

Remedy (cont.)

Key mechanisms

The three innovative mechanisms that is:-

- Joint Implementations (J.I)
- The Clean Development Mechanism (C.D.M) and
- Emissions Trading (E.T)

Possible recommendations for action

- Cut rich-country greenhouse gas emissions
- Renegotiate Kyoto protocol beyond 2012
- Support essential Adaptation Fund
- Everyone should be part of the climate change solution
- Strengthen disaster risk reduction
- Reform emergency responses
- Tackle poverty

The Green Belt Movement And Climate Change

Introduction:

The Green Belt Movement is a community-based, development and environmental organization . Its vision is to create a society of principled grassroots people who consciously work for continued improvement of their livelihood

Local and international concern:

Locally incidences of land slides, floods, drought, deaths, people displacement disease outbreak and loss of beautiful mountain sceneries sends alarm of looming danger in our country.

Internationally, the threats of Tsunami, change in sea level, heat waves and different types of cyclones raise eye blows since the past experience.

The Green Belt Movement And Climate Change (cont.)

RESCUE ADAPTION FUND

World Bank has played a pioneering role in developing the market for greenhouse gas emission reductions through the Prototype Carbon Fund (PCF). Operational since 2000, the PCF's mission is to pioneer the evolving carbon market while promoting sustainable development and offering a learning by-doing opportunity to its stakeholders.

While World Bank act as the custodian of the developed countries, the stake-holders are custodians of developing countries targeted as avenue through which the fund should be channeled for developments.

Green belt Movement is community custodian internationally and in our country Kenya hence it endeavours to respond to climate change through action planning, reforestation campaign, advocacy and creating environmental awareness.

We focus to make a major contribution towards increasing forests cover in our country and this far the movement effort is directed towards Billion-tree campaign lead by its founder Professor Wangari Maathai, UNEP, ICRAF and His Serene Highness Albert II Prince of Monaco.

Green belt movement tree planting network

The organization has a network of men and women in 110 constituencies in the country. These networks plant trees within their locality, private lands , public lands; forest reserves, water catchments, riverines and road reserves.

Public institutions have joined us in this noble work. They are linked-up to local community networks making a strong team with combined effort. Corporate world has started giving back to society through environmental support

Green belt movement tree planting network (cont.)

Having identified the potential in tree planting as a lasting solution in this regard, GBM has put a lot of efforts in mobilization of people into action and built synergies with others who are out to address all the environmental problems that include:

- ❖ Forest degradation
- ❖ Deaths and displacement of people due to environmental dangers
- ❖ Degradation of water towers and catchments
- ❖ Loss of biodiversity
- ❖ Soil erosion, floods and landslides
- ❖ Drought incidences
- ❖ Food insecurity and all other environmental theats

Other strategies used are advocacy against environmental injustice locally and globally by ensuring that environmental rights are upheld through legal processes, consultations, sound policies and right legislative measures developed.

GBM Action Oriented Focus

“Plant a tree and save a life”
It could be yours!

“A forest is a group of trees.
Yours, mine and ours”
let-us join effort in Billion tree
campaign, I thank you all.

THE END

Development, Environment and Gender: Grass Roots Experiences in Africa

Fridah W. Mugo

Centre For Operationalizing Policy in Agriculture, Environment and Rural Development in Africa (COPARD – AFRICA)

THE QUESTIONS

- **Development**----Are we becoming better in all aspects of our lives?
- **Environment**----Is our environment becoming better or worse? This is the Natural World in which People, Plants and Animals live e.g. Land, Water, Air.
- **Gender**-----How equitable is the distribution of our natural resources between men and women in Africa?
- **Poor**-----What proportion of our populations is lacking basic needs: Food, Health, Shelter, Clothing, Security and Peace?

FACTORS CONTRIBUTING TO ENVIRONMENTAL DEGRADATION IN AFRICA

- Increasing population – No population policy, No access to FP services.
- Land tenure – Land sub-division to un-economical sizes, Women inadequately considered.
- Dis-proportionate benefits from land between men and women: Women, the key land managers get very few benefits hence do not invest their very best.
- Lack of effective grass roots institutions – We have broken down traditional institutions and the modern ones are ineffective.
- Limited knowledge at the grass roots – on appropriate management of resources and consequences of environmental mismanagement.
- In adequate financial resources - for investing in sustainable management of natural resources.
- Lack of appropriate policies, legislations and their implementation and enforcement mechanisms - in most African countries

Population/Land Tenure and Land Use - 1

According to Pimentel et al, 1995: Per capita land requirement for a balanced food supply is 0.5 ha (1.25 acres).

Case 1- Bungoma:

- John was a teacher, had one wife, 14 children, 7 boys and 7 girls. 30 years ago, he had 27 acres of land. He sold 6 acres, remained with 21 acres. All the girls are married. He gave the sons 3 acres each. The sons have an average of 4 sons each. When they sub-divide the land their sons will get about 0.75 acres each. Where do we go from here?

Case 2 – Bungoma:

- James was a teacher, had one wife, 3 boys and 2 girls. He also had 27 acres. He did not sell any of his land. He educated all his children to university level. The two daughters are married. He gave each son 9 acres. They all have cars, permanent houses and good jobs and educating their children in good schools. How can we have more of James?

POPULATION/LAND TENURE AND LAND USE - 2

According to Pimentel et al, 1995: Per capita land requirement for a balanced food supply is 0.5 ha (1.25 acres).

Case 3 – Busia:

- Juma had five wives with 22 children. He was a fisherman, he was rarely seen at home. When he got money from the fish he used to go to Uganda to meet his girlfriend(s). Most of his children have not had good education, a few years ago, HIV Aids entered the system and all the six persons in the polygamous marriage got it. Juma and four of the wives had already died living behind 1 wife with the 22 children. What will become of these children? Is this fair? Should this continue without any intervention?

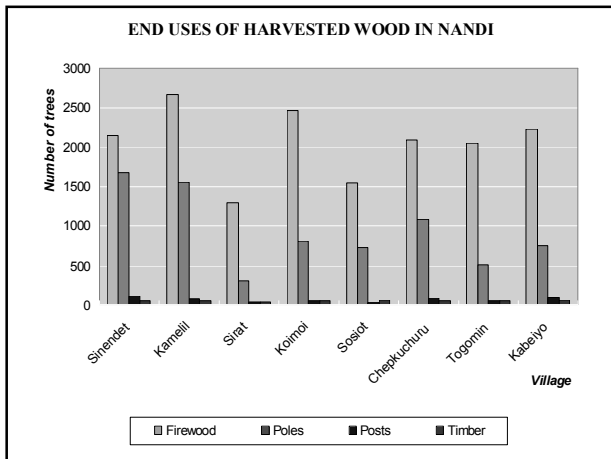
Case 4 – Nyeri:

- Jacob has one wife, 1 son and 1 daughter. He has 2.5 acres of land. The wife is very hard working, but the man drinks all the money and beats the wife regularly. She has given up on almost everything. They are just as resource poor as John's children. What should be done?

WATER HYACINTH ON LAKE VICTORIA

DRAINING OF RAW INDUSTRIAL LIQUID WASTE INTO LAKE VICTORIA

DEFORESTATION AND SOIL EROSION IN SIGOWET AND NYANDO – 2 YEAR-OLD GULLY



**CONVERSION OF
INDEGINOUS RAIN
FOREST TO
VEGETABLE FARMS IN
NORTHERN - LIBERIA**

**HOUSING UNDER WAR
CONDITIONS IN –
EASTERN DR CONGO**

RECOMMENDATIONS - 1

1. To manage the population
 - Lobby for and assist in formulation and implementation of population policies in Africa.
 - Lobby for more funding for provision of FP services including educating people on the same.
 - Lobby for free and compulsory pre-primary to secondary education.
2. Land tenure
 - Lobby for and assist in formulation and implementation of land policies in the most affected African countries.
 - Lobby for women's access to and control of land resources.
 - Land policies should ensure economic sizes are maintained and should eliminate landlessness completely.

RECOMMENDATIONS - 2

3. Un-proportionate benefits from natural resources between men and women
 - Balance investment in men and women's projects so that both of them get satisfactory benefits.
4. Lack of effective grass roots institutions
 - Study existing institutions and recommend reformulation of grass roots institutions for sustainable management of natural resources.
5. Limited knowledge at the grass roots
 - Develop training programmes and other information sharing systems that can ensure sustainable management of natural resources at the community level.

RECOMMENDATIONS - 3

6. In-adequate financial resources for investment:
 - Lobby governments for increased funds for investing in agriculture.
 - Lobby for funds for large scale investment in environmental businesses - Promote large scale charcoal and fuel wood farms e.g. 500,000 ha. /year and above to increase forest cover and supply of wood products. These should be owned by small scale farmers.
7. Lack of appropriate policies and legislations and or implementation and enforcement mechanisms:

Civil Society Organizations should:

 - Facilitate participatory formulation of environmental policies where they are lacking – Forestry, Energy, Water, Land use, Environment.
 - Speed up implementation where they exist but are not being implemented adequately.

GENERAL RECOMMENDATIONS - 4

- **TICAD AFRICA DESK** should have a strong Research Unit to assist the Civil Society Organizations carry out research so that they can speak from informed positions at all times.
- There should be planned learning from success stories in both Africa and Asia.
- NGOs and CBOs should formulate ways of sustaining themselves especially financially to cultivate sufficient respect and support.
- There is need to consider specialization: either geographically or sector wise.

WWW.AFRICANSAREREFLECTINGGECROPSINAGRICULTURE

THE REAL ISSUES

PRESENTED AT:

Workshops for Creating and Strengthening Relations and Policy Capacity of NGOs Networks:

Nairobi, Kenya: September 17 – 18, 2007

Tokyo, Japan: October 24 – 26, 2007

BY:

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1. DEFINITIONS

1.1 BIOTECHNOLOGY

- is a science whose purpose is to modify the natural and biological processes of living organisms or parts of them for the benefit of mankind. The branches of biotechnology include:

1. Traditional biotechnology e.g. crop and animal selection and breeding fermentation, bread making, beer brewing etc.

2. Modern biotechnology

- * Tissue culture
 - * Molecular marker assisted breeding
 - * Genetic engineering or genetic modification
- Products of modern biotechnology include production of Tissue culture crops, GE crops, vaccines, antibiotics, insulin, yoghurt, etc.

Definitions contd

1.2 Genetic Engineering (GE)

- Is the deliberate transfer of gene(s) from one organism to another to create new improved species (crops, animals, or materials. The newly improved crops are called GMO crops or Genetically Modified Organisms (GMO)
- The gene transfer can be from similar or different species.

2 PERTINENT QUESTIONS ABOUT GE and GMOs in Agriculture

2.1 WHICH CROPS ARE BEING TARGETED IN GE RESEARCH? ARE THEY AFRICAN CROPS?

2.2. IS THERE REALLY SHORTAGE OF FOOD IN AFRICA AND IN THE WORLD?

- ☞ Why can't the "hungry" people in Kenya purchase the food found in abundance and cheaply in other parts of the country?
- ☞ Why are farmers from countries that produce abundance food e.g. Ugandan still very poor? Why think of introducing GMO crops in countries producing so much with nowhere to take its food?
- ☞ Why are African Governments exporting food even when some of their communities are perpetually receiving relief food?

2.3 WHICH COUNTRIES REALLY GROW THE GE CROPS?

☞ 99 % of the GM crops in 2001 were grown only in four countries: US (68%), Canada (22%), Argentina (6%), and China (3%). Other countries include South Africa, and Australia covers the remaining 1 %.

2.4 WHICH CROPS ARE THE GE REALLY GROWN?

☞ About 99 % of the GM crops presently grown in the world are intended for export and mostly for animal feeds. These include soya bean, oil seed rape (canola), corn)

2.5 WHO REALLY PROMOTES THE GMOs

☞ It may be interesting to know that in 2001, 91 % of all GM crops grown worldwide were all from one multinational company based in the US.

2.6 IS THE AIM OF PROMOTING GE CROPS REALLY TO ELIMINATE THE USE OF CHEMICALS?

☞ Is not alarming to know that over 80 % of the all the GE crops grown in the world, are herbicide tolerant. In essence, GE companies are out to promote their chemicals in the name of fighting hunger.

2.7 IF THE MOTIVE IS SO INNOCENT, WHY WOULD SOME COUNTRIES RESIST STRONGLY OR REFUSE TO LABEL FOOD AS GMO / NON- GMO?

NB: Consumer rights (to choose what to eat and what not to eat) is a human right – and hence should be protected!

2.8 WHY IS THE WORLD FOOD PROGRAMME BUYING FOOD AID ALL THE WAY FROM THE US AND CANADA INSTEAD OF AREAS IN AFRICA WITH ENOUGH FOOD?

NB:

Buying price in US or Canada is greater than buying price in Africa. Add more costs: Transport Costs to the port of exit, shipping costs to Africa, handling costs at the harbor and transport to the hunger victims

☞ The cost of 1 Kg of food aid is over 12 times of the local cost!

3. WHY AFRICA SHOULD REJECT GE CROPS – THE REAL ISSUES!

3.1 GE CROPS CAN NEVER CO-EXIST WITH NON-GE CROPS

☞ Pollen grains can be spread a long distance (some over 10 KM) through open pollination (wind / insects) and hence GM crops can easily “contaminate” the neighboring non-GM crops. This process is irreversible.

3.2 THE GE-SEED MANUFACTURING COMPANIES PROHIBIT FARMERS FROM SAVING SEEDS FOR NEXT SESSIONS OR SHARING SEEDS WITH THEIR NEIGHBORS / RELATIVES OR FRIENDS?

IMPLICATIONS TO SMALL SCALE FARMERS IN AFRICA

1. Farmers will lose their indigenous seeds – forever and ever, never to recover them.

2. Through the GE seeds, the small-scale farmers will lose their right to save or share seeds with neighbours and friends and relatives:

☞ Currently, over 80 % of Farmers in Africa save their seeds from the previous season.

☞ Seed sharing (with neighbours, relatives and friends) is also cultural in many communities in Africa.

3. The African farmers will be vulnerable to being sued for violation of patents rights:

☞ *In America and Canada, farmers found guilty of violating patent laws are charged heavy fines, even if the GE seeds stray to ones farm from a neighbors farm.*

4. The Small scale farmers from Africa will be forced to pay royalties to patentee (owner) of the GE Seed.

☞ *Presently the small scale farmers cannot even afford other external inputs and GE will add an additional chain. This will like history repeating itself – remember the Green Revolution and the high input agriculture.*

3.3. THE INTENTIONS OF THE GE SEED PRODUCERS ARE NOT GOOD: WHY ARE THEY DEVELOPING THE DREADED “TERMINATOR TECHNOLOGY AND “TRAITOR TECHNOLOGY”?

☞ The “Terminator Technology” has been developed such that GE crops developed through it, produce sterile seeds that cannot germinate in the next season.

☞ The “Traitor” technology has been developed such that crops require application of certain chemicals to trigger (switch on or turn off) certain traits (e.g. flowering, germination, fruit ripening, etc). The “Traitor Technologies” promises rich rewards for corporations because the GE crops only respond to agro-chemicals purposely manufactured for the purpose.

NB: The two are processes of the GE Technologies called Genetic Use Restriction Technologies (GURTs).

3.4. Genetic Engineering crops favour the agriculture systems which are characterised by:

- ☞ Large farms and Monocropping
- ☞ Subsidies agriculture
- ☞ Mechanisation
- ☞ External inputs

3.5 GE application hinges on strict application of the Cartagena Protocol at the Country Level. Many African nations do not have capacity to implement this protocol. This is in terms of:

- ☞ Expertise
- ☞ Equipment
- ☞ Infrastructure
- ☞ Development of the Legislation and Regulatory systems

NB

1. The Bio-safety laws in Kenya is so weak – it is meant to only open gates for GMOs with no intention of regulating them.
2. Government's economies cannot effectively manage GMOs in Agriculture in conformity with Cartagena Protocol?

3.6 The GMO Crops Is only treating the symptoms and not the cause!

- ☞ People do not go hungry because they have no food but because they cannot afford the food available due to poverty:
- Brazil is the third largest exporter of food in the world; yet, many children die every year because of malnutrition.
- In 2001, Argentina produced enough rice to feed both India and China, yet the people are among the poorest.

3.7. GE Technology is A Great Threat To The Environment:

- ☞ After continuous use of herbicides tolerant crops and pesticides, pest and harmful insects may develop resistance. There could be many knock-on effects:
 - ☞ Larger quantities of the pesticides used
 - ☞ Development of more and new pesticides
 - ☞ Emergence of super weeds / super pests / super viruses which may not be easily controlled.

3.8 The Arbitrary Destruction Of Biodiversity

Beneficial insects / pests are affected hence destroying food chains and food webs by chemicals. This could lead to the destruction of the ecosystems and this will the homeostatic processes.

3.9 The Threat To Human Health

Little is known of the real threats posed by GE crops on human health. Many fear that continuous uptake could lead to emergence of new viral strains which may be hard to control:

- ☞ More toxins in the body
- ☞ More allergic reactions
- ☞ Emergence of the new viral and bacterial strains which may hard to control / manage and especially in Africa.

4. THE SUGGESTED WAY FORWARD

4.1 We need to apply the principle of precautionary principle “Not to proceed when there is no certainty for safety of human health and the environment”.

4.2 There is great need to carry out a risk assessment on the potential dangers and effects posed by the introduction of GE crops.

4.3 There is a great need to create awareness on the issues around the GMO crops. The farmers will say yes or no to the GMOs from a point of knowledge.

4.4 Funding partners and governments of Africa and of the world should address the root causes of poverty and food insecurity:

- ☞ Scale up the success cases in African Agriculture
- ☞ The big noise cry: make trade fair
- ☞ Improve Infrastructure (roads, railway, etc)
- ☞ Promote marketing structures and agri-business.
- ☞ Promote agro-processing
- ☞ Promote farmer friendly micro-credit schemes.
- ☞ Irrigation in dry lands. e.g., Kenya has over 600,000 hectares of irrigable land and only 10 % of this is being utilized and even this is on the decline.
- ☞ Intensify demand-driven rural training
- ☞ Range land development and management
- ☞ Promote post-harvest management (over 40 % of food produce is lost through post harvest)

4.5 THERE SHOULD BE A MORATORIUM ON COMMERCIALIZATION OF GMOS UNTIL MORE RESEARCH HAS BEEN CARRIED OUT INTO SOCIO-ECONOMIC, ENVIRONMENTAL, AGRONOMIC.

4.6 FARMERS RIGHTS TO SAVE OR SHARE SEEDS SHOULD BE RECOGNIZED AND PROTECTED.

4.7 AFRICAN GOVERNMENTS SHOULD INVEST EXTENSIVELY IN RESEARCH AND EXTENSION SERVICES.

- ☞ The budgets for research in developing countries is a meager percentage of the national gross budget.
- ☞ Research and extension should address problems identified problems.

4.8 IF WE MUST HAVE THE GE CROPS, LET US HAVE STRONG THE BIOSAFETY LAWS USING THE OAU LAW MODEL

That a truly sustainable agriculture for Africa should be built on the following PILLARS as developed by the PAN Africa Workshop and Symposium Participants in Kitale (August 6 – 16, 2007)

1. PROMOTION OF LOW EXTERNAL INPUT AGRICULTURE
2. PROMOTE AND EMBRACE POLICIES THAT ARE FAVORABLE AND ARE CONDUCIVE TO SMALL-SCALE FARMERS.
3. PROTECT, PRESERVE AND CONSERVE THE ECOSYSTEMS, BIODIVERSITY AND THE ENVIRONMENT OF AFRICA.
4. EMPOWERING SMALL-SCALE FARMERS AND LOCAL COMMUNITIES AS WELL AS INCREASING THEIR KNOWLEDGE BASE AND CAPACITY.

THE PILLARS OF AGRICULTURE IN AFRICA CONTD

1. ENHANCING LIVELIHOOD SECURITY OF SMALL-HOLDER FARMERS
2. ENHANCE AND PROMOTE PEACE AMONG THE COMMUNITIES AND COUNTRIES.
3. RESPECT AND PROMOTE THE USE OF INDIGENOUS TECHNICAL KNOWLEDGE
4. PROMOTE COLLABORATION, NETWORKING AND CROSS-LEARNING AND SHARING

6. FOUR PARTING SHOTS:

- ☞ “OUTSIDERS MAY HELP BUT THE INSIDERS MUST DO THE JOB”. *“The problems of hunger in Africa, will only be solved by Africans”* -
- ☞ “HEED THE CALL OF THE BIG NOISE CAMPAIGN - MAKE TRADE FAIR” *“Unless this is done, even with food surplus, people will continue to die of hunger and poverty”* A quote from a farmer during the make trade fair campaign.
- ☞ “THE BEST WAY TO BRING ABOUT SUSTAINABLE DEVELOPMENT IS TO STRENGTHEN THE EXISTING LOCAL SYSTEMS AND NOT TO DESTROY THEM”.
- ☞ A STICK WHICH IS IN YOUR NEIGHBORS HOUSE WILL NOT KILL A SNAKE IN YOUR HOUSE – A KIGANDA QUOTE

The crops under Bio-intensive gardening beds – such beds produce 3 – 4 times of normal cultivation.



PAN African participants marveling at the height of the famous no.8 variety of maize found mainly in western Kenya. African sorghum grown on students demonstration garden at MHAC



Yes, let us keenly listen to the Africans as they give the solutions for their Africa!



**Development and Biodiversity
- case of Kenya**

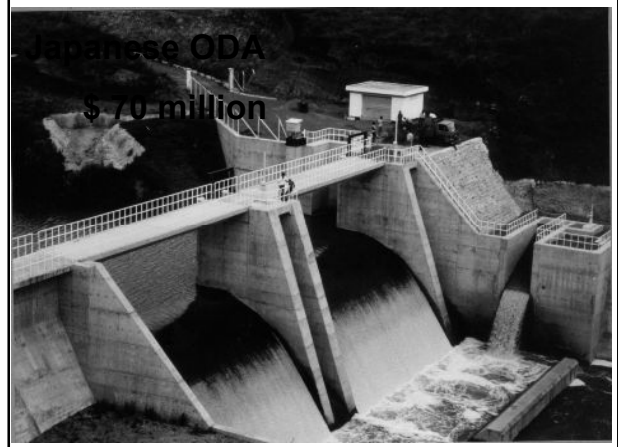
Dr. Shumpei Kambe

Africa & Shumpei Kambe Fellowship

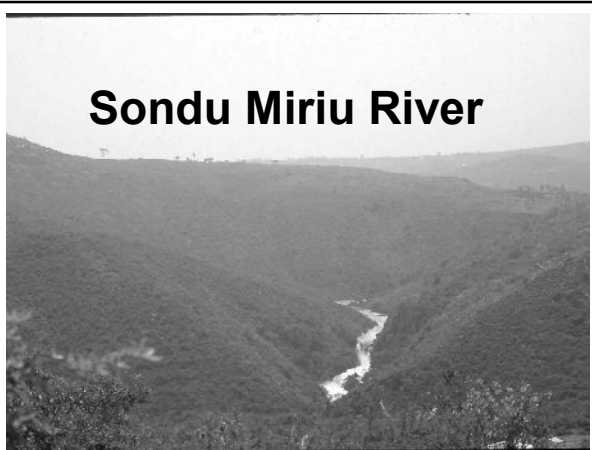
Maasai Mara Game Reserve



**Lake Nakuru
National Park**



Sondu Miriu River



Nairobi Bypass



Strengthening the Joint Effort Toward African Development

~ JICA Partnership Program (JPP) as a Tool ~

**Additional Information
on
NGO-JICA Japan Desk
and
JPP and Grant Assistance for Grass-roots and Human Security Projects
(GGP)**

**Training Affairs and Citizen Participation Department
Japan International Cooperation Agency (JICA)**

**Africa and Asia NGOs networking workshop
Nairobi, Kenya,
18 September 2007**

Role of NGO-JICA Japan Desk

Set up in JICA offices as point of contact for both local and Japanese NGOs/ CSOs

- 24 Desks as of September 2007
- In order to promote NGO-JICA partnership;
 - 1) Provision of information and advises
eg. Information on NGOs, regulation and etc
 - 2) Assist formulation and monitoring of JPP projects
- In Africa: Ethiopia / Ghana / Kenya / Mali / Senegal / Tanzania / Zambia

	JICA Partnership Program (JPP)	Grant Assistance for Grass-roots and Human Security Projects (GGP)
Who could apply?	Japanese NGOs/ CSOs	Local NGOs/ CSOs
Where to contact?	JICA office	Japanese Embassy
Type of assistance	Technical Assistance	Grant Assistance
Duration	Maximum 3 years	Maximum 1 year