Dear All,

Below are two articles on forest trees. Please consider them seriously if you accept that climate change is happening!

If you want to know more about certain tree species do contact me and say what is of particular interest? Although I’m willing to try and help those who hope to sell their produce this is NOT the main aim!

Graham K
BioDesign

P.S. I am slowly working on a survival project aimed at those in remote SSA villages. They will probably be the first, if not already, to be badly affected by climate change.

The basic idea is to have a list of possible projects that are fairly simple and practical with links to more information about each when needed. Let me know if you have a little recognised idea on what should be included!

---

African Farmers are Creating Forest Gardens and “Planting it Forward”

In arid and degraded areas of Sub Saharan Africa, farmers who were barely able to provide for their families are now creating abundant forest gardens and “planting it forward” as they pass on successful techniques to their neighbours.

Working with agroforestry experts and volunteers from Trees for the Future, an Aid for Africa member organization, farmers in West Africa are turning small unproductive fields into veritable oases of fruits and vegetables.

One plant-it-forward scenario begins with Omar in Senegal. Thirteen years ago, he inherited about two acres (one hectare) of land with a few trees, shrubs and peanut plants. Income from this field was about $200 a year. Working with Trees for the Future, Omar began to add fast-growing trees with deep roots to improve soil quality and thorny acacia trees around the border to keep out grazing animals and harsh winds. Omar then intercropped vegetable plants and fruit trees. Within four years, Omar’s forest garden produced fruits, vegetables and tree products and an income of $1,000 a year.
Determined to spread his knowledge to others, Omar worked with Trees for the Future to provide seed and technical advice to his neighbor Keba, a 52-year-old peanut farmer who was struggling to make a living on land that was depleted from 50 years of peanut farming. Today, Keba's land, which is surrounded by more than a thousand thorny bushes, produces a variety of crops including hot peppers, jujube berries and cashew nuts. In the past, he was lucky to earn $200 a year. Today, he earns that amount in a month from selling his hot peppers.

Keba too wanted to “plant it forward” and share his knowledge with another local farmer. The result—another thriving sustainable forest garden where there once was a degraded peanut field. Through example and word of mouth, farmers in the region continue to help each other find a better way to feed their families and rise out of poverty.

Trees for the Future has worked with more than 300,000 families throughout Africa and other parts of the world to help them return degraded land to sustainable production. John Leary, Trees for the Future’s executive director, has seen what happens when farmers “plant it forward.”

“In a place where difficulties abound, the worst thing to lose is hope. This farmer-to-farmer relationship of planting it forward brings cooperation, learning, teaching and hope...” he said.

Learn more about Trees for the Future and how they are working with African farmers to plant it forward.

https://www.aidforafrica.org/blog/african-farmers-creating-forest-gardens-planting-forward/

**Millions of households in the developing world depend on food and fodder from forests to supplement their own and their livestock's diets.**

Although forest foods do not usually provide a complete diet, they do make a critical contribution to the food supply. Forest foods increase the nutritional quality of rural diets; supplement other sources of food - particularly agricultural crops that are only seasonally available; and are used as emergency food supplies during drought, famine and war.

Forest foods are nutritionally important and are traditionally used as supplements to the staple diet. Leafy vegetables and wild animals add diversity, flavour, vitamins and minerals to characteristically grain-dominated diets. Forest foods are often collected and stored for later use. Forest foods can thus raise rural peoples' nutritional intake by providing a year-round supply of food.

The most important and well documented use of forest foods is in meeting seasonal shortfalls such as the "hunger periods" at the beginning of the rainy season before crops are ready for harvest. During hunger periods, the practices of digging for roots and tubers and gathering fruit and nuts are almost universal. Other gaps in food supply are caused by sudden needs for cash-for-school fees, for example -which force families to sell crops. Such demands leave families short of both food and the money they need to buy food.

Trees are also important in emergencies such as drought and famine. They provide food when crops fail and products such as gum arabic to sell for cash income with which to buy food. Energy-rich foods such as the roots of the baobab tree are most sought after in times of famine, while other foods, such as the baobab's fruits, are often eaten during periodic shortages of staple foods. Several wild foods are used only in times of scarcity and famine, among them fibres, seeds, tubers, leaves and stems.

**Homegardens** are producing an increasingly important supply of food in many countries, as population pressures reduce the amount of land available to each household for food crops. Homegardens support the cultivation of multi-purpose trees and shrubs, often in association with annual and perennial agricultural crops and livestock, within the household compound. Such gardens are found in most regions of the tropics and sub-tropics, particularly in lowland areas with high population densities.

Many homegardens resemble those of Java or southeastern Nigeria, with an intensive combination of trees, crops and livestock. In other cases, however, a single mango tree provides a source of food at a time of the year when few other foodstuffs are available or when the need to plant the next season's crop means that...
there is little spare time or labour available for gathering and preparing food.

The average size of a homegarden is usually much less than one hectare, yet in many parts of the world the fruit, nuts, edible leaves and other foodstuffs grown in homegardens provide a substantial part of the household food requirement. In some areas of Java, homegardens provide more than 40 percent of the total calorific intake of farming communities.

Gardens within a household compound can produce food all year round with a relatively low labour input. When intensively managed,

the yield from a compound, in monetary terms, can be five to ten times as much per hectare as that from traditional field cropping systems, and returns on labour are typically four to eight times higher.

Many homegardens support very large numbers of different species. In southeastern Nigeria permanently cultivated compounds around the household contain trees including the oil palm, coconut, banana and plantain, intercropped with cassava, gums and other arable crops.

Studies have shown that households with homegardens have higher than average nutrition levels. In Puerto Rico, for instance, food from gardens tended by women significantly contributes to the total food supply and is an important source of both beta-carotene (converted to Vitamin A in the body) and Vitamin C, especially for children.

Trees are also part of traditional shifting cultivation systems practised within forest areas by more than 300 million people world-wide. Shifting cultivation can involve clearing forest areas to develop agroforestry systems similar to those found in homegardens. Trees are maintained or grown to provide a range of fruits, seeds, nuts and leaves for food as well as to maintain suitable soil conditions for food production.

http://www.fao.org/docrep/006/u5620e/U5620E03.htm

---

Peter Burgess <peterbnyc@gmail.com>
To: grahamk83 <biodesigndiy@gmail.com>
Bcc: "William F. Schacht" <wfschacht@aol.com>, Frank Wennin <ourmove02@gmail.com>, John Kiehl <john.kiehl@soundtrackny.com>

Fri, Jun 2, 2017 at 1:06 PM

Dear Graham

Thank you for getting in touch with me regarding your ongoing initiative to help make the world a better place.

For a very long time I have been of the opinion that a single big idea imposed from the top will make very little difference to the global trajectory that is essential for a better world, but rather that more modest projects that are really relevant can have the impact that is needed ... especially work that is practical in nature and not merely some intellectual policy formulation!

My own contribution to this sort of thinking has a focus on the idea that better metrics can make a difference. They must be meaningful. As you know I did my university training at Cambridge in engineering and economics ... later qualifying as a Chartered Accountant. I know something about engineering measurement, economic measures and financial analysis and reporting. However, when it is money and financial wealth that dominates decision making, then all sorts of bad consequences are bound to result. Accordingly I am seeking to popularize better metrics that include impact on people and planet as well as profit ... and to do this not only for the business organization but also for people, places, products, processes and all the interconnected streams.

I won't go into any more detail here and now, but do want to say I am delighted to learn of what you are doing. Please think about how I might be of help!

Peter
Dear Peter,

I was an engineer but had never heard of metrics.

So I had a look at your cv and now understand it a little. I'm all in favour of true accounting but see little sign of it being taken seriously since it would reduce 'profits'!

My intentions at present are rather different - concentrating on an aim - survival of the poorest! If you can see how you can help do get in contact after looking at my attached draft survival guide for SSA villages.

I will explain my motivation later.

Graham

---

Dear Graham

Thank you for getting in touch with me regarding your ongoing initiative to help make the world a better place.

For a very long time I have been of the opinion that a single big idea imposed from the top will make very little difference to the global trajectory that is essential for a better world, but rather that more modest projects that are really relevant can have the impact that is needed ... especially work that is practical in nature and not merely some intellectual policy formulation!

My own contribution to this sort of thinking has a focus on the idea that better metrics can make a difference. They must be meaningful. As you know I did my university training at Cambridge in engineering and economics ... later qualifying as a Chartered Accountant. I know something about engineering measurement, economic measures and financial analysis and reporting. However, when it is money and financial wealth that dominates decision making, then all sorts of bad consequences are bound to result. Accordingly I am seeking to popularize better metrics that include impact on people and planet as well as profit ... and to do this not only for the business organization but also for people, places, products, processes and all the interconnected streams.

I won't go into any more detail here and now, but do want to say I am delighted to learn of what you are doing. Please think about how I might be of help!

Peter

---

Projects survival.pdf

66K