

## **Part Three**

# **Making The Connection**

“I still care about this planet  
I am still connected to nature  
And to my dreams for myself.”

(Half-Gifts, Cocteau Twins)

“Won't someone try, open up your eyes  
You must be blind if you can't see  
The gaping hole called reality.”

(Connected, Stereo MCs)

## Chapter Eleven

### Why Connect?

In January 2008, the amount of carbon dioxide in our atmosphere touched 385 parts per million<sup>1</sup>. That same month, Dr James Hansen of the Goddard Space Institute in New York gave a short presentation to the Royal College of Physicians in London<sup>2</sup>: in it he stated that, based on historical data comparing atmospheric carbon to global temperatures, the maximum safe figure for carbon dioxide in the atmosphere was 350 parts per million – beyond this, the Earth’s natural systems would change irreversibly. As I type these words, the volume of CO<sub>2</sub> mixed with the air in the chilly back room I am sitting in exceeds this safe limit by 10%. I am inhaling something that is already capable of removing the Greenland ice cap and raising the level of the ocean by five metres. Five metres? I go to a web site that shows what this would mean to the world’s coastal regions<sup>3</sup>, click on the drop-down arrow and select “+5m”.

The web site knows which country I live in: much of the fertile growing land in eastern England is under water along with half of the Netherlands. I scroll the map down and zoom out a little: most of Europe is safe at the moment. Across the Atlantic the Mississippi Delta is flooded – the recovering towns and cities of southern Louisiana have taken their last breath. The playgrounds of the Florida Keys and Ocean City are gone, along with great swathes of the eastern seaboard. I scroll eastwards. South East Asia is hit terribly: Shanghai and Hong Kong are just small islands in a sea of floodwater; Bangladesh sees permanent floods beyond the imagination of even those who experienced the catastrophe of 1970. And this is just the calm, tidal ocean, without storm surges and hurricanes; quite unlike the tempestuous one we can look forward to in the next fifty years, even with the carbon dioxide levels in the atmosphere unchanged, at just 385 parts per million.

Carbon dioxide accounts for about 65 percent of all anthropogenic global warming that is taking place<sup>4</sup> (the word anthropogenic just means, “made by humans”). Carbon dioxide is especially significant, not only because it is responsible for a large portion of the unnatural Greenhouse Effect but also because it is the one gas whose level is continuing to rise while the others – such as methane and nitrous oxide – are relatively

controlled for the moment<sup>5</sup>. The lack of control is everywhere: from the belching SUVs and power-hungry air conditioners of high-tech USA, to the teeming coal-fired power stations of newly commercial China and India; from the fuming peat left burning after the Indonesian forests were scorched, to the reeking oil sands of Canada. Oil, wood, coal and gas are being ignited across the world to feed a growing appetite for more of everything. More technology; more heat; more cold; more meat; more money; more greed; more profit; more speed; more vacations; more need.

More deserts.

More flooding.

More storms.

Less ice.

Less food.

Less life.

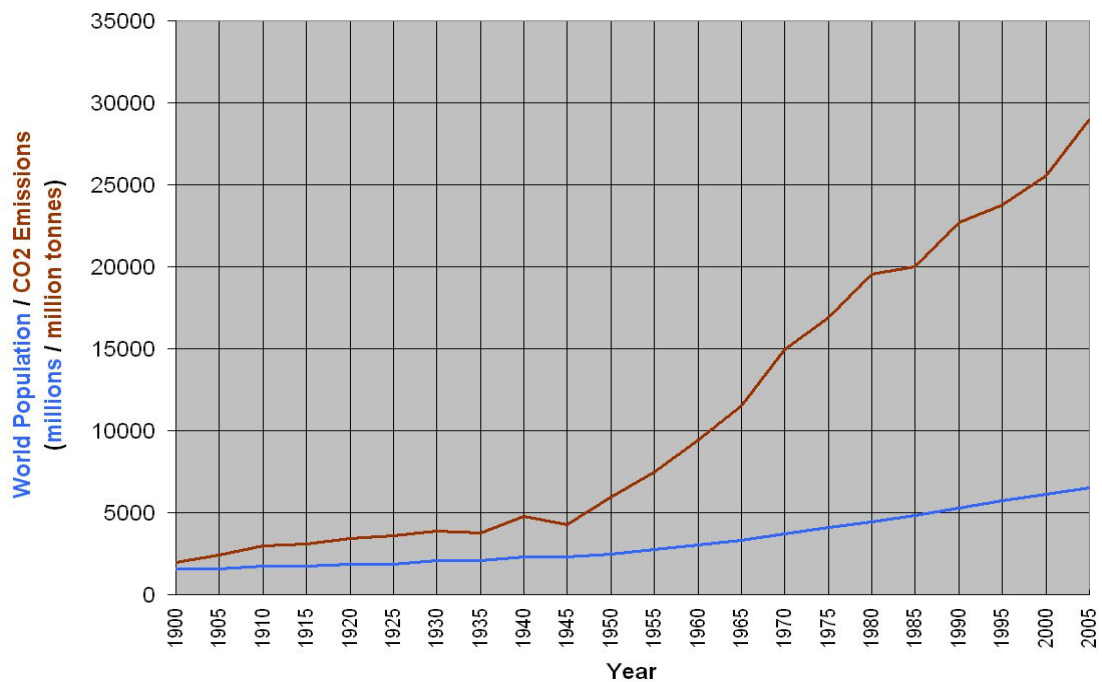


Figure 1: World Population vs. World Carbon Dioxide Emissions (Source: Author's own image, derived from various sources)

In 1900 the world population stood at about 1.5 billion people, about the same as the current population of India, Bangladesh and Pakistan combined. In the same year, historical statistics show that the amount of carbon dioxide being produced by fossil fuel burning was 1.9 billion tonnes<sup>6</sup>, or just under a third of what the USA put into the atmosphere in 2004. By the beginning of the Second World War, the population had risen considerably, to 2.3 billion, an increase of over fifty percent; by the same year global carbon dioxide production was around 4.7 billion tonnes. The war took the edge off industrial production in the West so that, by 1945, emissions had fallen by nearly eleven percent, but it had taken 50 million deaths and the threat of further global catastrophe to lower carbon dioxide production by just a tenth.

The upturn in population growth that I described in Chapter Eight has its significance in the way it took human numbers from a relatively modest 2.5 billion people in 1950, up to 6.5 billion in 2005; an increase of 160 percent in just 55 years. Over that same period of time carbon emissions grew from six billion tonnes to twenty-nine billion tonnes, a leap of extraordinary proportions: no less than 380 percent, or nearly two and half times the rate of population growth. This was achieved even with almost an entire decade of carbon stability in the 1980s.

From the first graph it is evident that population growth and carbon dioxide emissions do have something in common, but the increase in human numbers doesn't go anywhere near explaining where all the carbon is coming from. Once I had fed in some economic figures from the World Trade Organization<sup>7</sup> and produced *Figure 2*, though, something was startlingly clear: it is not population growth that is driving greenhouse gas emissions, it is money.

The graph, which illustrates the period between 1950 and 2005, has sprouted another line, the pink one, showing how trade between different countries boomed over a period of 55 years. Trade is affected by a great number of things, but the most important of them is whether there is a market for something or not: if there is a market then a producer can sell things to a consumer. The market for something will eventually become saturated unless the producer can find ways of making the consumer interested in buying more of a product, but it is often easier to open up new markets for the same thing, which is one reason that trade has rocketed since 1985. I'm getting ahead of myself, though – what is important here is the uncanny similarity between the shapes of the Emissions line and the Trade line.

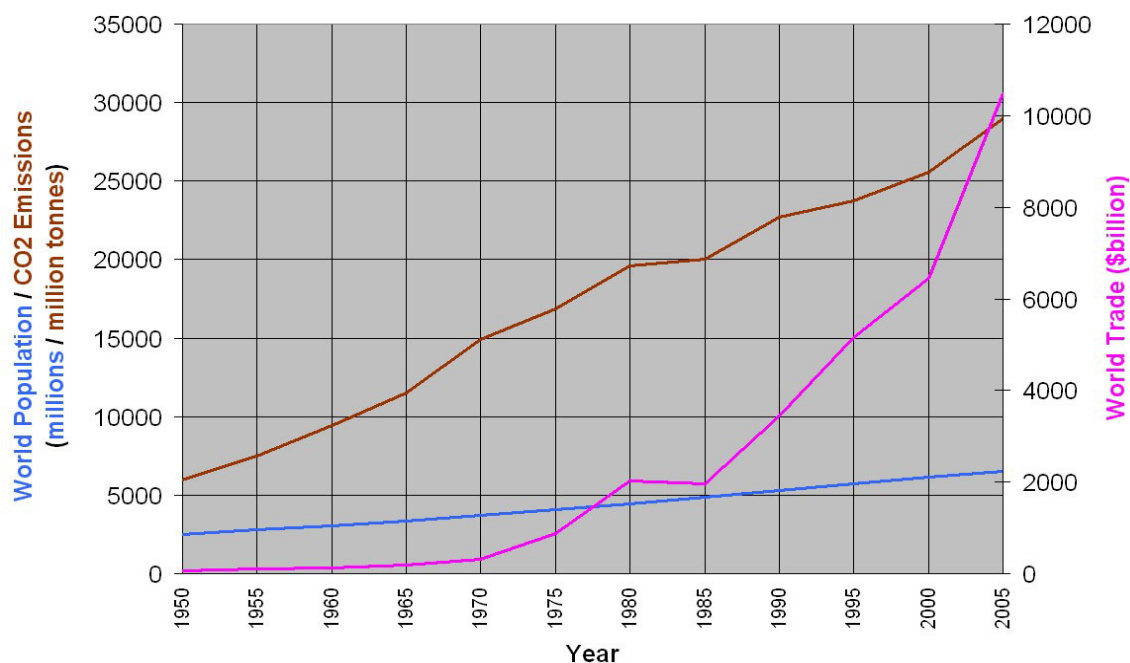


Figure 2: World Population vs. World Carbon Dioxide Emissions vs. World Trade (Source: Author's own image, derived from various sources)

The post-war boom in the industrial West; with its acceleration in the use of consumer goods – such as televisions, vacuum cleaners and refrigerators – the rise of the “car culture” and an upsurge in the number of new houses; pushed global carbon emissions up by 250 percent in just 25 years. Coal was the fuel of choice for electricity generation, and massive oil discoveries in the Middle East during the 1950s and 1960s, including seven of the largest oil fields ever found<sup>8</sup>, meant that cheap fuel, almost literally, drove consumption through the roof. The oil crisis, in the 1970s, and two major recessions in the 1980s pushed emissions growth down a little, but still it sped ahead of population growth, and by 1985 emissions beat population by a factor of four to one. Bearing in mind that they had been almost neck-and-neck in 1900, this is phenomenal growth by anyone’s standards.

Between 1950 and 1970, international trade (imports and exports) grew from \$60 billion to a still relatively modest \$317 billion: growth of 413 percent in 20 years is impressive, but nothing compared to later on. International trade started to climb rapidly after 1975 – because the graph only shows trade between *different* nations, the freeing up of international markets during the 1970s is particularly visible, as is the massive global recession in the 1980s, and the explosive growth in the international trade of consumer goods since 2000. These variations in world trade<sup>9</sup> between 1975

and the present day are closely matched by changes in carbon dioxide emissions – with the notable exception of the early-1990s, when the smokestacks of much of Europe stopped belching with the collapse of the Soviet Bloc, and the emergence of natural gas as a cleaner generator of electricity. This blip was not to last long.

Despite promises by many governments and businesses to control their emissions, the slope is steepening. This inflationary jump is primarily the result of manufacturing being shifted from rich nations in which labour is relatively well paid, to poorer nations – in which workers are generally paid a pittance – that generate electricity by far dirtier means. The fruits of this transfer of labour are then laboriously transported back to the rich nations that buy the goods, thus producing even more carbon dioxide<sup>10</sup>. This is compounded by another lucrative export: the industrial West's love affair with cars, household consumer goods and a meat-rich diet is no longer the preserve of rich nations – it is increasingly seen as something that all people have the right to be a part of. The fact that this behaviour fattens the wallets of business leaders in the West is not entirely coincidental.

\* \* \*

The connection between money and carbon emissions, however worrisome, is just one of many social, political and economic connections that we encounter on an almost daily basis<sup>11</sup>, often without realising it; but there is a far more important connection that we now need to consider – one that is the subject of the rest of this chapter and the one after that. It is so important that I'm going to simply refer to it as The Connection.

### **The Connection**

Do you have a spare shoe you can look at? Any shoe, it doesn't really matter as long as it fastens using laces. If you are wearing one then that will be fine. If you need to fetch the shoe then please get it now, I won't go anywhere.

Okay?

Now look carefully at the lace – undo it if it has a knot or a bow – find the right-hand end and hold it in your hand. This end is you: a human being, no different to any other human being on Earth, whatever culture you live in, whatever race you may be

or language you may speak. Now find the left-hand end, and hold on to that as well. This end is everything else in the world: from the smallest atom of carbon, to the microbes, the worms, the bees, the fish, the trees, the forests, the oceans and the atmosphere that you are breathing in.

Two ends of a piece of string, so close together: one totally dependent on the other. If you have read this far you will know by now which end is most dependent on the other. The webs and chains that lock lives together in a symbiotic embrace exist in order that life on this planet can be as complex and varied as it is. Humans would be nothing at all without the ancient history of interconnections that have been made between different species. Most of the strands have let go, fallen beside the four billion year path for others to replace them and take the strain; but the new strands still hold on, for if they didn't then humanity would fall like a sack of rocks into a deep well.

Splash! As easy as that.

That we should care about our descent into the icy well water and our untimely extinction is beyond doubt. We are survival machines and we exist to continue our species – there is no higher motivation than the simple urge to stay alive, and for that reason it is simply not possible to be human and not care about our fate. *It follows that it is simply not possible to be a free thinking human being and not care about what is happening to the planet that we depend on.*

Take another look at the shoelace. Follow each end downwards as the woven strands move in and out of the holes, intersecting, touching each other and finally meeting at the end. The two ends always were together. From the origins of life our fate has been intimately tied up with the fate of the rest of our Earthly companions, and there is nothing you can do about it.

\* \* \*

Would you risk your life to save a tree along the street you live in; would you put yourself between the trunk of a plant and a chainsaw – however slender that plant may be – in order to preserve it for another day? If it were woodland near to your home, or even a forest at the other side of the world that was imminently threatened with removal, would you then endanger your life to protect it?

A British environmental activist I have known for years was narrowly saved from death by an Oxfordshire police officer. It's ironic that the reason the police officer had to stem the blood gushing from an artery was that the artery was severed while "A" was trying to escape from a police cell. "A" desperately wanted to escape in order to return to the scene of his "crime" so he could once again hold up tree felling work; felling work that was taking place in order that a power company could fill a thriving lake with the spoil from a coal-fired power station. My friend thought little of his fate, except that the trees must be saved. His attempts to stop the trees being cut down were deemed illegal, and so he was arrested and sent to the police cell in which he nearly died. Despite his brush with death, he has since told me that he would do it again: "I would try and save life again, risking my own life, because all life is worth saving."<sup>12</sup>

The temptation, in societies where human endeavour is valued far higher than that of any other species, is to label such behaviour "extreme", or even "psychotic". Certainly my friend was labelled both an extremist and a "tree hugger", and punished for his actions. The term "tree hugging" is often used as a disparaging term to describe environmentalists, like my friend, who greatly value the distinct and irreplaceable service that trees carry out for the biosphere. In fact, by definition, to be a Tree Hugger is to be someone who would place yourself at the mercy of whatever humanity might exist in the minds of a person determined to destroy the tree, which you are embracing. The Garhwal Hills of northern India contain both a number of tribes whose lives have changed little in 1500 years and probably far more<sup>13</sup>. It also contains the origins of the Chipko Andolan (literally, "hug the trees") movement. In 1973, following decades of successive removal and partitioning of the forests by both the British and the Indian governments – forests that the indigenous people depended on for their well-being – the patience of the Garhwali finally ran out when the villagers were simultaneously refused permission to cut twelve trees in order to make tools, while a sporting goods company was granted permission to cut far more trees to make tennis racquets.

The women of the village, in particular, started protecting the trees with their own bodies, trying to grab the axes of the loggers: risking their lives at the hands of those who had been charged to remove the trees that the Garhwali so badly needed to be managed responsibly and sustainably. A state officer, who was under the impression

that the government owned the trees, not some upstart tribal women, attempted to confront the protestors:

*It was time to settle the matter once and for all. He and his entourage went into the forest to lay down the law, but instead witnessed a sight that was both fascinating and disarming: hundreds of women, more than he could count, milling about among the trees, singing songs and chanting, many with infants strapped to their waists and children at their feet. Realizing that to lay down the law would require some kind of brutal offensive against all of the women and children in the area, he left chastised and embarrassed.<sup>14</sup>*

Do you feel that the actions of the Garhwali women in India were any less, or more extreme than those of the British environmentalist? Again, it would be tempting to suggest that the Chipko Andolan were taking unnecessary risks in order to save some trees, but their lives depended on the forests remaining intact; to provide a sustainable source of wood for cooking, heating and tool making; to stabilise the ground and prevent mudslides in the mountainous terrain; to ensure that the waters remained fresh and constantly available. Most people would agree that some kind of activism would be justifiable – but would you risk your life to maintain a way of life in the face of creeping development, and the promise of a more modern lifestyle: the kind that the British environmentalist has no choice but to lead?

The Garhwali people have a village-based culture; farming and using the land around the villages in the most sustainable manner they can. Without treating the land in such a way their distinct way of life would have been wiped out long ago. Because of their similarity to some more recent cultures, the Garhwali are able to make minor adaptations to their lives, without greatly affecting their cultural integrity: but there are limitations, and large, enforced changes would, as with so many other societies before them, cause irreversible damage.

The tribal people of West Papua live in a manner that is entirely alien to most of modern humanity. According to Bernard Nietschmann, “The people of West Papua are different in all respects from their rulers in [Indonesia]: language, religions, identity, histories, systems of land ownership and resource use, cultures and allegiance.”<sup>15</sup> Imagine, for a moment, living in such a way that you had no concept of outside rules, beliefs and culture; when, suddenly, the land you have nurtured for

centuries with delicate care is ripped away from you to be handed to a corporation intent on mining it for metals, leaving the land in tatters and thousands of tonnes of toxic spoil leaching poison into the ground. This is precisely what happened in the years following 1967 under the despotic leadership of President Suharto of Indonesia (who also forcibly took control of the country following a military coup in 1965). Two large mining companies from “democratic” nations; Freeport, based in the USA, and Rio Tinto Zinc, a UK / Australian conglomerate; were handed the mineral rights for a large part of West Papua in return for generous donations to the Suharto regime. Despite Suharto’s bloodthirsty behaviour across his empire, including responsibility for the slaughter of half a million Indonesians in 1965, the CEO of Freeport, James Roberts, called Suharto, “a compassionate man.”<sup>16</sup>

The native West Papuans have never had the land returned to them, primarily because there is no profit to be made in giving a peaceful, nature respecting people stewardship of a region under which there are rich mineral resources to be plundered. Since the 1970s the situation has, if anything, worsened with the rise in illegal deforestation for the lucrative export of tropical hardwood, pulpwood with which to make paper, and the palm oil from monoculture plantations. Such activities – illegal or otherwise – are actively condoned by the new democratic government and, despite the best efforts of United Nations and human rights workers, intimidation is rife:

*The Special Representative is also concerned about complaints that defenders from West Papua working for the preservation of the environment and the right over land and natural resources (deforestation and illegal logging) frequently receive threats from private actors with powerful economic interests but are granted no protection by the police...This climate of fear has reportedly worsened since the incident of Abepura in March 2006, where five members of the security forces were killed after clashes with protesters demanding the closure of the gold and copper mine, PT Freeport. Lawyers and human rights defenders involved with the trial received death threats.<sup>17</sup>*

Tree Hugging in such an isolated and tightly controlled landscape of fear cuts no ice with private security firms or the Indonesian government. In a world where the media rarely takes an interest, and the public are disbarred, who is to know whether the defenders are just being killed by the military or private security guards? It is clear

from regular observations that, where the indigenous people have clashed with developers, the developers have always won in the long run<sup>18</sup>. This puts indigenous people in a terrible dilemma: do they continue to fight for the return of land that their entire existence depends upon; or do they enlist the help of outside agencies or, even more conversely, rely on the compassion of the businesses actually responsible for the land-grab in the first place? Such compromises almost always lead, as mentioned before, to irreversible cultural change. Their lives are on the line, whichever way they turn. What would you do in their situation?



*Figure 3: Fishing tribesman from Baliem Valley, West Papua (Source: Flickr / Creative Commons Internet image)*

Defending something that is central to your life is not “psychotic” behaviour, nor is it “extreme”; it is simply human nature. A man who tries to take my life from me by suffocation, by forcibly holding his hands over my mouth and nose, is immediately locked in his own life-or-death struggle, for I would fight to the death to retain my own life – as any sane person would. The connection between the assailant’s hands and my own fate is immediate: there is no doubt that the two are connected in this particular situation. In a slightly less direct sense, the total loss of your food source,

shelter or any other means of sustaining yourself clarifies the connection between the thing that you depend upon and your desire to survive. I don't need to tell you this; take these things away and it becomes obvious.

As I said in Part Two, the City Dweller is cut off from his life support system. In a world where more than fifty percent of humanity lives in cities this is an ever more vital observation: as far as any hunter-gatherer, or indeed any person producing their own food is concerned, you may as well have your source of nutrition completely taken away from you if you have no sight or knowledge of its origin. As you pick your ready-meal or bottle of Coke off the shelf of your local supermarket (if that is where you shop, or what you buy) do you have any concept of where those items come from? Certainly, the mere fact of having a ready-meal made from numerous different and obscure ingredients immediately distances consumers from the food they are eating; and where on Earth *do* those ingredients come from? Two studies carried out in 2001 found that the distance average food items in the USA and the UK had been transported from “farm to fork” had risen by a factor of two and five times respectively<sup>19</sup> in just two decades. Average figures for common foodstuffs ranged from 2,500 to 4,000 kilometres – these are average figures, nothing like the longest distances that some foods travel.

The vast distances involved just to bring a head of broccoli or a pint of milk to your table – sometimes between very similar types of countries, and sometimes (and usually in this direction) from poor to rich countries – places a psychological barrier between the person eating the food and the place where that food was grown. Not only that, but the means of production, whether for food or any other product of the industrial economy, has been divided up in such a way that the different parties involved in that production can barely conceive what the impact of their particular niche is on the environment. “The violence that we know as environmental destruction is possible only because of a complex economic, administrative, and social machinery through which people are separated from responsibility for their misdeeds. We say, ‘I was only doing my job’ at the paper mill, the industrial incinerator, the logging camp, the coal-fired power plant, on the farm, on the stock exchange, or simply in front of the PC in the corporate carrel. The division of labour... hides from workers the real consequences of their work.”<sup>20</sup> Not surprisingly, concern for the damage caused to the natural environment in which the food was

produced – be that deforestation for beef cattle or soybeans in Brazil, removal of mangroves for shrimp farming in India, or the ploughing up of wildflower meadows to grow rapeseed in the English countryside – is muted in industrial nations, at best. To me, it is that lack of concern that is psychotic, not the other way round.

\* \* \*

In April 2008, James Speth, Professor of Environmental Policy at Yale University made the following sober, and startling remarks:

*All we have to do to destroy the planet's climate and its biota and leave a ruined world to our children and grandchildren is to **just keep on where we're going today**, just keep releasing greenhouse gases at current rates, just keep degrading and homogenizing and destroying our biological resources, just continue releasing toxic chemicals at current rates, and by the latter part of this century, the world won't be fit to live in.<sup>21</sup>*

When you consider the type of changes that are taking place as a result of human agency, across the complete range of scales in which life operates; and that many, if not all of those changes will impinge upon your ability to survive, do you feel connected with those life forms?

For hundreds of millennia, humans connected tightly to the land and the life forms their survival depended upon, because that was how it had to be. Failure to connect was not an option; if you didn't know how plants grew, how animals bred, how rivers ran, how the seasons and the weather changed, then you did not survive. In some parts of the world – the Native American tribal lands of West Coast USA, the dense forests of West Papua, the deep valleys and jagged mountains of northern India – these connections remain, and cling on despite the best efforts of those who seek to gain more from the land than “mere” survival. This connection has ebbed away from the majority of humanity, in many cases to the extent that people feel nothing for anything humans have not created themselves. But we cannot eat tarmac; we cannot breathe television; we cannot drink money.

## **Are You Ready?**

The Connection is a very personal thing. It can manifest itself as a whole range of emotions, all of which link people with their surroundings and the things they depend upon for their continued survival. That odd surge in the gut as you look into the branches of a tree; that frisson of excitement that comes from enveloping yourself in the sea; that strange feeling that you have something in common with the animal looking you in the eye: they are all symptoms of The Connection. It is nothing great and mysterious; it is simply the necessary instinct that ensures we do not damage the ability of the natural environment to keep us alive. *Failure to connect is the reason humanity is pulling the plug on its life-support machine.*

Connection is a two-stage process: first, we must learn to connect because we have to, because if we don't then we die; second, we have an innate need to connect because it is part of who we are. The whole of this chapter has been devoted to the first stage – the clear imperative that we must connect the two ends of the lace together – what we are and what we are doing. This is a learning process, and for people in the early throes of Westernisation then Connecting may be as easy as falling off a lifestyle: it is simply a case of reconnecting with a way of life that existed not so long ago, and which still manages to survive in pockets tragically being squeezed out by the rush to become part of a consumer culture. For many others, the majority of people in the industrial West who identify most strongly with a hyper-consuming way of life, learning how to reconnect out of necessity is a struggle: most of us have never experienced anything but the disconnected lives we inhabit.

The second stage of Connection just is. Like the invisible join between the two ends of the lace, we have always been connected, we just need to recognise how natural and comfortable it is to be this way. If you feel you are ready to reconnect, or just want to see what it is like to take the plunge from your world to the real world, then read on.

<sup>1</sup> NOAA: Trends in Atmospheric Carbon Dioxide, <http://www.esrl.noaa.gov/gmd/ccgg/trends/> (accessed 4 March, 2008). Parts Per Million, or PPM, is the standard measure of the volume of carbon dioxide gas in the atmosphere. Methane and Nitrous Oxide are measured in Parts Per Billion because they are present in smaller quantities.

<sup>2</sup> James Hansen, “Global Warming : The Perfect Storm”, Presentation made to the Royal College of Physicians, London, [http://www.columbia.edu/~jeh1/RoyalCollPhyscns\\_Jan08.pdf](http://www.columbia.edu/~jeh1/RoyalCollPhyscns_Jan08.pdf) (accessed 13 March, 2008)

<sup>3</sup> <http://flood.firetree.net/> (accessed 13 March, 2008)

<sup>4</sup> Until very recently, water vapour was not considered an anthropogenic greenhouse gas, but recent work by David Wasdell ([www.meridian.org.uk](http://www.meridian.org.uk)) among others has found a number of feedback loops which could place the amount of water vapour very much in the our hands. Water vapour is responsible for a great deal of the natural Greenhouse Effect, which makes life on Earth possible.

<sup>5</sup> With the increase in ruminant animal consumption, increased methane levels are almost inevitably going to start to increase again after the recent drop in levels caused by drying wetlands (<http://www.noaanews.noaa.gov/stories2006/s2709.htm>: accessed 31 March 2008). Nitrous oxide levels could also increase again as aircraft use rises exponentially, and more land is opened up for agriculture using nitrogen-based fertilisers (see <http://www.epa.gov/nitrousoxide/sources.html>: accessed 31 March 2008)

<sup>6</sup> Figures are superficially derived from a nice chart at [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_carbon\\_dioxide\\_emissions](http://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions), but have been cross-checked through the Carbon Dioxide Information Analysis Center, [http://cdiac.ornl.gov/trends/emis/tre\\_coun.htm](http://cdiac.ornl.gov/trends/emis/tre_coun.htm) (accessed 5 March, 2008).

<sup>7</sup> Based on figures from the World Trade Organization, [http://www.wto.org/english/res\\_e/statis\\_e/statis\\_e.htm](http://www.wto.org/english/res_e/statis_e/statis_e.htm) (accessed 5 March, 2008)

<sup>8</sup> Thomas Homer-Dixon, “The Upside Of Down”, Souvenir Press, 2007.

<sup>9</sup> Domestic trade (within the same country) figures are unreliable for the whole world, but even so, some explanation is needed as to why I have used international trade as an indicator instead. Between 1975 and 2000, total manufacturing output in the United States went up by 180 percent (based on figures from the US Census Bureau, <http://www.census.gov/indicator/www/m3/hist/m3bendoc.htm> - accessed 10 March, 2008) to \$1.9 trillion. In the same period, imports into the USA went up by 1100 percent (Based on figures from the World Trade Organization, [http://www.wto.org/english/res\\_e/statis\\_e/statis\\_e.htm](http://www.wto.org/english/res_e/statis_e/statis_e.htm) - accessed 5 March, 2008) to \$1.3 trillion – an increase more than five times that of domestic production. Given the powerhouse status that the USA still has in global economics, it is clear that international trade is a good indicator for the world economy after 1975.

<sup>10</sup> Keith Farnish, “Whose Carbon Is It Anyway?” The Earth Blog, <http://earth-blog.bravejournal.com/entry/20579> (accessed 11 March, 2008).

<sup>11</sup> We have looked at a number of them in Parts One and Two, such as the link between genetic modification and profit, and that between happiness and the consumption of goods. There is also the connection between the urgency for war and the desire by businesses to increase their profits, and a number of others that will become clear in Chapter 13. Very few of these social, political and economic connections are coincidental.

<sup>12</sup> Personal communication.

<sup>13</sup> No records exist earlier than about 600CE (see [http://www.garhwalhimalayas.com/feel\\_garhwal/earlyhistory.html](http://www.garhwalhimalayas.com/feel_garhwal/earlyhistory.html): accessed 13 March, 2008), but the nature of many tribes is that they leave no evidence of their existence except through oral histories.

<sup>14</sup> Brian Nelson, “Chipko revisited - Chipko Andolan forest protection movement; India”, Whole Earth Review, 1993: accessed via [http://findarticles.com/p/articles/mi\\_m1510/is\\_n79/ai\\_13805372/pg\\_1](http://findarticles.com/p/articles/mi_m1510/is_n79/ai_13805372/pg_1) (accessed 13 March, 2008)

<sup>15</sup> Quoted in Al Gedicks, “Resource Rebels: Native Challenges to Mining and Oil Corporations”, South End Press, 2001.

<sup>16</sup> Ibid.

<sup>17</sup> United Nations General Assembly, “Report of the Special Representative of the Secretary-General on the situation of human rights defenders, Ms. Hina Jilani. Addendum: Mission to Indonesia.”

<http://www.unhcr.org/cgi-bin/texis/vtx/refworld/rwmain?page=&docid=47baaeb62> (accessed 18 March, 2008)

<sup>18</sup> See US State department reports for various years, e.g.:

<http://www.state.gov/g/drl/rls/hrrpt/2005/61609.htm> (“In February the Human Rights Commission in South Sulawesi concluded that the police committed a gross human rights violation in 2003 when they fired on farmers and indigenous persons attempting to reoccupy lands leased by the government to the London Sumatra Company; four persons were killed and more than a dozen were injured”) and

<http://www.state.gov/g/drl/rls/hrrpt/2006/78774.htm> (“During the year indigenous people, most notably in Papua, remained subject to widespread discrimination, and there was little improvement in respect for their traditional land rights. Mining and logging activities, many of them illegal, posed significant social, economic, and logistical problems to indigenous communities. The government failed to prevent domestic and multinational companies, often in collusion with the local military and police, from encroaching on indigenous people's land.”)

<sup>19</sup> Quoted in Brian Halweil, “Home Grown: The Case For Local Food In A Home Grown Market”, Worldwatch Institute, 2001.

<sup>20</sup> Curtis White, “The Ecology Of Work”, Orion Magazine,

<http://www.orionmagazine.org/index.php/articles/article/267> (accessed 21 April, 2008)

<sup>21</sup> James Speth, transcript of speech made at The Brookings Institution, 16 April 2008,

[http://www.brookings.edu/~media/Files/events/2008/0416\\_speth/20080416\\_speth.pdf](http://www.brookings.edu/~media/Files/events/2008/0416_speth/20080416_speth.pdf) (accessed 19 April, 2008).