Poverty Reduction through Sustainable Agriculture and Environmental Conservation (PR – SAEC) project
A Project of the Grow Biointensive Agriculture Center of Kenya, (G-BIACK)
P.O Box 4171 Madaraka Thika
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Contact Person: Mr. Samuel Nderitu: Director

COLLABORATING COMMUNITIES: Gatumbo, Muruka, Gatuanyaga, Munyu, Kabati, Ruiru, Kilimambogo and Magogoni
OVERVIEW
The GROW BIOINTENSIVE Agriculture Center of Kenya (G-BIACK) is a Community Based Organization that develops, researches, trains and promotes the GROW BIOINTENSIVE (GB) and other community development technological options and initiatives among the small scale farm holders in Central, Eastern, and Nairobi Provinces of Kenya. The organization which was initiated in 2008 by Mr. and Mrs. Samuel Nderitu is situated about 10 Km from Thika town along the Thika - Garissa road on Highway A3 and is easily accessible.

During the Project Period January - December 2011, G-BIACK was able to reach out and to train 1,535 farmers bringing the total number of farmers trained since 2008 to 6,535. Out of these, 4,898 are women.

In 2011, G-BIACK was in partnership with the following donors; Tudor Trust (UK), Kilili Self Help Project (USA), Ecology Action (USA), Amistad International (USA), Caritas Seed (USA), and CA Matching Gift (USA).

There were individual persons who also supported different projects at G-BIACK. These are: Theo Gand (USA) through Tom and Jeanne Liston, supported construction of the women centre, Patrizia Foschi (Italy), supported farmer trainings, Annalisa Mugheddu (USA), supported farmer trainings and Chelsea Brit Gay (USA), supported the Dairy goat’s project. These funds and donations have helped to scale up the organizations activities in the targeted areas. The selected project areas are rated among the poorest in the Central and Eastern provinces of Kenya. We believe that these partnerships will not only last long but will as well bring hope to the majority of farmers who are languishing in poverty.

The fight against HIV/AIDS took a big portion in the organizations activities. Awareness creation, teachings, demonstrations and empowering the HIV/AIDs affected and infected families were among the major activities.

Summary of G-BIACK Activities January - December 2011

G-BIACK Center development:

1. Purchased more goats, rabbits and poultry for community projects, center demonstrations and income generation purposes.

2. Establishment of three satellite centres and tree seedling nurseries.

3. Construction of a tailoring class for girls
4. Construction of a simple green house

5. Installation of internet services.

**G-BIACK communities outreach and GROW BIOINTENSIVE Agriculture training:**

G-BIACK has trained a total of 1,535 new farmers from 8 communities (Gatumbo, Muruka, Gatuanyaga, Munyu, Kabati, Ruiru, Kilimambogo and Magogoni). This includes students from Dr. Ngoima Memorial School, Happy Learning Centre, Maria Magdalene Special School, Neema Destitute Children's Home, Caritas Mariana Children's Home, Child Rescue Centre, Ruiru Rehabilitation Centre and Watoto Wenye Nguvu Children's Homes. Out of the 1,535 farmers trained this year, 1,152 are women.

**Women programmes**

During the period January – December 2011, the Women Program headed by Mrs. Peris Nderitu trained a total of 1,152 women, who are either infected or affected by HIV/AIDS or from very poor families. The program trained the communities on kitchen gardening, human nutrition, income generating activities (hands on skills). Majority of these women have now improved their living standards.

**Income generation training programmes for young girls and women**

70 girls and 15 boys were trained in dress making, tailoring, beadwork and GROW BIOINTENSIVE in a programme that is geared towards bringing back the dispossessed girls in the society. Some of these girls are either orphans or come from very poor families who have opted to go into prostitution to earn a living. This is a 6 months course that is designed to train young people how to become self-reliant. Out of this number, 60 have graduated and are now a productive group in the society. Some are farmers, while some have started tailoring/dress making/beadwork micro businesses within their communities.

**Youth against Poverty programmes (YAPPs)**

Edwin Wanjohi is coordinating the YAPPs programmes. This program introduces the GROW BIOINTENSIVE (GB) and environmental conservation technologies among the youth either in schools or existing youth groups. Scouts and Young Farmer's clubs are the main targets. Dr. Ngoima Memorial School, Happy Learning Centre, Maria Magdalene Special School, Neema Destitute Centre are already participating. These schools have donated land for practical demonstrations. The demonstration gardens are taken care of by the students and these students are
supposed to replicate these techniques in their gardens at home.

Key Workshops and Exhibitions
G-BIACK hosted two major exhibitions in 2011; the Provincial field day in June 2011 and Slow Food Day in December 2011.

Local Internships
Isaac Mwangi and Jacob Muyakane both from MHAC joined G-BIACK in August 2011 and Left in October 2011. Their main duties were to assist in the implementation of G-BIACK activities both at the centre and at the community level.
Five Interns from Lamu Kenya, Kibele Yusuf, Hasan Mohamed Husein Mohamed Moses Nganga and Silvia Ponte attended a one week training at the G-BIACK centre. Silvia Ponte, an Italian lady has already started a GROW BIOINTENSIVE project in Lamu where she is helping communities to establish kitchen gardens and to produce their food using available resources.

International Interns
Two young Malawian Interns, Ephraim and Charity arrived at G-BIACK on 15th October for a two months internship. They left on 15th December 2011 and are expected to introduce the GROW BIOINTENSIVE techniques among small holder farmers especially women in Malawi.

The G-BIACK community Projects
G-BIACK is running two community projects.

1. Take Home a Rabbit Programme: Supported by Amistad International
The take home a rabbit program that was initiated in 2009 is doing so well. The organization started with 5 pregnant rabbits that were donated to 5 HIV/AIDS
orphaned kids, who were trained in how to care for them. Every child then donated 2 young rabbits back to the program, (bringing the number to 10) which were reared up, served and donated again to different kids. These kids again donated 20 more rabbits back to the programme and the chain continued in that order. To date, more than 400 rabbits have been donated within a period of 2 years and this has been a big success.

2. One Goat per family Project: Supported by Amistad International and Chelsea Britt Gay. Our intention is to give out the female offspring to give families nourishing milk and opportunity to produce more goats. We started with two female goats and got four female goats to give out. We have funds to buy more females to boost the number of births in 2012. These projects target the most poor as they envisage eradicating poverty.

Awards
In 2010, G-BIACK received best Non Governmental Organization NGO of the year awarded by Food and Agriculture Organization (FAO) in collaboration with the Ministry of Agriculture. This year, G-BIACK received the Food Sovereignty Honorable Mention Award from the Community Food Security Coalition (USA). All this is due to the hard work of the staff, support from the partners and willingness of the farmers to change from poor farming practices to good Agricultural practices.

Staff tours, Workshops and Conferences
• The Director Mr. Samuel Nderitu had an opportunity of visiting 3 different countries in 2011. The German Foreign Affairs Ministry sponsored Samuel to attend a one month intensive course in Parmaculture in Sieben Linden in Germany.

• Between 30th September and 12th October 2011, Bread for the World of the USA
through PELUM Kenya supported 4 organizations to visit India. Each organization was invited to send one senior staff and a farmer. The visit was twofold. 1, To visit Indian farmers who have never used any agricultural chemicals and/or hybrid seeds in the Himalayas Mountains, and 2, to find out why farmers in Punjab state are committing suicide. The host for this tour was the Navdanya Foundation, headed by Mrs. Vandana Shiva.

• Peris Wanjiru and Mary Wangui both of the G-BIACK women programmes travelled to Ohayo USA for a three months intensive course in GB at the Circle of the Sun Farm sponsored by Ecology Action and MESA.

• Edwin Wanjohi, Samuel Waweru and Dorcus Matisi participated in different capacity building activities

**What Worked in 2011**
Women formed the biggest percentage of the population that G-BIACK worked with during this project period. They were the biggest implementers. 80% of the total populations that G-BIACK is working with are women. This has given a lot of strength to the implementation process because they are the most responsible category in the society. They are the society keepers.

Adoption of organic manure, (compost and Farm Yard Manure) was very positive. At least over 30% of the farmers adopted this technology. Our farmers have realized that use of agricultural chemicals have continued to cause problems in their farms. Their soil fertility levels have deteriorated due to continued use of artificial fertilizers. About 51% are no longer going to the market to purchase vegetables because they have already established GROW BIOINTENSIVE kitchen gardens. 42% of the trained farmers have started saving their own seeds and have reduced reliance on hybrid seeds.

Small livestock production and management is key towards the realization of food security in this region. G-BIACK is promoting rabbits, dairy goats, fish farming and bee keeping.

The “Take home a rabbit programme” is doing so well and the organization is almost ready to phase out this project and leave it to the community to run it.

G-BIACK wishes to report that one community has reported a very successful story. Through Jikaze Self Help Group, G-BIACK entered Gatumbo community in
2008 and through the Tudor Trust funds: the entire community can report over 50% success. The community is ready to run its programmes as G-BIACK moves to a new community. G-BIACK will be phasing out from 3 communities at the end of 2012.

**What did not work well**
The one goat per family project did not pick up so well because it started with two goats, which are time to time giving birth to male goats. So far, only 4 goats have been donated. The project needs to add more goats in order to speed the multiplication process.

We were not able to do follow up and visits to the fullest. This is because of the number of staff verses the number of farmers trained. G-BIACK has very few field staff while the demand for training is so high. G-BIACK proposes to have at least 6 field staffs that will be responsible for training, visiting and following up the farmers.

**The Youth against Poverty Programme (YAPP)**
Bringing the youths back to the community to become resourceful was a big challenge. 70% of the youths in Kenya are unemployed. Many resort to engage in criminal and /or immoral activities. The Youth Against Poverty Programme (YAPP) needs more attention and assistance if the youths are to become a resourceful group in the society. G-BIACK proposes to give more attention to the youth, empower them and to start youth projects that will attract them to the programme.

Below is the general overview of the implementation levels in %

<table>
<thead>
<tr>
<th>Technology</th>
<th>Number of farmers in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composting</td>
<td>25</td>
</tr>
<tr>
<td>Farm Yard Manure</td>
<td>40</td>
</tr>
<tr>
<td>Crop rotation</td>
<td>35</td>
</tr>
<tr>
<td>Soil and water conservation</td>
<td>23</td>
</tr>
<tr>
<td>Leguminous crops</td>
<td>32</td>
</tr>
<tr>
<td>Planting beds and kitchen gardening</td>
<td>51</td>
</tr>
<tr>
<td>Companion planting</td>
<td>33</td>
</tr>
<tr>
<td>Indigenous crops</td>
<td>22</td>
</tr>
<tr>
<td>Crop diversity</td>
<td>37</td>
</tr>
<tr>
<td>Rain water harvesting</td>
<td>19</td>
</tr>
</tbody>
</table>
Drip irrigation technology 0.1
Integrated Pest Management 11
Bee keeping 1.1
Rabbit keeping 13
Dairy goats production 9
Intensive Poultry production 27
Small scale Seed production and saving 42

2011 TRAININGS AND OUTREACH

G-BIACK’s Main activity is to promote, to train and to scale up the GB technologies among small scale farming communities within its areas of operation. Beside GB, G-BIACK is addressing the problems of HIV/AIDS and ways of curbing its spread, as well as training the affected and the infected families on nutritional values and reducing the negative effects of the virus in their bodies. The organization directly trained 1,535 farmers, at the G-BIACK centre and within the communities. 8 communities participated in the training, majority of the farmers being women.

G-BIACK has two major programmes where training is emphasized.

a) FOOD SECURITY PROGRAMMES (FSP)

The thematic areas of concern in the year 2011 were as follows

1. Soil fertility management- i.e. Composting, Farm Yard Manure (FYM) management, and Crop residues management, and crop rotation, soil and water conservation methods among others. There was emphasis on recycling of crop residues especially maize Stover which are incorporated into the soil with an aim of building the soil organic matter, or using the materials in making compost piles

2. Improved farm planning- i.e. increasing production at farm levels through proper farm plans

3. Crop diversification- i.e. production of different kinds of Food crop species and varieties within farms. This is to reduce effects of poor weather as well as pests and diseases and to ensure food Security all year round.

4. Improved crop management- i.e. maximizing productivity of crops within the farm by:
   - Timely planting:
   - Improved manure / fertilizer use (compost):
   - Appropriate spacing and planting patterns;

5. Improved livestock management- i.e. integrating small livestock production in farms, to provide alternative on farm generation.
The GB principles that were promoted
i) Composting
ii) Deep-Digging:
iii) Close spacing of plants
iv) Crop Rotation
v) Companion Planting
vi) The use of open-pollinated seeds
vii) Calorie Crops (Diet Crops) and Carbon farming for soil fertility, seed and food
viii) Whole system farming

b) THE WOMEN PROGRAMMES
1. Fight against HIV/AIDS
The purpose of the HIV/AIDS programme is to fight the HIV/AIDS pandemic by introducing high nutritional value foods to the PLWHA and the affected families through GB technologies. It addresses the pandemic from the context of food security. G-BIACK also creates awareness among the community members on the scourge and how to prevent infection.

We cannot talk of HIV/AIDS without talking of food security among the affected and the infected. It would be useless for the HIV/AIDS infected persons to continue taking the anti retroviral drugs ARVs without proper, nutritional diet. This is the reason why G-BIACK has come in handy to empower the affected families through trainings in HIV/AIDS and GB. The infected families require highly nutritional food for them to lead normal lives. This is possible through low cost kitchen gardening using GB techniques.

The women programme headed by Mrs. Peris Wanjiru was able to reach a total of 31 affected people, including 28 women, 3 children

Among the themes pursued in HIV/AIDS were
- HIV/AIDS Awareness and campaign
- Nutritional values
- Advisement on Medication
- Income generating activities
- Kitchen gardening

2. The Income Generating Activities IGAs for the HIV/AIDS affected families
The main aim of introducing the IGAs among the PLWHA is to empower them economically. Most women after losing their husbands are left suffering and even some are thrown out of their homes by their relatives.
G-BIACK is running the following programmes for women:

Bead work and tailoring for Women and People living with HIV/AIDS

3. Take Home a Rabbit Programme (THRP)
This project has been targeting the HIV/AIDS orphans from the region. A pregnant rabbit is donated to an orphan. After giving birth, and attaining an age for service, the orphan is required to donate back two KIDS, which will be served and then donated to two other orphaned children and the chain continue in that order. More than 400 rabbits have already been donated. G-BIACK will be fazing out from this in 2012, to be run by the communities themselves.

Orphaned children with donated rabbits
4. One goat per family project
This project targets the HIV/AIDS widows and their children. After a dairy goat is donated the family will be required to donate back two kids, to the project, the first and the third then the goat is permanently given to that family. The following groups and institutions have already benefited from this project.
1. Jikaze Self Help Group - Gatumbo
2. Muruka Organic Group - Muruka
3. Maria Magdalene Special school- Munyu

This project has not been doing very well because the does (she goats) have been giving birth to so many bucks (he goats), which are not very beneficial to the farmers. Only 4 she goats have been donated back to the programme. G-BIACK will be donating more goats in 2012.

C. The Youth against Poverty (YAPP) Programmes

1. The GROW BIOINTENSIVE/Hands on Skills 6 months course for the youths
In January 2010, G-BIACK initiated a 6 months course in GB and hands on skills (tailoring, dress making, bead work, tie and die, and detergents making). More than 85 young people have graduated from this course. G-BIACK targets the young people who have resorted going into prostitution due to lack of employment. Out of these, 70 are girls under the age of 27 yrs.

2. BIOINTENSIVE Agriculture in Schools (BAS)
Several institutions benefited from the G-BIACK interventions. The purpose was
to introduce students and children to the GROW BIOINTENSIVE agriculture
techniques and to help them establish mini agriculture training demos where they
would learn more practical aspects in GB. These institutions are
1. PCEA Dr. Ngoima Memorial School,
2. Happy Learning Centre
3. Caritas Mariana Children’s home,
4. Child rescue centre
5. Rehabilitation Centre.
6. Maria Magdalene Special School
They have given small portions of land for demonstrations and they have
established double dug beds where they are producing vegetables for their own
consumption.
The Scouts are an important group among the youth groups. G-BIACK has
embarked on an extensive project of reaching out to the scouts because once a
scout is trained, they are required to go back to their communities and train
others especially the poor.

Challenges of 2011
Insufficient infrastructure at the G-BIACK centre was a big challenge.
G-BIACK has only one training hall. It was hard to train two groups at the same
time and some groups would sit in hot sun during training sessions. Some training
would also be postponed due to the related problems. At least one additional
training hall will be needed to accommodate the increasing number of farmers
requesting training.

Water for irrigation; G-BIACK is situated in a semi arid region where rainfall is
below 700mm per annum and the Centre has no reliable water source and therefore
demonstrations were affected. The centre should try to acquire a sustainable
water supply so that demonstrations are carried out in season and out of season.
This project proposes construction of rain water harvesting structures that will
store water for irrigation during the dry seasons. Farmers’ fields were affected
too. G-BIACK needs to model technologies for water harvesting.

CONCLUSION
Poverty Reduction through Sustainable Agriculture and Environmental Conservation
(PR – SAEC) project is targeting to reduce extreme poverty, hunger and
environmental negative impacts among small holder farmers in Parts of Central and
Eastern Provinces. This is a five years project that expects to reach more than
10,000 farmers.
We are happy to report that there is remarkable improvement in the lives of our farmer collaborators that received trainings. During the first two years, more than 50% of the trained farmers raised their standards of living.

G-BIACK is proposing a three years project, January 2012 to December 2014 and is currently seeking for partners. If more funding is secured, G-BIACK wishes to train more farmers in the neighboring communities in order to reach the 10,000 mark. Additional staff will be a big boost towards attaining the project goals and objectives.