

Permaculture Network In Malawi

Issue #47: Permaculture Review

October - December 2004

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What is Permaculture?

In this issue we will review some of the principles that make Permaculture what it is. Since Permaculture is a holistic approach to life, we will discuss several different aspects such as soil health, water use, conservation, nutrition, and healthy living.

So what is Permaculture? Many of you may have struggled with this question if you have ever tried to explain it to others. It is a difficult thing to summarize since it incorporates so many different things. The following are a few definitions that have been taken from “The Permaculture Booklet—South Africa’s First Grassroots Permaculture Manual” compiled by Michelle Nel. Hopefully they will help you when you are trying to share what you know with others:

- “Permaculture comes from the words PERMANent and agriCULTURE. So it can mean agriculture (food production) that lasts, or culture (ways of doing things) that lasts.”
- “Permaculture is a system of natural farming in which the farmer co-operates with nature.”
- “Permaculture is about caring for the environment so that the environment can care for us.”
- “Permaculture is about looking at our resources (at school, in the surrounding community and even outside of that) and ‘designing’ better environments. Designing means joining the different resources and elements (water, soil, plants and animals) of the environment together like a puzzle so that they can work better for us and produce a food rich environment.”



The world is facing a lot of problems these days that have been created by human beings. All you have to do is pick up a paper, listen to the news, watch TV, or read a magazine to see signs and symptoms of these problems: floods, pollution, global warming, famine, increasing outbreaks of disease, and the list goes on. If humans have assisted in the creation of these problems, then humans can create the solutions as well. This is where Permaculture can be of great assistance. It provides positive solutions to many of today’s problems and gives us guidance on how to live a healthy and sustainable life.

If we are going to leave a sustainable future for the generations to come then we are going to have to start seeing things in a new way. When we look at things through the “eyes” of Permaculture, we often see that the current ways of doing things are the cause of our difficulties. For instance, why do we get so worked up about fertilizer subsidies when we don’t need fertilizer? Why do we debate the dangers of multi-national corporations owning our seed companies when we don’t need the seed companies in the first place? Why do we have a “hungry season” in a country that has a 12-month growing season? Why do we let all of our water run away during the rains causing floods, erosion, and property damage and then we complain during the dry season when our boreholes run dry? Why do we base our entire diet on one introduced foreign food when there are over 500 local foods to choose from?

Let’s start to see the solutions, not problems! Permaculture will help you do this if you are willing to give it a try. Be patient, experiment, and make lots of mistakes and successes—soon you will be wondering how you ever lived without Permaculture. 🌍

Soil through the Eyes of Permaculture

Much of the soil in Malawi is quickly becoming nutrient-depleted. You can see this in areas where people have planted maize and have been unable to apply fertilizer. The maize at the end of the growing season is only about 30cm tall, yellowed, and produces little (if any) harvest. This is simply a waste of time and energy on the part of the farmer. It is time that we begin to heal the land so that it can give us the things that we need to stay healthy and strong.

One of the most important things that we can begin to do is return *ALL* organic matter to the soil. The practice of gathering, sweeping, and burning organic matter is one of the worst things that we continue to do. These materials have many nutrients that plants need to grow. If it is burned, the majority of these nutrients are destroyed leaving mainly potassium.

When we buy and use chemical fertilizer, we are simply *feeding the plants but NOT the soil*. Each bag of fertilizer has numbers on the front of it. The first three numbers correspond to the percentage of nitrogen, phosphorus, and potassium and then any remaining numbers mean that other things have also been added. A typical all-purpose fertilizer that is commonly sold in garden shops is 10-10-10 (meaning 10% nitrogen, 10% phosphorus, and 10% potassium—the remaining 70% is just a “filler” to protect the plants from getting burned by too much fertilizer). In Malawi, however, a typical bag of maize fertilizer is 21-23-0 + 4S. (21% nitrogen, 23% phosphorus, 0% potassium, plus 4% sulphur. The remaining 52% is nothing but filler.)

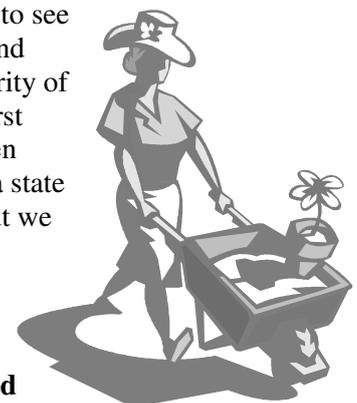
So let's look at what this says about the condition of our soil in Malawi. Plants need at least 15 nutrients that we know of to grow healthy, resist diseases, and produce food for us to eat. Chemical fertilizer generally only provides the three main nutrients that we have mentioned. The remaining ones: sulfur, calcium, magnesium, manganese, boron, zinc, aluminium, silicon, copper, iron, molybdenum, and chlorine are usually left out and it is hoped that the soil still contains some of these things to assist with the growth process. This is why it becomes so important to start feeding the soil and not just the plants.

Nitrogen is constantly being removed from our soil by crops, rains, and other natural processes. In order for plants to grow healthy, there must be a constant renewal of nitrogen, not just a one-time application. There are several reasons that the percentage of nitrogen is so high in Malawi's maize fertilizer (21%). Firstly, we are not returning enough organic matter to our soil and we are not intercropping with enough nitrogen-fixing plants. Secondly, we allow too much water to run off our land during the rainy season. This erosion, along with depletion from the sun and wind, takes away what little nitrogen may have actually had a chance to build up in the soil. According to the Agroforestry Manual put out by MAFE, it is estimated that we lose on average 20 tonnes of topsoil per hectare each year in Malawi due to erosion!

Next is phosphorus which helps with the development of strong roots, fruit development, and disease resistance. Phosphorus is released through the decaying of organic matter. The reason that the percentage of phosphorus is so high in Malawi's maize fertilizer (23%) is that we aren't allowing any organic matter to decay in our fields! As for potassium (also referred to as potash), the reason that this percentage is so low (0%) as was stated earlier—so much is being burned in Malawi that there is already plenty of potassium available in the soil.

Once you start to understand the natural functions of soil development, you begin to see the importance of using techniques like composting, mulching, green manuring, and making compost teas. If your soil is as depleted, exhausted, and as ill as the majority of soil in Malawi then you will not be able to stop using chemical fertilizer for the first few years, but you will be able to start minimizing how much you have to buy even within the first year. Each year will become less and less until you have reached a state where you can farm without it. The earth has an amazing potential for healing, but we have to start allowing it to do so.

Give it a try this year. Start with a small area, apply nutrient-rich compost, mulch it, companion plant with nitrogen-fixers, and compare the growth of this area with the growth on the rest of your land. You may be very surprised with the results. If you already do this, teach a friend! 🌍



Water through the Eyes of Permaculture

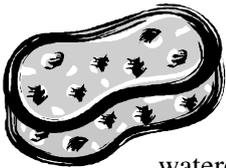
Now that it is rainy season, it is a great time to begin your water harvesting! Every drop of water that falls on your land should stay on your land. Don't let anything run away or be wasted. There are several ways of doing this. Firstly, remember the four "S's" of Permaculture:

Stop - Spread - Sink - Shade

If you have water that is running across your property, try to use the soil to redirect it so that it spreads out over the land. To do this you can use another 'S' word, a "swale", which is a type of permanent ridge. Dig a channel along the contour of the land to stop the water and then plant perennial crops on the top of the ridge to make it strong and permanent. Good crops for this can include lemon grass, vetiver grass, fruit trees, jatropha (msatsimanga), nandolo, tephrosia, or anything else that you know will be deep rooted and last for several years. These swales will help to stop and spread your water, thus allowing time for it to sink into your soil. The plants that you establish on the top of the swale will also act as shade to help hold the moisture once it has gone into your soil. So you can see that by using swales you will achieve all four of the "S's".



Secondly, the use of mulch is essential for helping to harvest your water throughout the year, but especially now during the rains. Mulch is generally any type of organic matter such as leaves, grass, maize stalks, rice husks, animal bedding, etc. that is used to cover your soil and protect it from being damaged by the sun, wind and raindrops. As this mulch breaks down, it becomes compost to feed your soil. This organic matter will also act as a sponge in your soil, absorbing large amounts of water, allowing the water to filter into the soil, and shading it so that it stays there for a longer period of time. We have seen Permaculture guilds that use lots of mulch only having to water once a week during the dry season, right next to a typical garden with no mulch that is being watered twice a day! (Note: non-organic mulch may also be used such as stones). This will help to hold moisture in the soil, but will not readily break down and provide nutrients for the soil)



Thirdly, water harvesting tanks may be designed to harvest rain water off of roofs and other structures. Basically this simply entails guiding the water through some sort of channel (such as split bamboo, plastic bottles that have been cut in half, gutters made out of tin, purchased rain gutter, or whatever else you can think of. This water is then directed off the roof and into some sort of container (such as an old oil drum, a cement tank, clay pots, etc.). This water can then be used to wash clothes, bathe, mop floors, etc. and finally poured onto your Permaculture guilds when it is finished.



Lastly, plant trees! Lots and lots of trees of all types (mostly for food, but also for fuel, building materials, etc.) Trees absorb and store massive amounts of water in their trunks, roots, and leaves. During the dry season, this moisture is slowly returned to the soil and the air, causing boreholes to remain full, rivers to continue running, and rain clouds to be formed. If you've ever seen rivers stop running during the dry season, take a look and see how many trees are left around it. Chances are that your grandparents will remember that river running all year long...back when we still had trees.



Water is a precious resource. Let's not waste it during the rainy season and then complain about a lack of it during the dry season! Do your best to stop, spread, sink, and shade. If we all harvested our water we would have more rivers, our boreholes and wells would remain full, there would be less flooding, and our Permaculture guilds would benefit throughout the entire year. 🌍

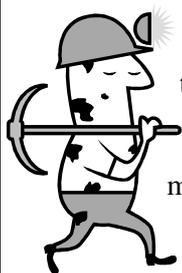
Permaculture Guilds

A Permaculture guild is a group of plants that are all working together to help each other grow strong and healthy. A good guild should contain the following aspects:

Food—One of the first things that we use a guild for is to provide us with food. Remember that diversity is the key to good health. Try to include all of the food groups when you are planting a guild. This would include: staples (like buye, chilazi, and maize), vegetables (like bonongwe, luni, and mlozi), fruits (like jamu, masuku, and bwemba), legumes & nuts (like nzama, khungudzu, chimbamba and mfula nut), fats (like chitowe, mpendadzuwa, and mapeyala), and even animal foods (such as the chickens that are helping turn your soil and give you manure, or the caterpillars that are attracted to certain trees).

Things that Feed the Soil—Legumes are trees and vegetables that are able to take nitrogen from the air and change it in the soil into a form that other plants can use. This is called “fixing nitrogen”. Legumes generally produce their seeds in pods, so even if you don’t know if something is a legume or not, you may be able to guess just by looking at the type of seeds it has. Examples of legumes include: all beans, mtedza (peanuts), nzama (bambara nuts), nandolo (pigeon peas), acacia trees (mtete, msangu, etc), tephrosia, etc. Other things that feed the soil include compost, compost tea, mulch, manure, and animal bedding.

Groundcover—Groundcover is just what it says...something that covers the ground. Groundcover is important for protecting the soil from the damaging rays of the sun as well as helping to shade the ground and hold moisture for longer periods of time. It can also help to inhibit “weeds” (good plants in the wrong place), so that there is not as much root competition. There are many types of groundcovers available in Malawi. These include: sweet potato vines, pumpkin, cucumbers (mingkaka, zinkhananga, fwifwi, etc), and anything else that will vine or spread across the soil. Mulch is also a form of groundcover.



Miners and Diggers—A while ago, many Malawians went to South Africa to be miners. What did this mean? It meant that they would enter the earth to find minerals and bring them up to the surface. This is exactly what miners will do in your guild. Deep rooted plants, such as trees, will reach deep into the earth’s soil and bring minerals up to the surface. This is why it’s important to eat the skins of foods (if they are edible), because that is where a great deal of the minerals are. It is also why it is important to use the leaves of trees in compost piles so that those minerals are returned to the soil for other plants to use. Diggers are any plants that help to open up the soil and allow air and water to enter. Examples of diggers include: cassava, sweet potatoes, yams, etc.

Protectors—Any plant that helps to protect your guild is a protector. If you want to protect your guild from insects then it’s important to know that many insects find their food through the sense of smell. If you plant strong smelling plants such as garlic (adyo), basil (mpungabwe), lemon grass, or chanzi the insects have a difficult time finding their food. Other plants such as marigolds will help to protect from things like root nematodes in the soil. There are also beneficial predators that will help to protect your guild, such as frogs, lizards, birds, and ladybirds. Try attracting these to your guild with the use of shelter (i.e. a small pile of stones for them to hide in), water features (such as a bird bath that can be easily made out of a broken pot or upside down hubcap), and the addition of flowers, bird-berries, and hedges that will provide food and protection for all of your protectors. You can also protect your guilds from large animals like goats and people with the addition of things with thorns (khonje, mtete, christ-thorn, cacti, etc).

Climbers—Many people in Malawi claim that they don’t have enough land on which to farm. What many people are forgetting, however, is that they may have a lot of space. If we look at a forest system (which is what Permaculture is based on), we see that nature stacks plants in many layers. If we start to use this vertical space rather than just the horizontal we can greatly increase our food production on just a small plot of land. The use of climbers is one of the ways to do this. Climbers will grow upwards and provide us with a whole other level of food production. This is where Bill Mollison (one of the co-founders of Permaculture) joked that you will be in danger of falling food. Examples of climbers that you can use include: beans, passion fruit (magalagadeya), loofa (chingkupule), air potatoes, etc.

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Supporters—Climbers are only helpful when they actually have something on which to climb. Many things can act as a supporter. You may see beans climbing up maize plants. This is a good example of increasing food production while using a nitrogen-fixing climber/supporter combination. Trees can also be used to act as supporters as long as they are big enough to support the climber and that the climber doesn't take over and prohibit fruit production (such as a passion fruit blocking the fruiting of a mango tree). Other supporters include fences, walls, roof tops, bafa areas, chimbudzi, houses and other buildings, etc.

Those are the seven components of a good guild, (there is also a handout/poster on guilds at the centre of this newsletter). The more of these components that you can incorporate into your guilds the better and healthier they will be. Remember, however, that forests don't grow up overnight and neither will your guild. You have to "build" a good guild and it may take some time (pang'ono pang'ono). Start small and work up to bigger and better things.

Give nature a chance to work for you, and the next time you are in a forest don't forget to check out all the natural guilds that are growing there! 🌍

Programme Highlight: Social Initiatives for Poverty Reduction Programme

Raphael Changadeya, SIPreP Coordinator, PO Box 37, Chapananga

Since the introduction of this Community Based Organization in June 2002, the participants have been engaged in a number of activities according to their problem priorities. The community organized themselves into clubs in twenty villages in TA Chapananga Chikwawa where they share responsibilities equally. In order to achieve their goal of alleviating poverty (i.e. hunger, disease, and ignorance) they prioritized the following project activities:

Food Security—Using sustainable crop production in which we incorporate:

- Agroforestry
- Soil/Water Management (i.e. vetiver planting, contour ridging, planting trees, and making check dams)
- Storage, Processing, and Utilization of Food
- Crop Diversification
- Good Land Husbandry Practices

Environmental Protection and Management—To restore and improve natural resources through the integration of land rehabilitation for ecological balance, the community is putting much effort to participate in planting vegetative cover in order to control the degree of soil erosion and multi-purpose (e.g. medicine, using the adoption of afforestation and agroforestry techniques).



Support Project—To provide means and incentives to vulnerable people. This includes: orphans, disabled, sick, blind, elderly, and less privileged people. These people are assisted through community contributions realizing the need to help the needy. Among the activities done to them include: working in the garden, giving them firewood, bringing pails of water, building houses, and sharing things like salt, soup, and second-hand clothes.

HIV/AIDS Teaching, Counselling, and Sharing Knowledge on Herbal Treatments—With the increase in the HIV/AIDS pandemic, the community is encouraged to ensure the prevalence of educative literature, counselling, and the sharing of knowledge on some herbal treatment of AIDS-related conditions (e.g. the use of garlic and mpungabwe, and the planting of medicinal trees such as Chitimbe, Mfula, Kankhande, Chamwamba, Eucalyptus, Mlombwa, Msangu, Nimu and many more to treat and cure AIDS infections).

In implementing these activities, gender balance, consultation, and human rights are most respected. As of now, the organization has no partnership with any donor; it works through community contributions and efforts. 🌍

Member News:

Permaculture at Mangochi Orphan Education and Training (MOET)

Patterson Majonanga, Admin Secretary, MOET, Box 328, Mangochi. 08-873-270. moet_mwcharity@yahoo.co.uk

Mangochi Orphan and Training (MOET) was established in 1999 by Patterson Majonanga, a Malawian School Headteacher in response to the HIV/AIDS pandemic. The mission statement of this organization is to uplift the lives of orphans and vulnerable children by providing quality education and various training programmes for self-reliance and social economic development. This mission statement is achieved through many different forms of training and schooling.

In the first year, MOET started with the Dimba la Ku Mphanda programme, just as other schools have been teaching since 1993. But in 2000, the concept of Permaculture was introduced to teach the children and the youth sustainable ways of growing vegetables with low fertilizer inputs hence enriching the soil organically. Permaculture teaches us to reduce, reuse, and recycle everything and if we do this we can sustainably grow vegetables without expensive inputs of fertilizer.



Mrs. June Walker of the Permaculture Network in Malawi heard of MOET and visited the centre when it was bare ground and just a few shrubs. With her and other people's advice and guidance, we now have plants and vegetables growing all around the grounds.

So far, MOET has benefited from Permaculture principles and ethics in the following way:

- **Water Harvesting**—When we dug a borehole it was found that the groundwater at the centre is very salty. MOET is able to raise seedlings and plant trees using water collected from the roofs of classroom blocks. During the rainy season the water is collected using iron sheet guttering and directed into a small dam. Pit beds and banana circles have been constructed behind the classroom and planted with bananas and lemon grass (to help repel mosquitoes).
- **Compost Making**—MOET believes in feeding the soil, which feeds the plants, which feeds human beings. To discourage the use of synthetic fertilizers, 30 compost heaps are made each year.
- **Land Design**—The area is planted with many trees for shade and other purposes. Further construction has been taken into account and no trees have been planted in those areas. A mixture of fruit and medicinal trees are planted behind the classroom blocks.
- **Soil Conservation**—To check soil erosion and conserve moisture, swales have been constructed using an "A-frame" and planted with vetiver grass. To avoid the use of any fencing materials which will need to be replaced, a live boundary of cacti and tithonia has been planted.

The practice of Permaculture at this centre has so far attracted many trainings and visitors. In 2001, two trainings took place. The first one, teachers, students, and school leavers were invited and introduced to the Permaculture concept. The second one was a Permaculture workshop and involved the guardians of orphans, drawn from the Southern region and visitors from the United States.

In July 2002, another 14-day training for trainers of the youth was conducted where 18 youth from five villages surrounding MOET received trainers certificates in Permaculture. These youth and orphan guardians have started practicing Permaculture. They are now cultivating vegetables using organic manure that improves production without destroying the ecosystem, raising seedlings and making compost. MOET has established a follow-up programme into the villages.

The idea of natural medicines has also been introduced at MOET. A demonstration medicinal garden has just been designed where species of plants with medicinal value are introduced. The knowledge is already being imparted for common illnesses like ringworm, diarrhoea, and scabies. With more literature on natural medicine in the tropics we hope we can do more.

Mangochi Orphan Education and Training would like to join all Permaculture people in Malawi and around the world. 🌍

Permaculture is

A Way Of Life...

It requires our hearts to feel the land,
 Our senses to observe how nature works,
 Our minds to use these observations,
 And our bodies to put it into practice.

It is a way of working with nature to provide all that we need.
 No single problem or solution stands on its own.

In recognition of this balance,
 Permaculture is comprised of four basic principles:

- (1) Working with nature rather than against it.
- (2) Thoughtful observation rather than thoughtless labor.
- (3) Each item should perform many uses, rather than one.
- (4) Everything is connected to everything else.

Learn to view the world through the "eyes" of Permaculture:

- Observe, learn, share—Nature is the best teacher we have
 - See solutions, not problems
 - Think ahead
 - See the whole picture
- Everything works together—Think cooperation, not competition
 - Be efficient—Use everything to its fullest potential
 - Be diverse—Nature always plants a variety
 - Conserve energy—Let nature do the work

(Handout compiled by Kristof & Stacia Nordin – nordin@eomw.net – Please use freely!)

The Genius of Wangari Maathai by Anna Lappé and Frances Moore Lappé

Published on Thursday, October 14, 2004

by the *International Herald Tribune* at <http://www.ihf.com/articles/2004/10/13/opinion/edlappé.html>

CAMBRIDGE, Massachusetts. Several prominent Norwegians have questioned the Nobel Committee for awarding the Nobel Peace Prize to Wangari Maathai. Why honor environmental activism in an era when war, terrorism and nuclear proliferation are even more urgent problems?

What they miss is Dr. Maathai's special genius.

The first time we met Maathai was four years ago in an airy guesthouse beneath towering jacaranda trees on the outskirts of Nairobi. At the time, the Green Belt Movement she had founded nearly 25 years earlier was still struggling against the ruthless regime of President Daniel arap Moi.

Maathai planted seven trees on Earth Day in 1977 to honor Kenyan women environmental leaders. Then, recognizing that deforestation could only be reversed if village women throughout her country became tree planters themselves, she launched the Green Belt Movement. Government foresters laughed at her idea of enlisting villagers; it took trained foresters to plant trees, they told her.

Because Maathai didn't listen, today Kenya has 30 million more trees, all planted by village women.

Maathai's genius is in recognizing the interrelation of local and global problems, and the fact that they can only be addressed when citizens find the voice and courage to act. Maathai saw in the Green Belt Movement both a good in itself, and a way in which women could discover they were not powerless in the face of autocratic husbands, village chiefs and a ruthless president. Through creating their own tree nurseries - at least 6,000 throughout Kenya - and planting trees, women began to control the supply of their own firewood, an enormous power shift that also freed up time for other pursuits.

Then, through popular education, village women - who had watched public forests be used by the Moi regime to grant political favors - began to see forests differently, as something they, as citizens, had a claim to. Through the Green Belt Movement, village women also came to see that a narrow focus on export commodities, such as coffee, at the expense of environmentally appropriate food crops, was an inheritance of colonialism reinforced by IMF policies.

That, too, they could change.

Through a village food-security campaign, Green Belt members are learning to re-establish indigenous crops using organic methods and to reintroduce kitchen gardens - a skill many had lost in the wake of government-promoted export-oriented agriculture.

Over the years, Maathai and members of the Movement have been jailed and even beaten for their protests of government anti-environment actions. One of the movement's organic-farming educators described to us how he was almost arrested for promoting sustainable agriculture. The government, it turned out, had lucrative contracts with major chemical agriculture companies; the teachers' education posed a serious threat.

Maathai has also become a leader in international debt-relief efforts. By the time we traveled to Kenya in 2000, the Green Belt Movement had grown into a major pro-democracy force.

In 2002, Maathai decided to run for a seat in Parliament. She beat her opponent 50 to 1. Women, we were told, danced in the streets of Nairobi for joy. A few weeks later, when President arap Moi stepped down after holding power for more than two decades, Maathai was appointed deputy minister of the environment.

We last saw Maathai in May this year at a gathering in New York. She said she was helping write a new constitution for Kenya. "We are working on a Bill of Rights, only ours," she said, with her irrepressible grin, "will include rights not only for human beings, but for animals and the environment."

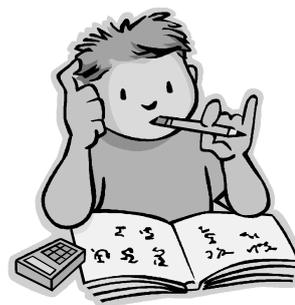
We recalled our time in Kenya where we saw many village women wearing a Green Belt Movement T-shirt. The T-shirt says simply, "As for me, I've made a choice." In selecting Dr. Maathai, perhaps the Nobel Committee wants us to recognize that the real hope for peace, both with each other and with the earth itself, lies in the choices - individual and collective - of empowered citizens.

Bringing this insight to life is Wangari Maathai's genius.

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What is Being Done to End Hunger in Malawi?

In our issue on the “Hungry Season”, we ran a contest that asked people to write in and tell us what they have been doing to end food security problems in Malawi. Our last issue featured the two selected winners of that contest. In this issue, we highlight two runners-up who will also be receiving Permaculture training packets. We want to thank all of you who submitted entries, and wish you the best of luck with your Permaculture gardens and your efforts to make Malawi a better place to live.



1. Hattly Kelvin Nyasulu, Dindi Maize Mills, Lusangazi Residents, Box 697, Mzuzu

On food security problems, I do the following with the help of Permaculture principles:

- **Support a function by many elements**—I grow different food crops, namely: sweet potatoes, beans assorted vegetables, maize, and cassava.
- **Produce in succession**—Crops that suit this are: vegetables, sweet potatoes, and green beans. They are short term crops.
- **Work where it counts**—After rains, I also practice small scale irrigation in dimbas and areas adjacent to water sources. Whenever a certain crop fails I immediately switch on something reliable be it beans, sweet potatoes, or cassava.
- **Use everything to its highest capacity**—When first rains come, I start planting cuttings of cassava and sweet potatoes because they are drought resistant crops. This helps me to have more time for other crops that require more attention such as maize and beans.
- **Cooperate, don't compete**—I always share planting materials with those who wish to overcome food security problems. When sweet potatoes are planted in December by March the crop is ready for home use and income generation.

On malnutrition, I complement food from the garden with the keeping of animals such as ducks and chickens. These provide protein from the meat and eggs. For fruits, I grow pumpkins and bananas.

- **Everything works at least two ways**—Animals provide meat and manure (a good friend to farming activities) thus providing nutrients to both people and crops.
- **Place elements to help other elements**—Ducks feed on flies and snails which can be harmful to people or plants respectively.
- **Make things pay**—Beddings from animal houses are ploughed in gardens to improve yields. Grey water I use for ducks and chickens. Sweepings from the kitchen are also ploughed into the garden to improve soil texture and enhance the rotting of plant refuse and manure.
- **Bring food production to the cities and suburbs**—Whatever I produce in abundance, traders come from the cities and townships to buy and supply to cities and provide nourishment.
- **Look at what happens at the edges**—Planting materials for mangos, masuku, and peyala are easily collected in markets where city people heap when removing rubbish.
- **Become self-reliant**—When we produce something such as cassava and sweet potatoes, we have food and some people would buy these things from us so we have money too.
- **See solutions, not problems**—There are people who toil in fields and have many mouths to feed. When these people never produce something for food, the list of products to buy becomes too long for money to afford. When there is scarcity of a certain product such as maize, no one can eat money. Therefore, when we produce a variety of food crops we shorten the list of commodities to buy.

When we stop moving in cities and suburbs aimlessly and never stick to farming activities, we should know that hunger does not rest. We need to feed in the morning, noon, and evening.

—Yours in Permaculture, Hattly Kelvin Nyasulu

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(Continued from previous page: *What is Being Done to End Hunger in Malawi?*)

2. Samuel Mbobo, Box 2, Malomo, Ntchisi

Firstly, I would like to thank the entire crew for the commendable work you are doing to inform us through the Permaculture Newsletter. We have a chance of learning through the encouraging articles that you are publishing.

I first started practicing Permaculture after meeting the Peace Corps Volunteer, Sarah Duffley, who was based here in Malomo from 1999 to 2001. I was very encouraged to learn. She taught me some of the principles of Permaculture. After she left, another Peace Corps Volunteer came named Mary Jane Lucas. She continued from where Sarah had left off. She also taught me many principles of Permaculture, as well as nutrition. It was in her second year that I joined the Permaculture Network.

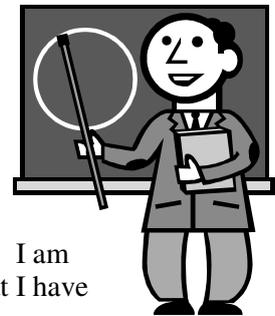
In 2001, I started to share and practice using Permaculture along side Mary Jane. I joined and helped to form the Medical Mobile Team based at Malomo Health Centre. My main task was to teach the community on how they can start practicing Permaculture Nutrition. I was also assisting some of the patients in using medicinal herbs in their treatments.

In the 2001-2002 growing season I also started working with a Peace Corps Volunteer based at Chinguluwe Health Centre. This Volunteer and I started teaching the community and we opened a garden at Gonodo Village where we planted several different crops using Permaculture methods. This is also the same year that the country experienced the shortage of food. The garden helped the community and it helped to save the lives of those people. From that time until now, the garden is still in use.

I also formed another group here in Malomo who are practicing Permaculture Nutrition. This group is comprised of 12 women and 8 men. They opened their gardens in the 2002-2003 season and have planted a lot of different vegetables, staples, and fruits. They now have a chance of getting a treadle pump to help them to water the garden in the dry season since the land is very flat and deforested. We have already harvested a lot of food from these gardens. We have also been working with the new Peace Corps Volunteer, Rhonda Dillan, to grow maize, soya beans, and beans to help fight malnutrition in the area around Malomo. The harvest from this garden will all be donated to the Malomo Health Centre.

All the crops were grown using manure and Permaculture methods. To help prevent deforestation we have also planted a lot of local trees like msambafumu, mtangatanga, and fruit trees like masawo. We have planted about 8,000 seedlings.

We are planning to have a workshop by the end of March or early April. This is because the group formed sometime back in 2002 but they have not had a chance of a workshop. As of now, this is what I have done since I started to practice Permaculture. I am planning to extend the programmes to other areas around Malomo Village. That's what I have done to end hunger in Malawi.



—Your friend in Permaculture, Samuel Mbobo 🌍

Did You Know?

Every time a ton of steel is recycled, it means that 2,500 pounds of iron ore, 1,000 pounds of coal, and 40 pounds of limestone will not have to be mined from the Earth.

“In the end, our society will be defined not only by what we create but by what we refuse to destroy.”

-John Sawhill

Convergence 21

Article written by Helen Fox hbf5@hotmail.com. Helen worked with WESM in Malawi for a number of years as a VSO and has now relocated back to the UK. She is a member of the Permaculture Network in Malawi and recently attended a Permaculture gathering in the UK and wrote to tell members in Malawi about it. Couldn't we have one here?!



To celebrate 21 years of permaculture in the UK a gathering was held in Oxfordshire. The people who came were those interested in sharing the information they have learned about permaculture and those who wanted to find out more.

It was a beautiful, sunny weekend, which is a rarity in the UK even in the summer! On booking you were asked if you would like to share your experiences or expertise in permaculture and when I arrived I was delighted to see a packed programme of workshops. Here are some of the exciting workshops that took place:

- Introduction to permaculture
- Forest eco-villages
- Women in permaculture
- Making permaculture “mainstream friendly”
- Community composting
- Low impact building design
- Large-scale permaculture design
- Designing with and for nature
- Eat more raw food
- Trees for health
- Health and permaculture
- Soil, soul and society

Each workshop was an hour long and although I was interested in many I could not visit them all. Here are a few of the highlights and quotes I scribbled down.

Low Impact Design

- Bamboo is a very versatile material and one of the most important materials for building. It is both strong and flexible. A building with two layers of bamboo helps to shed water.

Making Permaculture Mainstream

- Permaculture offers us tools to be sustainable and puts the long-term thinking back into people's lives. It creates a community of like-minded people, making them stronger and giving them a support network. Use the parts of permaculture that people are interested in as a hook to get them interested in permaculture. If they are interested in money, tell them how they can save money by practicing permaculture.
- If we can make permaculture fashionable then we will have a land revolution.

Soil, Soul and Society by Satish Kumar, editor of Resurgence Magazine.

- Everything comes from the soil and it is the source of life. If we nurture the soil it will be replenished. Compost of waste and human manure can enrich and renew the soil.
- Soul is something that resonates within you. Without your soul you satisfy only your body. This leads to materialism and a deterioration of personal relationship and the land. Replenish the soul through watering the seeds of compassion.
- Society includes everything. Love your community and it will love you.
- Soil, soul, society is a new motto, a new symbol to inspire us to work towards a holistic world-view.
- Poverty is not the problem, affluence is the problem. Don't despair at despair, think of it as compost for change. Don't curse the darkness, light a candle.
- A really exciting and interesting weekend of which you have a small sample. For me, returning to the UK after spending over two years in Malawi I find that we are talking a common language, permaculture. 🌍

Resources on Permaculture

We've tried to include resources that our membership can access, both regionally and internationally. We tried to include correct contact information, but we can't guarantee it, sorry! In the future we hope that the Permaculture Network in Malawi can facilitate making resources available for members.

Permaculture Association of Zimbabwe

- **Contacts:** Fambidzanai Training Centre, P O Box CY 301, Causeway, Harare, Zimbabwe. Tel: 263-04-307557. Fax: 263-04-726911. E-mail: fambidzanai@mango.zw
- **Description:** Fambidzanai is a Shona word meaning "continue participating." FPC aims to enrich the quality of life, primarily of rural communities in Zimbabwe and the region, by offering participatory training programmes and ecologically-sound and productive living examples at their center, just 22 kilometers outside of Harare. The centre has both working examples and training in Permaculture, organic production, plant nursery, holistic management, alternative technology and brick making.

Participatory Ecological Land Use Management (PELUM)

- **Contacts:** PELUM Association, P O Box MP 1059, MT Pleasant . Harare . Zimbabwe. Tel: 263 - 4-744509 / 744117 /744237 Fax: 263 - 4-744470. E-mail: pelum@ecoweb.co.zw. Website: <http://ibsdev.africaonline.co.zw/dev/pelum/index.html>
- **Description:** A network of civil society organizations promoting participatory ecological land-use management by local communities in east and southern Africa. They have a seed security programme, sustainable agriculture, natural resource management, training and materials distribution, information (including a monthly 40-page magazine titled "Ground Up"), networking, advocacy and lobbying, research, and development.

Permanent Publications

- **Contacts:** Hyden House Ltd, The Sustainability Centre, East Meon, Hampshire GU32 1HR, England. Tel: (01730) 823311 Fax: (01730) 823322. Overseas: (international code +44 - 1730). E-mail: info@permaculture.co.uk Website: <http://www.permaculture.co.uk>
- **Description:** Permanent Publications is an imprint of Hyden House Ltd, an independent publisher limited by guarantee, which was established in 1990. Its mission is to publish information which encourages people to live more healthy, self-reliant and ecologically sound ways of life.

Permaculture International Ltd

- **Contact:** PO Box 219, Nimbin, NSW, 2480 Australia. E-mail: admin@permacultureinternational.org Website: <http://www.permacultureinternational.org/>
- **Description:** Extensive information on Permaculture, trainings, resources, organizations, etc.

Rodale Institute

- **Contacts:** 611 Siegfriedale Road, Kutztown, PA 19530. Phone: (+1) 610-683-6009. Fax: (+1) 610-683-8548. Website: <http://www.rodaleinstitute.org/store/customer/home.php> E-mail: ribooks@rodaleinst.org
- **Description:** Healthy Soil. Health Food. Healthy People. Regenerative farming and gardening assists people in growing a diversity of food and fibre continuously. Whether you have a commercial farm or a small garden, it's simply a process of examining your resources. The Rodale Institute gives farmers and gardeners the tools they need to maximize production and minimize inputs. Their website is extensive and includes a huge bookstore.

Holmgren Design Services

- **Contacts:** David Holmgren & Su Dennett, Hepburn Permaculture Gardens, 16 Fourteenth Street, Hepburn, 3461. Australia. Phone/fax 03 5348 3636. Email: info@holmgren.com.au or Web: <http://www.holmgren.com.au>
- **Description:** David is the co-founder of Permaculture with Bill Mollison. David's website is packed with information on Permaculture.

Editor Recommended titles:

- Introduction To Permaculture, by Bill Mollison with Reny Mia Slay
- Permaculture: A Designers' Manual, by Bill Mollison
- Global Gardner Video Bill Mollison
- Earth User's Guide to Permaculture by Rosemary Morrow
- Getting Started in Permaculture by Ross and Jenny Mars
- In Grave Danger of Falling Food Video – By Bill Mollison



Permaculture Newsletter

Newsletter Editors, Kristof & Stacia Nordin,
c/o PO Box 208, Lilongwe

*“See the world through the eyes of
Permaculture”*

To:

The rains are here! Remember that food security depends on planting MANY DIFFERENT TYPES OF FOOD, not just one.

Join the Permaculture Network in Malawi!

- 🌍 **Benefits** include quarterly newsletters with advice on implementing Permaculture, improving nutrition, local food & medicinal plants, resources, creative ideas, and contacts of people in Malawi who are also practicing the sustainable living of Permaculture.
- 🌍 **Fees** are 400 mk for the calendar year. Those who pay more can sponsor community groups who are unable to afford the fees (thank you!).
- 🌍 **Memberships** are for the calendar year. If your mailing label includes **“Payment Due!”** Please send your 2004 membership fee or a letter stating why you are unable to pay the fee and why you would like to receive it for free.
- 🌍 **Send** payment in the form of check, postal order or Malawian postal stamps along with your name, address, all contact details, profession & areas of interest with checks written and addressed to: **Stacia Nordin, c/o PO Box 208, LL**

Submissions to the Newsletter

Each Permaculture Network Newsletter has the sections: Permaculture Highlight, Resources & Member News. The other articles are based on a theme that is always posted in the previous issue so that you can prepare articles along the theme. We welcome submissions for any section and would love to see articles from new people! Send your submissions to:

Newsletter Editors, Stacia & Kristof Nordin, nordin@eomw.net or c/o PO Box 208, Lilongwe

Next Issue: Trees