nutrients that underpin food production to the

critical role of biodiversity in protecting human health against the spread of infectious diseases.”

According to McGlade, clean air in our cities prevents the premature death and illness of millions and can save society trillions of dollars.

In 2012, the World Health Organization (WHO) estimated that air pollution led to around seven million premature deaths, and this being one out of eight total global deaths, more than double previous estimates. Air pollution has been noted as the leading cause of environmentally related deaths.

Air quality is deteriorating in most cities where there are sufficient data to make comparisons with previous years.

Illegal timber trade said to be fuelling militia activities

By **DUNCAN MBOYAH**

Illegal timber trade is slowing down the sustainable development of many nations, a report from the United Nations Environment Programme (UNEP) has revealed.

The sustainable development, livelihoods, good governance and rule of law are threatened as significant sums of money are flowing to militias operating in East Africa as the culprits that benefit from the illegal trade in charcoal.

Consume

“The groups make between \$38 and \$56 million per year from the illegal trade in charcoal globally while in East Africa and especially in Somali and Democratic Republic of Congo (DRC) they earn \$111 to \$289 million annually from their involvement in charcoal trade,” says Christian Nelleman, Senior Rapid Response Officer.

Addressing a press conference at

the first United Nations Environment Assembly (UNEA), Nelleman said that 90 per cent of wood consumed in Africa is used for wood fuel and charcoal.

“The unregulated charcoal trade alone involves an annual revenue loss of at least \$1.9 billion to African countries,” he noted.

Nelleman observed that with the current trends in urbanisation and projected growth of over one billion additional people in Sub-Saharan Africa by 2050, the demand for charcoal is expected to triple at least in the coming three decades.

He noted that this will generate severe impact such as large-scale deforestation, pollution and subsequent health problems in slum areas.

The increased charcoal demand will considerably increase the purchasing power of non-state armed groups, including militias and accelerate emissions if left unchallenged.

“Illegal timber activities not only

ravage the earth's fragile biosphere but harm a region's economic, political, and social stability,” said David Higgins, head of Interpol's Environmental Security Unit.

Higgins noted that a coordinated, international response is crucial to combat criminal groups involved in forestry crime.

Risk

According to Achim Steiner, UN Under-Secretary-General and UNEP Executive Director the trade is supported by transnational organisations that must be monitored in the fight against the menace.

Steiner noted that charcoal trade is degrading tree cover in Kenya and other countries. He called for measures towards the introduction of cleaner energy sources.

“The trade is putting Africa's bio-fuel development at risk as it has turned out to be the poor man's revenue,” Steiner explained.

The primary income of the group operating in East Africa appears to be from informal taxation at roadblock checkpoints and ports.

In one roadblock case, they have been able to make up to \$18 million per year from charcoal traffic in Somalia's Badhadhe District.

The overall size of the illicit charcoal export from Somalia has been estimated to be between \$360 and \$384 million per year, the group earning up to \$56 million of this.

Illegal logging and forest crime has an estimated worth of \$30 to \$100 billion annually, or 10 to 30 per cent of the total global timber trade.

For pulp and paper production, networks of shell companies and plantations are used to funnel illegal timber through plantations, or to ship wood and pulp via legal plantations.

These methods effectively bypass many current customs efforts to restrict the import of illegal tropical wood to the United States and Euro-

pean Union

It's estimated that 62 to 86 per cent of all suspected illegal tropical wood entering the European Union and United States arrives in the form of paper, pulp or wood chips.

Reach

Deforestation in Brazil's Amazon reached its lowest level in 2012 since monitoring of the forest began in 1988. It went down by up to 78 per cent, primarily as a result of a coordinated enforcement approach using satellite imagery and targeted police operations.

This was supported by large-scale efforts through Reducing Emissions from Deforestation and Forest Degradation (REDD) and other initiatives to strengthen the participatory processes of indigenous peoples, stakeholders and alternative livelihoods. About 30.6 million tonnes of charcoal was produced in 2012 worth approximately \$9.2 to \$24.5 billion annually.

Road transport a major source of air pollution in urban areas

By HENRY OWINO

Cities in East Africa are expanding at unprecedented proportions and facing sustained population growth, rapid motorization rates, worsening traffic congestion and thus decreasing mobility and increasing health problems.

The transport sector is one of the largest contributors of outdoor air pollution and an important source of carbon monoxide and non-carbon monoxide emissions, such as particulate matter.

According to Jane Wanjiru Akumu, Programme Officer Transport Unit, Energy Branch at United Nations Environment Programme (UNEP), up to seven million deaths occur per year globally as a result of these emissions.

According to Akumu, in Africa, 600,000 are due to indoor while 176,000 are due to outdoor emissions.

"Road transport remains the primary source of urban air pollution in many countries, contributing as much as 80 per cent of urban air pollution in some cities. In Nairobi, Kenya, the current number of vehicles is expected to double in the next two years hence more congestion and air pollution anticipated," Akumu explains.

Emissions

She notes that second hand cars and trucks fitted with obsolete technology and fuelled with high sulphur fuels contribute a significant portion to local emissions from transport. In addition to these are factories and industries with big chimneys polluting the environment.

Akumu regrets that despite concerns over the impacts of current pollution levels, road transport emissions are projected to increase sharply over the next 30 years. This is due to the expected growth in vehicles ownership worldwide resulting to between two and three billion vehicles by 2050. This will be triple the current number of fleets in the world.

"Surprisingly, majority of these will be found in developing and transitional countries in Africa as incomes grow and consumption patterns change," Akumu explains.

Generally, vehicles, both petrol and diesel emit a number of pollutants that affect air quality, including nitrogen and sulphur oxides as well as particles, carbon monoxide and hydrocarbons.

Research has increasingly focused on air-borne small particulate matter due to its disproportionate effect on human health. Health effects associated with fine particulate matter in the air can be inhaled deep into the lungs eventually causing premature death and aggravation of respiratory and cardiovascular diseases.

Impact

"Air pollution has no immediate health impact but it has a gradual infection that is very expensive to treat. The fumes inhaled is the same as smoking at least 10-20 cigarettes per day," Akumu cautions.

A fraction of fine particulate matter is black carbon (soot), which is an important contributor to global climate change. Carbon dioxide (CO₂) is the primary greenhouse gas emitted through human activities. Therefore lowering particulate matter emissions from cars and trucks will help to reduce health effects and global warming.



A heavy traffic jam in Nairobi. Road transport has been noted as a major cause of air pollution in urban areas. Picture: Henry Owino

"There is need for modern efficient jikos that uses few firewood or charcoal with less smoke since technology is making life affordable and cheaper," Akumu advises. She adds: "Houses should be well ventilated to allow in fresh air."

People living in urban areas with constant air pollutions; suffer frequently from respiratory infections and heart diseases, a situation that reduces their life span. For example, Athi River residents in Machakos County are more likely to suffer from such ailments compared to the residents of Ngong in Kajiado County. This is because there are less factories and traffic emitting poisonous fumes in the atmosphere hence cleaner air is inhaled.

Health

Leaded petrol is responsible for at least 90 per cent or more harm to human beings and even other animals. Lead poisoning causes retarded mental and physical development, reduced attention spans, increased blood pressure, hypertension, higher risk of cardiovascular disease and premature deaths.

The World Health Organisation (WHO) estimates that 15-18 million children in developing countries suffer from permanent brain damage due to lead poisoning. This is one

of the causes of many children born with autism, a brain problem that can make it hard for children to communicate. While others would perform averagely in academics yet score dismally at national examinations.

In 2002, at World Summit on Sustainable Development in Johannesburg, South Africa, a campaign to eliminate lead in petrol was launched. Its partners include governments, international organisations, industry and non-governmental organisations. Currently, it has 120 partners who came together to form the Partners for Clean Fuels and Vehicles (PCFV). This global public-private initiative promotes and supports better air quality in developing and transitional countries through the introduction of cleaner fuels and vehicles.

The Partners for Clean Fuels and Vehicles is the only global-scale efforts dedicated to cleaner air and lower greenhouse gas emissions from road transport through introduction of cleaner fuels and vehicles.

The Partners for Clean Fuels and Vehicles launched a global campaign to eliminate leaded petrol in Sub-Saharan Africa by end of 2005. Once this was achieved, focus shifted to the rest of the world. The global campaign has been successful and 99.9 per cent of the petrol produced for vehicles

worldwide is now unleaded.

In 2011 only six countries still use small amounts compared to the 82 countries that were leaded in 2002 when the Partners for Clean Fuels and Vehicles was formed. These are Myanmar, Iraq, Afghanistan, Algeria, Yemen and North Korea.

The Partners for Clean Fuels and Vehicles UNEP-based Clearing House implemented activities to support the elimination of lead petrol, which included; regional, sub-regional and national meetings; research studies like blood lead level testing, ambient lead monitoring, soil and food testing; awareness raising, media campaigns; Partners for Clean Fuels and Vehicles publications, website, technical expert support; and monitoring mechanisms to determine progress and compliance.

Benefits

Technologically, the use of lead in petrol prevents the introduction of vehicles with emission controls like catalytic converters that have been shown to reduce harmful emissions by 50 -90 per cent.

Economically, emerging research places the economic annual benefits

of lead elimination in petrol at over \$900 billion in Asia, while in Africa benefits are close to \$100 billion. The global benefits are over \$2.45 trillion per year, equivalent to four per cent gross domestic profit (GDP).

Socially, it has lowered crime rates with up to 58 million less incarcerations; higher intelligent quotient (IQ) as using unleaded petrol means avoiding the global loss of 320 million IQ points per year in children.

The Partners for Clean Fuels and Vehicles is also supporting counties to develop and adopt cleaner and more fuel efficient vehicles policies that will contribute towards national and global air quality improvements and mitigation of carbon dioxide emissions.

Possible policies include emission standards, fuel economy standards, legislation to regulate importation of used vehicles, carbon dioxide vehicles or fuel economy labelling and fiscal incentives that favour fuel efficient vehicles.

Currently, the Partners for Clean Fuels and Vehicles is implementing a goal campaign to move to low sulphur fuels worldwide. Reducing sulphur levels in fuels to 50 or even 10 parts per million (ppm) in developing countries. This would be a major step towards reducing vehicle emissions.

High sulphur fuel, particularly diesel fuel, is a major source of particulate illness and increased mortality. Diesel fuel sold in some developing countries can have sulphur levels as high as 10,000ppm, whereas most developed countries have below 50 ppm.

In addition, modern vehicles and buses have built-in pollution reduction technologies that require low sulphur fuels to function effectively.

"Air pollution has no immediate health impact but it has a gradual infection that is very expensive to treat. The fumes inhaled is the same as smoking at least 10-20 cigarettes per day."

— Jane Wanjiru Akumu, Programme Officer Transport Unit, Energy Branch at United Nations Environment Programme (UNEP)



Disinheritance of widows to blame for increased HIV infections

By **DUNCAN MBOYAH**

An unlawful action against women's right to land ownership is to blame for the upsurge of HIV infections along the shores of Lake Victoria in Western Kenya.

Discrimination, and disinheritance, which are psychological forms of violence, has left women in this region vulnerable and at a higher risk of getting into sex slavery and disease infections.

According to Nelson Otwoma, the National Empowerment Network of People Living with HIV/Aids in Kenya (NEPHAK), many widows relocate to the beaches in search of shelter after their in-laws stripped them of all property.

Prevalence

While the law of Kenya protects widows from being disinherited, the women themselves are not aware of their rights. They also do not have a place to turn to for support due to ignorance.

"The increase in HIV and Aids cases is as a result of these women who resort to having relationships with fishermen as they look for income," said Otwoma during the Governor's First Ladies meeting in Nairobi.

According to the National Aids Control Council (NACC) nationally, HIV prevalence is 5.6 percent, but this varies regionally with the highest being Nyanza at 15.3 percent and the lowest being North Eastern at less than one percent.

Land has been at the centre of many

controversies in Kenya. While there existed a law, customs, religion and practices relating to land and property that discriminated the vulnerable and marginalised in society, things are changing.

The Constitution acknowledges that men and women have equal rights to land, but the day-to-day reality is very different as women are often denied their rights, chased away and their property taken over by their in-laws. Many cultures have denied women the right to acquire, own, inherit and transfer land.

According to Otwoma, women who are disinherited do not know that they can look up to human rights activists and organisations to come to their rescue. He urged women leaders at the County level to help protect widow's property ownership for their good and that of their children.

"Traditional practices which assign land titles and inheritance to males must be discouraged if the fight against HIV and Aids is to be won," Otwoma noted.

Propel

Disparity in access to land is one of the major causes for social and economic inequalities between males and females in rural areas. This situation jeopardizes food security at the household level and has an impact on national food security and development, often leading to high levels of domestic gender violence.

Otwoma observed that the adoption of circumcision by communities that do not originally circumcise, use



A woman carrying clothes after washing on the shores of Lake Victoria. Women who have been disinherited end up at the beaches where they trade sex for fish in order to earn some money.

Picture: Courtesy

of condoms and provision of anti-retroviral has helped reduce deaths of HIV Aids positive Kenyans. They are about one million of them.

He called on the County governments to be sensitive and increase the budget for HIV and Aids instead of concentrating their allocations on infrastructure and education.

According to the Kenya Demographic and Health Survey (KDHS) 2008-2009, eight percent of women are infected with HIV. The KDHS indicates that the social and economic background of a woman has a bearing on her chances of experiencing physical violence. The prevalence of physical violence generally increases with the age of a woman as well as with the number of living children she has.

In many societies, including Ke-

nya, women are socialised to accept, tolerate, and even rationalise domestic violence and to remain silent about such experiences even when they are being denied what is rightfully theirs.

According to KDHS 60.3 per cent of women who are divorced or widowed have experienced violence since they were 15 years old.

Kenya is ranked fourth in the world on the number of women with HIV and Aids. Worldwide, Kenya registers one of the highest disparities in HIV prevalence between males and females; and with a female-to-male prevalence ratio at 1.9 to 1. This is higher than that found in most population based studies in Africa.

In urban populations prevalence among women is three times more than men (approximately 10 percent

compared to 4 percent).

"The new infections that today stand at 59 percent is coming from seven Counties that includes Homa Bay County that is leading in HIV Aids prevalence in the country," said Prof. Fred Segor, Health Principal Secretary in an interview.

Engage

Prof. Segor named the remaining Counties as Kisii, Siaya, Kisumu, Migori, Mombasa and Nairobi adding that plans are underway to engage with the local residents in controlling the spread of infection.

Sexual transmission is the primary driver of Kenya's epidemic. Various social factors-such as gender inequality, sexual violence and anti-HIV stigma - increase HIV risk and vulnerability.

Refugees, IDPs living with HIV facing discrimination

By **DUNCAN MBOYAH**

Refugees and internally displaced persons living in stable settings should have free access to HIV treatment and supportive services.

Researchers from the London School of Hygiene and Tropical Medicine and the United Nations High Commissioner for Refugees are appealing to governments to avail Anti-Retroviral Therapy (ART) in convenient locations through decentralized networks of clinics and pharmacies.

Deliver

"Anti-Retroviral Therapy vaccines should be delivered directly to clients who are unable to access medication on their own," said Dr Joshua Mendelsohn, senior Researcher at London School of Hygiene and Tropical Medicine in a statement.

He noted that available evidence suggests that refugees and internally displaced persons in stable settings can sustain high levels of adherence to anti-retroviral therapy as well as viral suppression and should have the same level of access to HIV treatment and support as host nationals.

Mendelsohn noted that HIV treatment should be offered to all refugees and internally displaced persons who meet national guidelines. Routine adherence monitoring systems should be set up, and point-of-care laboratory

monitoring should be implemented wherever feasible.

He observed that few would rationally argue that challenges to provision of life-saving treatment should be addressed by denying access.

"Since Anti-Retroviral Therapy can help prevent transmission of HIV to sexual partners, it is in self-interest of governments that host refugees and internally displaced persons to support programmes that serve all populations within their borders to the highest possible standard," Mendelsohn reiterated.

During the 2008 post-election violence in Kenya, an otherwise stable setting, people on Anti-Retroviral Therapy appeared to have difficulties locating where to access treatment.

Unstable

During this period of instability, 16 percent of clients on Anti-Retroviral Therapy interrupted their treatment, as compared with 10 percent during a stable comparison period and mortality rates increased.

In stable settings at increased risk for disruption, the potential negative effects of treatment interruptions may be lessened if the period of disruption is short with strong contingency plans in place for ensuring continued access to treatment. People on Anti-Retroviral Therapy should also have been educated on how to best manage their

treatment in these challenging circumstances

"For people living with HIV and AIDS, treatment with Anti-Retroviral Therapy can result in viral suppression, normal life expectancy, and reduced HIV transmission," noted Dr Paul Spiegel, United Nations High Commissioner for Refugees Public Health and HIV expert.

Impact

Spiegel reiterated that to realise these benefits, persons living with HIV require regular access to medications and supportive services. Within conflict-affected settings, there are unique challenges to providing, accessing and adhering to Anti-Retroviral Therapy.

"An estimated 1.5 billion people live in countries impacted by violent conflict and 45.2 million are forcibly displaced as a result of persecution, conflict, violence and human rights violations," observed Spiegel.

In 2006, 1.8 million people living with HIV were affected by conflict, disaster, or displacement. Almost half of countries (7/15) with the largest number of people living with HIV were affected by a major conflict between 2002 and 2006.

"Conflict-affected persons reside in areas of recent or active conflict, or in a post-conflict camp in urban or rural setting and may be accorded unofficial status depending on their situation,"

Spiegel explained.

In a stable refugee camp like the Kakuma in Kenya, considerably lower proportions of about 50 percent overall of both groups on treatment were virologically suppressed.

This discrepancy may have been due to unverified adherence lapses, background levels of drug resistance or high ambient medication storage temperatures.

These evaluations, in combination with evidence from other settings, suggest that treatment outcomes among stable refugees or IDPs and host nationals are similar when treatment and support is accessed from a shared clinic.

Support

Similar levels of viral suppression should be expected although more challenging settings will require more intensive and specialised support for all population groups. Even in stable settings, disruption may still occur.

"To this end, donors, health care workers and hosting countries should collaborate on strategies for expanding access and providing the necessary supportive services. First, treatment should be offered to all refugees and IDPs who meet national guidelines," Spiegel reiterated.

Despite the known effectiveness of Anti-Retroviral Therapy, some governments may be reluctant to provide

it to these groups owing to a misplaced belief that starting or continuing them on treatment may make it difficult for them to return home. They also argue that Anti-Retroviral Therapy may serve as a pull factor that draws additional refugee claimants to the country.

Refugee status is available to individuals with a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of a person's nationality.

However, the majority of hosting countries — 88 percent — provide equitable access to Anti-Retroviral Therapy for refugees and IDPs. The UNHCR has not noted such a pull factor and international humanitarian law entitles refugees to this level of access.

Spiegel stressed that governments must scale-up HIV counselling and testing to all who are eligible and give them a chance to initiate Anti-Retroviral Therapy at the optimal time and help save lives as well as reduce costs by increasing survival and reducing HIV transmission.

"Appropriate measures must be taken to ensure that key populations like men who have sex with men, people who inject drugs, transgender persons and sex workers within refugee, IDP, and host community groups also receive equitable access to treatment and testing," Mendelsohn observed.

Youth get space to experience their talent in art



By MARY MWENDWA

Renowned award-winning Kenyan photojournalist is making waves in a venture to identify and empower the youth in a unique way.

No longer do the youth who are talented have to continue complaining because Boniface Mwangi has started an outfit to cater for them.

The project was informed by the realisation that youth in artistic work in most developing countries encounter a myriad of challenges which at times see them lose their talent because of low self-esteem and drug abuse among other vices.

Mwangi has come up with PAWA254, a unique social enterprise and creative hub that empowers artists to grow professionally and create work with a strong social message.

This outfit has become a safe haven for a variety of events, workshops, classes, debates and discussions that provide insight, skills, mentorship and a supportive creative network for all types of aspiring and professional artists.

Resume

According to Mwangi, PAWA254 also offers a dynamic space rental programme in which community members may use any of its versatile creative work spaces including film screening rooms, a photo studio, quality office space as well as an open and funky rooftop on top of creative opportunities.

Mwangi, who has worked for several media houses as a photojournalist, has also become a

PAWA254 offers a dynamic space rental programme in which community members may use any of its versatile creative work spaces. Inset: Boniface Mwangi an award winning Kenyan photo-activist and founder of PAWA254. Picture: Mary Mwendwa

household name because of his social-political activism under the banner, *Kenya Ni Kwetu* (Kenya is our Home).

He made a name with his world exclusive photos of the post-elections violence in 2007-2008 that hit the country following disputed presidential elections.

The Nairobi-based lobby tries to enable a patriotic citizen's movement to take bold and effective actions in building a new Kenya.

Mwangi is also the founder of *Picha Mtaani* (Photos in the Neighbourhood), a youth-led peace initiative that primarily seeks to create space for young people to reconcile and become agents of reconciliation within respective communities.

According to Brianna Roberts, Marketing Manager PAWA254, they are involved in a number of engagements. These include hosting weekly public debates and discussions; film forums and poetry readings.

PAWA254 is also frequently hosting specialised workshops in graffiti, creative-writing, journalism, photography and script writing.

Says Roberts: "Our weekly events include: #PawaSalon is a forum that gives a professional or pioneer in a creative industry a platform to share with other professionals, students and general enthusiasts' hands-on skills, knowledge and insight into their creative industry work."

Initially, PAWA254 was primarily focused on photography but have since branched out into other avenues such as performance art, writing, poetry, fashion, music, illustration, design, film-making, videography and graffiti.

Focus

The editions are well documented on both their blog, social media (via the hashtag #PawaSalon) and on YouTube occasionally.

Joan Kabugu, an upcoming filmmaker says of PAWA254: "I must confess that my career has scaled up through the forums at PAWA254. I have connected with professionals in my line of specialisation; film, and as a woman competing in a space where few have ventured, I am glad that I am part of PAWA254."

One unique forum is where Kenyan poets meet and promote performance art and poetry in the country. In that platform dubbed: "Fatuma Voice", youth meet to talk about the evils taking place in society and how they can solve them, their hopes for the future, their life experiences as well as networking, hence expanding their social circles.

"We do this through poetry, live music, motivational talks, and open forum discussions where people air their views on a certain chosen topic of the day. This is done every Friday evening accompanied by heated debates, laughter, deep poetry and soothing music. At



KSh100 per person as entry fee, people get to enjoy this kind of art every Friday from 4.00-7.00 pm at the Pawa Hub."

Profile

Leading professional photographers, filmmakers and multimedia producers in high profile spaces get to showcase their work and interact directly with audiences during social screening at PAWA254.

"That allows young talents to connect and learn from the professionals," says Roberts

With the help of its founder, PAWA254 plans to expand to other neighbouring African countries to become a regionally recognised arts and activism organisation.

Calls for a change in direction for the boy child

By JOSEPH MUKUBWA

The International Day of the Boy Child was recently marked in Nyeri County with calls from all areas urging the Government to address challenges facing the boy child in the country.

Speakers at the event held at Baden Powel grounds in Nyeri town urged the Government to address issues affecting the boy-child including drug, substance and sexual abuse.

Maendeleo Ya Wanaume Organisation chairman, Nderitu Njoka

urged the Government and political leaders to lay down structures to eliminate drugs, alcohol and substance abuse.

Declare

"We are declaring here that drugs, alcohol and substance abuse are a national disaster and the Kenyan National Assembly should formulate a policy and pass regulations against it," said Njoka.

He noted the need to address the plight of the boy child so as to gain back his lost glory and dignity for the well-being of the society and himself.

"It is time to say no to retrogressive cultural practices. Circumcision ceremonies with one knife are now over. This has increased the rate of HIV infections and must be replaced with safer methods which the government of the day should promote," Njoka said.

He added time had come to declare war on pornography amongst children. "This has been a challenge to morals, customs and values. We are declaring today that pornography is a national disaster," he reiterated.

Njoka also noted that time for the

male child to stop rearing livestock at the expense of education was long overdue and child labour amongst male children is rampant with more parents abusing their sons by relegating them roles of the man of the house.

Plight

"Many boys have joined menial jobs like luggage carriers, hawking food and working in farms at the expense of their education," Njoka noted.

He lamented that there was an increased number of street boys who

should be removed and rehabilitated.

Major counties like Nairobi, Mombasa and Kisumu have recorded over 13,000 boys living in the streets.

"This is a time bomb and they are gangs and thugs in the making. We cannot curb terrorism, robbery and sexual abuse among all manner of crime if we continue to ignore the plight of the boy-child," he noted.

Njoka stressed the importance of the boy-child in having equal opportunities with the girl-child adding that equality should mean equal access to education.

Malnutrition among children linked to violence

By MARY MWENDWA

Domestic and sexual violence against women is a global problem, and young children are disproportionate witnesses.

While violence will affect individual survivors differently, it is noted that violence against women has not only psychological effects on their children but their health also tends to suffer. Therefore, children's exposure to domestic violence predicts poorer health and development.

According to the Kenya Demographic Health Survey (KDHS) 2008-2009 violence of any kind has a serious impact on the economy of a country; because women bear the brunt of domestic violence, they also bear the health and psychological burdens.

Risk

Experts warn that children of women who have undergone Gender Based Violence (GBV) especially in conflict zones have high chances of suffering from malnutrition.

According to the United Nations High Commission on Refugees (UNHCR), more than 80 per cent of populations in refugee camps are women and children. Frequently in armed conflict, access to food at the household level is seriously impaired and there is a reduction in both the quality and quantity of food available to the household. There is also an increased instability and uncertainty in the food supply.

Refugees and internally displaced people are at greater risk of GBV and sexual abuse because of the cycle of poverty and helplessness that characterises their situation. Rape is used as weapon of war as found in African countries. During conflict women also find it difficult to leave their

homes to go and look for food for their children, a factor that will affect their feeding and growth eventually leading to malnutrition.

Experts say that when women face GBV of any form, their self-esteem is lowered and many times they are not able to give full care to their children. The injuries they have suffered may also bar them from fulfilling their roles as mothers, forcing them to leave the children starving, not breast fed or totally hungry for a number of days as they recover.

Other than the mother losing self-esteem and being not in a proper mental condition to take care of the children, domestic violence also affects household food and nutrition security.

According to Manaan Muma, a nutritionist at Kenya Aids NGOs Consortium (KANCO) immediate causes of malnutrition include inappropriate dietary intake, primarily among young children and high a high disease burden.

She adds: "Most Kenyans still rely on diets composed primarily of staple foods that are not sufficiently diverse in micronutrients, comprising of growth and development that is worse in refugee camps where there is not enough food and many people are depending on aid."

Malnutrition remains the underlying cause of deaths of nearly half of all under five child deaths. Addressing GBV which contributes to malnutrition, will save lives, reduce inequalities and build strong and resilient individuals, families, communities and populations.

Discrimination

The Convention of the Elimination of all forms of Discrimination Against Women, the Universal Declaration of Human Rights, the comprehensive



Children playing in Isiolo. Children who have undergone Gender Based Violence especially in conflict zones have high chances of suffering from malnutrition. Picture: Mary Mwendwa

African Agriculture Development programme of the New Partnership for African Development (NEPAD) and Millennium Development Goals (MDGs) identify at least nine strategic objectives which include, improving knowledge, attitudes and practices on optimal nutrition, strengthening nutrition surveillance, monitoring and evaluation systems and improving nutrition in Arid and Semi-Arid Lands (ASAL) populations where many refugees are found.

Women are usually the immediate victims of GBV; the consequences of gender violence extend beyond the victim to the society as a whole. Gender violence threatens family structures; children suffer emotional damage when they watch their mothers and sisters being battered; two-parent homes may break up, leaving the new female heads of household to struggle against increased poverty and negative social repercussions.

When women die they leave behind families and children. Older children will drop out of school to look after younger babies. It is this devastating cycle of poverty and lack of access to basic rights that causes malnutrition in families,

Given the global burden of child malnutrition and its long-term effects on human-capital formation, improving child growth and nutrition may be another reason to prevent domestic violence and its cascading after-effects.

Education

Psychological scars often impede the establishment of healthy and rewarding relationships in the future. Victims of gender violence may vent their frustrations on their children and others too, by transmitting and intensifying the negative experiences of those around them. Children, on the other hand, may come to accept

violence as an alternative means of conflict resolution and communication. It is in these ways that violence is reproduced and perpetuated.

KDHS 2008-2009 reveals a mother's level of education generally has an inverse relationship with stunting, wasting and severe wasting. For example children of mothers with at least some secondary education have the lowest stunting levels while those of mother who have no education or incomplete primary education have the highest levels of stunting.

Women in refugee camps usually have little education, an example is women from South Sudan and Somali, this puts a risk of malnutrition to their children as they have less knowledge on the kind of diet their babies need. Some of these women do not exclusively breastfeed for some reason; breast milk is believed to give a baby the most needed nutrient during the first six weeks.

Family conflicts leaves girl susceptible to incest

By CAROL KORIR

Esther Mugambi, a mother of two lives in constant fear after a misunderstanding with her husband left her shattered and her six year old daughter at risk of abuse.

"It all began two years ago when I accidentally got pregnant for the second child. My husband stopped providing for us but somehow when I was almost giving birth he changed but throughout that period till now he has denied me my conjugal rights," says Esther.

Although she has learned to deal with the situation, Esther is struggling to comprehend another challenge which involves her daughter.

"For a very long time we have not been sharing the same bed but this did not worry me until my husband bought another bed and started sharing it with my daughter," says Esther. She says: "I am not comfortable with this at all. As much as I know he loves his daughter, with the gap between me and him if he has no 'mpango wa kando' (extramarital affair) then one day I will not be shocked to learn he has been sleeping with my daughter."

Esther's husband did not want her to get

any job. However, because she needed to provide for her children, she decided to disobey him and get a job.

"I talked with one of my neighbours to allow her house girl to take care of my kids too," she explains.

Esther notes: "Since I began working he does not provide for us. Whatever he brings back home he only gives our daughter leaving me and my small son out."

These actions have left Esther unsettled and the fact that she works late makes her feel that the young girl is not secure with her father.

"I work in a salon in Eastleigh and many days I work until 8pm and because I have to save something I normally walk all the way to Bahati," Esther explains. "On many occasions when I get back home, I find my daughter already with my husband alone in the house."

She notes: "My daughter never waits for me to pick her up from the neighbour's place. She goes back home alone when it ticks 5 o'clock. Even though she might be still innocent, she is too exposed."

She is also worried that the conflict is affecting her daughter emotionally. "My daughter at times asks me 'why do you and

papa quarrel' every day?"

Esther is between a rock and a hard place. While she would have loved to take her daughter to her parents' home, her mother is not there having died sometime back.

"I am an only child to my parents. My mother died a long time ago, and if I took my daughter back home, it would mean leaving her in the hands of my father," she says.

She is not comfortable with this idea either given the rising cases of defilement perpetrated against children by close relatives.

Esther's situation is just one of many agonies of that women face. She is not fully assured that her child will be safe in the neighbourhood or even in her own home.

What rings in the mind of many when it comes to Gender Based Violence (GBV) are rape, wife battering and assault.

However, children also end up becoming victims in the mix up.

According to a report by CRADLE that was launched in 2010, in July 2011 of the 60 per cent of all crimes against children, 77 per cent were rape and defilement cases.

The report noted that 34 per cent of the perpetrators were neighbours, 15 per cent fa-

thers, 10 per cent uncles and seven per cent teachers.

The report notes that the most vulnerable children were those between seven and 17 years.

According to the Kenya Demographic Health Survey 9 (KDHS) 2008-2009 there is a culture of silence surrounding GBV that makes collection of data on this sensitive topic particularly challenging. Even women who want to speak about their experiences of domestic violence may find doing so difficult because of feelings of shame or fear.

It notes that women whose age at first sex was before age 15 are more likely to report that their first intercourse was forced than those who initiated sex at an older age. The survey reported that 22 per cent of those interviewed said they had their first sexual experience before age 15.

A taskforce on the Implementation of Sexual Offences Act headed by retired justice Effie Owuor while giving a progress report in 2011 noted that 70 per cent of cases involving sexual abuses were thrown out they involved children who many times though they knew the perpetrators could not testify.

Higher standards set for community health volunteers

By HENRY KAHARA

Of late, many villages have come to appreciate the services being offered by retired health professionals.

However, the Community health workers operating under the unit of Community Health Services will now have to work harder and better after the establishment of community health service standards.

Speaking to journalists in Nairobi, Prof Miriam Were, goodwill ambassador for Kenya Community Health Service, noted that standards will help people know whether the workforce is doing the right thing.

"We have developed standards which will help us to measure services," said Were, who lamented that for long people have not been taking health volunteers as professionals.

Standard

"Just because there are no standards to regulate them some people think they are quacks. Standards will help the community appreciate their work," stressed Were.

The key rationale for having standards in community health service. At the moment, community health volunteers have to be trained before they are enrolled.

One of the values of having standards for community health services is to strengthen the professional context in which it is practiced.

The standards will also ensure that all community health workers working in different areas have a similar framework.

Were urged the Government to employ more workers to the health



service noting that it was the only way to achieve a healthy nation.

Currently Kenya has 2,963 community health workers who work for only two hours in a day and the country looks forward to having at least 9,726 to cover the entire nation.

Preference

"They are not officially employed because at the end of month they are given just a small token to appreciate their work," observed Were.

According to Were, most people who are far from their residential areas rarely go to hospital when they fall sick. Many of them prefer taking medicine at home to relieve pain. This makes the problem to get worse and expensive to treat.

"Many Kenyans in rural areas are forced to walk for many miles before they can access a hospital," Were noted.

Statistics show that only 48 per cent of Kenyans enjoy health services at their door step and this is within a minimum of five kilometres from their home.

Universal declaration of human rights says that every individual is supposed to be at least five kilometres away from a hospital.

Allocate

"Many people will opt to stay in the house rather than walk for miles to treat a headache but if the Government can employ a bigger community health workforce or volunteers, they can solve some of the problems," noted Were.

For now the unit of community

"Many people will opt to stay in the house rather than walk for miles to treat a headache but if the Government can employ a bigger community health workforce or volunteers, they can solve some of the problems,"

— Professor Miriam Were, goodwill ambassador of Community Health Service in Kenya.



Rosemary (In black t-shirt) with her children at her house in Siaya. Far right is Caroline the Huduma Poa Community health volunteer who counselled her. More women are now delivering in hospitals in Siaya County. Picture: Courtesy

health services is urging County governments to allocate more funds to the health system.

According to Ambrose Juma, a health practitioner in the Unit of Community Health, health workforce and or volunteers is the links between community and health workers.

Most problems people suffer from can be dealt with if diagnosed earlier and at a cheaper price but that can only be done if there is a link between the community and doctors.

"The link can only be with health volunteers," says Ambrose. He adds:

"Some people still shy away from exposing some problems which can be treated with a doctor's early intervention.

"We have seen people avoiding health centres yet they are very close to them. That is why we want to empower more people so that they can go and preach the message," explained Juma.

According to Jane Koech, from the Unit of Health Service, many women do not go to deliver in hospitals despite the waiver of maternity fee payment by the Government.

Koech notes that many women are ignorant and that is why they do not attend clinic for ante-natal and this has led to a high number of maternal mortality deaths.

A pregnant woman is supposed to attend four clinics before delivery. This helps the doctor to prepare her in case of any complication during delivery.

Koech noted that even immunization was still a problem among many women, especially at the grassroots.

"If we want to achieve Millennium Development Goals four and five that

seek to reduce child mortality and improve maternal health, we need to have health service providers. These are the people who interact with the rest at the grassroots level and help them to make informed decisions," explained Koech.

Dialogue

At the moment, the country has 2,100 employed community extension health volunteers. According to their guidelines, community health volunteers must have a monthly dialogue with the people of the area they are representing.

Since the Health Sector Strategic Plan of 2006-2010 was launched, these professionals have been recognised as level one of the foundation of Kenya's national health system.

Indeed, community health services are very important because they provide first aid and are first line curative system, health promotive behaviour and disease preventive activities. They are also the social determinants of health and use of services at health facilities.

Students come to the rescue of family tormented with jiggers

By MUSA MARANGA

A true picture on jigger infestation menace in Nyamira County is unfolding barely a few days after, Naomi Nyagarama, Nyamira County First Lady challenged the local community to admit its existence and assist the fatalities when the media highlighted.

Nyagarama was speaking in the county after she visited orphaned and vulnerable children who had been assisted by students from Sironga County National Girls' School who had earlier stepped in to assist the eight children massively infested with the jiggers after they requested to see them.

Assistance

The girls had sought assistance from school management to accommodate the victims for day where they bathed and provided with food and clothes besides giving them love.

Four children from Bomwagamo Ward had been abandoned by their mother while the others were total orphans.

More than 1,000 students decided to forgo part of their meals and donated items worth KSh700,000.

They further teamed up with Mrs Nyagarama and teachers in contributing a total of KSh800,000 in aid of the children.

According to Hellen Nyabuto, the school principal, the students vowed to attend to the vulnerable children as they continued with their formal education and requested to interact with them once a month at a church service.

Nyagarama, who led a campaign against the menace visited the children at the school and announced her commitment to eradicate the menace within six months.

She commended the girls for maintaining high standards of hygiene at schools and homes. She praised the students and school's teaching fraternity for their practical acts of charity and urged residents, the church and local leadership to follow the same path.

The county government has also not been left behind in stamping out the jigger menace that has afflicted poor and vulnerable families.

In partnership with the Red Cross and AHA-DI Kenya Trust, Nyamira County noted that remarkable achievements had been realised.

According to John Nyagarama, Nyamira County Governor there is need for well-wishers to support the county in eradicating the

jiggers. "The national government has been at the forefront to champion and sensitize the members of the public and the county government cannot be left behind," said Nyagarama.

He noted that the county had put down modalities in place to monitor villages which were hardest hit.

Orphans

In Bomwagamo Ward more than 100 children could not attend school after they were infected. Most of those facing jigger manifestation are total orphans who dropped out of school due to stigma.

"Eight children from one family from the ward had sought intervention from the Governor's office," Nyagarama said.

He said plans were underway to empower some officers of Red Cross with a motorbike each to enable close monitoring in of the wards.

Dr Janet Ondieki Member of county executive in charge of Health, said plans were underway for proposals to declare the menace a county disaster in order to deal with it effectively in the county assembly.

She decried the overwhelming numbers of

those affected with the menace and said measures had been put in place to sustain the fight against it.

According to Julius Obonyo, Member of the County Assembly in charge of Bomwagamo Ward, challenges being faced with orphans could not be addressed minus funds. He promised to table a motion in county assembly, which will cater for vulnerable children in the county.

The 57 year old Mzee Bernard Nyangau who is the orphans' grandfather thanked the county and National government for the support. The county government catered for medication and offered foodstuffs, clothing and footwear for the children.

Nyangau's daughter Linet Kwamboka fled her home after she bore four children who she could not support leaving the burden to her father.

Dr Evans Obare challenged Nyamira County residents to observe cleanliness in their homesteads for them not to be affected with jiggers. Community health workers have been put in every ward to spray affected homes and to monitor closely the affected members.

Myths and misconceptions hinder immunisation endeavours

By HENRY OWINO

The government has made every effort to ensure Kenyans are immunized against diseases that could be fatal or dilapidating.

However, it is not all smooth sailing as these efforts through the Ministry of Health are being frustrated by myths as well as religious and cultural beliefs.

The vaccinations that are being administered for free to all children under the age of five in public health facilities have also been extended to other public amenities where accessibility may be difficult.

However, there is resistance to this noble cause by the public due to strong social cultural beliefs and myths that the immunizations are bound to sterilize children.

The misconception of such information has spread across communities making it difficult to reach every child. Some parents literally run away with their children the minute they spot vaccinating teams.

The door to door campaigns have proved very difficult for health workers who are at times forced from the public anger.

Challenges

In Alego-Usonga, Ugenya and Ugunja constituencies in Siaya County, parents literally locked up their young ones during the polio vaccination campaign to avoid the immunisation being administered to. Surprisingly, most of these parents are aware of the importance of the vaccination with some of them spotting the conventional vaccination scar.

Apart from sterilization and infertility, the myths and misconceptions surrounding immunizations are so deeply ingrained.

In other counties, parents were arrested and charged in court for denying their children the right to health. Article 43 of the Constitution of Kenya 2010 stipulates that every person has the right to highest attainable standard of health, which includes the right to health care services.

According to Dr Evans Amukoye, a vaccine is an agent that resembles a disease-causing micro-organism which is made from weakened or killed forms of the microbe, its toxins or one of its surface proteins.

"The agent stimulates the body's immunity and 'remembers' it so that the immune system can more easily recognise and destroy any of these micro-organisms that it later encounters," explains Amukoye. He adds: "In short you become protected from these organisms."

Hand washing and clean water help protect people from infectious diseases. Many infections, like rotavirus, can spread regardless of how hygienic one attempts to be.

"If we stopped vaccination there will be upward surge of diseases such as polio and measles that are now



fairly rare," says Amukoye.

According to Amukoye people perpetuate lies even if they are not the original creators out of ignorance or carelessness.

Amukoye notes that it is difficult to determine whether facts are falsified deliberately or out of ignorance. He reiterates that whatever the case, it is important to set the record straight when distortion of facts perpetuates a lie especially where lives are at stake.

Trend

"Natural infection can result in death, blindness from measles, mental retardation from Haemophilus influenzae type b (Hib), birth defects from rubella, liver cancer from hepatitis B virus or death from measles," says Amukoye.

He recalled that in 1992, there were 560 cases of Hib disease notified in Australia but in 2006-2007 after introduction of vaccine, only 39 cases were notified. Hib is short for Haemophilus influenza type B. It is a type of bacteria that can cause a number of different illnesses: Hib infection might lead people to develop anything from skin infections to more serious problems like blood infections or meningitis.

A child is immunized in a public hospital. The government has put a lot of efforts to provide free immunization to children but the project has been faced by a lot of challenges especially from parents. Picture: Courtesy

Sanitation and living conditions have clearly not changed since 1993 and Hib kills between 300, 000 to 500,000 people globally every year.

Pregnant women, small children, elderly people with poor health and anyone with a chronic condition, like asthma or heart disease, are at higher risk of severe infection and death. A vaccination will protect new-borns if mother is immunised while pregnant.

Amukoye emphasises that there is no causal link between administering the vaccines and sudden infant death (SIDS).

Scientific evidence shows that giving several vaccines at the same time has no adverse effect on a child's immune system. Every day children are exposed to several hundred foreign substances that trigger an immune response.

The simple act of eating food introduces new antigens into the body, and numerous bacteria live in the mouth and nose. A child is exposed to far more antigens from a common cold or sore throat than they are from vaccines.

Advantages of having several vaccines at once is fewer clinic visits and fewer jabs which save time and money. It is also important to complete the recommended vaccinations on schedule.

Immune response due to vaccine is similar to that produced by the natural infection. Mothers can pass protection to some extent measles and much less in pertussis unless recently infected immunized.

According to Dr David Githanga, there is no substitute for science in the refutation of myths since vaccines have dramatically improved human health.

Infant Mortality

Githanga notes that access to immunization varies greatly across the world. A child in a developing country is ten times more likely to die of a vaccine-preventable disease than a child from a developed country.

He notes that in some countries up to 70 per cent of children do not receive the full set of vaccines with the lowest coverage being found in

sub-Saharan Africa.

"In Africa as a whole, over 40 per cent of children are not immunized against measles, a major cause of infant mortality that kills one child every minute," says Githanga. He adds: "The 'herd immunity' can only be achieved if public confidence in the safety of the vaccine is secure."

Githanga underscores that vaccines have had a huge impact on reducing infectious diseases and improving human health. The future of vaccine development can build on knowledge and experience gained over the last two centuries.

New approaches to antigen selection and production, antigen delivery, adjuvantation and vaccine administration will allow targeting of established and emerging diseases, and populations with complex needs.

Vaccine design takes advantage of the most modern technologies and research of target populations. Maintaining long-term effectiveness and safety of vaccines is important to maintain confidence.