

**YOUTH-COMMUNITY
REHABILITATION OF POLLUTED
NAIROBI RIVER.**

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1. ABOUT THIS PAPER

This paper is about efforts being made by youth community, in creating awareness through sports and cultural activities, about the need to rehabilitate and conserve the polluted Nairobi river catchments.

The paper highlights youth-community activities such as networking, information dissemination, cleanups and tree and vegetation replanting. The paper demonstrates how youths living within and around the Dagoretti river catchments area, the headwaters of Nairobi River, have used sports, cultural activities and forums to highlight and participate in advocating for improved environmental sanitation and youth development. This has seen the emergence of Y-CLEAN model and a pilot project concept for the rehabilitation of 5km stretch of the Kavuthe river stream at the headwaters of Nairobi River.

2. ABOUT TKMP

The Tweed-Kenya Mentoring Partnership (TKMP) is a joint initiative of Tweed Shire Council and Gallamoro Network formally launching the Kenya Mentoring Programme Desk (KMP) located at Dagoretti field office. The planned activities in the first year 2005-2006 include were:-

- I. Enhanced awareness and education of community, government and business on environmental conservation, socio-cultural within the target areas.
- II. Enhanced trade waste information.

TKM has been receiving support from the Tweed Shire Council (TSC) and International River Foundation (IRF) who each committed AUS dollars 10, 000 each year to the programme. The KMP now has a fully operational office in Dagoretti, with a desk coordinator.

3. BACKGROUND INFORMATION ABOUT KENYA, NAIROBI

Kenya a third world country in the East African region has a population of 31 million. Nairobi the capital city has a population of 3million with a density of 3079 per square km. More than 50% of the residents of Nairobi live in the slums that cover 2/3 of the city

which the Nairobi City Council has not provided water and sewerage connection. This has led to a definite disposal of solid and liquid wastes into the streams and rivers running through these areas. Pollution of the rivers with these wastes and downstream with the industrial wastes is evident.

4. STATE OF THE NRC - HEADWATERS, PEOPLE SETTLEMENT/SLUM ALONG THE RIVER

Dagoretti catchment is a wetland with high water table, and there is no council sewerage grid. The residents, instead use shallow pit-latrines for human waste (that include domestic waste) disposal, which then fill up very quickly, and are then emptied into the river streams. Solid waste is also disposed via the river streams due to lack of proper solid waste disposal facility and system. The Dagoretti abattoirs have for a long time emptied effluents from the slaughter of animals directly into Kavuthe River stream. There are also the activities of “Jua-Kali” garages, car wash that dispose grease and oil directly into the stream.

Watsan - toilet, waste/trade waste, water, land use-planning - The Nairobi City Council (NCC) the sole provider of sewerage has been overwhelmed by the load leading to more disposals into the rivers and streams running through the settlements. Majority water supply is through Nairobi City Council (NCC) pipes except for few residential areas and factories that have boreholes. Further many of these residential areas and industries have access to NCC sewerage connection apart from slum areas (which account for over 50% of the city's population). The disposal of solid and liquid waste generated by the large population has caused local contamination of the ground water and rivers of Nairobi. Given that total prevention of ground water and river pollution may not be possible, it is becoming evident that ground water resource and quality management must involve mechanism for improved waste disposal, particularly industrial and trade waste. The Government of Kenya (GOK) has already realised the magnitude of the problems facing the rivers through the uncontrolled settlements which continue to exist and expand along the rivers; the unabated dumping of unwanted substances; and the weaknesses in law enforcement agencies to curb the above. It has therefore embarked on various outreach

campaigning strategies to create awareness on environmental degradation of the river basin.

Youth-community issues and current initiatives - The population of youth in Kenya constitutes 60% of the total population. The realization of the capability and energy of this number has led to the directing of most initiatives towards youth involvement. The government has started a youth fund that is enriching and encouraging youth to be young entrepreneurs to tackle the problem of underemployment and unemployment which is a major huddle for them. Currently also the government has brought together stakeholders in the field of youth speciality to finalize on a national youth policy. KMP is empowering youth to start initiatives through training and the necessary support through links to the corporate sector. Also youths suffer from effect of HIV/AIDS, drugs, lack computer skills and training that would enable them to obtain employment and sustain their initiatives.

5. YOUTH COMMUNITY SERVICES ACTIVITIES- YOUTH ENVIRONMENTAL, SPORTS AND CULTURAL ACTIVITIES TOWARDS REHABILITATION OF THE NAIROBI RIVER.

- *Great Nairobi River Tournament* - This was the first activity where some 40 individual youth sports and cultural clubs from the settlements bordering the Nairobi River were identified for potential action on the Dagoretti river catchment and Nairobi River rehabilitation works. The desk coordinator gave talks to the individual youth clubs on their important role in environmental sanitation which awakened the spirit of networking. Murwillumbah soccer club and TSC supported the event with uniforms and balls, which were handed over to the participating youth clubs by the Australian High Commissioner who graced the occasion. The tournament was an important platform for networking and advocacy where the youths resolved to network and hence launch of informal youth network that has since called itself **Youth-Community Led Environmental Action Network (Y-CLEAN)**¹ which has been exchanging views in the different villages and has increased the number of

¹ Y-CLEAN is explained on refer page 9, item no. 6

initiatives that the youth have come up with. The network's 40 sports and cultural clubs are covering settlements such as Kibera which has 13 small villages has two youth clubs- ISSA-Initiative for Sports and Social Arts and Kibera Youth Self Help group. ISSA deals with sports and cultural activities while the Kibera Youth Self Help deal with waste management which the TKMP linked with the corporate sector in plastic recycling. In Riruta, the youth club Riruta Environmental Group (REG) a street boy rehabilitation programme which deals with waste recycling. KAWAGIKI is also a youth initiative that was formed as a result of the Great Nairobi River Tournament. Dagoretti for Kids in Mutuini rehabilitates street children and is a member of the network. In Kiambiu slums, Kiambiu Youth Club has been the link for the network. Their major area of operation is water and sanitation. WAYWEN, a brainchild of the tournament is a network 10 clubs in Kikuyu, Waithaka and Kangemi and deal with sports, HIVAIDS and environment as the activities.

- *Meetings*

The youths have been meeting monthly at the field office in Dagoretti. There has been consensus on creation of youth network called Y-CLEAN to coordinate network activities that include exchange of information and clean up activities. There has also been an increased interaction and village to village youth visit.

- *Trainings and support*

As part of the programme the TKMP has been offering training to member youth clubs. Some of the trainings undertaken are;

- Kibera youth Self Help Group 3-days training in leadership.
- Kiambiu Youth 1 day training in Solid waste management..
- REG strategic planning workshop.
- Dagoretti 4 Kids 1 day training on how to link environment to street children rehabilitation.
- various youth groups have been developing proposal and the KMP has been supporting the youth with project development - proposal writing, identifying potential funding partners i.e. ISSA's Kibera resources center

which comprises of a computer laboratory and cyber center with internet access, a hall with video and TV set for educational purpose on the societal vices like drug abuse, HIV/AIDS, rape among others. The center in the middle of Kibera will purposely be used to offer information and technological support to the youth of Kibera to enable them be job compliant.

- *clean ups and tree planting*

Clean up activities have taken place in Kiambiu, Waithaka, Riruta Satellite and Kawangware Villages. In conjunction with the clean up activities is the planting of trees which are a way of cleaning the underground water. This has brought to attention the need for indigenous trees which would better serve this purpose. TKMP has involved NEMA- A government initiative to handle environmental issues.

- *Network with government and NGOs*

Increased networking and collaboration with NGOs like Maji na Ufanisi, Green Belt Movement, ITDG/Practical Action, Plan-International, Carolina for Kibera, Kenyatta University and Nature Africa/Friend of Arboretum & Friends of City Park. Also seen increased collaboration with government agencies such as National Environmental Management Authority (NEMA), Nairobi City Council's department of environment, Forest department (indigenous species identification & nurseries) and the new Water Boards. The programme was able to conduct a tour of the Dagoretti river catchments for the youth, community and NEMA's Dagoretti officer

6. KAVUTHE RIVER STREAM REHABILITATION (KRSR).

The need to undertake KRSR has articulated under the project document titled "improved waste and sanitation services to reduce river pollution and alleviate. Poverty in Nairobi slums via youth social and cultural activities". The project has been formulated by the Kenya Mentoring Program in consultation with youth community of Dagoretti, with the support of M/s Natalie Baker Environmental Scientist from Australia, the TSC and the

IRF. The project seeks to bring together expertise from TSC, NEMA, NCC, Forestry Department and youth community to improve waste and sanitation services to 30,000 residents of Dagoretti Centre, Mutoine-Kirigu and Waithaka to rehabilitate a 4km of Kavuthe River at headwaters of Nairobi River, between the Dagoretti Market and Waithaka shopping centre.

The Kavuthe River is heavily polluted by waste from the Dagoretti market, as well as toilet and solid waste from the above settlements. The houses are in a poor state, built out of timber and iron sheet. Most of the structures do however have piped water and electricity supply. There are a few pit latrines available most of which are emptied manually into the Kavuthe River. Solid waste is disposed of onto the open pathways within the settlement, and is washed into the river by the rains.

The pilot project will demonstrate the ability of simple environmental, waste and sanitation interventions to reduce liquid and solid waste pollution that is severely degrading water quality in the Nairobi River. It is envisaged that this project can be used as a model and implemented in other regions of the Nairobi River Catchment, other rivers in Kenya, Africa and around the world, where poor waste management and sanitation pollute water threatening human health.

The estimate cost of the project is US Dollars 521594.9 and already UNDP, Ford Foundation and Veolia Foundation have been approached for funding. AusiAid is yet to be approached.

Project Focus: The project will be aimed at the youth of Nairobi to ensure community ownership and participation to guarantee the goal is met by home grown solutions to improving river health, waste management and sanitation services. Youth outreach will be facilitated via cultural and social events such as sporting and arts activities.

Project Purpose: To reduce water pollution in a reach of the Nairobi River via improved environmental, waste and sanitation interventions.

This project will have a positive **impact** on the livelihoods of youth across Nairobi by:

- Improving the health and productivity of the target community.
- Reducing water pollution and thus improving environmental health.
- Improving sanitation facilities and waste management.
- Alleviating poverty via job creation (recycling waste).
- Increasing community awareness and education levels.
- Increasing community interaction with the City Council, NEMA and Water Boards.

Further information and details of the project can be obtained in the project document titled “improved waste and sanitation services to reduce river pollution and alleviate poverty in Nairobi slums via youth social and cultural activities”

7. YOUTH-COMMUNITY LED ENVIRONMENTAL ACTION NETWORK (Y-CLEAN) MODEL.

Y-CLEAN is youth-community model for action on environmental, and youth sports and cultural development that is emerging out of the KMP programme activities still at formative stage. The model is driven by youth and will also involve also collaboration with government, NGOs, business, schools and universities. Already a youth network has emerged covering the entire Dagoretti catchment including Kibera and Kiambiu slums; and youth leaders are being identified and mentored, and **Y-CLEAN** Dagoretti is being discussed and agreed upon. The youths have identified that they want to engage in information exchange, organization development, training and youth action through sports/culture and community service of cleanups, revegetation & water and sanitation infrastructure development. It is expected that the Kavuthe River Stream Project will be implemented via the **Y-CLEAN** model. The year beginning July will see more emphasis put into the formalization of this network.

6. INSIGHTS

- With the rehabilitation of the Kavuthe River, there arose the need to audit, identify and start up nurseries for indigenous trees.
- To build a strong foundation on issues of environmental sanitation and sensitivity, TKMP will advocate for special lessons on environment in schools.
- Involving the youth during school holidays in community service, sports and cultural activities gives the opportunity to inform them more in these informal situations.

7. WAY FORWARD

- **Youth Mentoring “UJANA” Initiative**

The KMP was able to establish that the youth in Nairobi and in particular the Dagoretti area faces a lot of hardship that include HIV/Aids, Drug abuse, school dropout, lack of employment to name a few, that prevent them from being active participants in community service and youth affairs. The youth have a huge potential and talent because they are young; have the energy and their large number. They lack information, training and support.

Proposed goal – is to build an environment where the youth are appreciated, protected and supported

Target - youth clubs, groups, schools, church and other NGO youth programmes.

Proposed activities –

- Mobilization, awareness and education on youth community issues of environmental sanitation and youth affairs – rights, HIV/aids, drugs, leadership, sports and culture.
- Dissemination of information and youth training
- Identify youth talent, leaders and provide mentoring support through training, information and exchange
- Support youth to engage in community service
- Support the establishment of vibrant youth – responsive network that would lead youth campaign for cleaner environment.
- Document youth development

- **River Catchment Management**

The state of the Nairobi River, right from its heads waters in Dagoretti is in deplorable state. The settlements, businesses and farming activities dispose untreated liquid and solid waste directly into the river stream. The pollution of Nairobi River starts with headwater streams of Kavuthe and Nyongare River in Dagoretti.

Proposed key objective -

To pilot a model youth community river catchment management at head waters of Nairobi River in Dagoretti.

Target group – Business, farmers, settlement, schools, youth and community groups living along the Kavuthe River stream

Proposed activities

- Mobilize and raise awareness in schools, churches, youth clubs, community, and businesses, government on factors leading to improved river catchment and its values.
- Support youth, community, business, government to undertake cleanup, revegetation.
- Support community in identifying indigenous tree and vegetation species, and undertake revegetation
- Identify and stop pollution point, undertake river bank management, rehabilitation.
- Undertake river water quality monitoring through testing.

- **Improved Water and Sanitation infrastructure design and development.**

Raw human waste and solid waste from settlement and businesses are emptied into the river stream. Dagoretti catchment is a wetland with high water table, and there is no council sewerage grid. The residents, instead use shallow pit-latrines for human waste (that include domestic waste) disposal, which then fill up very quickly, and are then emptied into the river streams. Solid waste is also disposed via the river streams due to

lack of proper solid waste disposal facility and system. The Dagoretti abattoirs have for a long time emptied effluents from the slaughter of animals directly into Kavuthe River stream. There are also the activities of “Jua-Kali” garages, car wash that dispose grease and oil directly into the stream. The resident living along the Kavuthe river stream rely on water from wells for drinking, where the underground water is already polluted and compromised. There is huge potential for wastes recycling and management along business lines, in ways that the profits accruing could be used to support youth development such as in sports, HIV/aids (especially access to medicine, testing, counseling and information) and training.

Proposed key objectives –

To improve living conditions of youth community living around the Kavuthe River stream in Dagoretti catchment area through youth community water and sanitation infrastructure design, implementation and management. To provide affordable, accessible and quality water and sanitation service.

Proposed activities –

- Support youth community identify water and sanitation needs
 - Support community to identify site, design and plan for water and sanitation intervention.
 - Support community to liaise with Nairobi Water Company and water service board for license.
 - Undertake pre-implementation training of community and identified “fundis” (artisans)
 - organize for paid and unpaid for community labor
 - Source local suppliers
 - Build facility - water points, communal toilets, plot based toilets, and pilot bio-latrines, and wet lands.
 - Undertake operation and maintenance training.
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- **Trade waste regulation policy advocacy**

The regime of trade waste regulation in Kenya is still weak particularly because of absence of strong trade waste policy and institutional capacity to enforce anti pollution law. There is also limited information and public awareness, and therefore lack of community responsiveness to pollution and abuse of the rivers. NEMA which was created by act of parliament to coordinate all environmental and enforce anti-pollution, is overwhelmed by the problem. There is however willingness on the part of community and government to see the situation improve.

Proposed key objectives –

To build a city wide action for increased trade waste regulation. To campaign for increased accountability in the management of waste and increased government prioritization and funding of waste sector.

Target – youth, community, business, government

Proposed activities

- Support youth identify gaps in policy, in particular trade waste, through information and training focusing on Environmental Management and Coordination Act (EMCA) 1999, Water Act 2002, Forestry Bill. Support youth, Constituency Development Fund (CDF) and Local Authority Transfer Funds/Local Authority Services Development Action Plan (LATF/LASDAP)
- Support youth-community to deepen more their insights through lecture series and public debates with key guest speakers in the areas identify.
- Identify potential youth-community groups, business, NGOs and key civil society organizations, and establish vibrant alliances and network to campaigns around identified trade waste and environmental.
- Undertake community level awareness campaigns for improved trade waste.
- Support youth-community to establish a local trade waste monitoring regime.

- **Kavuthe River Stream Rehabilitation (KRSR).**

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- **Youth-Community Led Environmental Action Network (Y-CLEAN) model.**

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- **Local Fund raising “*Businesses- Adopt-a-River section*”**

The involvement of businesses and private sector in development, both as contributor and service provider has not been fully exploited. There is huge opportunity for the KMP desk engaging the big corporation in Nairobi under the emerging initiative for local resources mobilization we are calling “*Private Sector- Adopt-a-River Section*”. Particularly targeting Kavuthe River Stream, identified companies will adopt sections of the river and support the Y-CLEAN initiative to undertake community service of clean up, revegetation, river bank rehabilitation and water quality monitoring. Already initial consultation with some of the companies has indicated the willingness to participate in the project and advertise their products as they do so.

This model is inspired by Nature Kenya’s Friends of Nairobi Arboretum (FONA) and Friends of City Park (FOCP) initiatives that have successfully mobilized the companies, individuals and the public to support rehabilitation and conservation of these two nature parks in Nairobi. AMREF too previously undertook a campaign for improved sanitation called “Flying Toilet Project” that saw companies supporting the development of toilet blocks in Kibera slums. KMP intends to develop further this concept as one of its fundraising strategy.

CONCLUSION

The youth all over the world are known for their potential and energy to positively transform societies. Talking on behalf of the KMP, I would like to point out that given the opportunity, the Kenyan youth can make tremendous changes in their lives and of those living around them with the with the model of activities undertaken by the KMP. The model ensures Kenyan youth participate in environment and sports to improve the Nairobi River. With the kind support of the international community in liaison with the Tweed Shire Council and International River Foundation the Nairobi River will have the flow of clean water for consumption. I would like to acknowledge the support of Mike

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Thank you.

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