



Johnny Ipil-Seed News

The quarterly newsletter of *Trees for the Future*

Fall 2007 Vol. XV, No. 3

things are growing well in...The Other Green Zone

This has been an extremely busy Spring and Summer for us, with big demands on our field technicians and local representatives. In Ethiopia we faced a big project, a short rainy season, and a very late start, and we were concerned about how to achieve all that was expected of us.

Fortunately, our local representatives and partners have proven dedicated and tireless. That's been especially true of our Ethiopian partners, Greener Ethiopia and Harmony Farms, as well as community leaders in hundreds of villages throughout the Guraghe Zone. This story is really more about them and what they've been able to achieve than about TREES.

When I was finally able to get there, I told them that, thanks to the generosity of GreenPower, Earthways Foundation and our members, we had enough funding to plant about 1,600,000 trees in this Year of the Ethiopian Millennium.

"That's no number!" they said. "We can plant two million, right?" "Sure, let's do it" I said, as my head started spinning, wondering where we'd get the seed, the land and, especially, the people to do all that work of developing and planting seedbed nurseries, watering them every day, then transporting them to hundreds of small communities scattered over more than a thousand square kilometers of the Gurage Zone.

As I soon learned, a great many people had been very busy. Many of the seedbeds had already been constructed and planted. Much of the seed had come from our own sources, available from trees we, and others, had previously planted - seed free for the harvest. There were some troubles and problems to be sure, but they

were finding the answers. The training TREES and our local partners had been providing was paying off.

Above all, most of the people of the Guraghe really wanted the seedlings. Some earlier demonstration projects of Forest Gardens and reclaiming eroded gullies were showing people the many benefits that the trees can provide.

Because so many people were asking Greener Ethiopia for seedlings, the Government turned over their nurseries to them, which made another 450,000 seedlings available to plant as the season's first rains

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Volunteers working in one of the large nurseries near Butajira. Nine of these nurseries produced nearly three million seedlings this year.

Johnny Ipil-Seed News is a quarterly newsletter of TREES FOR THE FUTURE, Inc., a nonprofit organization dedicated to helping people of the world's poorest communities to begin environmentally beneficial, self-help projects.

This newsletter is printed by wind energy on recycled paper with soy-based ink and is sent to all supporting members to inform them of recent events, plans, financial matters and how their support is helping people.

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began. And one Government nursery in nearby Oromia also started a new nursery with a half million seedlings because people there wanted to start their own program.

Our partners quickly passed the two million tree goal. In this first season of the project, some 2,850,000 seedlings of 11 species have been transplanted. Based on results of earlier projects in the area, we have every expectation that this will result in more than 2,250,000 permanent, beneficial, fast-growing trees.

We believe this to be one of the largest, afforestation/reforestation project started by private initiative in the world at present. We announced this on our website and asked if anybody knew of others. So far, no one has told us of any other as large.

Because this project caused such a stir across Ethiopia, people started calling Guraghe the "Green Zone" as plans are already being made to expand into other regions in the year ahead. We have already received requests from groups in Ambo and Gonder, who want to join the effort.

All this attracted the attention of the Government. For their millenium, which is now starting, **Girma Wolde-Giorgis**, the President of Ethiopia, has asked each Ethiopian family to plant two trees - a total of 52 million trees. Shortly after the word got around that people of the Guraghe Zone are already planting more than two million trees, Greener Ethiopia, TREES and our other local partners were invited by Ethiopia's President to meet with him in the Palace.

This was not just a handshake and a "photo-op". President Girma is a dedicated environmentalist (he was elected as the Green Party candidate). This was a two-hour working session, focused on finding ways for the Green Zone to assist other programs. For example, Ethiopia plans to export hydro-electricity to the Sudan and



TREES and our local partners were invited to the Palace for a meeting with Ethiopian President Girma Wolde-Giorgis. From the left, Dr. Shimeles and Dr. Paschal Waldomariam of Greener Ethiopia, Peter Edwards, president of Acorn Media, Dave Deppner, Bedru Sultan of Harmony Farms, and Grace Deppner.

Egypt but that can only happen if the watersheds in Ethiopia's uplands are reforested. The Guraghe project would provide trainers, seeds and other planting materials, as well as ideas such as the Forest Gardens already in operation there, to convince families in other areas to join in.

Donkey City - A Women's Program

We think one of the greatest inequities in Ethiopia is the workload imposed on women and children in these rural areas. On any country road you can see women stooped over, walking long distances under heavy loads of firewood. Then walking back home carrying what little they could buy with the dollar or so they earned at the market place. This is a daily routine that has gone on for many centuries: 90% of the energy used in Ethiopia is wood.

What's wrong with this picture? Quite a few things. One is that firewood supply isn't sustainable. What with taking care of the house, helping with the crops, plus the nearly daily trip to the market, these women have neither the time nor the energy to plant new trees. They are cutting what is already there and so Ethiopia's forests continue to dwindle.

Bedru Sultan of the Board of TREES, being from the Guraghe, is especially sensitive to the problem. And he came up with a plan to make the system more efficient and also more friendly, both to these rural women and to the environment: one woman can carry about 65 lbs. to the market. A donkey can carry a load of 200 lbs. Therefore a donkey can do the work now being done by three women, saving the group time to plant trees that can sustainably produce more, and better, firewood.

Another consideration has been the job to be done. Having nearly three million seedlings in the nurseries to be uprooted, prepared and transported over paths and trails that turn to soup at the first raindrop, we needed some friends. Especially friends who have donkey carts.

And so as I arrived at our compound in a place called Qatburi, I was greeted by some 50 donkeys which were being fed and rehabilitated before distribution. At dawn on Easter morning, we watched the sun come up from the compound when we saw a woman walking across the hills. She told us she had been walking all night so that her group could be the first registered to get a donkey.

Walking all night alone in those hills is not a good

idea. There are plenty of snakes out there, including spitting cobras. There are also some packs of hyenas. We invited her in for tea and to learn more about her group.

She told us that we were right in calculating one don-



Firewood is the major energy source throughout Ethiopia. Village women carry heavy loads to sell at the local market and are so exhausted they have no time to plant new trees as a sustainable energy source.

key could do more work than three women. *But a donkey pulling a cart could do as much work as ten, maybe twelve, women.*

It didn't take a calculator to figure that out. The donkeys were costing \$60 each and each one needed a lot of rehabilitating before we could distribute it. A cart would only cost a little more. We spent the rest of the day designing that cart.

By the time the rains came, the donkeys and carts were being distributed. Along those trails and paths, there were women driving vehicles that could float over the mud and deliver a lot of seedlings to the widely scattered villages.

There were also hundreds of willing hands to prepare the seedlings for transport and help when other emergencies arose: in one nursery the pump broke down right at the driest time of the year and for more than a week the local women carried water from the river - almost a quarter of a mile away, thereby saving hundreds of thousands of seedlings.

The Other Green Zone (cont'd from page 3)

That wasn't the only women's project started. In another town, where the river was thick with mud, there was one big spring that provided clean, sweet water. But it was at the bottom of a deep gorge and many people were seriously injured climbing down the steep sides. This was also the only place where women could clean clothes and bathe.

There our local partners built a cement catchment and installed solar panels and a pump to an overhead tank, where they are building a bathhouse and laundry. The pump also sends clean water to an overhead tank at the local school, almost a kilometer away. Children come in the morning carrying water containers with their name on it. As they study through the day the containers are filled so they can carry fresh water to their homes nearby.

As we so often point out, deforestation is primarily a problem of women and children. This program, by meeting the overpowering needs of these women and children, is making the good friends who are bringing trees and forests to the Green Zone.



One donkey & cart can do the work of 10 or more women, giving these groups time to plant trees that will be sustainably harvested for wood and other needed products.



Women and children had to climb down this steep ravine to get clean water to carry home. Our partner Harmony Farms installed a solar pump and overhead tank, built a bathhouse and laundry, and then another overhead tank near the local school. Some 210 families now have clean water right at home. No more long walks or dangerous falls.

Introducing Kevin John Richardson



Your organization has grown quickly over the past year. The administrative load and the work needed to build in-country programs have grown too.

Kevin comes to us to assume much of this load as the Coordinator of our Loret Miller Ruppe Center for Sustainable Development, while gradually assuming more and more of the duties of the Director. He brings to us leadership qualities, extensive management experience, and knowledge of the non-profit world.

With that, Kevin has a strong background in organic chemistry and in the development of secondary forest products. He recently led a project that developed liquid, powder and granular products that bring beneficial microorganisms back to degraded soils. As TREES becomes more involved in developing organic fuels and sustainable energy systems as part of our agroforestry program, Kevin's talents will play an important role.

IF WE ALL IMPLEMENT FOREST GARDENS

Despite the level of sophistication, advanced technology and superior economic standing the developed world purports to have, it is my opinion the peoples of developing areas are making the most of the opportunity to develop truly healthy, sustainable communities.

Indeed, successful sustainable community development, based on agroforestry systems, is happening in developing countries.

Unsubsidized and immediately affected by the magnitude of ecologic and economic distress, people of these areas empirically understand the connection between the health of the land, the water, the air and their own well being. And *everyday*, Trees for the Future agroforestry extension and techniques are welcomed by communities of people we are fortunate to connect with.

We share ideas. We learn together.

People of developing areas all over the world are putting appropriate, sustainable living practices into action. They are meeting their needs and improving the future for us all.

They are making sustainable development happen, today.

Agroforestry is a cornerstone of their success. And their success is the backbone of continued agroforestry extension.

Are *you* going to plan and implement your Forest Garden? When you do, you join the millions of people who now regularly enjoy highly sophisticated, advanced, superior, healthy, sustainable living and improve our world.

Do you want *assistance*?

Order the *Agroforestry Training Manual* from **Trees for the Future**. Read the concise lessons, then take the test in the back of the Manual and apply for your Certificate. This is the same information used by people around the world to get agroforestry Projects started with Forest Gardens.

Do you want to *assist*?

Please help improve your Programs. One way to help TREES will be to share your input with us and contribute to:

- **Trees for the Future's Forest Garden book!** Scheduled for publication and available Fall 2007, Forest Garden will contain insights about Forest Gardens from our 30 plus years of field work.

- **Johnny Ipil-Seed News**, the quarterly newsletter of Trees for the Future. Beginning with the next issue, the newsletter will feature a section dedicated to: "**Secondary Forest Products**". The section will highlight appropriate technologies based on resources which are produced in agroforestry systems, particularly Forest Gardens.

We welcome and value your input in the ongoing process of producing these references.

We need you to participate! We can not do this without your active participation.

Trees for the Future looks forward to hearing from you and we **thank you for your continued support**

~ Kevin John Richardson

About Overgrazing and Confinement Rearing

Overgrazing is, in the places we work, by far the most destructive force against the environment. In the world's developing communities, farmers and cattle raisers are beginning to understand their way of life can't go on much longer.

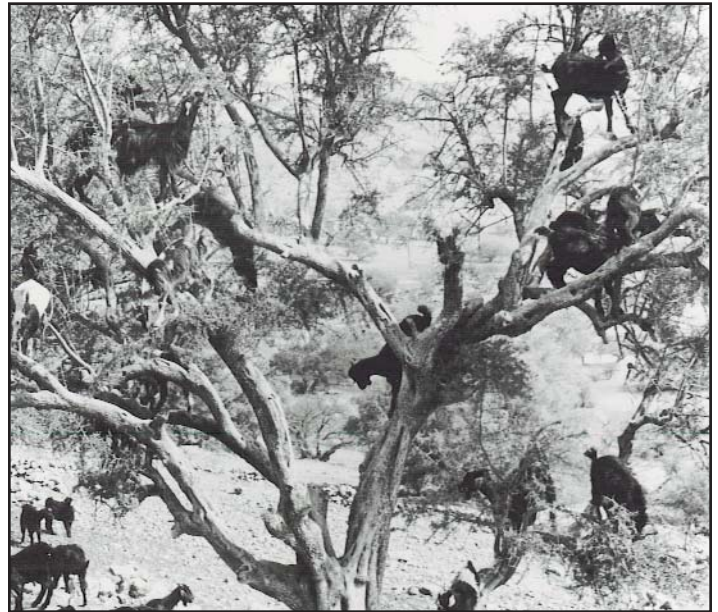
The global program of TREES actually began in the early 1970's in Southeast Asia. Surprisingly, most of those early projects were started by cattle raisers, first on an island called Maligaya in the Philippines, then millions more trees on Madura in Indonesia.

While most cattlemen in North America wonder why cowboys anywhere would want to plant trees we suggest they check out the results and see why. When it comes to saving the environment, grazing livestock can be our best friends - or our worst enemies. The decision in favor of the environment - and planting trees - has proven very rewarding to the raisers as well as their animals.

There's a great deal of confusion about the place of livestock in traditional farming systems. In the halls of the World Bank and other such agencies, the following comment is often heard: "If we really wanted to help Africa, we'd shoot every cow, goat, sheep, donkey or camel we find".

Not too different in Peace Corps. Volunteers in natural resources throughout Central America often vent their frustrations saying: "The mountains would probably repair themselves - if we could keep the cows off them for a few years.

To be realistic, there's no way the World Bank can, or should, kill off the domestic livestock of Africa, and the cows of Central America will continue to roam and denude the steep mountain sides unless and until we show people better management systems. To do that, project planners need to see the other side of the issue. It's not a problem of livestock but of management systems. Since we work in quite a few cultures, with most of our projects in the developing countries of the humid tropics, and since livestock is such an important part of agriculture for the people of these lands, we think what we learned in these early livestock projects offers insights for planning projects that are beneficial to these communities. First, the goals of these cattle raisers are far different. To illustrate, in North America and Europe, animal scientists list 12 reasons why people associate with animals. Usually the first is to earn a profit. Some of the others seem a bit out-date: in our society, for example, most of us



No, they're not big birds. In this one tree rest nearly fifty goats - just a small part of the herd wandering through this village. If they were properly managed, with the grass brought to them rather than sending them out to find grass, the goats could help the village become green again.

no longer depend on horses for transportation. The teachers also threw in reason #12: "to make life more interesting".

In the developing countries on the other hand, there are at least 25 valid reasons for people to care for animals. Earning a profit is far down the list, but making life interesting is near the top - for some very important reasons. For example, in much of Africa and elsewhere, a family's place in society is largely determined by how many animals they own. That's a problem. For example, let's say one man owns 99 big, sleek, cows. But another man owns 100 scrawny, pot-bellied runts. His place is higher because he owns one more cow! To which we reply: "better management means bigger calf crops, therefore more animals, therefore higher status in your community. In other words "take care of your cows and they'll take care of you".

Environmental destruction has also increased because planners have attempted to impose "modern technology" upon supposedly "backward" cowboys of the developing world, somehow forgetting that these societies raised livestock long before the time of the pyramids and, over nearly a hundred centuries, they learned a thing or three.

One thing the centuries taught them is that if farming

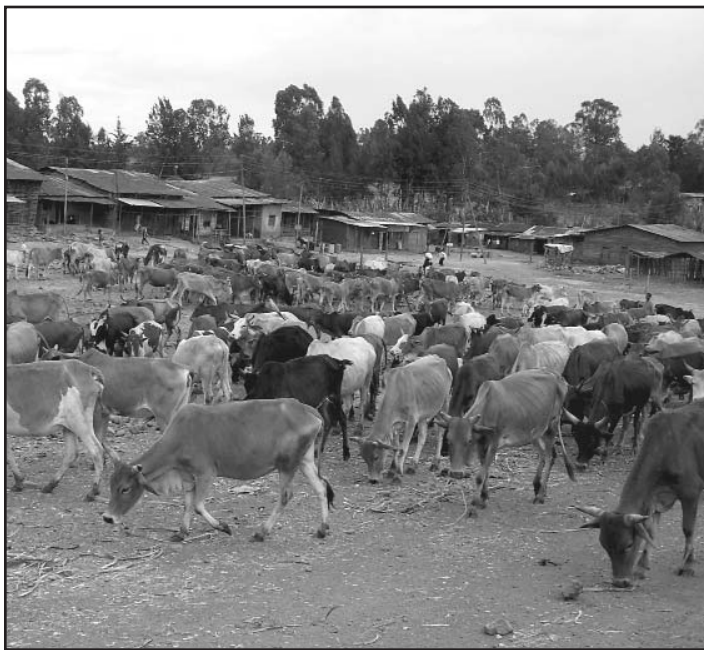
is to be sustainable, it must also be highly integrated with crops, livestock and other activities all working together, supporting each other. Two reasons support this line of thinking: first, animals have the ability to produce food on land unusable for tilling and, second, animals can take things people can't eat (like grass) and convert them into things people can eat (like cheese).

These are reasons people in the world's developing communities won't, and can't, stop raising livestock. Experience taught them better. If we hope to save and restore the environment, we need to see their reasoning. If we can't do that, we will introduce ideas that are completely impractical in these situations, and therefore unacceptable.

CONFINEMENT REARING

For example, the parameters that determine how our own cattle business operates: cheap land, cheap credit and high labor costs, are exactly the opposite of the situation in most of the developing world, where land and money are extremely expensive, even in real terms, but you can hire a good cowboy, with his horse, for less than \$200 a month.

There, the situation dictates the need for much different systems. For a farmer in Central America, for example, this means hiring more labor, using the least amount of land possible, and feeding the animals what's locally available.



When grass gets this short, this herd moves on to a new place, also compacting the soil so less grass grows, so they can move even farther and compact even more land - a snowballing effect.

In many of the places where your Program is at work, there are both farmers and herders. But the massive herds that once marched across Africa are fast becoming a part of the past. The land can no longer support the system. Communities along the way don't want the herds around any more. Land is getting too precious.

That is one good argument for introducing confinement-rearing systems: On such a system, one acre of land can support about 20 cows and their calves (in the tropics). Open grazing in most tropical uplands requires five or six acres to maintain one cow-calf unit.

This makes better management possible at far lower cost: with open grazing on rough land it's hard even to find your herd on a daily basis, let alone look to their needs. Then there's stringing costly barbed wire, hiring cowboys to check for strays, and other big and unnecessary expenses.

For the animals themselves, the stress in confinement is far less. No hot sun. No long walks for a drink of water. No bugs. No snakes. No predators. The system helps avoid threats such as hyenas, tsetse flies, lightning, floods - all of which take a big toll on herds out on open grazing.

With confinement rearing, the animals are more comfortable in cool shade with forage, minerals and clean drinking water always on hand. Production is sustainably much higher. The "backyard" raisers of Southeast Asia see an annual calf crop of about 92% while cows on ranches in the same areas seldom produce a calf crop above 60%. All because animals kept close by can be much better managed.

In Indonesia, yearling bulls were found able to gain 75 Kg. of weight during one rainy season. But in the following six month dry season, if left on the open range, they lost 50 Kg. So in a year, they didn't gain 150 Kg. Just 25 Kg. or 1/6 of their genetic potential.

Since nearly all the communities we assist are involved in mixed agriculture, we point out several benefits as we see them:

- Confinement rearing brings meaningful jobs to rural areas. The animals themselves are more comfortable, more healthy, and far more productive.
- By taking away the pressures of over-grazing from the land, livestock help improve, rather than destroy, the land, water supply, and environment.
- Because the animals are kept in comfortable conditions, higher productivity is possible using far less costly locally available feedstuffs.
- We point out that the leaves of two of the most popu-

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Introducing Ellen Valley

Ellen Valley, our new Member Services Coordinator, is a native of the Washington, D.C. area. Science first piqued her interest at a very young age. In high school, she spent two years as a teacher's aide for biology. She then went on to the University of Maryland College Park where she earned a Bachelor of Science in General Biology. When leaving college, Ellen's love of nature helped guide her toward the field of environmental science.

Here at TREES, Ellen's role is to help coordinate our interactions with our members, and on most days she will be the first person you talk to when you call us.

When not at work, Ellen can often be found next to a body of water with a fishing pole in her hand. She also loves spending time in the kitchen, perfecting her signature dishes and experimenting with making new ones.



Introducing Richard Waite

Richard Waite, our new International Programs Coordinator for West Africa and Haiti, taught agroforestry and medicinal plant gardening as a Peace Corps Volunteer in the mountainside village of Bangang, Cameroon from 2003 to 2005. He facilitated over 25 agroforestry training sessions, farmer exchange visits, and field trips. The farmers of Bangang continue to diversify their agricultural activities and have established an agroforestry training center complete with demonstration plots, seed banks, and products for sale.

After completing his Peace Corps service, Rich moved to Yaounde, the capital of Cameroon, to help coordinate the U.S. Embassy's development programs from 2006 to 2007. There he learned about development project management and administration, and through his position was able to travel to every part of Cameroon and some of neighboring Equatorial Guinea. During his travels he discovered ecosystems ranging from equatorial rainforest, to mountainous savanna, to the fragile sahel on the edge of the encroaching Sahara desert. Everywhere he stopped, he was able to learn from community members and observe some of the daily struggles they face. In each place, he also met amazing community leaders who are working tirelessly to improve their lives and the lives of those around them.

Now back in the United States, Rich will be coordinating our programs in West Africa and Haiti. He hopes to use the skills he learned in Africa at Trees for the Future to expand and develop our programs. He also hopes to discover new parts of the world, and to continue to meet and learn from people doing good things in each place.



Trees in the Yucatan

TREES technician **Gorav Seth** recently spent two weeks on the Yucatan peninsula of Mexico, where innovative conservation work is helping to protect the buffer zones around the region's major biosphere reserves. Part of this work centers on developing economies that are based on communities protecting and sustainably managing their natural resources. TREES was invited by Rainforest2Reef, an American NGO, to help develop programs that will foster long-term environmental and economic growth.

Local communities (known as ejidos) were given large tracts of land by the government during the past century. Much of this land lies hundreds of kilometers from the villages, in areas that are now part of the buffer zone surrounding the Maya Biosphere Reserve, an area of immense biological and cultural value. This reserve stretches from the Yucatan Peninsula down into Guatemala, and contains critical habitat for species such as the Jaguar, the Toucan, and other endangered species, as well as magnificent ancient Mayan ruins such as El Mirador, Calakmul, and Tikal.

Historically the only way for ejidatarios (villagers) to earn income from this land was through leasing the logging rights to large companies for a pittance. Rainforest2Reef has been working in these communities for many years to build consensus among the ejidatarios that they can benefit from protecting their natural resources. The villages have agreed to conserve their natural resources, in exchange for annual payments that compensate them for the lost income, along with training in sustainable natural resource management (including agroforestry).

In late June, a conference on organic agriculture was held in the village of Pustunich. TREES went down to participate in the conference, to learn more about the local conditions, and to investigate opportunities to collaborate with Rainforest2Reef and with the local community.

This community is incredibly motivated, and presents an amazing opportunity to create sustainable development in an area of critical biodiversity. We spoke with local farmers, ranchers, and beekeepers, started a small bare-root nursery behind the elementary school, and made contacts with individuals and groups that are interested in agroforestry systems.

One of the main opportunities is to develop cut-and-carry cattle and goat systems based on sustainably harvested tree fodders.



Starting a bare-root nursery with schoolchildren in Pustunich

Additionally, living fences, alley cropping, and improved fallows could all help increase the productivity and sustainability of local agricultural practices. This area is in the direct line of hurricane Dean, and we are very concerned about our friends in the area. Please help these communities recover from this devastating natural disaster.



Simple ponds are used to provide water for animals kept in the field. These ponds dry up for about 4 months a year, necessitating daily transport of water.

Business Partnerships

We continue to receive many requests from businesses large and small to partner with us both as a marketing tool and as a way to offset their carbon emissions. One of our most recent partners is **Dr. Scholl's** who have created eco-friendly sandals and are planting 10 trees for every pair they sell. Another new partner is **evo.com** who is planting 100,000 trees to commemorate the launch of their website, and will plant a tree for every registered user on the site. Other recent members are **Nahui Ollin**, **OBoZ Footwear**, **Spooky Tooth Cycles**, **Eco-Sketch pads**, **LearnToDoStuff.org**, and **SustainOurPlanet.com**.

We were also mentioned in the May/June issues of Roast Magazine, which talked about offsetting carbon emissions from their coffee roasters. This has brought about many inquiries regarding our partnerships along with some new partners. Our current partners are leading their fields towards sustainability and social responsibility, and are helping us work with more families and villages than ever before. Please support these businesses. You can read about all of them on our website: www.plant-trees.org/partnerships.htm

Introducing Francis Deppner



Francis is the eldest son of Dave and Grace Deppner. His international experience began at an early age: born at the US Air Force hospital at Clark Field in the Philippines at the time Dave and Grace were serving in Somalia.

He is now a senior at the University of Maryland, studying international business while also gaining experience coordinating the business partner program for TREES, and will also be in the field helping plan the small business agroforestry programs of our Ethiopian partners.

Francis also has a great deal of talent as an artist, having studied at the community college here. His work graces several of our publications including this newsletter.

About Overgrazing and Confinement Rearing (from page 7)

lar trees we plant - Leucaena and Moringa - are highly nutritious, palatable, feed for livestock.

None of this is intended, in any way, to excuse the brutalization of animals, forcing them to live under extremely unsanitary conditions, victims of vicious and uncaring management systems such as are often presented to the public by various animal rights groups. We also condemn these practices. Instead, we get people to remove every possible stress - and they find that the animals respond positively.

People in the world's developing communities place a lower priority on profits than on the other reasons man associates with animals. Long ago they learned that if the animals are not happy, soon the owners will also not be. We tell people that if they want to save the environment, their livestock can be their best friends - or their worst enemies. It all depends on how they are treated.



On this model farm of the Mercy Project in Ethiopia, the animals are kept in clean, cool conditions with the grass sustainably cut and brought to them. Because the animals are comfortable, they produce much more milk for the Project's school.

Apples in Africa

TREES Ethiopia program is continuing to grow, and is addressing the needs of local farmers. In September, Dr. Shimelis Yigezu, our field representative, will be holding an apple tree grafting workshop that will be held in conjunction with local farmers as well as our local tree-planting partner, Greener Ethiopia. The workshop will be held at Greener Ethiopia's Dobi nursery in Butajira, located two hours south of Addis Ababa in the eastern side of the Gurage Zone.

Government experts in tree grafting and propagation will lead the training, which is meant to provide farmers the skills and knowledge they need to produce grafted apples. This will help augment these farmer's income within four to five years, when the young trees are ready for their first harvest. It will also help spur the development of the domestic apple market in the Gurage zone.

The Ethiopian apple market is currently very lucrative. A farmer can sell one kilo of apples for up to 25 birr (approximately US\$3) – five times more than a kilo of bananas. There are two major factors that make apples such a lucrative fruit. First, in order to fruit, apple trees must be exposed to a certain number of hours of chill – temperatures below ~7 degrees Celsius, and Ethiopia is too mild for the cultivation of most traditional varieties that originate from temperate areas. Therefore, in tropical areas, apples must be

imported and are an expensive delicacy.

The second factor is that apple seedlings naturally exhibit a staggering degree of variation. It has been estimated that the odds of obtaining a good apple variety from a seed are about 1 in 80,000. Therefore, they must be propagated by grafting known varieties onto rootstock adapted to local conditions, which is difficult for subsistence farmers.

However, over the past few decades, plant breeders have developed a number of good quality “low chill” varieties, which can fruit in places like Spain, Israel, and the cooler parts of Ethiopia. Now, with your help, two varieties of these low-chill apples are being propagated by Greener Ethiopia at their field site located in the west side of the Gurage Zone near Wolkite. One of these varieties comes from Spain, and the other from the southern Ethiopian region of Chenchä.

Once the farmers have received training in grafting, the farmers will benefit not only from selling the fruit, but from supplying and selling the tree stock as well. This tree stock can be produced by utilizing the wood that comes from normal pruning activities, making it a natural extension of apple farming.

Dr. Shimelis hopes that through this work, the Gurage zone will become another important mother-stock region for these two main apple varieties. Distribution of the seedlings will commence next season.



Young apples close up. With improved management, the apples should grow to 2-3 times this size.



Young apple trees being grown to provide grafting wood at the Greener Ethiopia demonstration farm

Trees Speak Out!



Thanks to Vinod, a friend in India, who is a graphic designer. He sent us a number of these clever designs centered around the many uses of trees. We put two of our favorites on this page, and we feel like you will enjoy reading the other quotes.

“A wooden box is not a birdhouse”

“There’s a better way to conserve rainwater than building a dam”

“A big thank you in advance from all the squirrels, birds, bees, and butterflies”

“No one ever attained enlightenment under a lamp post”

“Transforming barren wastelands into fertile soil since before N-P-K”

“Because the garbage van cant clean up your vehicle’s exhaust”

The Global Mala Project

The Global Mala Project, an incredible global yoga event aimed at raising consciousness around the world’s most pressing issues will take place this September. Our good friend Shiva Rea, a renowned yogi based out of Los Angeles, California, planted the seed of this idea last fall, and with the support of yogi’s worldwide, it has grown and will bloom in a few weeks.

The purpose of the Global Mala Project is to unite the global yoga community from every continent in the world, forming a "mala around the earth" through collective practices based upon the sacred cycle of 108. The word mala means garland in sanskrit, and also refers to strings of 108 prayer beads used in meditation and chanting.



Trees for the Future is honored to be one of the 4 beneficiaries of this amazing event.

On September 21st - 23rd, the Fall Equinox and the United Nations International Day of Peace, studios, teachers and organizations across the globe will create fundraising celebrations, raising funds and awareness for some of the most essential issues of our times: Global Warming, AIDS prevention, and the effects of poverty and war.

Thanks to all of the organizers and participants!

Learn more about this event at:

www.globalmala.org

Senegal Success Stories

News came to us in mid-August that our program in the Kaffrine in Senegal has just taken another big jump forward. With government participation, a land area of 140 Hectares (350 acres) is now to be reforested in a plan that includes many species we found beneficial to that area.

With that, Peace Corps agreed to send two volunteers there each year to further expand the program. Because results here are so visibly beneficial, they are further considering establishing a center there for in-service training of the Volunteers.

Omar Ndao, who started all this together with his/our friend John Leary, has come a long way in only about five years. He has become a highly respected advisor for sustainable land management systems, and he doesn't just tell them - he shows them on his working farm!

It began when they were confronted by a double threat: first, the desert continued to move in on the community. With that, in order to protect their crops, people were cutting down the few remaining trees to build wooden fences around their fields.

By planting several species of beneficial, multi-purpose fast-growing trees, they were able to establish "living" fences, removing the need to cut down the trees of the area. People were amazed how fast they grew.

Not willing to stop there, they built on the living fence idea until it became large windbreaks that contained dozens of species, providing people with a steady supply of food, fuel, forage, and organic fertilizer which, combined with dust blowing in from the desert, becomes a rich dark loam.

By now the project was starting to catch the attention of hundreds of families, local and also from far away. Soon Omar and John were traveling long distances to conduct training workshops.

More success came as local families found that, in harmony with the windbreaks, they could produce rich and flavorful vegetables that found a ready market in nearby towns. From this, a new industry began in the Kaffrine District.

In their efforts to perfect the windbreaks, quite a few new species were added. One of these, *Jatropha curcas*, filled a number of important roles. But it was only later when visitors saw this tree and asked why they weren't harvesting it.



TREES Field Reps Omar Ndao and Abdou Diane working with Jatropha plants in the nursery.

"What for?" they asked. "For oil!" they were told. And another new industry was born. Now thousands of *Jatropha* trees are being planted, perhaps producing more than 10,000 gallons of precious "bio-diesel" organic fuel as a sustainable income for the participants - a great economic boost to the environment and to that community since it can be produced for less than half the price of imported fossil fuel.

Last year Omar, with a little help from TREES, built a training center. He made concrete blocks by hand - we gave him the tin for the roof and paint and now this training center stands at a major crossroads. Thousands came to his grand opening and hundreds more now come each week to learn how to save their lands. Omar now has an assistant to help build the program.

Successes keep piling up. Now with more than 750,000 trees planted in the community, Omar's project has caught the attention of Senegal's President Wade, who sent two of his staff to see all they're accomplishing and who now plans to send a camera crew to document it (we hope to soon have this available on our website and as a CD for you).

Why is your program so successful? We think it's a combination of solid, proven, appropriate ideas about sustainable land management, brought to communities desperate to learn, by dedicated, concerned hard-working people like Omar.

Opinion: Sky High Claims



As we become more aware and concerned about carbon emissions and their effect on global climate change, and as people become more aware that planting trees offers a practical, cost-effective way to offset this carbon, more and more people are joining our global program. To them we say "Thank you and we'll continue to do our best."

At the same time, we are dismayed by the claims made by opportunists and apologists acting on the part of large carbon emitters. There is talk about such things as "carbon calculators" and "carbon footprints". This is especially disconcerting at a time when there is so much concern and misunderstanding. It therefore seems necessary that we clarify what tree planting can, and can't do.

First, the amount of carbon a tree can annually remove from the atmosphere varies by hundreds of factors such as species and average rainfall. The average tree in our program annually takes some 50 lbs. of carbon dioxide (CO₂) out of the atmosphere. Therefore about 40 trees, which we plant at a cost of ten cents (\$0.10) each, take a ton of CO₂ from the atmosphere every year.

Second, the only way these trees can be planted at such a low cost, and remain alive and productive for a great many years, is if they sustainably produce important benefit for the people who are planting them. The more than 60 million trees you have helped people plant around the world annually produce more than \$14 million in cash benefits for these families, plus the non-cash benefits such as erosion control, replenishing water supplies, and cooling the community. That's why the tree were planted. The fact that they also reduce the threat of global warming is, to us, an important added benefit.

Do you need a "carbon calculator"? We don't think so. A couple of figures you might want to keep handy are: -An average American causes about 19 tons of CO₂ emissions annually - a family of four would have an annual carbon footprint of about 77 tons. Planting 3,200 trees in our program would annually remove this amount of CO₂. The cost is \$320.

-An automobile driven an average of 13,000 miles annually emits its own weight (plus the driver, passengers, etc.) in carbon, as CO₂, annually. Planting about 280 trees in your program will annually remove an equivalent amount of carbon from the atmosphere - We provide a tree-planting certificate at a one-time cost of \$40.00.

Our additional concern is that many of the opportunists claim carbon credits for what a tree can do over a period of 40 years (which they claim as the lifetime of one of their trees) up front. In other words, one tree can sequester a ton of CO₂ in 40 years. Therefore, one year of your car's emissions can be sequestered, according to them, by planting 79 trees.

The program you are making possible is at least a beacon showing what is possible because planting trees is a big part of the answer.

Sorry, but there's no such thing in our work as a free lunch. If there were, a large coal-burning power plant could offset its emissions for a small fistful of dollars. One problem with that is that, presumably, the power plant would keep running year after year while they would still be waiting 40 years for the first year's emission offsets. The second, and we believe the most dangerous,

thing about this misleading idea is that we quite probably don't have 40 years to wait around. A convention of the world's most respected climate change scientists met earlier this year in Paris, and later Brussels, and announced that *we have at best ten years, more likely six years, left to make significant progress toward resolving this threat*. So once again the major emitters of greenhouse gases want us to dump the problem in the laps of our children, telling them, "Oh, by the way, we're several years beyond the tipping 'point' on climate change. Have a nice day!"

We can do much better than that. The program you are making possible is at least a beacon showing what is possible because planting trees is a big part of the answer. It not only reduces the amount of carbon entering the atmosphere, it also removes the carbon already there.

An even bigger part of the answer is getting off the fossil fuel diet. Your program is working on that as well, and having some encouraging successes.

Please help us continue to build these vital programs.

Opinion: \$4.00 A Gallon!

A little over a year ago we voiced our serious misgivings about growing corn here in our Midwest as feedstock to produce alternative fuel (typically Ethanol).

We did this before a group of international investors then considering ethanol production gathered at a hotel in Las Vegas - a place where it might truly be said that "money is no object".

As it turns out however, making money seems to have been the main object. Never mind that, with our highly mechanized farming systems, it takes **four gallons of fossil fuel** to provide the energy and chemical fertilizer needed to produce **five gallons of ethanol**.

Never mind that corn has always been considered, directly or indirectly, to be human food - but now cars are so important to us we must burn corn in them. Never mind that half the world, especially countries where corn is an important daily staple in the diet, now stares at us in bewilderment.

Never mind that this expanded planting of corn, forgetting all that has been learned over the centuries about the need for crop rotation, is quickly destroying our heritage, depleting our soils of vital trace elements and organic matter, causing the increased runoff that further pollutes our streams and rivers - and thereby contributes more to the threat of global warming than all of the ethanol produced can take away.

Never mind that the greed that started this venture continues to spread, quickly devastating other segments of our own, and other, economies: within one week the price of milk across the US jumped more than a dollar to over \$4.00 a gallon - something even Exxon-Mobile has so far been unable to do with their gasoline.

Never mind that, by profiteering from the global warming crisis, the investors are in fact exasperating economies throughout the Developing World: for us, \$4.00 milk is a serious inconvenience but it can be a death sentence for children of families in places where the pay for a whole day's work is often less than \$4.00.

This emphasizes the point that if we are looking for workable answers to the global energy crisis as it affects us, it is in these developing communities where much of the answer lies. If our own economy can only continue to grow through ever-increasing supplies of energy, then we need for energy to be sustainably produced at reasonable costs, not subjected to political whims or politically inspired price hikes.

Whether or not we are concerned about the plight of people living in these countries, whether or not we are

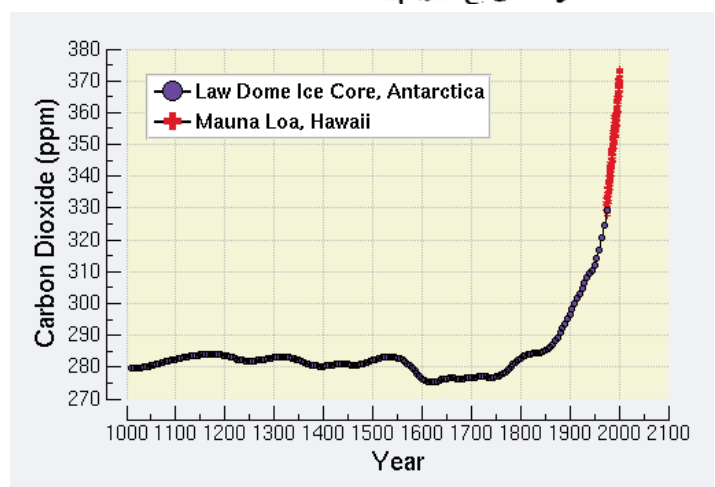
concerned about environmental degradation, much of it caused by our own inability to help these peoples achieve sustainable development, for our own sake we need to accept reality: that we, all of us, here and in the Developing World, face this same grave crisis; a three headed threat of environmental destruction, over-dependence on increasingly scarce and costly fossil fuels, and the resulting climate change. These three are as closely inter-twined as a nest of snakes. *Addressing any one of them effectively means addressing all of them in concert.*

As we consider how to best shoulder our responsibility as a superpower, we should also understand that this means all of us, here and in the poorer nations of the world, must work together to meet these threats.

There is no time left for get-rich schemes. No more time for save-the-earth concerts for the benefit of Hollywood guitar players. No more time for suspicion, envy or hatred. *There is just barely enough time for all of us to work together in a way that all children, here and there, can have a future.*

Trees are a reliable, readily available, quickly renewable source of solar energy. Trees create woody biomass that makes excellent feedstock for biofuel energy at the same time that they are removing carbon from the atmosphere and reducing the threat of climate change. Trees help produce food. They restore water supplies. Trees bring fertility back to the land, and Trees give people livelihood opportunities and a better quality of life. That's called sustainability. You're helping achieve this.

We thank you.



Law Dome Ice Core data source:
D.M. Etheridge, L.P. Steele, R.L. Langenfelds, R.J. Francey, J.-M. Barnola and V.I. Morgan. 1998. Historical CO₂ records from the Law Dome DE08, DE08-2, and DSS ice cores. In Trends: A Compendium of Data on Global Change. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn., U.S.A.

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*Combined Federal Campaign
Trees for the Future is part of the
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www.plant-trees.org

New Program



AFRICA: A Land of Suffering?: Of deprivation? Of failure? You've certainly heard it called all of these. Or is it a land of hope, of great opportunity for the people there? TREES has been at work there for all our 20 years - and more. Now over 60% of the trees you're helping us plant are someplace in Africa. Why? One good reason: **If we are to save our environment, our climate, and our future, Africa will have to lead the way!**

The reasons are obvious. Africa, and the people there, have a tremendous need to save and restore the natural resources on which these agricultural societies so much depend. Africa has the land, the people and, above all, the determination to make the land green again.

Moreover, in our experience, Africa is a land of success! We want to offer you an opportunity to meet some of the people who have made these successes possible and to share with them the experience, the vision, the realization of all that your program is making possible. Therefore we will soon be highlighting a new program: Greener Africa. Learn more at www.greenerafrica.org



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