

Gundua pamoja
‘Get it’ together
**The LWF Environmental
Education Strategy
2011-2016**



Teachers from South and Central Laikipia carrying out a biodiversity survey

Gundua pamoja - ‘get it’ together

The LWF Environmental Education¹ Strategy

2011-2016

¹ The term ‘environmental education’ as used in this document incorporates all issues involved in sustainable living including ecological concepts, ecological knowledge and understanding sometimes referred to as eco-literacy (relating to species, biodiversity, interdependency, observation, measurement, monitoring change), ecosystem approaches, environmental management (legal, technical and organizational issues regarding conservation, wise use, economics) aesthetic, cultural, moral and ethical aspects (values other than economic) for environmental decision-making and seeks to educate in ways that raise emotional and relational as well as cognitive capacities of learners, especially the capacity for critical thinking.

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1. Introduction

This document describes the LWF Education strategy for the next five years. It is the result of several initiatives to understand the environmental educational and eco-literacy needs of the people whom LWF represents and with whom LWF has been working for the past 15 years. These include reviews of LWF's programmes including its education programme (REFERENCES to be added ;LWF programmes review xxxx Maggie Essen 2007, Delphine 2011,) and three two-week periods of action-research and consultation between February and July 2011 (Hogan, 2011 a.b.c). This strategy responds to a recognition that, although a considerable number of people in Laikipia understand ('get') parts of the environmental vulnerabilities few appreciate the possible impacts of environmental and biodiversity degradation in a holistic way. By applying this strategy it is expected that a critical mass of people will understand ('get') ecosystem processes and the human role in them and will be ready to act together to restore and maintain whole ecosystems. Thus the title 'Getting it together in Laikipia'. The Swahili verb 'kugundua' captures 'getting it' in the sense of discovery. Gungua pamoja means 'discover together'. This term also encapsulates the notion of local experts, who understand their people and biodiverse environment, working with formal scientists, who bring global experience, to find ways to improve life sustainably.

2. Goal

The goal of the Environmental Education strategy, which is shared with all other programme strategies and particularly LWF's Communications Strategy, is that;

The people of Laikipia, have an increased understanding of the need for and the value of wildlife² and a healthy natural environment.

3. Main Objective

The main objective of the strategy is that:

Relevant, action-oriented learning about sustaining and improving life is promoted through supporting formal educational institutions, community – based organisations and individuals, conservation NGOs, conservancies, ranches, farms, spiritual, cultural, sports and media institutions, and other LWF members to improve their environmental education capacities and reach.

4. Sub-Objectives

² The term 'wildlife' includes all plants and animals.

The three main sub-objectives of the Environmental Education Programme are:

1. **Improved environmental education by formal education institutions**
2. **Raised capacity amongst citizens implementing environmental education**
3. **The ‘general public’ is engaged regularly on issues of sustainable living in Laikipia.**

Two further sub-objectives support the successful achievement of the three main sub-objectives;

4. Management and administration services are provided to the EE Programme
5. The EE programme is monitored and evaluated and lessons are used for improvement.

5. Themes and Content

The central themes and content issues which will be explored within this strategy cover the **three main knowledge needs** felt by LWFs clients³

- **ecological,**
- **technical,**
- **legal and organisational**

as follows:

- The links between human quality of life and the quality of the natural environment (including all ecosystem processes and biological diversity).
- The organisational, administrative, social and political issues that impact on the sustainability of life especially the legal responsibilities and rights of individuals and institutions in relation to natural resource management (conservation and use).
- Organisational and communication skills for operating peacefully and effectively within the socio-political sphere.
- Technical information and practical skills for sustainably improving human quality of life.

³ Clients are the people whom LWF serves.

- Technical information and practical skills for sustainably improving the quality of the environment.
- Balancing the mix of book knowledge and local knowledge about species, their habitats, ecosystems and how humans act with/within them.
- The moral, ethical and economic motivations for humans' behaviour in relation to the environment.
- 'Hot' and/or new local and national environmental topics as they arise e.g. food insecurity and Genetically Modified Organisms (GMOs), the new Wildlife Act, China's policies on Rhino horn imports, carbon finance, Climate Change adaptation and Reduced Emissions from Deforestation and Degradation (REDDs).

6. Sub-Objectives, Activities, Partners and Timings

The proposed Activities, Narrative descriptions, the People whom they will engage, the Partners with whom they will be implemented and the Timings for their achievement are given in Table 1 below.

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| Table 1. Sub-Objectives, Activities, Description, Engaging with Whom & Partner Organisations and LWF Programmes | | | | | | | | | |
|--|---|---|---|--|-------------|---|---|---|---|
| | Activity | Description / narrative | Engaging with whom | Partner Organisations and LWF Programmes (for implementation) | Timing Year | | | | |
| | | | | | 1 | 2 | 3 | 4 | 5 |
| Sub-Objective 1. Improved EE in formal education institutions | | | | | | | | | |
| | 1.1. Support improvement of EE delivery by teachers. | Use the bus excursions as an entry point for engaging with teachers on strengthening their environmental education lessons. Participatory review of lesson plans. | Students from class 5 and 6 and Forms 1-3 in Primary and Secondary schools throughout the district. | Teachers in 340 primary and secondary schools. District Education Offices. (DEOs) | | | | | |
| | 1.2 Promote and support adoption of 'whole school' environmental strategies. | Work with trained teachers and their principals, the students and parents to develop whole – school environmental strategies including school land and resources planning, waste management, vegetating, biodiversity enrichment, using outdoors and community human resources for teaching-learning. | School principals, teachers, community members, students and District education staff. | District Education Office. School Principals School Committees Community /parent leaders. | | | | | |
| | 1.3 Support the enhancement of districts' primary and secondary education strategy on EE. | Collaborative actions with Districts including prize giving days, curriculum (teaching-learning process) support, materials advice, skills training advice and support. | District education Officers and their staff including Teachers Advisory Centre staff. (3 districts involved currently). | LWF sub-committee on education DEOs x 3 Teacher Advisory Centres (TAC) managers Kenya Institute of Education (KIE) Ministry of Education | | | | | |
| | 1.4 Promote EE within the Adult Literacy programmes of Districts | Train adult literacy teachers in ecological and experiential learning skills. Ensure LWF educational materials are friendly to adult literacy needs. | Adults who apply to the local/ District Adult Literacy Office for literacy courses. | Adult literacy volunteers and trained teachers throughout the districts, District Adult education officers | | | | | |
| Sub-Objective 2. Raised capacity amongst citizens implementing environmental education. | | | | | | | | | |
| | 2.1 identify willing and capable community members, Staff of conservancies, ranches, farms and LWF member networks. | Members of community organisations established during a database of informal environmental educators | Community groups who manage water, wildlife and elephant conflict, forests, | LWF Community Liaison Officers, Programme implementation staff and facilitators. | | | | | |

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| | | operating in the district will be established as baseline and a resource. LWF programmes, other development and conservation projects programmes, faith – based organisations, sports, cultural, youth and women’s associations will be indentified to work as environmental educators and act as resource material/centre managers for their clients. | natural resource based enterprise. Also faith-based, sports, cultural and other social groupings. | LWF members and their networks. | | | | |
| | 2.2 Train community educators in ecological knowledge, EE skills, sustainable technologies, organisational skills, resource materials lending and management, and in use of the radio packs as they are published. | New community Environmental Educators will be trained in a programmatic way to meet with their needs over a minimum of a two-year period. Courses will also be tailored for staff of conservancies, ranches, farms and other conservation organisations who already have ecological skills but may not have educational and communications expertise. Exchange of experience, methodologies and skills between environmental educators will be facilitated through electronic (SMS on mobile phones, emails, preparation and sharing of mini-‘how to’ videos/DVD and face-to face (workshops, exchange visits, event days hosted by different educators in rotation). | Newly identified community educators located throughout the districts/county. | LWF programmes, CLOs and programme staff. Mpala Research Centre, other researcher organisations including Baboon research Project, Lewa-based Research programmes, Conservation and environmental NGOs and CBOs, Museums of Kenya and others. | | | | |
| | 2.3 Provide resource material to community educators | Establish resource boxes (or rooms, shelves, bags) and lending /access systems under community educators and regularly replenish and update | Newly identified community educators located throughout the districts/county. | CLOs, LWF programme implementation staff. | | | | |

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| | | them with resources and advice on use. This may involve formal agreements with the partner agencies (other NGOs , faith-based organisations). | | | | | | |
| | 2.4 Follow-up and monitor community training and resource access points | Ensuring that the community educators get the organisational support they need from local administrations, and the guidance for solving day-to-day management glitches will be given. Monitoring of the quality of the community educators' work will also be involved here. | Newly identified community educators located throughout the districts/county. | Community leaders. LWF Programme staff, CLOs. LWF M& E Officer. | | | | |
| | 2.5 Foster sharing of skills and experience between community educators between and conservancy staff and guides | Trained community educators will be encouraged to communicate regularly with each other. Employers of conservancy, ranch and farm staff will be encouraged to support their staff's networking initiatives. | Newly identified community educators located throughout the districts/county. Conservancy, ranch and farm staff and guides. | Community leaders, CLOs, Ranch, Conservancy and farm management. | | | | |
| Sub-Objective 3. The 'general public' is engaging regularly on issues of sustainable living in Laikipia. | | | | | | | | |
| | 3.1. Design and run mass media programmes for environmental education | Radio programmes will be developed and aired and monitored in year one and two with a view to running more regular radio programmes (weekly) throughout selected periods of years 3-5. Radio programmes will be supported by a series of self-education listener group packs which will be made available to community educators for use at any time suitable to them. (see sub-Objective 2 above) The programmes will be made locally in Swahili and vernaculars with local principals. The programmes will be pre- | Rural and urban women and men in greater Laikipia particularly in the 16 years and upwards age group. | Radio production experts e.g Agricultural Information Centre of Ministry of Agriculture (AIC), KIE and radio stations. Environmental Education consultant adviser. Curriculum vocabulary and reading level experts e.g from the Ministry of Education and KIE or other academic institutions. Drama and creative arts design and production experts. | | | | |

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| | | advertised and interactive feedback systems using mobile phones will be used to engage with listeners. | | | | | | |
| | 3.2. Run educational activities and incentive activities in/for whole county | This will include World Days, district prize giving event, quizzes an essay competitions in County newspaper and other publications with whole county circulation. Stories, technical 'how-to' and. Prizes will comprise sustainable technologies and educational materials or equipment. | Rural and urban girls, boys, women and men in greater Laikipia. | LWF programme staff. NEMA, KFS, KWS, WRMA, Climate change projects and programmes, research organisations, environmental and biodiversity conservation NGOs, DEOs, Agricultural Society of Kenya (ASK) Show committee for Nanyuki and others. | | | | |
| | 3.3. Explore the use of new electronic media and social networking media for mass communication. | Short videos DVDs with easily accessible, appropriate showing systems; other electronic and IT media will be piloted especially mobile phone systems, as a high proportion of households have mobile phones. | Rural and urban women and men in greater Laikipia particularly in the 16 years and upwards age group. Community development groups, community educators. | LWF Communications Programme, mobile phone companies, IT and electronic media expert/company, media NGOs. | | | | |
| | 3.4 Establish and run regular two-way news system in Swahili (and vernaculars) | Explore the feasibility of production and distribution of a regular written and /or audio news letter. Research current rural access to written newspapers. Newsletters, fliers e.g from media houses, churches, education department, sports clubs etc and the distribution systems used. Consider newly established volunteer educators and their resource access points as possible distribution hubs. | Rural and urban girls, boys, women and men in greater Laikipia. | LWF Communications Programme, LWF programmes, media companies (print and electronic). Media distributors. | | | | |
| | 3.5 Produce generic information materials in Swahili vernaculars and scientific language | A printed flier about Laikipia's people, ecosystems, | Rural and urban girls, boys, women and | LWF programmes, researchers and research | | | | |

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| | for use by all LWF programmes. | biodiversity, climate and trends will be produced and updated. Charts and posters for plant and animal identification, story books, annual calendar and pin-up poster and other materials may be produced. | men in greater Laikipia. | centres especially Mpala Research Centre, | | | | | |
| Sub-Objective 4. Management and administration services are provided to the EE Programme. | | | | | | | | | |
| | 4.1 Complete and extend the EE team as and when required | A full-time driver / administrative assistant will be recruited in 2011. A further high level education/ecology position will be considered in Year Two. The services of an EE consultant with Swahili language capacity will be engaged to mentor the EO, to design and conduct training, to guide the radio programme content development team/s, to develop TORs and assist with recruitment of other personnel and consultants ,and sporadically throughout subsequent years Other specialised skills, such as in desktop publishing, radio production, drama design, music will be engaged as necessary. A database of human resources in Ecological, Environmental education and adult education skills will be maintained. | LWF's EE team | EE consultant/s National, regional and international environmental education resource institutions and contacts. | | | | | |
| | 4.2 Provide capacity building opportunities to the LWF EE programme team | This will include training for the Education Officer in management, EE state-of the-art skills, EE research skills, networking by contributing to and attending conferences. | LWF's EE team | EE consultant/s National, regional and international environmental education training and resource institutions and contacts. | | | | | |
| | 4.3 Equip the LWF EE office for purpose. | Provide and maintain vehicles (bus, car), computers, camping | LWF's EE team and all their clients. | | | | | | |

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| | | equipment, printer, audio recording equipment, camera, video camera, projection equipment, 30 binoculars, hand lenses, reference books, manuals, maps, charts, journal subscriptions, filing system, stationary, and computer consumables. | | | | | | |
| | 4.4 Provide Financial management support for EE programme. | This includes banking and accounting services, regular financial balance checks and projections and stock inventories. Also provision for Annual internal and external audits. | LWF's EE team and all their clients and sponsors. | LWF core staff. External auditors. | | | | |
| Sub-Objective 5. The EE programme is monitored and evaluated and lessons are used for improvement. | | | | | | | | |
| | 5.1 Summarise the baseline information that is currently available regarding knowledge attitudes and practise on environmental management as a baseline. | A review of previous survey data and reports will be carried out to gather data on perceptions and attitudes to environment in Laikipia. | CLOs, Programme Leaders and staff of LWF programmes. Media organisations operating in Laikipia. | CLO reports M+E Adviser LWF, Mpala Research Centre's socio-economic and eco-system monitoring team. Media houses re readership and listenership data. | | | | |
| | 5.2 Perform mini-surveys to further understand language level, listenership and readership tastes. | Before and during preparation of written and audio and visual materials, audience studies will be carried out to check relevance, level of language, which language, understanding of graphics listenership times to which stations. | Rural and urban women and men aged 16 upwards. | CLOs, LWF programme staff, media houses and radio and television stations. | | | | |
| | 5.3 Build in and implement a simple monitoring method into each element of the EE programme. | Evaluation at the end of each training workshop, bus excursion, public event will be reported and analysed on a quarterly basis. | | LWF M& E Officer. LWF programme staff, CLOs, trainers. | | | | |
| | 5.4 Raise partners' capacity in participatory monitoring. | Develop participatory EE monitoring methods with selected LWF implementation staff , teachers and community | Teachers, DEOs, community educators, community leaders, school /parent | LWF M& E Officer. LWF programme staff, CLOs, trainers. | | | | |

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| | | members. | committees. | | | | | |
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| | 5.5 Conduct internal evaluations | Internal evaluations will be done through the other LWF programmes by tracking their targets on education outcomes and impacts. The LWF M+E Officer will lead the internal evaluations. | | LWF M& E Officer and team. | | | | |
| | 5.6 Conduct external evaluation. | Regional or Southern African environmental education expertise will be sought to evaluate the EE programme | | LWF M& E Officer. International Environmental Education resource organisation or individuals. | | | | |

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7. Activities, Sub-activities, Targets and Timings for Year One

Table 2 provides sub-activities for the first year (2011-2012) of the programme which runs from August 1st 2011 to July 31st 2012.

| Table 2. Activities, sub-activities, targets , partners and timings for Year One | | | | | | | |
|---|---|--|---|----------|----------|----------|----------|
| Activity | Sub-activities year one | Targets year one | Partner Organisations and LWF Programmes (for implementation) | 1 | 2 | 3 | 4 |
| Sub-Objective 1. Improved EE in formal education institutions | | | | | | | |
| 1.1. Support improvement of EE delivery by teachers. | | | | | | | |
| | 1.1.1 Train 60 teachers in ecology, experiential learning skills and support lesson planning. | Two training courses 2 x 30 teachers who have booked the bus programme with District Education staff | District Education Offices, Centres Ministry of Education, Kenya Institute of Education. | | x | | x |
| | 1.1.2 Run 64 one-day exposure visits for students and teachers | 1,792 students 128 teachers. Class 5 and 6 and Forms 1-3 in government Primary and Secondary schools | School principals and teachers. School management and parent committees. | x | x | x | x |
| | 1.1.3 Update materials for students' bus excursions | Purchase Resources Books, maps, Binoculars (and design and print 2,000 student manuals. | LWF programmes, Mpala research centre, artists, ecologists. KIE, Ministry of Education. DEOs. NEMA, KFS, KWS. | x | x | | |
| 1.2 Promote and support adoption of 'whole school' environmental strategies. | 1.2.1 Encourage trained teachers and their principals, the students and parents to develop whole – school environmental | 20 School principals, teachers, community members, students and District | District Education Office. School Principals School Committees Community /parent leaders. | x | x | x | x |

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| | strategies. | education staff. During follow-ups and DEO quality inspections. | LWF programme KIE. | | | | | |
| 1.3 Support the enhancement of districts' primary and secondary education strategy on EE | 1.3.1 Participate in Collaborative actions with Districts including prize giving days, | District education Officers and their staff including Teachers Advisory Centre staff. (3 districts involved currently). | LWF sub-committee on education DEOs x 3 TAC managers KIE Ministry of Education | x | x | x | x | |
| | 1.3.2 Respond to and seek invitations to advise District Education Committees, support materials production teams etc. etc. | District education Officers and their staff including Teachers Advisory Centre staff. (3 districts involved currently). | LWF sub-committee on education DEOs x 3 TAC managers KIE Ministry of Education | x | x | x | x | |
| 1.4 Promote EE within the Adult Literacy programmes of Districts | | | | | | | | |
| 1.5 Promote policy level changes to favour greater emphasis on environmental education | 1.5.1 Participate pro-actively with the LWF Education Sub-committee. | 2 meetings/ 1 a field trip. | LWF membership and Board. | | x | | x | |
| Sub-Objective 2. Raised capacity amongst citizens implementing environmental education. | | | | | | | | |
| 2.1 Identify willing and capable community members, Staff of conservancies, ranches, farms and LWF member networks. | 2.1.1 Set criteria and request LWF programme and conservancy heads to assist in identification. | 20 community volunteers from each of 6 LWF programmes i.e 120 trainees. 20 conservancy, farm and ranch guides. | LWF Community Liaison Officers, Programme implementation staff and facilitators. | | x | x | | |
| 2.2 Train community educators in ecological knowledge, EE skills, sustainable technologies, organisational skills, resource materials lending and management, and in use of the radio packs as they are published. | 2.2.1 Run community educators training sessions with each of six programmes. | Six community training course, 20 community volunteers from each of 6 LWF programmes i.e.120 trainees. | LWF programmes, CLOs and programme staff. Mpala Research Centre, other researcher organisations including Baboon research Project, Lewa research programmes, . Conservation and environmental NGOs and CBOs, Museums of Kenya and others. | | x | x | x | |
| | 2.2.2 Run a training course for conservancy and ranch/farm | 1 conservancy/guides training course. 20 | Conservancy, ranch and farm management, LWF members. | | x | | | |

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| | | staff. | conservancy, farm and ranch guides. | | | | | |
| | | 2.2.3 Support each LWF programme to run 2 exposure visits | (2x6 x28 = 336 community members) | LWF programme leaders and staff, CLOs. Community leaders. | | | | |
| 2.3 Provide resource material to community educators through resource centres and community access points throughout the district/s | 2.3.1 Establish resource boxes (or rooms, shelves, bags) and lending /access systems under community educators in suitable locations. | 27 locations and at least 27 community educators. | LWF programme leaders and staff, CLOs. Community leaders. | | x | x | x | |
| | 2.3.2 Purchase sets of basic books and materials on policy, law, species identification and technological innovations etc.. | 27 sets of materials | LWF programme leaders and staff, CLOs. LWF members. | | | | | |
| | 2.3.3 Provide financial and logistical and technical facilitation to community based trainers to run training events. | 27 community educators. | CLO's Programme staff. | | | x | x | |
| | 2.3.4 Set up an environmental section in the District Community Library, Nanyuki and in Sipili Maarifa Centre. | 2 Head library heads and their staff. | LWF Communications Officer, LWF programmes, Conservancies incl. OI Pejeta, British Army Training Unit in Kenya, Mpala research Centre, Museums of Kenya, ecologists, artists, Conservancy, climate change and development NGOs. | x | x | x | x | |
| | 2.3.5 Contribute to planning the development of an environmental education centre in Laikipia | 3 days consultant advice | CLOs LWF programmes. | | x | | | |
| 2.4 Follow-up and monitor community training and resource access points | 2.4.1 Make follow –up visits and spot checks | 3 per access point. | | x | x | x | x | |
| 2.5 Foster sharing of skills and experience between community educators between and conservancy staff and guides | 2.5.1. Network community educators and guides via mobile phone, email and LWF newsletter notes. | 3 notes /articles in LWF Newsletter. 67 educators | LWF Communications Officer. | x | x | x | x | |
| | 2.5.2 Run a networking event for environmental educational educators at a conservancy. | One event with up to 100 educators. | | | | x | | |
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| Sub-Objective 3. The 'general public' is engaging regularly on issues of sustainable living in Laikipia. | | | | | | | |
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| 3.1. Design and run mass media programmes for environmental education | 3.1.1 Prepare, air, make and disseminate back up materials, do feedback and evaluate radio programmes. | Complete 1-2 generic magazine radio programmes on Laikipia's ecology and human livelihood links. Complete 6 x fifteen minute radio programmes + educational packs (1 per LWF technical programme) | LWF Communications Officer. Radio production experts e.g AIC, KIE and radio stations. Curriculum vocabulary and reading level experts e.g from the Ministry of Education and KIE or other academic institutions. Drama and creative arts design and production experts. EE consultant. | x | x | x | x |
| 3.2. Run educational activities and incentive activities in/for whole county | 3.2.1 Select schools and communities for receipt of awards using specific criteria. | 10 schools and 10 community categories. | LWF Communications Office, LWF programme staff, DEOs, CLOs, Mpala Research Centre, Bboon Research Centre, Lewa, OI/Pejeta OI/Jogi and others who work with schools. | | | | |
| | 3.2.2 Acquire the awards (biogas digester, majiko sanifu, waterboxxes) | 20 major prizes | GEF, Private commercial organisations who make the technologies, Worldlife Foundation and others. | x | x | x | |
| | 3.2.3 Organise /participate in reward events, competitions and activities. | 3 events, 1 competition. | LWF Communications Officer, Programmes staff, event organisaers (DEO, NEMA, conservation NGOs) and others. | | x | x | x |
| | 3.2.4 Run events jointly with Mpala Research Centre. | 1 event | LWF Communications Officer. Mpala Research Centre Executive Director and researchers. | | | x | |
| 3.3. Explore the use of new electronic media and social for mass communication. | 3.3.1 Pilot mobile phone feedback systems, for interactive radio programme feedback. | 1 trail on two radio programmes (in 3.1.1 above) | Mobile phone company/ies. | | | x | x |
| 3.4 Establish and run regular two-way news system in Swahili (and vernaculars) | 3.4.1. Research current rural access to written newspapers. | 1 informal survey via LWF programme | LWF M& E Officer | | x | | |

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| | Newsletters, fliers e.g from media houses, churches, education department, sports clubs etc and the distribution systems used. | contacts and CLOs | | | | | |
| 3.5 Produce generic information materials in Swahili vernaculars and scientific language for use by all LWF programmes. | 3.5.1 Produce a Swahili language flier about Laikipia's people, ecosystems, biodiversity, climate and trends. | 1 flier/brochure. 10,000 copies | Mpala Research Centre and all LWF programmes. | | | | |
| | 3.5.2 Produce Charts and posters for plant and animal identification | 2 charts or posters | LWF member ecologists, local and indigenous knowledge experts, other contributors. LWF Communications Officer. KIE, Ministry of Education, NEMA, LFS, KWS , WRMA. | | x | x | |
| | 3.5.3 Produce one set of learning materials for/about each programme's e.g. 'water resource management, community forest management, rangeland management etc. | 1x 6 sets of materials in Swahili and vernaculars. 3,000 community members associated with programmes. | LWF Communications Officer LWF Programmes. | | | | |
| | 3.5.4 Brief LWF programme staff and partners on use of generic materials. | 1 x 6 x 1 day sessions. | LWF Programmes | | x | x | x |
| | 3.5.5 Train community based trainers on use of the materials. | 6 training sessions, run by LWF programmes. | LWF Programme staff. | | | x | x |
| | 3.5.6 Disseminate/use materials through programme links and World Days related to environment | At least 5,000 adult women and men. | Conservation NGOs, Climate change projects and programmes, , cultural , sports, faith-based and other organisations. | x | x | x | x |
| Sub-Objective 4. Management and administration services are provided to the EE Programme. | | | | | | | |
| 4.1 Complete and extend the EE team as and when required | 4.1.1 Employ driver/administrative assistant. | 1xTORs, 1x Recruitment process, contract prepared. 1 x driver/admin assistant. | | x | | | |
| | 4.1.2 Engage consultant adviser/mentor for EO and radio | 1 EE consultant | | x | x | x | x |

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| | production. | | | | | | | | |
| | 4.1.3 Engage specialists as required. | | | | | x | x | x | x |
| | 4.1.4 Continuously update the database of human resources in Ecological, Environmental education and adult education skills | | | | | x | x | x | x |
| 4.2 Provide capacity building opportunities to the LWF EE programme team | 4.2.1 Training courses for EO in project management and budgeting skills and IT skills. | | | | | x | x | x | x |
| | 4.2.2 Train EO in Education theory and practice S. Africa August 2012.or Darwin Monitoring and communicating Biodiversity. | | | | | | | | x |
| | 4.2.3 EO networking with other Environmental Educators in the region – EEASA Lesotho October 2011. | | | | | x | | | |
| 4.3 Equip the LWF EE office for purpose. | 4.3.1 Provide and maintain vehicles (bus, car), printer. | Fit out new bus. Dispose of old bus. Recurrent costs for mechanical maintenance of bus and other vehicles used. | | | | x | x | x | x |
| | 4.3.2 Establish and maintain computing and filing system, | Stationary, computers computer consumables. Cabinets. | | | | x | x | x | x |
| | 4.3.3 Acquire materials and equipment for EEO office library | Dictionaries (Swahili, English, Kikuyu, Maa), audio recording equipment, camera, video camera, projection equipment, 30 binoculars, hand lenses, reference books, manuals, maps, charts new | | | | x | x | x | x |

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| | | material (books, CDs DVDs, journal subscriptions, online subscriptions, produced by government (KIE, NEMA etc), NGOs, international agencies etc. | | | | | |
| | 4.3.4 Outdoor Teaching and camping equipment. | Tarpaulin, mats for temporary shelter, drinking water system and other basics. | | | x | x | |
| 4.4 Provide Financial management support for EE programme. | This includes banking and accounting services, regular financial balance checks and projections and stock inventories. Also provision for Annual internal and external audits. | As stipulated by LWF standard, Kenyan law and donor requirements. | LWF core staff. External auditors. | x | x | x | x |
| Sub-Objective 5. The EE programme is monitored and evaluated and lessons are used for improvement. | | | | | | | |
| 5.1 Summarise the baseline information that is currently available regarding knowledge attitudes and practise on environmental management as a baseline. | 5.1.1 Review previous survey data and reports to gather data on perceptions and attitudes to environment in Laikipia. | 1 short document summarising current data. | CLO reports M+E Adviser LWF, Mpala Research Centre's socio-economic and eco-system monitoring team. Media houses re readership and listenership data. | | x | | |
| 5.2 Perform mini-surveys to further understand language level, listenership and readership tastes. | 5.2.1 At launch of draft pilot materials do audience studies to check relevance, level of language, which language, understanding of graphics, listenership, times to which stations. | Several reports of events, workshops briefings as in various activities above. | Course trainers, LWF staff, CLOs, LWF programme staff, media houses and radio and television stations. | x | x | x | x |
| 5.3 Build in and implement a simple monitoring method into each element of the EE programme. | 5.3.1 Make short report of evaluation/s at the end of each training workshop, bus excursion, public event and analysed on a quarterly basis. | Several evaluation reports and 4 consolidated analysis reports | LWF M& E Officer. | x | x | x | x |
| | 5.3.1 Make Monthly data | 12 x data updates. | | x | x | x | x |

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| | | updates using simplified reporting format (refer also to LWF strategy 4.3.8) | | | | | | |
| 5.4 Raise partners' capacity in participatory monitoring. | YR 2 onwards | | LWF M& E Officer | | | | | |
| 5.5 Conduct internal evaluations | 5.5.1 Conduct annual internal evaluation. | 1x evaluation process and report. | The LWF M+E Officer will lead the internal evaluations. | | | | | x |
| 5.6 Conduct external evaluation. | | | | | | | | |

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8. Measuring achievements

Scoring our educational goal

Measurement of the achievement of our educational goal will be performed under the Environmental Education Programme sub-objective 5, under all other LWF programmes and also under the overall LWF monitoring and evaluation system. The target set for the educational goal - *The people of Laikipia, have an increased understanding of the need for and the value of wildlife⁴ and a healthy natural environment – is that*

By August 2015 there will be an increase of 50 % in the number of teachers, students and adults in Laikipia who have enhanced their understanding of ecological processes, environmental rights and obligations, environmental management options and technologies.

The substantive means to verify this change will be described in detail once baselines have been set regarding the current levels of knowledge, attitudes and practice (Sub-activity 5.1.1). Regular monitoring records will be analysed and one-off surveys of household, school, user group and public events will be carried out.

The overall LWF monitoring and evaluation system will measure the contribution of the educational goal's achievement to the achievement of LWF's overall goal:

Healthy and productive natural environment for the people and wildlife of Kenya in a supportive policy environment, accepted and understood in the wider community, achieved in the manner of optimum economic and sustainable productivity of land and natural resources, which are widely and appropriately distributed in a peaceful environment.

Indicative indicators and targets for sub-objectives and activities and their means of verification are provided in Table 3 below.

⁴ The term 'wildlife' includes all non-domestic plant and animal species.

9. Interim Targets, Impact Indicators and Means of Verification

| Table 3. Indicative Interim targets, Impact indicators and Means of Verification | | |
|--|--|---|
| Targets (All expected by the year 2016) | Impact Indicators | Means Of Verification |
| Objective 1. Improved environmental education by formal education institutions | | |
| <ul style="list-style-type: none"> ➤ 100 female and 100 male teachers trained for at least 6 days each. ➤ 100 school preparatory visits or follow-ups made. ➤ 5000 students have participated in one-day exposures. ➤ 6 district education officers and 2 TAC managers have collaborated. ➤ 50 schools or adjacent communities resourced with reference books and equipment for environmental education. ➤ Lesson plans developed for at least 2 primary school and 2 secondary school lessons and in use by 100 teachers. ➤ 20 adult literacy teachers trained in environmental education principles and skills according to their needs. ➤ 8 LWF Education sub-committee meetings (including 4 with field visits) held. | <p>80% of teachers trained show increased knowledge of ecology, environmental rights and obligations, sustainable technologies.</p> <p>80% of students show increased knowledge of biodiversity and links between human livelihoods and wild plants and animals.</p> <p>30% of students' family members, neighbours or friends show increased awareness of the links between biodiversity and human futures.</p> | <p>Sample survey of teachers, their students and school committees, parents/community members, district education staff.</p> |
| | <p>50% of teachers trained show more positive attitudes towards beings other than humans and towards natural habitats.</p> | <p>Sample survey of knowledge, attitudes and perceptions of teachers and their students.</p> <p>Records of incidences of destructive actions towards wild species and their habitats.</p> |
| | <p>30% of teachers trained show increased action in the school grounds, in lesson time and in school policy and planning in favour of environmental education.</p> | <p>Existence of whole school environmental plans, evidence of school environmental plan implementation, Inspection of school compound, lesson plans, District education office records.</p> |
| | <p>10 % of student's have taken environmental actions in their homes/ community neighbourhoods.</p> <p>Educational materials and resources are well managed, easily accessible to students and their families, used and still in demand.</p> | <p>Household surveys, community visits.</p> <p>Monitoring records, correspondence, Sample survey questions to households and students. Check visibility of Resource</p> |

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| | | locations and resources in community educators resource boxes/ shelves etc.. Review community educators' records on usage of environmental resources and events run. |
| LWF education sub-committee has actively advised on substantive aspects of the LWF EE programme at least once per year. The LWF education sub-committee has taken recommendations on EE to district/new county planning authorities at least once per year. | Environmental education is more actively discussed at district decision-making fora. Policy level and strategic action on environmental education are more visible. NEMA, KFS, DEOs, KWS, LWF members, conservation NGOs, researchers are making collaborative recommendations and material contributions to long-term actions. District environmental education policy and strategy is being conceived in conjunction with the district wildlife plan, district development plan and district education plan. | Number and quality of correspondences, requests, advice notes, office visits, written contributions, activities instigated, initiatives conceived. |
| ➤ Environmental sections established and maintained in 4 established government or community libraries | Nanyuki District Community Library, Sipili Mariifa Centre and two other established public libraries are running a) environmental resources sections and b) events for 4 World theme days per year. | Check visibility of Resource locations and resources in libraries. Review Library records on usage of environmental resources and events. |
| Objective 2. Raised capacity amongst citizens implementing environmental education | | |
| ➤ 180 women and 180 men, of communities linked to LWF programmes, trained as community educators. ➤ 50 conservancy, ranch, farm staff member personnel are trained in EE skills. ➤ Organisational settings for trained community educators are improved. | At least 50% of trained community educators are more knowledgeable and are engaging meaningfully with their contacts on environmental sustainability issues at least once per month. At least 50% of trained conservancy, ranch and farm personnel are better able to engage with their community partners and other Kenyans about environmental sustainability and are doing so. | LWF's CLO and Programme implementers' reports. Community educators' reports. Participant lists. Photographs of events. Survey of community members/ participants on lists mentioned above. |

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| <ul style="list-style-type: none"> ➤ Three (3) thematic audio education packs produced and distributed to ➤ 500 users (community educators, community resource access points, schools, faith-based organisations, LWF members, library-based listener groups.) | <p>At least 50% of packs have been used at least once.</p> <p>At 50 % of users have increased their ecological knowledge</p> <p>At least 7% of users have taken some practical or strategic action as a result of using the pack.</p> | <p>Sample the existence of the radio packs at locations recorded on distribution lists.</p> <p>Pack evaluation forms (enclosed in packs) returned by users.</p> <p>Mobile phone sms survey of a sample of those to whom it was distributed.</p> <p>Random observation of group listening events.</p> |
| <ul style="list-style-type: none"> ➤ 30 community resource access points established and regularly supplied with resource books, maps, CDs DVDs, manuals, guides, leaflets. ➤ 60 follow-up visits conducted to community educators at their places of work. | <p>30 Resource access points are open/operating for at least 8 hours weekly.</p> <p>Resource materials are well managed (traceable) and useable.</p> <p>Community user needs are understood and being met with appropriate materials.</p> | <p>Analyse daily records of lending, returns and comments by kept by Community educators.</p> <p>Sample observations at sites. During follow-up visits.</p> <p>Sample surveys of community members.</p> |
| <ul style="list-style-type: none"> ➤ 4 exchange meetings between community educators. | <p>Community Educators know each other, contact each other and feel peer-supported in their work.</p> <p>Educators know what is happening in other part of the district and can share it with their communities.</p> <p>Educators have gained each other's skills and methods.</p> | <p>Reports and participants list of meetings.</p> <p>Ask questions during the follow-up visits about the community educators' participation and the usefulness of the exchange meetings.</p> <p>During follow-up observe for application of skills which were initiated elsewhere by other educators.</p> |
| <ul style="list-style-type: none"> ➤ 2 county (greater district) level environmental educators workshops which reflect on EE strategy and curriculum issues. (see also 1.0 above) | <p>Recommendations and drafts of curriculum materials are being produced jointly by environmental educators working in Laikipia (Including The 3 District Education Offices, NEMA, KFS , KWS, WRMA, WRUAs, Conservancies, ranches, Conservation NGOs (e.g. William Holden, WCST, Giraffe Centre, Save the Rhino, International Zoos) eco-tourism operators, development NGOs and projects researchers and others.</p> | <p>Reports of the 2 meetings.</p> |

| | | |
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| <p>➤ Other targets???</p> | | |
| <p>Objective 3. The ‘general public’ is engaged regularly on issues of sustainable living in Laikipia.</p> | | |
| <p>➤ 18 x 15 minute radio programmes have been locally designed, produced and broadcast at least once on 3 stations that have high levels of listenership in Laikipia.</p> | <p>50% more of the public understand what LWF is and does. 20% more of the public likes LWF. Popularity ratings for the programmes and the stations increase up to the 18th programme. Feedback response levels increase from broadcast to broadcast. The radio stations demand more such programmes. Issues of sustainable lives, rhino poaching and biodiversity in Laikipia take headline status in local radio and newspapers more often.</p> | <p>Survey to compare with baselines established in year 1 Radio station listenership survey data.</p> |
| <p>➤ Sponsored weekly radio slots series in Swahili have been broadcast in years 3, and 4.</p> | <p>50% more of the public have heard of LWF and what it does. 20% more of the public likes LWF.</p> | <p>Survey to compare with baselines established in year 1 Radio station records. Radio station listenership survey data.</p> |
| <p>➤ Interactive feedback system reaches at least 20,000 listeners.</p> | <p>Response level represents 5% of possible listenership</p> | <p>Records of mobile phone feedback responses.</p> |
| <p>➤ 16 high quality World Day or other interactive public events have been run successfully.</p> | <p>An increased proportion of Laikipians knows what LWF is and does and has increased understanding of environmental issues and sustainable technologies.</p> | |
| <p>➤ 8 incentive programmes have been run providing at least 16 major and 100 small prizes and 500 participation certificates and /or token prizes.</p> | <p>Increase in the number of people who feel more positive towards LWFs and its goals. The number of solicited and unsolicited Media hits for LWF increase, providing more publicity.</p> | <p>Newspaper, TV and radio reports.</p> |
| <p>➤ Small inexpensive, useful, merchandise items (e.g. pencils, pens,</p> | <p>Environmental messages are more commonly seen and talked about around Laikipia. In homes, schools, offices,</p> | <p>Observations by LWF programme staff and internal and external evaluators.</p> |

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| <p>notebooks/copybooks, rulers, key fobs (stickers, sweatbands) with educational slogans in Swahili and vernaculars have been produced on a large scale (5,000).</p> | <p>on bicycles, motorcycles, matatus, cars, belts, necklaces.</p> | |
| <p>➤ 5,000 copies of a flier in Swahili about Laikipia's people and ecosystems are produced and distributed to schools, households, community educators, programme implementers, members and others are distributed each year.</p> | <p>Resources are available for use by those who want to educate themselves or others on the basics about the environment of Laikipia. The general public has increased its knowledge of Laikipia's environment.</p> | <p>Sample survey of knowledge, attitudes and perceptions.</p> |
| <p>➤ 2,000 copies each of 5 colour posters or charts of key plant (trees, shrubs and herbaceous), large and small animal, insect, bird, reptiles and amphibians are designed produced and distributed with advice(during training events or follow – up visits) to schools, community educators and homes in rural Laikipia. (Swahili, vernaculars, scientific and English names)</p> | <p>Species identification is more possible in every village which has a school or a community educator.</p> | <p>Sample survey of knowledge, attitudes and perceptions. Item for checklist on school and community educators follow up visits; ask to do a nature walk with students</p> |

10. Budget

The indicative budget is given in Table 4.

| Table 4. Indicative budget | | | | | | |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------|
| Sub - Objective | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total Amount USD |
| 1. EE in formal education | 80,000 | 120,000 | 150,000 | 150,000 | 100,000 | 600,000 |
| 2. Informal EE | 100,000 | 100,000 | 150,000 | 150,000 | 150,000 | 650,000 |
| 3. Public Engagement | 200,000 | 200,000 | 300,000 | 300,000 | 200,000 | 1,200,000 |
| 4. Management | 150,000 | 120,000 | 100,000 | 100,000 | 90,000 | 560,000 |
| 5. M+ E | 30,000 | 50,000 | 80,000 | 50,000 | 50,000 | 260,000 |
| Totals | 560,000 | 590,000 | 780,000 | 750,000 | 590,000 | 3,270,000 |

The Environmental Education Team is new and incomplete and will be performing activities, which have not as yet been attempted in Laikipia, therefore only indicative budgets are provided. Because the team will take time to build itself and to work up suitable partnerships the budget for the three 'action' sub-objectives (1-3) is set lower in Years One and Two than in subsequent years. For the same reason the management support costs are higher in earlier years to provide for consultancy support and team training. The Monitoring and Evaluation budget provides for baseline data collection, training in participatory evaluation for collaborators, and for internal and external evaluations.

11. Approach

The approach to implementing the Environmental Education strategy will be in keeping with LWF's core values, vision and mission and will incorporate appropriate international concepts in environmental education.

Operational approach - Providing service to partners

LWF will maintain a lean Environmental Education (EE) team and aim to strengthen the institutions that already have a responsibility, mandate and or an aspiration to implement environmental education.

- LWF programmes
The LWF thematic and research programmes already implement education as part of their mandate. If their education activities are not adequately overt in their strategies and work plans the programmes will be requested to make one or more explicit education components/objectives/goals within their strategies. The LWF education team will support them where needed to develop and implement their education components and also to extract the lessons they are learning for wider use throughout Laikipia and nationally. The Education Programme will work with them to ensure that LWF presents to its clients a coordinated approach to its work and a harmonized portrayal of its views.
- Formal educational institutions
This includes District and national education organizations including the Ministry of Education, Kenya Institute of Education, schools, school management committees, Teacher Advisory Centres, the Adult Literacy services and the national and district library services. Kenya Forest Services, Kenya Wildlife Service, the National Environment Management Authority, the Museums of Kenya, the Water Resources Management Authority and the Ministry of Tourism, Ministry of Environment and Mineral Resources, Ministry of Livestock and Ministry of Agriculture have formal educational responsibilities and are therefore important partners.
- Community – based organizations
this includes organizations established with the support of LWF's programmes, other development initiatives and other conservation and or environmental management initiatives . This may also include youth, women's, cultural, enterprise, faith-based, sports or other suitable social groups and associations organizations.
- Individuals
This includes individuals who volunteer to host or implement educational activities and who have special capacities for carrying them out. This includes retired women and men, young unemployed people or others who can contribute on a part-time basis. Individuals with ecological knowledge, story-telling,

acting, drama – creation, graphic art, teaching, facilitation and musical skills will be sought out. LWF staff members are highly skilled in several areas of expertise needed by the EE programme and are viewed as a very valuable resource for specialist inputs to the education programme.

- Conservation NGOs
LWF is aware that other conservation NGOs who are nationally or locally based are already carrying out educational activities about biodiversity conservation, land and water management, sustainable agriculture and other relevant topics. It will seek out collaborate with them and jointly develop agreed themes and methodologies towards raising all standards, coordinating activities and using economies of scale for reaching greater numbers of Laikipia's people. LWF's education programme is currently supported international conservations, notably Save the Rhino and Chester Zoo, and intends to maintain those very successful partnerships.
- Conservancies, group ranches, ranches and farms
Some conservancies and ranches have formal mandates to implement environmental education activities and are gearing up towards reaching the communities adjacent to their fences (Lewa, Ol Pejeta and Ol Jogi). They have or plan to have designated staff and buildings for running their educational programmes. Others may not have an overt mandate, but have management and staff who are strongly committed to the cause of education with the local communities (e.g. Enasoit, Solio). Farms producing wheat, flowers, potatoes and other vegetables are involved in research and educational partnerships with small farmers and local communities e.g. on no till systems. potato breeding and production, drip irrigation, other water conservation methods, wildlife and livestock grazing. The LWF education programme will collaborate to support of exchange of learnings and to bring the skills to a wider public.
- Eco-tourism companies
Community and most private eco-tourism companies are already involved in partnerships with the local communities and desire to improve their support to those communities' livelihoods. They are willing partners to LWF's efforts in environmental education.
- Research organizations and projects
Researchers and research organizations that work in Laikipia have information which they wish to be used for sustainable environmental management and biodiversity conservation. LWF's education team will collaborate with them to re-package and their findings and facilitate exposure in local forums.
- Development organizations
Several international, national and local governmental and non-governmental development organizations are working with the people of Laikipia for food security, climate change adaptation, formal education service provision and livelihood improvement

initiatives. Where aims coincide LWF's education programme will collaborate with such organizations at policy, strategy and a practical level. Currently one UN organization (Convention on Biodiversity /Global Environment Fund via UNDP), the Royal Netherlands Embassy and one United States government organization (the US Fish and Wildlife Service) support the Education Programme.

- **Media houses and their journalists and production experts**
LWF will engage with media houses to produce and broadcast radio and possibly television programmes and printed mass media materials. The LWF Education team will seek to develop synergistic partnerships with media organizations influencing their environmental and Laikipia content while providing high quality educational entertainment.
- **Spiritual institutions and faith-based organisations**
Most Laikipians are affiliated to religious organisations and also have traditional ethical, moral and conditioning and beliefs about human relationships with the supernatural. Such beliefs strongly influence Laikipians' lives and attitudes to other living things. Their devotion is demonstrated by their regular participation in spiritual and/or religious services. Some faith-based organizations are active in food security and practical land and water conservation initiatives and some are developing environmental strategies at a national level. Others have considerable experience in education and in printed and website media management. LWF's Education programme will look for opportunities to collaborate with faith – based organisations where aims concur.
- **Private commercial 'non-natural resources' organisations**
Several commercial organizations take business or altruistic interests in education or the environment in Kenya, notably in the banking and the telecommunications sectors. The opportunities to
- **Other LWF members**
Many of the above – mentioned groups are members or include individuals who are members of LWF. LWF also has members who are Nairobi or overseas-based and who may be interested in partnering with the Education Programme on some specific activities.

Continuous learning

Some understanding of the knowledge, attitudes and behaviour of the people of Laikipia in relation to the environment has been gained through LWF's programmes, through its overall monitoring and evaluation system, from other's' research and from the recent evaluation survey on the EELP. However the knowledge, attitudes and skills of the people we wish to engage with are not fully understood and neither are they static. People learning continuously and changing their likes and dislikes, adopting different 'fashions' as new social and cultural habits. As implementers of an education

programme it is important to move 'with the times' and respond to what people find interesting and attractive. Becoming astute in observing people's behaviour is a precursor to becoming astute in responding to their learning needs. It is also important to be alert to the external issues on which people need balanced information. For example in 2011, the question of whether GMOs should be adopted as a food security solution is a 'hot' public debate topic on which LWF could give direction. In order to flex with the dynamic atmosphere in which it will operate this LWF Environmental Education Strategy should be viewed as a flexible framework that can be changed as the implementers learn more about those with whom they are engaging.

This includes learning more about implementing partners and recording it for sharing. A framework for a database on environmental educators operating in Laikipia will be maintained as part of the strategy and in collaboration with the Communications programme.

Action-research

An action-research (REFERENCE to be added) approach will be taken to all activities using a continuous process of conceiving, planning, doing, recording, reviewing and conceiving anew. The process, in which learning is continually taking place, will take precedence over the products (such as fliers, posters, drama scripts, song lyrics, radio/audio recordings, technical guides, species identification charts). Since those who are involved in preparing and implementing education programmes are the ones who learn the most, as many people as possible will be involved in preparation and implementation.

All are teachers and learners

Globally most of what people learn is learnt outside of formal education institutions, yet formally educated people's knowledge tends to be regarded as more important than the knowledge of non-formally educated people. That is until we are caught in the bush without an antiseptic! Most formal information about the environment starts out as informal knowledge in the heads of the people closest to nature, but has been captured by formally educated scientists and becomes respected because it is written. LWF respects the local ownership of the information and will acknowledge this formally by placing that information back into local hands. LWF's Education programme will continue to find practical ways of placing research findings and meeting reports back at ground level. This will help to raise the access to information and the confidence of non-formally educated people to take the management of the environment into their own hands.

Situated learning with proximal experiences and opportunities for deliberation and planning action – a heads, hearts and hands approach

Much education, including environmental education, is based on fact and information giving and is removed from context. Thus the participants gain information about the environment but may not be stimulated to care about the environment enough to act. According to Caduto (Caduto, 1983) studies show that “changes in environmental attitudes and behaviour are most effectively brought about by Environmental Values Education (EVE) strategies that increase the learner's knowledge, amount of emotional involvement and their experience in the area being addressed”. The head, the heart and the hands will be engaged and the participants’ cognitive, emotional and relational skills will be fostered in each of LWFs educational efforts.

It is important to “situate” the learning in the participants’ contexts for them to be able to make it meaningful to themselves (O’Donoghue & Lotz –Sisitka, 2006). Relevant content will be prepared by doing preliminary consultation about participants’ knowledge and learning interests. Opportunities for participants to relate the ‘new’ topic to their own experiences will be the kick-off point of all educational activities.

‘Proximal’ experiences, that is participants involvement in hands-on practical doing of the new skill (or something close to it) will be the core element of LWF’s educational courses and trainings. People remember only 50% of what they see and hear but up to 90% of what they do, therefore by giving participants the opportunity to do the new skill education is almost twice as effective.

Deliberation time will be part of each education course. That is giving participants time and facilitation to think critically about the new knowledge in their own contexts by asking questions such as: “What is my reaction to this new knowledge?” “What does this new knowledge mean to me?” “To my family?” “To my community”, “Why is this so?” “Should the situation always be like this?” “Why?” “Why not?”

Some environmental education succeeds in raising people’s sense of caring for the environment but may not give them ideas about how they can act and may even drive them towards despair or disillusionment. LWF’s environmental education courses will provide opportunities to consider possible strategic and practical actions to ameliorate the status quo. Participants will gain further direction, skills and the confidence to plan and take action through providing appropriate linkages to LWFs other programmes and other suitable organisations. The Danish environmental education experts Jensen & Schnack (1997) refer this to as ‘action competence’.

Engaging the five senses – experiential learning

LWF appreciates that the more senses that are engaged the quicker and the more effective the learning. Therefore the approach adopted is experiential learning (REFERENCE) whereby learners see, hear, smell, touch and taste as far as possible in every educational activity. Also that they work out ways in which they can help others to have similar experiences.

The sixth sense – a sense of wonder

If the world is comprised of two kinds of people - those who wonder at nothing and those who wonder at everything - then LWF's education team belongs to the latter. A culture of wondering at nature. This nurtures an increased sense of value for beings other than humans and reduces fear of wild spaces. Time given to wondering at the beauty of nature helps engender peaceful happiness (ADD REFERNCES to guides training at IBIS and Wajee teacher training report). Such space is rare for many adults and children in Laikipia and will be provided during EE trips and courses through activities such as 'the bush spoke to me'.

A 'wondering at' or an appreciation of the knowledge, efforts and successes of local people will also be fostered through study visits, public documentation and through rewarding of sustainable living efforts with a range of prizes. Such affirmation empowers people encourages an increase in their efforts and attracts others to adopt new ideas.

Touching Emotional buttons and Raising Relational skills

Providing 'proximal experiences' in the environment stimulates emotion that is feelings for other people, other beings and habitats outside one's own. It is often assumed that participatory practical training is only suitable for children and semi-literate village people, but because many highly formally educated people are much further disconnected from nature it is they who gain from being 'reconnected' by providing them with such proximal experiences. A well planned educational experience can heighten feelings for species other than human and, given the right opportunities and links for deliberation, can increase the levels of pro-nature decision-making.

Also there are relational gaps to bridge between stakeholders by education, for example the feelings of inferiority or superiority between stakeholders. The provision of level 'educational playing fields' such as world theme day events in which all exhibitors are educators, can foster confidence and respect for the value of each others' knowledge. In such ways more equal partnerships will be fostered by LWF's education programme.

Translation

According to a comprehensive global study of agricultural science and technology, language limitations (e.g. limited to English) of extension services limit their effectiveness in multi-language societies (Mc Intyre, 2009). LWF will overcome language barriers by using Swahili and vernaculars as the main communication languages and by pitching the vocabulary to the most appropriate level. Adequate budgets will be made available for translation. Audio, visual and practical hands on experience by learners will be used in all training programmes.

12. References and Bibliography

Citations will be checked and Further references will be added

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13. Appendices – list

List of Appendices

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