

ECO-SCHOOLS - KENYA

GREENING SCHOOLS AND COMMUNITIES IN AFRICA

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Foreword

Education for Sustainable Development is identified by Agenda 21 as an essential tool for achieving sustainable development (SD). ESD has made tremendous progress in the past decade and is based on the ideology that learners should be able to envision a better future, reflect and think critically, systemic thinking, building partnerships, and empowering them to participate in decision making. In response to the United Nations declaration to designate the period from 2005-2014 as the “Decade of Education for Sustainable Development”- DESD, the Kenyan government incorporated the same into its education system. This resulted into formulation of ESD policy, ESD implementation strategy, ESD monitoring and evaluation guidelines as well as ESD communication strategy.

Kenya Organization for Environmental Education has been promoting ESD in Kenya using Eco-schools strategy. Under the programme in collaboration with government agencies and other stakeholders KOEE played a pivotal role in drafting the Kenya ESD strategy which has received high acceptability and ownership. KOEE has also influenced ESD within East and Central Africa.

The crucial role and success of KOEE in formulating the Kenyan ESD strategy has seen the Organization invited by other countries i.e. Rwanda, Uganda, and Tanzania to assist in drafting their ESD strategies as well. On the same breadth KOEE through her Eco-schools programme has been instrumental in helping the East Africa Community (EAC) draft its regional ESD Policy. The Eco-schools strategy has also been used in promoting the Learning about Forests (LEAF) programme that focuses on education on forests and natural resource management. Both Eco-schools and LEAF are international Programmes of the Foundation for Environmental Education (FEE) with KOEE as the implementing partner in Kenya. Eco-schools and LEAF buy into the idea and objectives of ESD by inculcating ecological and forestry principles into other learning activities. Eco-school activity areas cover; greening economy, sustainable land management, desertification, biodiversity and ecosystems-based adaptation to climate change, sustainable consumption and production, sustainable energy development and integrated environmental assessment for sustainable development. The programme cross-cutting issues are poverty, entrepreneurship and HIV/AIDS among others.

The concept of eco-schools in Kenya has been successful with more than 500 schools having graduated and more than 1500 schools registered so far. The concepts behind Eco-schools and LEAF have influenced various policies in Kenya. Green Schools programme, a nationwide tree planting programme in schools borrowing heavily from the aforementioned two programmes. Since 2002 KOEE has worked in collaboration with various local and international partners to support the Eco-schools programme. United Nations Environment Programme (UNEP), UNESCO, Danish Outdoor Council (DOC), Danish International Development Agency (DANIDA), Alliance of Religions and Conservation (ARC), Industrial and Commercial Development Corporation (ICDC), Act Change Transform (ACT!), National Environment Management Authority (NEMA), Kenya Forest Service, Ministry of Environment and Natural Resources, Ministry of Education, Science and Technology, Safaricom Foundation, the Chandaria Foundation, the Pan African Climate Justice Alliance (PACJA) and Kagoech Foundation among other partners who have been instrumental to ensure Eco-Schools is a success.

As the DESD comes to an end in 2014 and the world ushers in the UNESCO Global Action Plan (GAP) for ESD; KOEE commits to strengthening the capacity of 100,000 educators/trainers and 100,000 non-state actors to become ambassadors for ESD in Kenya and regionally by 2019. This is to be achieved through trainings, development of resource materials on ESD, climate change and food security and establish national and regional (faith-based) ESD networks and partnerships. KOEE also plans to oversee the implementation of community-based and school-based action-based learning projects covering WASH, climate change, biodiversity, agriculture and sustainable production.

Dr. Dorcas Otieno

Executive Director

KOEE

Specific Objectives of the Eco-Schools Programme

- Empower young people with skills and values to promote healthy living within their environments
- Promote action/action-based learning competences
- Capacity building teachers
- Creating opportunities to implement development goals



Eco-schools awareness campaign parade

Eco-Schools Kenya

Eco-schools not only stretches from formal education, to training, to raising public awareness, but also considers how entrenched learning through socialization/ social learning about sustainability between different sectors of society (non formal and informal).

Eco-School is an international programme of the Foundation for Environmental Education in over 50 countries in the world. In Kenya the programme has been coordinated by Kenya Organization for Environmental Education (KOE) since 2002. The programme was piloted in 2002 in partnership with Danish Outdoor Council (DOC) and sponsored by Danish International Development Agency (DANIDA). After piloting, the programme was up-scaled to other parts of Kenya bringing on board more schools and partners. As UNESCO's Decade of Education for Sustainable Development (DESD 2005-2014); KOEE aligned the Eco-schools programme to the DESD objectives in an attempt to promote the global ESD agenda in the Kenyan context.

The programme aims at enhancing and promoting pupil's participation in decision making, planning and

activities to implement local agenda 21 in schools and their communities. The eco school strategy is a whole-school approach that uses schools as entry points to reach communities through pupils, teachers, parents, non-teaching staff, departments and other stakeholders of the school to address local challenges of sustainable development. This way, every member is equipped with the necessary knowledge, skills and values for achieving sustainable development. The approach thus assists in solving real/ existing environmental problems while planning in advance to prevent future advent of adverse environmental impacts. The programme focuses on sustainable development themes including; agriculture/agroforestry, water, health (sanitation/hygiene), waste, energy, biodiversity, climate change while incorporating cross-cutting issues including HIV/AIDS, gender and entrepreneurship in order to escape poverty. Eco school model has emerged as one of the most effective tools for promoting education for sustainable development (ESD) and particularly in alleviating poverty not only in Kenya, but globally. How Eco-Schools Programme Links to ESD

Eco-schools Programme has a strategic role in helping address the inter-linkages between the pillars of ESD and move towards a clearer more fully conceptualized and integrated form of SD which

puts poverty reduction at its heart.

Eco-schools programme addresses ESD key focus areas in the following ways;

- The promotion and improvement of quality of education by improving teaching/learning processes, methods and materials and providing an opportunity for all to benefit from context specific learning
- Developing public awareness and understanding sustainability through sensitisation. The experiences from the program show that schools are in a key position to pass the message across to community members. Most community members are very eager to know what is going on at schools. The school-community partnership approach of Eco-Schools has stimulated willingness of everybody involved to contribute and support the programme. The program has raised awareness amongst personnel of all types at schools, and in local communities.
- Re-orienting existing education systems at all levels to address sustainable development. The program analysis has demonstrated how the programme can be used to address local community environmental problems through localising the curriculum with schools as entry

points. The project stimulates schools and communities to work together for common goals. The programme provides appropriately relevant reoriented education, which includes principles, skills, perspectives, and values related to sustainability. In addition it enhances.

- Training of trainers in Education for Sustainable Development; training in micro-projects establishment, localising curriculum, learning resource development etc. The project schools took this responsibility very seriously knowing that the success of the school projects would in the end depend on the support from local community members. The schools experienced increased attention and visits from local governmental institutions and neighbouring schools after being awarded Eco-Schools symbolised by the green flag



Pupils at Nambale Primary School, Busia taking part in a tree planting event

Steps to Becoming an Eco-School

1. Formation of the Eco-School committee
2. Carrying out School Environmental Audit.
3. School Environmental policy. formulation and development of Eco codes (agreed principles/values)
4. Development of the action plan including the year planner.
5. Establishment of micro projects for demonstrative learning responding to audit report.
6. Localizing the curriculum and mainstreaming sustainability values for practical learning.
7. School-Community cooperation.
8. Networking and information dissemination.
9. Monitoring and evaluation.
10. Graduation of successful schools.

Eco-schools and poverty reduction

Eco-schools programme has a strategic role in helping to develop complex understandings of development and in particular the links between degradation and depletion of the natural environment and poverty.

Eco-Schools Kenya employs strategies of ESD in poverty reduction as follows:

a) Advocacy, campaigns and vision building in integrating environmental concerns (poverty) in the school curriculum.

b) Capacity-building and training of teachers in teaching methodologies in the integration of environmental concerns (poverty) in the curriculum.

c) Use of information communication technologies (ICTs) among students and teachers in sharing experiences through the eco-school link and network activities.

d) Monitoring and evaluating the outcomes of micro-projects and other learning activities to assess impacts of problem-solving environment and poverty related problems in schools and community groups.

e) Recognizing and rewarding excelling schools through the eco-schools award

scheme provides motivation and recognition for quality learning and school improvement.

f) Engages multiple stakeholders to participate in educational activities, including government, civil society and private sectors, particularly in the establishment of micro- projects thus fostering partnerships for joint poverty reduction.

g) Innovation via the establishment of school and community projects for improved livelihoods.

h) Community participation in the establishment and implementation of learning programmes particularly through the design and implementation of micro-projects which allow for innovation and integration of community ideas and replication of projects



Impact and outreach of Eco-school in the DESD

Eco-schools strategy allows the participation of all in education and development: governments, civil society Organizations (CSOs), the private sector, communities and individuals is important in improving the quality of life.

The programme has so far registered about 1500 schools and about 500 schools have been graduated as Eco-schools in Kenya. The project has benefited policy makers, Teachers, learners and local communities. In total about 20,500 (10,000 men and 10,500 women) have benefited directly and about 200,000 (100,500 men and 99,500 women) indirectly as at September 2014.

Since its inception in 2002, the Eco-schools programme has had tremendous impacts across Kenya in promoting ESD:

- KOEE has gained skills in coordinating and facilitating Eco-schools in Kenya through training and technical assistance by DOC and Networking with other countries in implementing the programme.
- Demonstration Eco-Schools have been set up in different counties in the country and income generating micro-projects addressing local environmental problems have been used for out-of-classroom curricula teaching and cooperation with local community e.g. women and youth groups. This includes new farming practices; Agro forestry, introducing new crops, tree nurseries, poultry, energy conservation, waste management etc.
- Around demonstrations schools, local community groups have been mobilized to support the school micro project through donations, offering expert advice & acting as caretakers of micro-projects during holidays and working for free.
- The programme has made a significant contribution to increased awareness within the educational system about environmental education and the need for change in practice to effectively equip students with relevant knowledge to address environmental problems and poverty.
- Capacity building; teacher training to act as eco-schools ambassadors through partnership with higher institutions e.g. London South Bank University, Masinde Muliro University, Egerton University, Kenyatta University.
- It has set a platform for other FEE programmes e.g. learning about forests, litter less campaign.
- Promoted private public partnerships and networking locally, regionally and globally e.g. Safaricom, Shell, Wrigley Foundation, Chase Group Foundation, Industrial and Commercial Development Commission (ICDC), Serena Hotels, Rotary International, WWF, UNESCO, UNEP-ROA among others
- Capacity building other civil society organizations (CSO) e.g. Osienala, KEEP, Eco-ethics, Hope Worldwide.
- Action based environmental learning has proven to be a very useful entrance to convey knowledge to schools – their teachers, learners and even more important surrounding communities and finally;
- The Eco-School Programme has been able to promote itself. The concept is now well known by relevant government ministries and departments and judging from the verbal and written support from these institutions, it is most likely to achieve the objective of being integrated into curriculum and strategies on sustainable development. In this way Eco-schools programme has been able to influence policy formulation in Kenya and in East African Region as indicated in the following activities;

- The national curriculum has been reviewed with a view of incorporating the principles of ESD through National Education Sector Support Programme (NESSP-2014-2018).

- Kenya Vision 2030, a government long term development plan reflects the principles of ESD.

- The East African Community (EAC) used some of the experiences of the Eco-schools programme in drafting the EAC ESD policy.

- A similar programme has been started in Rwanda with inspiration from the Eco-schools programme activities in Kenya.

• In close cooperation with teachers and other stakeholders (KIE, NEMA Nature Kenya) the Eco-Schools project has developed the first ever-Kenyan environmental education materials that comply with the curriculum requirements to treat environment as a cross curricula subject. Six environmental theme-packs for primary schools and six for secondary schools have been produced and made available to schools i.e. water, waste, energy, health, biodiversity and agriculture. Other resource materials developed include: Eco-Schools Handbook Starter Pack (information manual on the Eco-schools programme in Kenya), Teachers' Environmental Education Guides for primary and Secondary schools, Training Module on Environmental Education and Eco-Schools documentary video. KOEE has also produced a Faith-based ESD Toolkit for Primary school teachers in collaboration with the Alliance of Religions and Conservation (ARC).

- Used as a flagship programme in the Nairobi Regional Centre of Expertise on ESD

- The project influenced the development of ESD strategy for Kenya-Project team being members of National ESD steering committee. The government approved and adopted the ESD strategy that is being implemented.



Turning Agriculture into Business - Goibei High School

Goibei High School Joined the Eco-school Kenya Network in 2004. Ever since the school has been implementing many micro-projects including water harvesting, crop and livestock production, energy saving among others. Two of the increasingly popular micro-projects to adapt to climate change and food security is bee-keeping for honey production and kitchen gardening. The bee-keeping enterprise has been a major income generating activity at Goibei High school from 2007 to date. The micro-project has proved to be more appropriate in reducing the percentage of the rural poor by boosting the local entrepreneurship as well as creating alternative source of income. Arithmetically, the price of a complete Langstroth hive ranges from Ksh.3, 500-5,000 – depending on availability of materials for construction and the quality of workmanship. In terms of market prices for honey, raw honey goes at Kshs. 300 – 600 per kg when no value addition has been done. Packaged and branded honey goes at Kshs. 500 – 1,000 per kg. With the current increasing cost of living, the prizes are likely to shift upwards generating higher returns.

Under good management, Kales take 3-4 weeks in the nursery and 1-1.5 months from transplanting to first harvest and depending on variety, can remain in production for 3-4 months or perennially. At Goibei School the perennial type is preferred since it is harvested throughout the year and is quite tolerant to drought. The interesting thing is that for vegetables such as Kales, the input is quite minimal. Profits worked out from maintaining kales for 3 months, a total of Ksh.42, 090 is realized in 3 months, or Ksh.56, 690 in 4 months. With school student population of about 700, 40 teachers and about 10 non-teaching staff; the eco-schools programme benefits not only the school but also the surrounding community.

The school acts as a demonstration/training centre showcasing best practices in agribusiness and environmental sustain-



Goibei High School reaping fruits of becoming an Eco-school

ability. It promotes sustainability awareness by publishing an annual magazine (Stretcher Magazine) of its activities and it also has had exchange programmes with schools from Germany (Paul-Gerhardt Schule) for wider sustainability advocacy and networking.

Making Sense from Waste - SCLP Samaj School and Kariobangi South Primary School

SCLP Samaj School

The school is multi-racial and embraces all cultures. Currently the school's population stands at 2,890 students, from Nursery school, kindergarten, primary and secondary school, A-Levels and Samaj-Australian College and a total of 200 teachers. These are drawn from Asian communities, Africans of Kenya origin, Somali origin, Nigeria origin, and Europeans.

The school has established a beautiful Botanical Garden from used tires, plastic bottles and cans. The garden has medicinal plants and is also used as a learning resource and recreational area. In addition, the school involves nearby

community members in clean-up exercise of a river that cuts across the school and surrounding market.

Kariobangi South Primary

The school has a population of about 1,500 pupils 34 teachers and 7 non-teaching staff. The school is faced with challenges of waste management given the large number of people living around it and many business stalls nearby. Due to poor waste management in the school environment and surrounding estate; there are several problems which are affecting the school and the community at large. Some of these problems are; water borne diseases, loss of aesthetic value due to garbage heaps, poor drainage encourages mosquito breeding, open sewer drainage and soil contamination among others.

The school uses waste to; make compost manure for gardening; recycling and reusing of polythene papers for use in future and making polythene table-mats, baskets and handbags and finally use of used bottle tops and cans to make toys, mats and ashtray. The toys, ashtrays and vegetables are sold to generate income.



Vegetable and fruit trees garden in Young Muslim Primary School, Garrisa

Creating Life in the Desert - Young Muslim Academy

The school is located in the Northern part of Kenya which is largely a semi-arid region receiving rainfall of less than 500mm per year with the average weather conditions being hot and dry most of the year. The school has a population of about 800 pupils.

The school started planting fruit-bearing trees to - cut down the cost of importing fruits from Thika - a town 300 km away and to provide shade in the day. The school also practices green house horticulture farming producing vegetables. The project has helped generate income from sale of fruits and vegetables to the local community as well as helping the community learn from the school and engage in similar enterprises to improve their livelihoods.

LEARNING ABOUT FORESTS (LEAF) PROGRAMME IN KENYA

Learning about forest (LEAF) is an international programme of the Foundation for Environmental Education (FEE) through Forest Extension Institute in Norway. In Kenya, LEAF is coordinated by Kenya Organization for Environmental Education (KOE) as a sister programme to the Eco-schools programme and aims to achieve the following objectives:

1. To establish community on-farm tree planting projects
2. To develop potential for and promotion of forest based eco-tourism.
3. To establish biodiversity education campaign.

The LEAF programme is implemented using the Eco-school strategy whereby the LEAF schools are established. A LEAF school is one that has adopted and mainstreamed forest and forest-related concerns into their school curriculum. The programme does not only aim at planting trees but also works towards the protection of the major water towers in Kenya, conservation of biodiversity and sustainability in energy production among others.

LEAF Project Focus Areas in Kenya

- Tree planting in schools and public places
- Conservation of forests in Kenya's five water towers: Mt. Kenya, The Aberdares, Mt Elgon, Cherangani hills and Mau complex



LEAF advocates for replacing felled trees



Tree planting in Mbweka Primary School, Mombasa



Benefits of forests - Goibei High School



Students from SCLP Samaj School planting trees in their portion in Ngong Forest Nairobi

From Planting Trees to Growing Trees

Since 2003, the LEAF programme has been promoting education about forests in the water towers through public campaigns using schools. The programme brings together secondary and primary schools, corporates (ICDC, IDB Bank, Serena Hotels, Safaricom Foundation and Highlands Mineral Water Company etc.), community based groups, government agencies, media and local and international non-governmental organizations (UNEP, WWF). The LEAF programme has been continuous in schools and usually marked in world important days for environmental conservation like on the World Environment Day marked on 5th June every year. Every year, KOEE organizes and joins like-minded institutions and individuals from both the public and private sector in celebrating world important days, with a view to promoting education for sustainable development.

The year 2011 being an International Year for the Forest, the government of Kenya declared a commitment to attain a forest cover of at least 10% from 1.7%.

Since then KOEE has actively mobilized stakeholders in tree planting initiatives to increase carbon sequestration, enrich biodiversity, enhance ecological balance, avert the impact of climate change and create correct perspectives of natural resource management among school going children.

For 2014, KOEE coined "Supporting Sustainability for Green economy through Conservation of the water towers" theme to mobilize institutions that care for the environment to join hands in supporting the course to grow 100,000 trees in three water towers. Over 1,000,000 trees have been planted in past 10 years in an effort to restore Kenya's main water towers as a response to climate change.

LEAF in Action

Conservation of water towers for Green Economy and Sustainability -Ngong Forest Primary School.

KOEE has been promoting LEAF in schools in the Aberdares through schools.

Example of such projects has been at Ngong Forest Primary. KOEE has held major tree planting activities in Ngong from 2011. The 2014 World Environment Day theme was "Raise your voice, not the sea level," that aimed at raising awareness about the impact of climate change on small islands states around the world. KOEE joined hands with other stakeholders in supporting the course to grow 100,000 trees in three water towers. The event was celebrated at the Ngong Forest Primary School where 20 secondary and primary corporates, guests, civil organizations and community based groups participated in planting trees. The schools participated in planting about 2,000 tree seedlings in Ngong Forest in an effort to save the Aberdares water towers.

On this material day, these same activities were conducted in different parts of the country. There were activities in Western Kenya at Ebukoolo and Pand Pieri Primary School, Coast Region at Kombani and Star of the Sea Primary School, Nyanza Region at Kimira Primary School and Nyarach Primary School in Rongo, Young Muslim Academy in Coastal Kenya.



Students at the launch of Green Schools Initiative for Mau and Cherangani water towers

Greening the counties for our Water Towers- Iten Primary School

KOEE joined forces with other Green Schools Coalition partners (PACJA, Kagoech Foundation and Scope Intervention) to launch the Green Schools Initiative for Mau and Cherangani Water Towers Conservation Programme Phase II and the subsequent distribution of over 250,000 seedlings for planting in schools in the four (4) counties of Baringo, Elgeyo Marakwet, Uasin Gishu and Nandi. The event saw the adoption of schools greening through planting the 250,000 trees by many schools in the four counties. The event also brought together stakeholders involved in the project to ensure a coordinated approach in this project. To ensure that this significant event was featured in the whole republic for others to emulate, it was publicized using; Standard Newspaper, Kass Radio and Television, posters and through stakeholder meetings.

The greening schools program long term goal was to achieve the following;

- Plant 10 million trees across the country using schools and local community groups in a period of one year

- Foster a better understanding of issues related to climate change and forest conservation
- Increase ownership of forest and other natural resources by schools and local communities
- Build the capacity of teachers and local community group leaders in forest establishment and management

Greening Private Sector for sustainability - Cheleta Primary School

One of the main goals of the LEAF programme is to enhance private public partnerships. It is on this basis that KOEE collaborates with private sector entities to promote natural resource education in schools. An example of such project was held at Cheleta Primary School in partnership with the Rotary Club of Nairobi (RCN) on the World Clean-up Day (20th September) and the International Day for Peace (21st September). KOEE and RCN marked these two "globally celebrated" days by conducting a tree planting exercise and a clean-up session at Cheleta primary Nairobi. The event aimed at planting more than a thousand

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Some of other schools KOEE has worked with in celebrating the World Environmental Day since 2010 include;

- Emukhunzulu Primary School
- Esikhuyu Primary School
- Emanyinya Primary School
- Rumwe Learning Centre.
- Daima PEFA School
- Stara Academy
- Kisumu Dogo Primary School
- Esirulo Primary School
- Ngong-forest primary
- Samaj School
- The Kenya high school

Name of school students	Nos of trees	Nos of
Pand Pieri Primary School	2000	1,500
Goi Bei Secondary School	1000	563
Ebukoolo & Other schools	1,500	600
Ngong Forest (2011)	3,870	764
Kombani & other schools	3,685	811
Ngong Forest Tree Planting (2012)	4,893	1,000
Kimira Primary School on	1500	654
Rongo Schools	6,400	1288
TOTAL	24,848	7108



Environment Secretary, Dr. Alice Kaudia flanked by Rotary District 9212 Governor Bimal Kantaria and RCN President Kamal Sanghani at Cheleta Primary, Nairobi

Eco-Schools Programme Improving Learning Environment through (WASH) Projects

From 2011 the Eco-schools Kenya network partnered with Alliance of Religion for Conservation (ARC) to mainstream religious wisdom (values) into the network's ESD programmes. This saw the implementation of projects in biodiversity, agriculture, water, sanitation & hygiene (WASH). The projects have improved both the schools' and communities' social, economic and environmental well being. The WASH micro-projects for instance have made a difference. Every day, classrooms are missing students who are sick from waterborne diseases. WASH in Schools has had a positive impact on enrollment, retention and girls' attendance. Simple interventions such as hand washing with soap help reduce the risk of diarrhoea, pneumonia and other infectious diseases. The project directed engagement with students leading to community adoption of good WASH behaviours and technologies as well as promote improved health. Because children are seen as agents of change, education for good hygiene practices in schools has linked students, families and communities. The project saw the production a faith-based ESD teacher's toolkit for primary schools that illustrates an approach of solving society's development issues using faith; a context in which God's principles and values are mainstreamed in our day-to-day classroom and out of class learning environments to solve sustainable development issues (poverty) through topics on water, energy, waste, health, agriculture, biodiversity and climate change. An example of a school that benefited from the WASH micro-projects is Kirukuma Primary in Eastern Kenya where eight ventilated improved pit latrines were constructed

Community engagement in Forest Conservation

KOEE through the LEAF programme works together with the Bunyore Community Development Organization (BUCODEO) in a partnership towards the conservation of the Mt. Elgon water tower. For the past 5 years, more than 5000 trees have been planted by the schools and community groups in Bunyore

forest cover in the region and protecting this important water tower which is depended upon by a majority of the population. The latest event was held on May this year whereby 500 trees were planted at Esibila primary school and more than 1500 trees given to schools and religious groups to plant in their schools and homes.



Faith leaders joining hands with schools to plant trees at Esibila Primary School, Vihiga



Poor state of latrines affects learning



Improved sanitation and hygiene facilities at Kanyore Primary School, Kiambu

The school head teacher (Mrs. Margaret Wanja) says,

"The project has improved the school and community sanitation and hygiene conditions thereby leading to improved learning and living conditions", ARC & KOEE launch of Faith Based ESD Toolkit in Nairobi on July 2013.

School and community behaviour on WASH has also been improved courtesy of the value-based approach of the project. The main values promoted were: respect and care for the community of life, ecological integrity, social and economic justice and democracy, nonviolence & peace.

Name of School	Project Implemented	Motivation for the Project (Problem to address)	Key Impacts
Star of the Sea Prim. School	Construction of a water house with wash points	<ul style="list-style-type: none"> •Crowding of pupils around wash-points especially after meal times to wash utensils •Injury cases from jostling of pupils reported •Pupils washing utensils from water points in latrines (unhygienic), leading to frequent cases of diarrhea conditions 	<ul style="list-style-type: none"> •Increased school attendance due to reduced cases of illness •No more injuries at wash points •Talking walls at the wash points being used to enhance faith-based values
Kanyore Prim. School	Construction of Latrines	<ul style="list-style-type: none"> •Acute shortage of sanitary facilities, with boys and girls sharing one facility, usually witnessed with long queues during break times •Teachers and support staff sharing one facility •Girls felt embarrassed by boys 	<ul style="list-style-type: none"> •Time saved during breaks due to shorter queues, hence increased time spent in class for learning by pupils •Members of the school (especially females) feel dignified since their privacy is upheld •Facility being used for T& L about toilet use for the kinder-class.
Iriene Prim. School	Construction of ten (10) wash points	<ul style="list-style-type: none"> •Crowding of pupils around one wash point in the school •Culture of hand washing was absent since the only water point was far from the toilets •Teachers relied on water from a kettle for washing, which they found cumbersome hence limited hand-washing •There were rampant cases of stomach illnesses among pupils •Teachers used to wash hands only at mealtimes 	<ul style="list-style-type: none"> •Culture of hand-washing after use of toilets now established among pupils, even the youngest of the school community (class one). •Drastic reduction in cases of stomach illnesses among pupils. •Standard of hygiene greatly improved. •Now teachers wash hands at mealtimes and after using wash rooms since it is no longer cumbersome.

Making Savings from Alternative Energy - Goibei High School and Rosebella Academy

The schools depended wholly on firewood for preparing meals and on electricity for lighting. Goibei High School and Rosebella Academy started biogas and solar energy projects respectively as a strategy to cut on energy costs. For Goibei, one of the main aims of constructing the Biogas Plant was to reduce use on wood-fuel and make savings from using biogas as a supplementary source of energy. Over the course of its construction, assessments were made of savings that accrued from this facility, with a view to determining its full benefits when used optimally. The example below is some calculations on savings from use of biogas from Goibei High School.

Task	Daily Savings (Ksh.)	Weekly Savings (Ksh.)	Monthly (30 Days) Savings (Ksh.)	Yearly (360 Days) Savings
Vegetable Cooking (80kg)	300	2,100	9,000	108,000
Cooking Beef (34 kg)	600	1,200	4,800	57,600
Boiling Water (150 Liters)	450	3,150	13,500	162,000
TOTAL	1,350	6,450	27,300	327,600

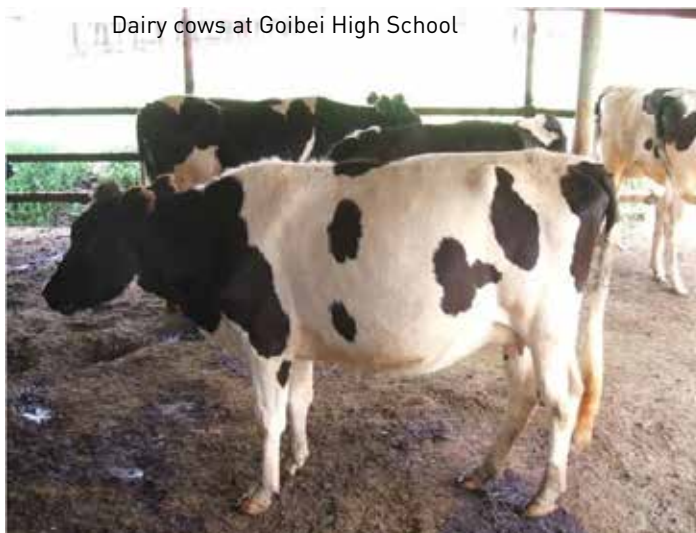
Livestock Husbandry and Water Conservation for Improved Livelihoods- Tatro Primary School and Goibei High School

Tatro Primary School is located on a wetland which formed the basis of a fish farming project. The project aimed at: improving nutritional standards among pupils, acting as an income generating activity and enhance ecosystem conservation. The project has so far improved the environment condition as it has led to development of proper drainage channels; led to improved school food supply, used as a source of income from sell of fish and acted as a learning resource for both school and community.

Rain water harvesting at Goibei High School



Dairy cows at Goibei High School



Goat keeping at Goibei High School



A fish pond at Tatro Primary School, Siaya





Young Muslim Primary School supplements school diet with water melons from their garden

Promoting Health/Nutrition in schools - (Young Muslim Academy, Cheleta, Ebukoolo and Ngong Primaries)

One of the main focus areas of the Eco-schools programme is to alleviate poverty using schools. Pupils and teachers are imparted with practical skills to come

up with appropriate innovations addressing local needs. Most of the schools in the programme are found in rural set-ups where incidences of poor diet and hygiene are common. Through the project, schools have been able to carry out agricultural activities that have led to improved food supply and diets.

Projects on WASH have ensured more reliable water supply which is a prerequisite for proper hygiene and sanitation. All these have constituted to improved health standards in the schools and communities and thus better academic performance and social development.

Challenges Facing Eco-Schools Programme in Kenya

- Lack of a sustainable funding source to meet the needs of the ever growing demand of schools interested in the programme.
- Poor IT infrastructure among the poor rural schools
- It takes long time to build relationships with partners due to different contexts, organizational structures and development.
- Insufficient staff leading overworking and lack of leave which affects project implementation plans.

nership strategy has been revised. Based on these experiences, a new partnership strategy should comprise:

- A loosening of the focus on the geographical coverage, i.e. one partner being responsible for one province
- A more thorough analysis of the capacity (economically, logistically) of the potential partners
- MOU's with partners should be very specific regarding the description of mutual expectations
- Ensure that partners are offered optimal ownership, i.e. a seat in the PAC
- Partnership can be sought with programmes on other themes than EE or ESD

- Do not engage in a partnership based on a customer or client approach – instead establish a common understanding of shared benefits

Although successful partnerships have been established, a way to secure full geographical coverage of logistics would be regional coordinators. A frequently observed problem is the "client"-attitude possessed by a number of extensive schools once they have signed up for the programme. Other aid programmes, as well as the Eco-Schools intensive target schools, are based on a more direct financial support. The message of self-empowerment sometimes is lost in communication. It is therefore essential that there is a precise communication addressing the level of expectations from the extensive schools regarding micro project sponsorship. This comprises training, improved written marketing

Lessons Learnt in Implementing the Eco-Schools Programme

1. The network partnership approach has proven more cumbersome. The initial strategy/implementation turned out insufficient in a number of ways. However, during project implementation, the part-

materials and other means of communication.

3. Production of education materials is costly, especially so if lay-out standards need to be high in order to meet government standards. In Kenya this unfortunately has proven to be a bottle-neck as more schools are to be brought on board. Finding sponsors to cater for expenses to produce additional materials is difficult, leaving the schools with a limited number of copies to teach from.

Lessons learned from the (Eco-Schools in the African region) indicate very strongly that the Eco-Schools programme has the potential to enhance practical capacity building for sustainable development.

Mr Klaus Topfer, Executive Director, UNEP

Mr J McConnell, Scottish First Minister, 18 July 2002)



Juja Senior School championing for waste separation through Litter Less Campaign