



PLANT FORESTS AND MAKE A FORTUNE

An idea for combating deforestation.

One of the greatest threats to the natural world is an obsession we have for growing plants in an altered state or far away from their native home soil; often making one great celebration of it. In this booklet we question the wisdom of much of this, consider alternatives, and by so doing we look at ways of saving the natural forests and other habitats by allowing them to work and pay for themselves.

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4th Edition

The idea began with an understanding that a new and fresh approach was needed if the world's forests were to have any future at all. It was common knowledge that Rubber Trees were native to Central S. America and yet most of the production occurs in S.E. Asia; and likewise, I knew Oil Palms were native to Western Central Africa while their production was happening there too. Given that trees offer greater ecological benefits growing where they are native, a widely accepted view in all other spheres, and coupled with the fact that these commodities were earning vast amounts of wealth for individuals whose interests were not altogether for the common good. It became apparent that major shifts were needed, shifts as to where these trees were grown, as well as shifts as to where these vast sums should be heading.

The concept was radical and yet very simple, and entailed conservationists buying up degraded or deforested land and turning it into mixed, thinly scattered and unregimented plantations. Native, naturally occurring trees, low-density enough for them to be ecological, but dense enough to make them into viable concerns. In addition, there could be nature reserves running along side into which all manner of endangered, vulnerable and beneficial native plant species could be grown; everything paid for with the business side of things. The eventual aim would be to end up with various kinds of wealth creating natural systems, both ecologically and economically self-sustaining. Once in ownership, whole tracts of land could be planted up with whatever we wanted, and by combining conservation with commercialisation, we would be in a very strong position for securing further land-deals. The new habitat would attract birds and fruit bats which would bring in seeds from all the surrounding areas, adding greater diversity into each and every new site, and the wealth created would fund conservation projects around the world. They would be nothing less than systems working on the lines of £s and ecology, and not on those of £s, death and annihilation.

They are commodities that command very respectable prices on the open market, I'm not talking about flogging handfuls of pea-sticks in a local store in order to save a garden-sized patch woodland, I am talking about the worldmarkets for saving the rainforests. Endless opportunities are out there but it must be conducted by conservationists; only then would the current cycle of death and destruction be finally laid to rest. Multinationals have shown they can never be trusted, and only with the right people involved could these basic principles of wealth going hand in hand with conservation be guaranteed. As sad as it is, forests these days, with the exception of most national parks, need to earn their keep; it's no longer enough that they simply regulate the planet. We must continue the fight to save the species-rich pristine forests, nothing will ever replace them, but we also need to repair the damage, and there's no better way of doing both, than for conservationists to get out there, get on with it and to earn money doing it.

With major shifts in wealth and production, a more liberal approach to other species living within these forests and with nature reserves included, there cannot help but be major improvements. All around the world there are some very profitable products; in Amazonia there are Brazil Nuts, Rubber, various fruits and kapok; in Western Central Africa there's Palm Oil and various rubbers and fruits; in Ethiopia there's Coffee; S.E.Asia, Rattan, Coconut, Sugar Palm, Bamboos and various spices; Iran, Pistachios, Almonds and Olives etc. All the time keeping the plantings native and scattered with wildlife as the priority in each and every project. A very good example of how this would work can be found in S. Mexico and Guatemala where Chicle, Cocoa and Vanilla can all be found growing together. Chicle creates the dappled shade under which the other two plants are best grown and what you eventually end up with is effectively a piece of albeit simplified natural rainforest habitat. And the wealth bit comes by trading Chicle sap, the raw product of the original chewing gum, Cocoa used for chocolate making and Vanilla an expensive flavouring. Pockets of working forest intermingled with forest reserves instead of the abysmal void of fragmented forests here and there surrounded on all sides by cattle, logging, soya and other inappropriate crops.

Commercialisation is considered by many as being somehow vulgar, and with the current ways of doing things who can blame them, but if done well, this would put us on a level playing field with the rest of the exploiters. It would get these forests earning their way and would stop rainforest destruction in its tracks once and for all.

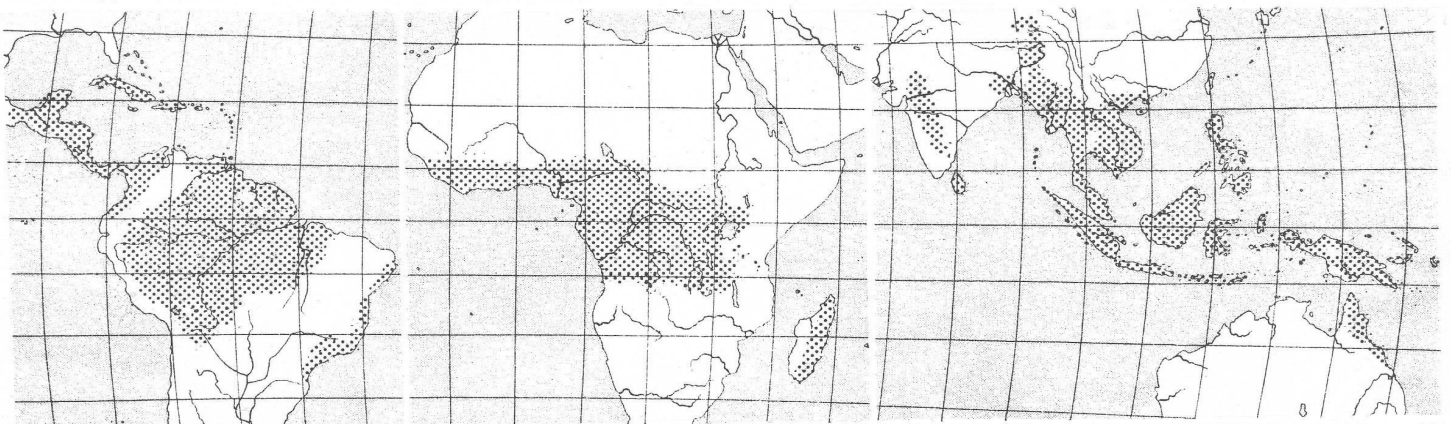
One of the greatest stumbling blocks for saving forests is getting the locals on your side. For them, and I don't include everyone here, they need to earn money, and forests, either rightly or wrongly, are something that just sit there and looks pretty; there's simply no real incentive for them to save or cherish these places. The plain fact is it doesn't need to be like this and the best way, if you want to get everyone on board, is to get them involved and offer them jobs so they can feed their families.

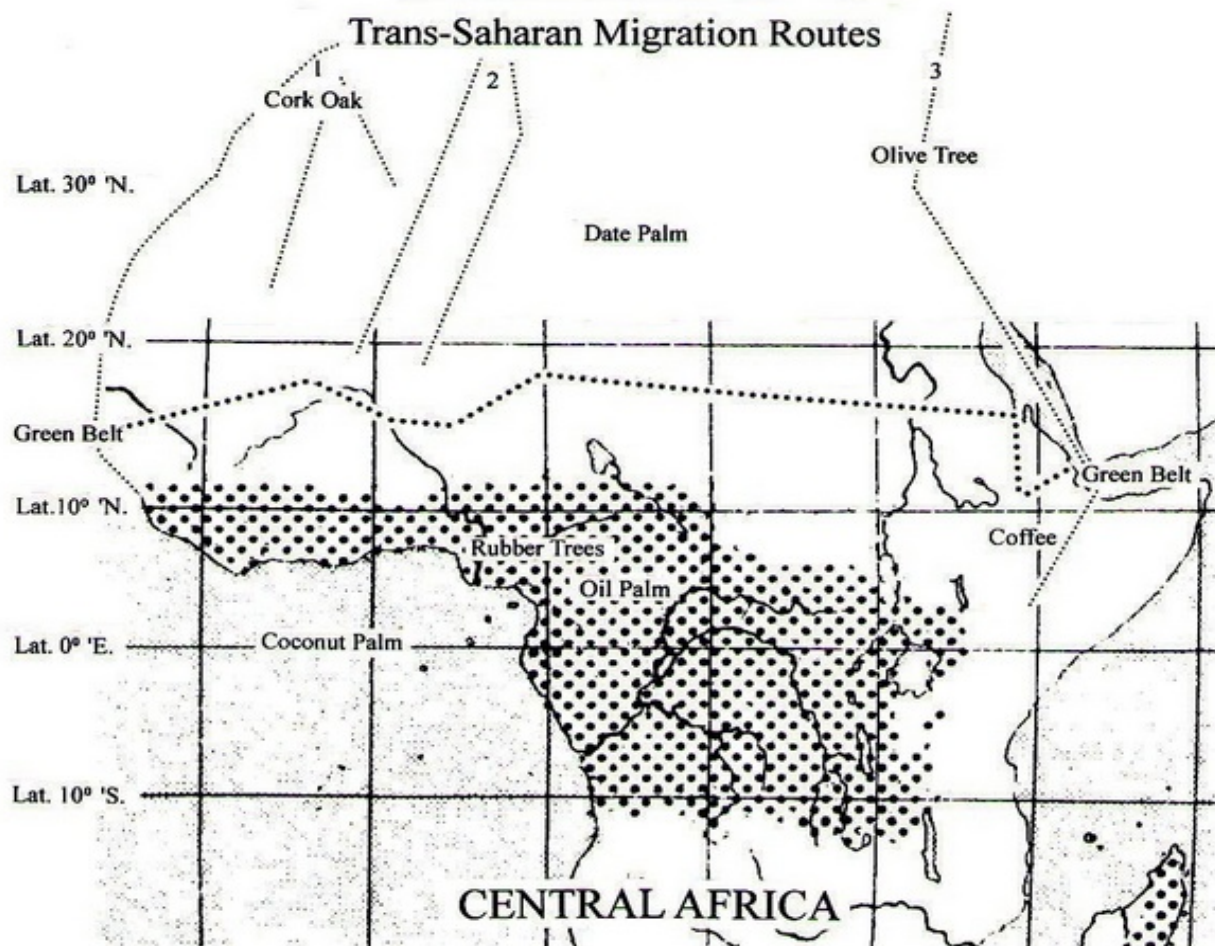
Before continuing further, it's worth mentioning the need for a conglomerate that would need setting up in order to ensure you would get fair prices for your goods. At the moment the middle-men take their cut leaving growers without the proverbial pot and on top of this the supermarkets over here, true to form, will squeeze a product for all they can get. A miserable cinnamon stick, bought in the UK., ends up with a 4,000% price markup on what you would pay a grower in Sri Lanka for a much better product; this is by way of an example. In fact markups occur each and every time a process or a transaction is made on any given item. A finished and packaged product is worth ten or twenty times that of any raw material and so for this reason it is necessary to organise.

Without being overly exploitative we would need to bring industry into the equation and there are already examples of how these are working in the field so to speak. A coffee roasting and packaging plant is now operating in Ethiopia and a condom factory is in production in the Amazonia; both of these using native, naturally occurring local produce and commanding a much higher price as a result. There's no reason at all why this couldn't be expanded upon to include many of the other products found in other places too. And if of course expanded upon, there'd be no need to have factories right on top of the very location of where you are protecting; sited far away but operating under the same auspice. Palm oil producers in S.E. Asia have certainly organised themselves right enough and don't let obstacles like this stand in their way of making fat profits, and there's no reason why we should either.

And so we now come to the other reality. When I first put this paper together in 2009, I sent it out there on speck using the post, in those days I couldn't even turn on a computer. I approached all the various conservation bodies I could think of, including WWF., Conservation International, Fauna & Flora International, Rainforest Alliance and many of the others besides, but their responses didn't even register. They'd all long ago signed up to the palm oil and other deals and clearly weren't interested in anything I had to say. And so, with all of this negativity, I had to form a one-man crusade and get this message out there as best I could. And so, let us one more time, embark on this journey around the planet and take a close up look at what the options could be.

Mapped out here are the main areas of the world's tropical rainforests and where these eco-forestry schemes would be most appropriate. The eventual aim would be to secure any available mile² within each shaded area and anywhere else where projects like this could make a difference.





Trans-Saharan Migration Routes: Research has shown most bird species travel across the desert via three main pathways:

- 1) Across the Straits of Gibraltar, many continuing around the western bulge of Africa with others traveling right over the desert, very much depending on where they're intending to end up for the winter.
- 2) Down through Italy and then island hopping to Sicily, Malta and then on to Tunisia, and from there on they go straight across the desert.
- 3) Through the Bosphorus, Turkey, then down past Israel and Sinai, along the Red Sea and on through the mountain passes in Ethiopia.

The map above is only a rough guide, other small birds will cross the Mediterranean and the Sahara taking all kinds of routes. All paths are more or less reversed on the return journeys.

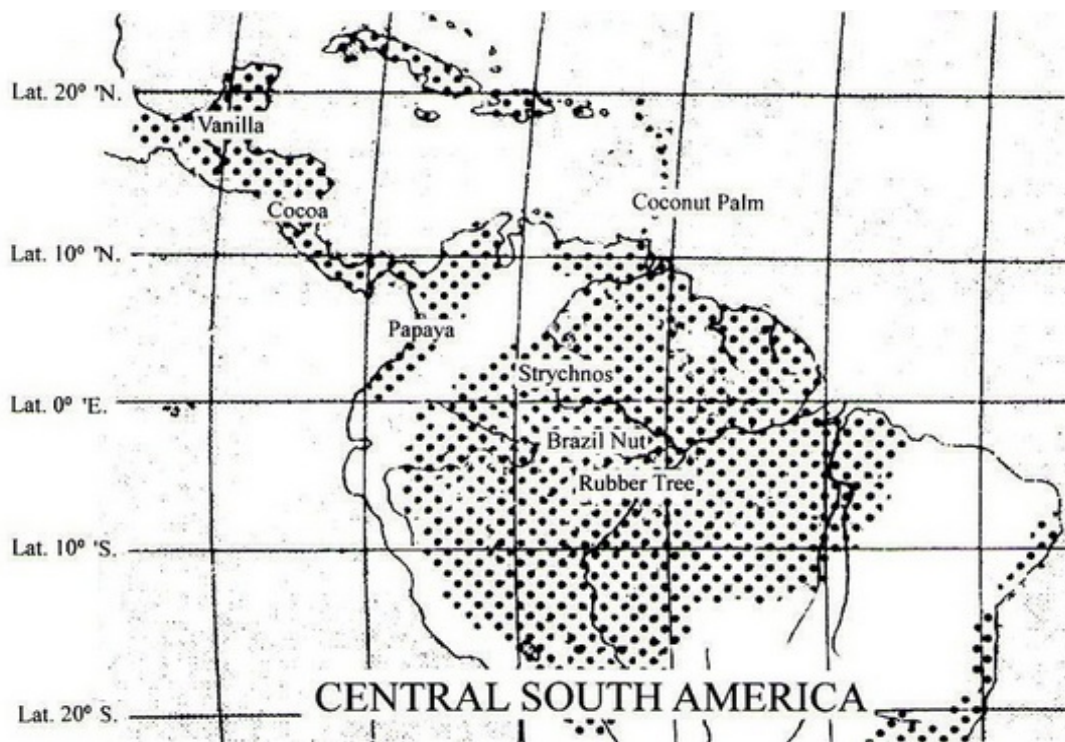
Knowing at least, more or less where these routes run, it would make sense to have say three or four migratory refuelling stations in the desert to give these birds every chance of making it through. With Date Palms planted around existing oases and other vegetation encouraged, research stations and some much needed dropping in points could be established. This is of course just a minor part of what we're trying to put forward, but with dwindling bird numbers and expanding deserts, this could be something worth considering and could make the difference between survival or not.

The Green Belt: Otherwise known as the Great Green Wall and goes through the following countries: Senegal, Mauritania, Mali, Burkina Faso, Niger, Nigeria, Chad, Sudan, Eritrea, Ethiopia and Djibouti. A line of trees, 9 miles wide by around 5,000 miles long, planted in a bid to halt the advancing desert. Throughout most of its route, a more or less envisaged concept, described by some as being nothing more than a stunt for attracting funds and as having no political will, while in other parts work has begun and good progress has been made. Here too, there's no reason why commercialisation couldn't play its part; certainly if it gets the whole project kick-started it could only be a good thing. Plots could be bought up, presumably they're open to tender, and here too Date Palms would be an obvious choice. In some parts, it may be necessary to have fenced-off enclosures, protecting the trees from grazing livestock, with fire-breaks and walkways for nomads and migrating animals to pass through. It has the backing of the African Union and hopefully it will succeed.

Lat. 10° 'N., with Sudan to the east and Sierra Leone to the west, you have desertification to the north and deforestation to the south; a systems along here would work well in helping to resolve these appalling problems. Oil Palm estates, dirty words these days owing to their gross mismanagement elsewhere, but here in Western Central Africa they're a rightfully belonging native species and could be planted for the good of the local ecology and not to the detriment of it. There'd certainly be no shortage of markets out there for ecological, African grown Palm Oil and as far south as Lat. 10° 'S., those once heavily forested regions of Africa could be transformed into proper habitat. Instead of causing untold damage and rainforest destruction, as they are doing in other parts of the world, things here could be entirely different. Other trees such as native Rubbers, various species, fruits and resins, entire forests of the stuff could be established.

The native Coffee Forests of Ethiopia, these forests are still worked and harvested today, and many plant and insect species live within their dappled shade. By bringing land into ownership and collecting seeds, these forests could be expanded upon to create a more extensive habitat as well as extra employment for the locals. All the time keeping to that same principle of thinner, scattered plantings, with the business side paying for the conservation; planted both where and in a way that would create vast swathes of viable habitat.

If ever we are going to breathe that sigh of relief about using sustainable goods, then it needs to be the real deal, otherwise we're really only fooling ourselves. Most people's idea of the word sustainable these days has absolutely no bearing on its true meaning.



In Central South America the fragmentation is absolutely horrendous, with land under cattle, soya or simply laid waste, but even amongst all that carnage salvation is far from impossible. By buying up land in that part of the world and converting those areas that are now fragmented on all sides by cattle or soya these places could be transformed. From S. Mexico, over the mountains of Columbia and right down to Amazonia itself; we could have pockets of working forest intermingled with forest reserves instead of the abysmal void we see at present.

Apart from the obvious pluses such as wealth, employment and bustling habitat there would be many other wider benefits too. Jaguars which are currently poisoned or shot on site by cattle-ranchers would fair much better living within rubber plantations. The increased forests would produced rainclouds which prevent this immediate area from drying out, as is currently happening, and the rest of S. America would benefit from the increased rainfall too.

From Mexico and Guatemala where Chicle, Cocoa and Vanilla can all be found growing as native plants, down through to Brazil where Rubber Trees, Cashew Nuts, Kapok, Quinine, Balsam, Cocoa, Balsa and Brazil Nuts are all found. Big trees creating the dappled shade where smaller forest crops can grow, systems working hand in hand with the natural forests.

Much of the world's rubber from this Brazilian tree species however is now grown in S.E. Asia and this has ultimately done much to decimate the trade in the original country. And whilst the history of this was a good many years ago, the UK. government and indeed the Royal Botanic Gardens, Kew, certainly played a very sordid and sinister role in all of this.

Thomas Hancock had become big in the rubber business, and was thinking of starting a plantation in a different part of the world. In 1853 he had suggested to the Royal Botanical Garden in London the idea of trying to grow some rubber plants themselves. **The Royal Botanical Garden sent agents to Brazil to smuggle out rubber tree seeds.** The Brazilian government frowned on people taking these out of the country, wanting to hold on to it's big share of the world's rubber market. Needless to say, someone goofed when one British agent, Sir Henry Wickham, slipped out of Brazil with around 70,000 seeds.

Hancock and his associates had their eyes on the British colonies of south-east Asia. The kingpins of the British rubber industry figured that if they could start rubber plantations in the British colonies, not only would they have a better supply of rubber, but the supply would also be under British control. So the seeds were smuggled back to Britain and were successfully grown into little saplings. Eventually the saplings were then shipped to the colonies. Eleven were addressed to the Singapore Botanical Garden.

The Falkland's war resulted in a good deal more than just killing and maiming. Before the conflict we once traded with Argentina for our supplies of corned beef but after the conflict we switched to Brazil which then resulted in further decimation of Amazonia. These are details many of us don't even think about but these are decisions nonetheless that have far reaching consequences.

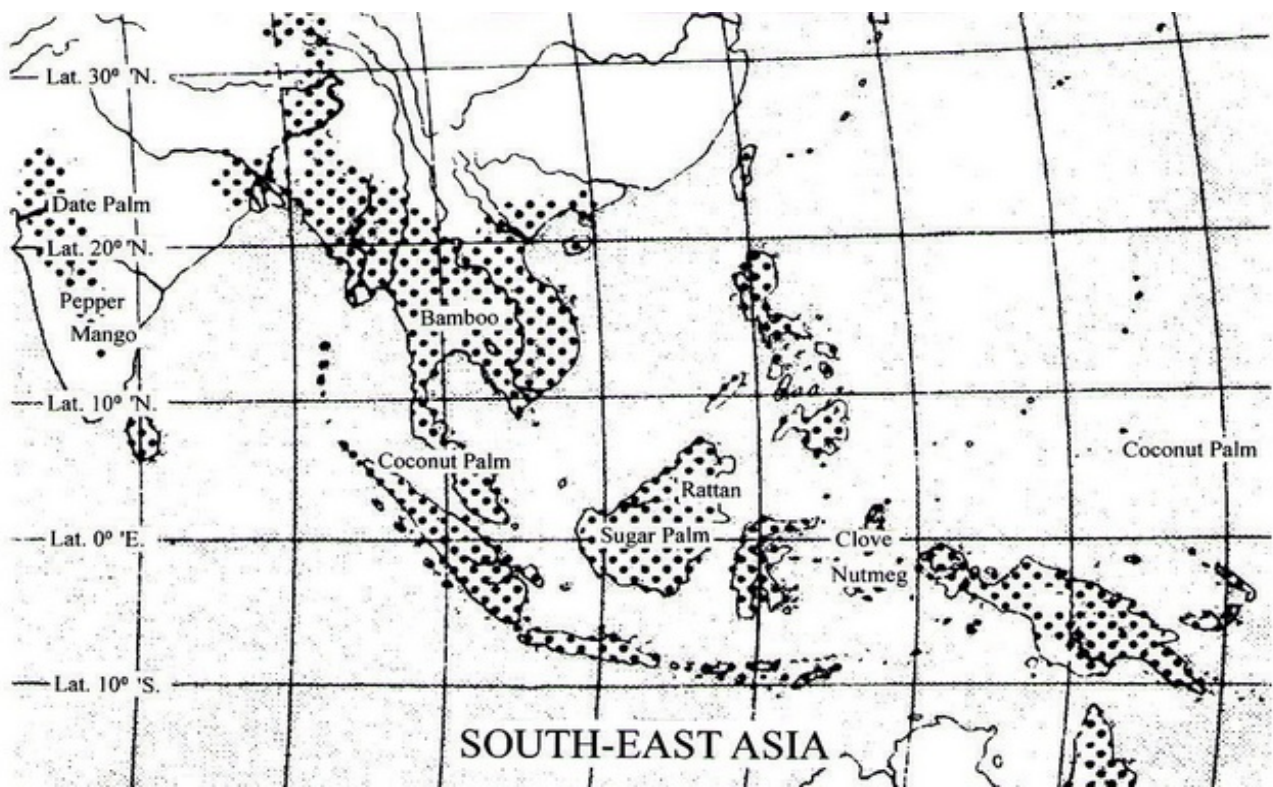
Vanilla too is now grown throughout most of the tropics, especially in Madagascar, and here again we can see what a role European governments and the botanic gardens have played. There are Cocoa plantations in Africa and elsewhere all of which are seriously competing with production on the world-market; and this is only a part of what's going on. As we will see, almost all the produce which could just as easily be grown in its native state, creating perfectly good habitat, is produced in alien lands and in many cases is causing major problems elsewhere. Further more, and as we will also see, there are many political reasonings behind the scenes and there are organisations that are promoting this in the name of conservation (please see pages 14-20 with a more in depth look on 30-32).

For 300 years Mexico maintained its monopoly of vanilla production despite constant efforts of Europeans to induce vanilla vines to bear beans elsewhere. As the flavour of the exotic beans became popular, collectors brought vanilla plants back for the Botanical Gardens of Europe. You can still see vanilla vines growing at the [Royal Botanic Gardens at Kew](#).

It wasn't until 1836 that Charles Morren, a French botanist, finally discovered the secret of growing vanilla. His careful examination of the anatomy of the flower led to his discovery of the difficulty of pollination. Pollination was then performed by hand. Knowledge of the artificial pollination spread to European nations who had colonized tropical regions with climates suitable for growing orchids. These areas began planting vanilla especially the French on the Island of Bourbon (Reunion) and the Dutch in the Dutch East Indies (Indonesia).

Today, vanilla is grown commercially in Madagascar, Indonesia, India, Uganda with some production in Mexico, Tonga, French Polynesia, Tahiti, Fiji, Costa Rica and China.

Source Gourmet Vanilla Company



S.E. Asia has become the dumping-ground for all kinds of abuse in the form of inappropriate forestry such as Oil Palm, Rubber or Coffee. Multinationals, governments and conservation organisations, all of them working it seems in partnership with one another to get their twisted agendas under way. Take a look at the label on any packet of biscuits, cakes or various other food items you will see either the words 'sustainably sourced palm oil' or just plain vegetable oil, which is palm, in the list of ingredients. What they're saying is, 'buy this crap and don't worry too much about it.'

For more information on exactly who's involved please see the Roundtable on Sustainable Palm Oil and the Roundtable on Responsible Soy list (pertaining more to Amazonia). We call it, 'The Good, the Bad and the Downright Ugly.' In this you will find the industrialists and conservationists all of them consorting with one another in the most vulgar ways possible. Amongst them there are names like WWF., Conservation International, Fauna & Flora International, and sitting along side these there's Bayer Crop-Science and Mitsubishi etc. These latter two care so little for all things sustainable that one's involved with exterminating the world's bees while the other's working towards the extinction of the Blue-fin Tuna.

So let's get down to it and take a look at what's going on. I'm perhaps only groping around in the dark here of course and assuming it's about deals, cash for favours and all the rest. The multinationals receive a certificate which affords them some veneer of respectability; they then are able to use this label on their products which tells everyone just how 'sustainable' they all are. Whilst the conservationist, who in the meantime have sold their souls to the devil and everyone else down the river in one, are getting some right old backhanders, cash in their bank accounts etc. It is nothing less than ethical and moralistic fornication and I'm finding it happening everywhere I look; it just plain damn well stinks of something that's not right. It's like when you walk into a room and you can cut the atmosphere with a knife.

Just some of those that have signed up:

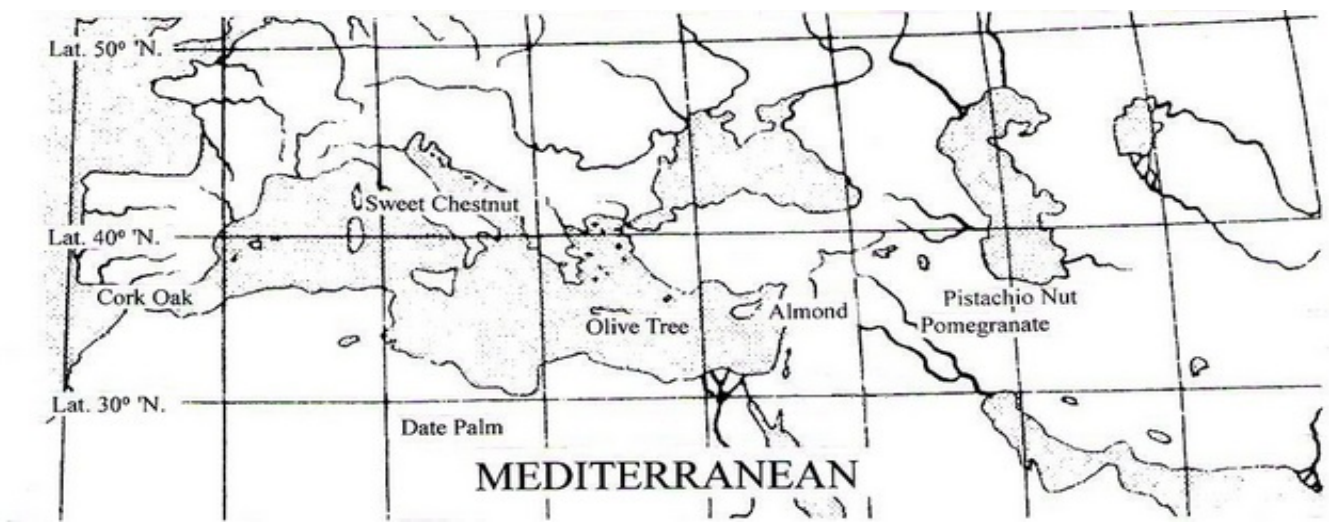
Borneo Rhino Alliance, Cheyenne Mountain Zoo, Conservation International, Fauna & Flora International, Global Environment Centre, National Wildlife Federation USA., Orangutan Land Trust, Orang Utan Republic Foundation, Oxfam International, Pan Eco Foundation, Pesticide Action Network, Sawit Watch, Sumatran Orangutan Society, Wetlands International, WWF. Indonesia, WWF. International, WWF. Malaysia, WWF. Switzerland, Zoological Society London, Bayer Crop-Science and Mitsubishi Corporation.

Source Roundtable on Sustainable Palm Oil

In Queensland Australia the large flightless bird the Cassowary is in trouble. This is because sugar cane and ranching are fragmenting its forest habitat and with these types of farming there are inevitably the chemical run-offs which are extremely damaging to the Great Barrier Reef. First you have problems of algal blooms which smothers the immediate reef nearest the out-flows and also you also get an increase in the numbers of the notorious Crown of Thorns Starfish which then go on to eat the rest of the reef and eventually destroy it.

As always, there is an answer. There are two native fruit trees that we could switch production to, the Macadamia Nut, *Macadamia integrifolia* and *M. tetraphylla* (see page 46). These are trees that are grown quite extensively around the tropics but could just as easily be grown here in Queensland where they are native. By growing them organically, allowing other tree species into the mix, there would be no more chemical run-offs, the Cassowaries would have access to corridors giving them safe passage from one protected site to the next and everything would win. You'd still be growing a valuable crop that could be sold on the world-market and the now fragmented forests would be linked back together as one.

This is a model that would work anywhere where you have crop-trees growing in their native and natural state. They are systems that could solve so many of the world's problems and could so easily be applied almost anywhere and making conservationists rich in the process.



Now moving away from the rainforests to the Mediterranean which is also a very productive region. With Sweet Chestnuts to the north, Date Palms to the south, Almonds and Pistachios to the east and Cork Oaks to the west.

Until recently the only ecological thing about a bottle of wine was its cork but now they have largely abandoned its use and have switched to synthetics. There are of course other markets from table mats to wall-tiling and every niche needs to be exploited. Throughout Spain, Portugal and Morocco, a massive wilderness area could be planted up and established.

Many Olive groves these days are unnecessarily sprayed, mown and manicured, and the Olives themselves are very often cultivars. By owning our own groves, we could ensure that only wild, genetically pure, native Olives are used and that the land be treated with a good deal more respect than is often the case.

Pistachio Nuts, the wild, native trees growing from Afghanistan, Iran through to Turkey, were once big earners and created an invaluable stretch of habitat for an entire range of species from insects, reptiles, various Shrikes, right up to Wild Hogs, Lynx, Wolves, Bears and Cheetahs etc. The Asiatic Cheetah, which is found nowhere else in the world today, according to sources, has a world population of around 70-100 animals still living in Iran, with other estimates as low as 50. All of these species are interdependent on these Pistachios as a habitat and without them also there's an ever increasing risk of desertification.

But here again politics is not far away. The Americans have had a good many disagreements shall we say with countries like Afghanistan, Iran, Iraq and Syria, and so now, just about anywhere we look, we cannot buy Iranian grown Pistachios or Syrian grown Almonds etc. in the shops any more. Instead, we now have USA. products that now seem to have cornered the entire market, and what would once had supported the very kinds of economies we're trying to establish in the original countries thanks to them are no longer there. Not ending with that, there are now some of the most horrendous problems occurring in America itself. The US., because of the way it does things, now has to carry its ecology around on the backs of trailers, as they have no bees left at all in some places, because of all the spraying and GM. farming that goes on. They're now having to truck bees around from one coast to the other, and so again what were once ecologically benefiting products from one part of the planet are now exchanged for absolutely nightmarish ones from somewhere else.

In an almond orchard in California's Central Valley, bee inspector Neil Trent pried open a buzzing hive and pulled out a frame to see if it was at least two-thirds covered with bees. Trent has hopped from orchard to orchard this month, making sure enough bees were in each hive provided by beekeepers. Not enough bees covering a frame indicates an unhealthy hive — and fewer working bees to pollinate the almond bloom, which starts next week across hundreds of thousands of acres stretching from Red Bluff to Bakersfield. "The bloom will come and go quickly," said Trent, who works for the Bakersfield-based bee broker Scientific Ag Co. "The question is, will the almond seeds get set? It depends if you have enough of a workforce of bees." That has growers concerned as nomadic beekeepers from across the country converge on the state with their semi-trucks, delivering billions of bees to the orchards for the annual pollination. Most almond trees depend on bees to transfer pollen from the flower of one tree variety to the flower of another variety before fertilization, which leads to the development of seeds.

California's orchards provide about 80 percent of the global almond supply. And with almond acreage increasing steadily in recent years, the bees must now pollinate 760,000 acres of trees. The number of bees needed is expected to increase as almond demand grows and orchards continue to expand. Already, more than half of the country's honeybees are brought to California at the end of February for almond pollination, which requires about 1.5 million hives from out of state, and another 500,000 from elsewhere in the state. Honeybees are preferred for commercial-scale pollination because they are social, build larger colonies than other bees, and their hives can easily be moved.

Bee brokers, beekeepers and almond growers around the state say there's a shortage of healthy honeybees for this year's pollination, especially after colony collapse disorder took a higher toll this winter. The disorder, in which honey bees suddenly disappear or die, wipes out thousands of colonies each year. The shortage has some growers scrambling for bees — even sub-performers — as trees are about to bloom, driving up bee prices again this year, to an all-time high of more than \$200 per colony.

"There's definitely a shortage of strong bee colonies," said Joe Traynor, owner of Scientific Ag, which connects growers with beekeepers. "There is a problem covering all the acres of almonds in the state." Since it was recognized in 2006, colony collapse disorder has destroyed colonies at a rate of about 30 percent a year, according to the U.S. Department of Agriculture. Before that, losses were about 15 percent a year from pests and diseases. No one has determined its cause, but most researchers point to a combination of factors, including pesticide contamination, poor nutrition and bee diseases. This year, experts say, the die-off has been as high as 40 to 50 percent for some beekeepers.

"We have smaller populations in the hives and higher winter losses," said Eric Mussen, a bee specialist at the entomology department of University of California, Davis. "Bees across the country are not in as good a shape as last year. When you stress them far enough, the bees just give in."

This year, Mussen said, many bees did not get enough nutrition because a Midwest drought reduced forage. Conversion of pasture land to corn production for ethanol also reduced the number of flowers producing nectar. To compensate for forage loss, beekeepers fed bees more high-fructose corn syrup and other supplements. But such substitutes don't provide all the nutrients pollen does, Mussen said, malnourished bees are more susceptible to diseases.

Lance Sundberg, a beekeeper who hauled his hives for almond pollination from Columbus, Mont., lost 40 percent of his bees this winter due to the drought and mite problems. "You have to buy bees elsewhere to pick up your losses, and not everything we have remaining after the loss is very strong," said Sundberg. "I had a tough time fulfilling my obligations to all the growers." But at least he still has bees, Sundberg said. Some colleagues were not as lucky: they lost 75 percent or even 99 percent.

Traynor, the bee broker, said he's been fielding phone calls from desperate beekeepers and growers who are short several thousand colonies — but he has no more good bees to offer them. The shortage will only get worse in the future, he said, as almond acreage grows. Having strong hives is critical, Traynor said, especially during rainy seasons, because bees have a short period of flight time when it's dry enough to pollinate. Fewer bees may not be able to reach all the blooms in time.

In recent years, the Almond Board of California, which represents more than 6,000 growers, has poured \$1.4 million into bee health research. The group also worked on alternatives to reduce growers' reliance on honeybees, said Bob Curtis, associate director of agricultural affairs. One is the so-called "self-compatible" almond tree, which can set nuts using pollen transferred among its own flowers, thereby needing fewer bees.

The group also is urging growers to plant forage to help sustain bees before and after almond pollination. And it's exploring using blue orchard bees, which are solitary bees that do not live in hives but nest in small cavities, to augment the honeybee workforce. But building up those alternatives will take time. "It's tenuous right now," Curtis said. "We've got fewer bees. And if something goes wrong with the weather, some growers could be in trouble."

Source MSN News

Here we take a more detailed look at exploiting forests in non-consumptive ways by harvesting fruits, nuts, spices, fibres, waxes, resins and certain sustainable timbers etc. By combining the cultivation of native, wild, species trees and plants, and by allowing the natural regeneration of others to develop too, we would have systems that would work both ecologically and economically, allowing us to buy up, recreate and save existing forests on mass. Only non-endangered and non-vulnerable species are listed.

Coffee *Coffea arabica*: Cultivated throughout the tropics; seeds used to make coffee; wild distribution Ethiopia.

Date Palm *Phoenix dactylifera*: Fruits are eaten; fronds are used for basket and rope making; distribution, Sahara to parts of India. Date Palm could be one of the most effective means of combating desertification within that region.

Oil Palm *Slaxis guineensis*: Grown throughout tropical S.E. Asia; fruits used to make palm oil; wild distribution C.W. Africa; oil is used in all kinds of cooking products and in biofuels. Palm oil is one of the greatest single threats to the tropical rainforests; if it were grown where it is native, it could actually help the rainforests and not destroy them.

Rubber Trees, various species, *Landolphia oicariensis*, *L. Gentilii*, *L. droogmansiana*, *L. klainer* and *L. owariensis*: Saps contain latex; distribution Congo, Sierra Leone, Ghana, and Nigeria.

Shea Tree *Vitellaria paradoxa*: Fruits are eaten; seeds used to make butter and soap; distribution Africa.

Baobab Tree *Adansonia digitata*: Fruits are eaten; distribution Africa.

Rosy Periwinkle *Vinca rosea*: Extracts used as an anticancer drug; wild distribution Madagascar.

Buchu *Barosma betulina*: Used in the treatment of kidney stones and arthritis; distribution Southern Cape.

Aloe Vera *Aloe barbadensis*: Grown throughout the temperates; used in the treatment of skin conditions and leukemia etc.; wild distribution South Africa.

Henna *Lawsonia inermis*: Dye used for both skin and textiles; distribution N. Africa to India.

Frankincense *Boswellia sacra*: Resin used for burning as incense; distribution Somalia to Yemen. Threats from goats, Long-horned Beetles and decades of overexploitation has driven this plant to the edge of oblivion. There is no reason why it couldn't be better protected and cultivated within its desert range.

Myrrh *Commiphora myrrha*: Resin used in perfumery and medicine; distribution Somalia to Yemen and Oman.

Castor-oil Plant *Ricinus communis*: Grown throughout the tropics; seeds used to make castor-oil and ricin; wild distribution N.E. Africa to India. Oil used in lubrication and as a purgative, also makes very good skin cream. Ricin is highly poisonous but produces an anticancer drug.

Fan Palms, various species: *Borassus aethiopum*, *B. akeassii* W. Africa. *B. madagascariensis*, *B. sambuanensis* Madagascar. *B. flabellifer* S.E. Asia. *B. heineanus* Papua New Guinea. Fibres have all kinds of uses and fruits are eaten.

Coca *Erythroxylon coca*: Leaves produce cocaine, the raw leaf is sold and used quite legitimately by the locals for pain relief treatment; distribution tropical S. America; more appropriate on the higher slopes rather than down in the forests themselves.

Rubber Tree *Hevea brasiliensis*: Grown throughout tropical S.E. Asia; sap used for latex; wild distribution Amazonia. Latex has all kinds of industrial uses and could make such a project a fortune in itself.

Brazil Nut *Bertholletia excelsa*: Seed kernels are eaten; distribution Amazonia. Brazil nuts require the presence of a certain wasp to assist with germination; something to bear in mind when planting.

Strychnos nux vomica: Seeds contain strychnine; distribution Amazonia. Curare, used as a muscle relaxant in heart surgical procedures, is a derivative of strychnine.

Tapioca Manihot esculenta: Roots are eaten; wild distribution Amazonia.

Cashew Anacardium occidentale: Cultivated in Africa and India; seeds are eaten; wild distribution tropical S. America.

Ceiba pentandra: Fruits contain kapok; distribution Amazonia and Ecuador.

Tagua Phytelphas macrocarpa: Nuts used as a synthetic ivory for jewellery; distribution Panama to Paraguay.

Tabebuia altissima: Bark contains antibacterial properties; distribution Amazonia.

Myroxylon pereirae: Produces balsam; used as an inhalant; distribution Amazonia.

Cocoa Theobroma cacao: Grown in tropical Africa; seeds produce chocolate; wild distribution S. Mexico to C. S. America. Another crop with a good opportunity for making money.

Papaya Carica papaya: Grown as a cultivar throughout the tropics; fruits are eaten; distribution of wild tree, Ecuador to S. Mexico.

Chinchona Chinchona pubescens: Grown throughout the tropics; bark produces quinine; wild distribution tropical S. America.

Jatropha Jatropha curcas: Grown throughout the tropics; seeds produce oil which can be used for biofuel; wild distribution S. America.

Passion Fruit Passiflora edulis: Grown as a cultivar throughout the tropics; fruits are eaten; wild distribution Amazonia.

Camu Camu Myrciaria dubia: Fruits are eaten; distribution Amazonia.

Turu Palm Oenocarpus bacaba: Fruits are eaten and used as a moisturiser; distribution Amazonia.

Balsa Ochroma lagopus: Timber used in model making etc.; distribution Amazonia.

Wild Pineapple Ananas comosus: Grown as a cultivar throughout the tropics; fruits are eaten; distribution of wild plant, S. America.

Acai Euterpe oleracea: Fruits and are eaten; wild distribution S. America.

Guava Psidium guajava: Grown throughout the tropics; fruits are eaten; wild distribution tropical S. America.

Potato Solanum tuberosum: Multiple cultivars are grown throughout the world; tubers are eaten; wild distribution Peru. The wild plant is still grown and harvested there today.

Vanilla Vanilla planifolia: Cultivated throughout the tropics; pods used as luxury flavouring; wild distribution Mexico.

Avocado Persea americana: Grown as a cultivar throughout the tropics; fruits are eaten; wild distribution Mexico.

Chayote Sechium edule: Cultivated throughout the tropics; fruits are eaten; wild distribution Mexico.

Chicle *Manilkara chicle*: Sap used to make the original chewing gum; distribution Mexico and Guatemala.

Curare *Chondrodendron tomentosum*: Used in anesthesia; distribution West Indies to S. America.

Black Pepper *Piper nigrum*: Grown in many tropical parts; seeds used as a spice; wild distribution India.

Neem Tree *Azadirachta indica*: Fruits are eaten; seeds used as an insecticide; distribution India.

Acanthus ilicifolius: A mangrove with the properties to cure liver cancer; distribution India.

Chaulmoogra *Hydnocarpus kurzii*: Used in the treatment of leprosy; distribution India to Malaysia.

Cardamom *Elettaria cardamomum* and *E. amomum*: Seeds used as spice; wild distribution India, Nepal and Bhutan.

Cinnamon *Cinnamomum verum*: Grown as a coppice, inner bark used as a spice; wild distribution Sri Lanka.

Teak *Tectona grandis*: One of the few tropical hardwoods to be sustainably grown; distribution India, Burma, Indonesia, Thailand and Malaysia.

Hemp *Cannabis sativa*: Cultivated in many temperate and tropical countries; fibres used for ropes, twines and linen etc., and cannabis obtained from certain species; distribution Asia.

Mango *Mangifera indica*: Grown throughout the tropics; fruits are eaten; wild distribution India.

Nutmeg *Myristica fragrans*: Cultivated throughout the tropics; both fruit and seed are used as spices; wild distribution Maluku (spice islands).

Clove *Eugenia caryophyllus*: Grown throughout the tropics; flower buds are used in cookery, oil used as a tooth desensitiser and can even prevent gum disease; wild distribution Maluku (spice islands).

Musa textilis: Another species of Hemp, native to Maluku and the Philippines.

Betel *piper betle*: Leaves used in cooking; distribution S.E. Asia.

Ginger *Zingiber officinale*: Grown throughout the tropics; root used as a spice; wild distribution S.E. Asia.

Bombax ceiba: Fruits contain kapok; distribution India and Malaysia.

Rattan various *Calamus*: Branches used to make walking-sticks and other items; distribution tropical S.E. Asia

Coconut Palm *Cocos nucifera*: Seed interiors are eaten, oil used for cooking and biofuels, outer seed cases or fruit used to make mats; distribution, low-lying land around the tropical coasts. Coconuts often overhang the sea, and because of this and their buoyant fruits, they are able to very successfully colonise other landmasses. The fruits and fronds fall into the sea; the fronds are quickly seized upon by spawning Flying Fish and the fruits drift off into the unknown. And whether the giant seeds have a chance of making it depends on the currents and the suitability of the climate at the site they arrive at.

Bamboo, various *Bambuseae*: Used in furniture, house and boat construction. Main distribution tropical and subtropical S.E. Asia.

Ignatius Bean *Ignatia amara*: Used in the treatment of cholera and fever; distribution Vietnam to the Philippines.

Sugar Palms, various species: *Arenga pinnata*, S.E. Asia. *Caryota urens*, India. Sap tapped for producing various goods.

Salak Palm *Salacca zalacca*: Several cultivars; grown as impenetrable hedges; distribution of wild trees S.E. Asia.

Tung Tree *Vernicia fordii*: Cultivated throughout the Americas; seeds used to produce oil; wild distribution S. China and Burma.

Areca Palm *Areca catechu*: Seeds are eaten; distribution S.E. Asia and Polynesia.

Breadfruit *Artocarpus communis* and *A. altilis*: Grown throughout the tropics; fruits are eaten; wild distribution Polynesia.

Macadamia Nut *Macadamia integrifolia* and *M. tetraphylla*: Grown throughout the tropics; fruits are eaten; wild distribution Queensland, Eastern Australia.

Wild Banana *Musa itinerans*: Grown as a cultivar throughout the tropics; fruits are eaten; wild distribution S. China.

Lychee *Litchi chinensis*: Fruits are eaten; distribution S. China.

Xi shu *Camptotheca acuminata*: Used in the treatment of cancers; distribution China and Tibet.

Ginkgo *Ginkgo biloba*: Used in the treatment of Alzheimer's and high blood pressure; wild distribution China, Korea and Japan.

Quince *Cydonia oblonga*: Grown as a cultivar throughout the world; fruits are eaten; wild distribution Caucasus.

Apricot *Prunus armeniaca*: Grown as a cultivar throughout the world; fruits are eaten; wild distribution Asia.

Pomegranate *Punica granatum*: Cultivated throughout the subtropics; fruits are eaten; wild distribution Iran.

Pistachio Nut *Pistacia vera*: Grown as a cultivar, especially in the US.; seeds are eaten; wild distribution E. Turkey, Iran to Afghanistan.

Almond *Prunus dulcis*: Grown as a cultivar, nowhere more so than in California where it cause widespread ecological harm; nuts are eaten; distribution of wild tree Turkey, Syria and Iran.

Olive *Olea europaea*: Grown as a cultivar in various parts of the world and widely cultivated as a species; fruits are eaten, and oil is used in cooking; wild distribution E. Mediterranean to W. Asia.

Fig *Picus carica*: Grown as a cultivar; fruits are eaten; distribution of wild tree S.E. Europe and W. Asia.

Carob *Ceratonia siliqua*: Fruits are eaten, and seeds are used as a gelling agent in food production (E410); distribution E. Mediterranean.

Cork Oak *Quercus suber*: Bark used in cork production; distribution Spain, Portugal and Morocco.

Sweet Chestnut *Castanea sativa*: Seeds are eaten; distribution S. Europe. Here in the UK. it is a non-native pest species, taking over whole areas of woodland. Where it grows as a native, it provides extremely valuable habitat; on the island of Corsica it is vital for their endemic Corsican Nuthatch.

Stone Pine *Pinus pinea*; Mediterranean; Korean Pine *P. koraiensis*, N.E. Asia; *P. gerardiana*, W. Himalaya. All of these species produce pine nuts.

Sugar Maple *Acer saccharum*: Trees are tapped for their sugary sap; distribution N. USA. and Canada.

As we can see, there is practically nowhere in the tropical to temperate world where you can go without finding some kind of tree or plant that you can cash in on. With low-density systems, allowing other trees and plants to coexist within each working area, together with nature reserves running along side, we really could have something that would work for the good of everything.

Some of these plants are desert dwellers, well outside the remit of any rainforest saving regions; natural deserts however, as opposed to man-made desertification, are fascinating and beautiful places and are equally worth protecting. There's absolutely no reason why these same principles, of money creating natural plantings, couldn't be applied to other habitats.

