

THE  
**GAIA-MOVEMENT TRUST**  
LIVING EARTH  
GREEN WORLD ACTION

**ANNUAL REPORT**  
2014 / 2015

# ANNUAL REPORT 2014/15

During the last year, numerous places around the planet have yet again experienced new weather extremes. In such a situation it is uplifting to see new forces becoming outspoken about Global Warming and Climate Change. In an encyclical letter issued by Pope Francis, which will be spread to 1 billion Catholics, we find this appeal:

*“The urgent challenge to protect our common home includes a concern to bring the whole human family together to seek a sustainable and integral development, for we know that things can change... Regrettably, many efforts to seek concrete solutions to the environmental crisis have proved ineffective, not only because of powerful opposition but also because of general lack of interest... We require a new and universal solidarity.”*

He points out that climate change is for real:

*“A very solid scientific consensus indicates that we are presently witnessing a disturbing warming of the climatic system... Humanity is called to recognize the need for changes of lifestyle, production and consumption, in order to combat this warming or at least the human causes which produce or aggravate it.”*

The Pope tells us that capitalism is not the solution. That in fact the greed inspired by capitalism is part of the problem:

*“Once more, we need to reject a magical conception of the market, which would suggest that problems can be solved simply by an increase in the profits of companies or individuals... Where profits alone count, there can be no thinking about the rhythms of nature, its phases of decay and regeneration, or the complexity of ecosystems, which may be gravely upset by human intervention.”*

The GAIA-Movement is in complete agreement about the urgency of building up strong and healthy natural systems, and protecting these where they still exist, as crucial for mitigating and adapting to the changing climate – building up healthy soils, maintaining healthy and diversified vegetation covers in crucial areas such as in the watersheds and restructuring agricultural production for a warmer future.

The projects supported in 2014-15 by our Swiss registered non-profit association have been made possible through donations from The Gaia-Movement Living Earth Green World Action USA Inc., Green World Recycling Ltd., and donations by the dedicated implementers of the projects. Of special importance have been the revenues from royalty payments from Green World Recycling Ltd., without which The GAIA-Movement would not have been able to develop its activities. The GAIA-Movement wishes to thank you all for your contributions to making the environmental activities possible, which we want to share with you on the following pages.

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# ADAPTING TO CLIMATE CHANGE

## Why adapting to Climate Change is needed

As many farmers worldwide will tell you, and as the great majority of scientists tell us, there is no doubt that we need to prepare for more difficult times. This means we need to adapt to a hotter world with more unpredictable weather and a world where many people will have less freshwater available. As you can read on the following pages, the Gaia-Movement contributes to such adaptation within these areas:

### Agroforestry

One way to prepare for agricultural production in a warmer world is to go from monoculture of annual crops to agroforestry systems where various crops are grown together and some of these are shrubs or trees. Such agroforestry systems are better suited to withstand droughts, strong winds or heavy downpours.

### New food crops and crop varieties

It will be necessary to experiment with new crops and new varieties of known crops to be able to produce food in the future. The best of the existing varieties have to be selected and multiplied, and new varieties will need to be developed. The farming practices best suited for the local area must be found, recipes developed and people need to get used to eating differently. This long-term process must start now.

### Better water management

Many parts of the world will experience shortages of freshwater. We will need affordable systems to use water efficiently for food production, and local communities must now decide to preserve local water resources.

### Soil management

A healthy and living soil is essential for crop production – especially under difficult circumstances. We must provide the soil with nutrients for all its microorganisms in the form of compost and other organic material, and we must reduce soil erosion with contours, vetiver grass, bamboo, trees, etc.



**Above** - The same field in 2014 (left) and 2015 (right) in the Caatinga area of Brazil, showing the growth of the fodder trees.

**Below** - Tree planting is a sure way to store carbon while also improving the environment for both humans and animals.

# ADAPTING TO CLIMATE CHANGE

## Seeds for Life – Action with Farmers in Uttar Pradesh, India

### What the project does

The full title of the project is: “Seeds for Life – Action with Farmers in Uttar Pradesh – Indo-Gangetic Plain region to enhance Food Security in the context of Climate Change”. The project establishes on-farm seed conservation facilities and practices together with farmers, and introduce other crops such as amaranth, quinoa and moringa and train women how to cook with these. New agricultural practices such as SRI (System of Rice Intensification) and improved wheat cultivation practices are also being promoted in order to enhance productivity.

### Achievements since start

- 50 Farmers’ Clubs with 600 members, and 150 Self Help Groups with 1,730 members, are active and directly benefit from the project (plus 9,300 indirectly).
- 7 gene banks in function storing 24 rice varieties and 27 wheat varieties plus varieties of pulses, chili, pumpkins and gourds.
- 800 farmers trained in seed selection and conservation.
- Testing of 21 varieties of rice and 21 of wheat.
- Neighboring farmers have started to buy seeds from the project participants.
- 89 farmers used System of Rice Intensification (SRI) and 78 used improved wheat cultivation and achieved better yields, lower costs and thus increased profits.
- 1,405 women, SHG members have established homestead gardens growing nutritious moringa and amaranth and a variety of vegetables, and the number of gardens increases as people see the benefits.

### Facts

- The project started in May 2012 and will end in October 2015.
- Implemented by Humana People to People India, Farmers’ Clubs Uttar Pradesh.
- Project partner: Bioversity International
- Funded mainly by FAO. The GAIA-Movement co-funds the project through donations from The GAIA-Movement Living Earth Green World Action USA, Inc. and Green World Recycling Ltd.



**Above** - 7 community seed banks have been established and many farmers have also started to sell the selected seeds to other farmers.

**Below** - 1,405 women, members of Self Help Groups, have started homestead gardens where besides a variety vegetables they grow nutritious moringa and amaranth.



# ADAPTING TO CLIMATE CHANGE

## Restoring Caatinga Vegetation, Brazil

### What the project does

The projects Child Aid Quijinge and Child Aid Cansanção, will use agroforestry systems to re-establish productivity of degraded caatinga areas. The combination of drought and misuse of the land are a major threat to the caatinga, the natural vegetation of this part of North-Eastern Brazil. This can be reversed through agroforestry methods that restore the soil. The project establishes tree nurseries and organize people to replant caatinga areas with 18,000 fruit trees and other trees.

The project has experienced the worst drought in 40 years, with some farmers losing half of their cattle. Nearly a third of the trees planted did not survive, and it became necessary to produce a new round of seedlings.

### Achievements since start

- 335 families and 6 schools involved.
- 63 households participated in producing tree seedlings, and several groups have continued this production for sale and own use, and the practice of planting fodder trees is spreading.
- 3,800 trees surviving in public places in 6 villages.
- 23,000 trees planted around homes and in fields by 120 farmers, many of which will provide much needed animal fodder.

### Facts

- Started in October 2012 and was planned to end in January 2014, but due to serious droughts in the area was extended to January 2015.
- Implemented in the state of Bahia by Humana Povo para Povo Brasil through the projects Child Aid Quijinge and Child Aid Cansanção.
- Funded by The GAIA-Movement through donations from The GAIA-Movement Living Earth Green World Action USA, Inc. and Green World Recycling Ltd.



**Above** - Setting up a demonstration field of agroforestry at a Family Farmer Fair in Lagoa de Baixa.

**Below** - Selling seedlings and seeds at the Family Farmer Fair. Several groups of farmers are now producing these for sale – the drought has created a demand for fodder trees.

# ADAPTING TO CLIMATE CHANGE

## Improving food and water sovereignty of 300 families in Chimborazo, Ecuador

### What the project does

The project fights poverty among indigenous communities of the Sierra Central of Ecuador, about 3,000 m above sea level, by improving food production systems through the introduction of organic farming, conservation agriculture, agroforestry and reforestation activities among 300 small-farmer families living in 8 communities of Sicalpa, Cantón Colta of the Province of Chimborazo.

### Achievements since start

- 30,000 cuttings of yangual, linden and lupina (indigenous trees) produced planted by 300 farmers on a total of 17 hectares.
- 2 nurseries run by the communities to produce 18,000 trees and 60,000 vegetable seedlings every 6 months for the 300 farmers.
- 300 farmers have received small irrigation systems and are now able to produce two crops annually.
- Training of farmers in erosion control.
- Treeplanting expanded to other HPP projects in Ecuador and 8,400 trees planted.
- 7 community banks established among 157 farmers to provide financing for seed purchases, irrigation purposes, etc.

### Facts

- The project started in August, 2013 and ended in June 2015.
- Implemented by Fundación Humana Pueblo a Pueblo Ecuador.
- Funded by The GAIA-Movement through donations from The GAIA-Movement Living Earth Green World Action USA, Inc. and Green World Recycling Ltd.



**Above** - Two nurseries have been established and are now run by the communities to continuously produce vegetable seedlings and cuttings of local trees to plant on the hillsides to reduce erosion.

**Below** - The 300 farmers have been trained in growing more kinds of vegetables, and have also received small irrigation systems.



# MITIGATING GLOBAL WARMING

## Why mitigate Global Warming?

To mitigate Global Warming means to reduce the amounts of greenhouse gases that reach our atmosphere – and thereby the impact and speed of the resulting warming and acidification of our oceans. There are strong economic interests in continuing burning fossil fuels, and no measures taken today can prevent the climate from changing. But we must anyway promote activities that reduce carbon emissions, while also pressing governments to act in the right direction, so that it will be possible to reach carbon neutral societies in the long run. In the recent years, the Gaia-Movement has contributed to such mitigation through:

### Carbon neutral energy systems

A number of energy systems are carbon neutral – meaning that they do not contribute CO<sub>2</sub> or other greenhouse gases to the atmosphere.

### Tree planting

On of the most efficient ways to store carbon and thus reduce the amount of carbon dioxide in the atmosphere is by planting trees and ensuring that degraded natural areas are protected from being cut down or burned and instead become covered by healthy vegetation.

### Biogas

Biogas is produced when organic material ferments inside a container, and this gas can then be burned for cooking, for sterilizing clinic instruments or replace the fossil fuel that powers generators, thus reducing emissions of greenhouse gases.

### Solar energy

Solar energy is abundant in most countries of the Third World, and due to falling prices it is now in many places cheaper to produce electricity from solar panels than from a generator run by fossil fuels.

### Fuel saving stoves

Less firewood or charcoal is used when burned in a fuel-saving stove. This therefore reduces the amount of CO<sub>2</sub> emitted to the atmosphere, while also making it easier to maintain the local tree cover.



**Above** - Jatrophas are in Guinea Bissau planted to form efficient fences around fields and gardens. The seeds are full of oil.

**Below** - Pressing jatropha seeds to produce oil that is used to run generators and rice mills



# MITIGATING GLOBAL WARMING

## Biofuels for Local Development, Guinea-Bissau

### What the project does

The project starts cultivation of jatropha and castor plants among farmers organized in Farmers Clubs, and starts up production of the different products related to the plant, such as oil for biofuel and soap.

The project will set up jatropha and castor nurseries, irrigated with rope pumps, train project technicians and extension workers.

Model fields will be made to determine how to prune and manage the plants to get the best yields of oil.

The oil plants will be planted so as not to compete with food products, mainly as fences around the fields.

### Achievements since start

- 2,600 farmers from 52 Farmers' Clubs trained in jatropha seed production and harvesting, as have 1200 additional farmers with jatropha fences.
- Pruning of 353,000 existing jatropha plants in the clubs to increase productivity, and new seedlings and cutting are continuously being produced and planted.
- An oil pressing system was installed and 300 liters of jatropha oil produced – mainly for soap production.
- 59 students from the vocational school in Bissorã trained in jatropha management.
- 8 diesel engines running rice mills and generators converted so they can run on plant oil.

### Facts

- Started in February 2010, and has since 2011 been linked to the EU funded project "Renewable Energy for Local Development".
- Implemented by ADPP Guinea-Bissau, Farmers Clubs project.
- Funded by the European Union and by The GAIA-Movement through donations from The GAIA-Movement Living Earth Green World Action USA, Inc. and Green World Recycling Ltd.



**Above** - Coming to the processing house with jatropha seeds collected from the many farmers in the project.

**Below** - The jatropha oil needs to be filtered before it can be used to run engines. The project has carried out analyses of the oil to ensure that the engines will function optimally.



# MITIGATING GLOBAL WARMING

## Gaia's Tree-planting Fund – continued activities

Gaia's Tree-planting Fund supported 14 associations within the Federation Humana People to People to plant millions of trees during 2013-14 as part of activities to mitigate Global Warming but also because of the general benefits people and nature get from having trees.

The funding for these activities has ended, but treeplanting activities have continued in several of the places where the Gaia funds started this up and were used for permanent tree nurseries.

This is for example the case in Malawi, Zimbabwe and, as shown on photos on this page, in India, where around 130,000 trees were planted in 2015 by Farmer's Clubs, teacher training colleges, micro-finance groups and many others.

Importantly, agreements were made on who would take care of the trees and ensure their survival.



*In 2014 the HPP project in India planted more than 800,000 trees. Treeplanting has now become a tradition in many of the projects, and about 130,000 trees were planted in 2015. Many schools have been involved, also, as this photo of a theater play shows, in giving information about the importance of planting trees and stopping deforestation.*



# ABOUT THE GAIA-MOVEMENT

## FUNDING THROUGH COLLECTING AND SELLING USED CLOTHES

Green World Recycling Ltd. in the UK pays royalties for using The GAIA-Movement's logo in its business to collect and sell used clothing. This enables people to support protection of the environment twice: by recycling their used clothes - and therefore reducing the need for landfills or emissions of greenhouse gases - and by supporting environmental projects and activities.

By donating used clothes, the atmosphere is actually spared large amounts of CO<sub>2</sub>, and this thereby contributes to reducing global warming.

The Gaia-Movement organized a study at the Danish Technological University showing that giving 1 kg of clothes generates environmental savings of 4 kg of CO<sub>2</sub>.

Purchasing 1 kg of used clothes instead of buying new clothes, gives an environmental benefit of 6 kg of CO<sub>2</sub>.

## ENVIRONMENTAL BENEFITS OF DONATING AND BUYING USED CLOTHES

- Donating 1lb or kg of clothes saves: **4 lb or kg of CO<sub>2</sub>**
- Buying used clothes instead of new saves: **6 kg of CO<sub>2</sub>/kg**
- **Less water** for cotton crops
- **Less pesticides and fertilizer** used for cotton production
- Globally, 5% of all clothes are re-used. **Much more is needed!**

**FROM OUR PARTNER ORGANIZATION IN THE USA –  
RECYCLING CLOTHES AND REDUCING GREENHOUSE GASES**





## FROM OUR PARTNER ORGANIZATIONS IN UK AND USA

THE  GAIA-MOVEMENT TRUST  
LIVING EARTH  GREEN WORLD ACTION

## RECYCLING CLOTHES & REDUCING GREENHOUSE GASES

