

## **A Carbon Sadhana**

**Lokabandhu, May 2009**

This started life around the time of the Bodh Gaya Convention as a rather 'worthy' essay on the environmental consequences of flying. It unexpectedly transformed itself into its present form out jogging one day. So far as I know the figures are all accurate, even a little conservative. It's open to all of course.

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First one visualises a vast expanse of clear blue sky: radiant, pure, stretching to infinity in all directions. High in the sky one sees a cloud in the shape of a rainbow, stretching in a great arc from West to East.

At the Eastern end of the cloud we see a tiny aeroplane, the cloud stretching out behind it as it travels across the blue sky. The cloud is white, with a brownish edge. Looking closer, inside the plane we see an Order Member. Their eyes are closed and they are meditating. They are happy and inspired, going to India on Pilgrimage to the Holy Places of the Buddha.

Now we see the Order Member at the Bodhi Tree, circumambulating, making prostrations, and doing Puja. Again they are happy and inspired. Rainbow light shines out in all directions.

Above their head we see a shape. It is a great envelope of gas, in the shape of a hot-air balloon. It has no colour, sound, smell, taste, or touch: almost nothing for the mind to take hold of. Yet it floats above their head and moves with them wherever they go: standing, sitting, or lying down. It is very large, the size of an international football stadium. In the balloon we see there is air, but with twice the normal concentration of carbon dioxide.

We reflect that if all air had this concentration of carbon dioxide, life on earth as we know it would be annihilated. We reflect that the balloon and the air in it are not really above the Order Member's head: in reality the gases emitted by the aeroplane are high in the blue sky. We visualise the balloon above their head to symbolise the karmic connection between their actions and the stadium-sized volume of gas.

Now we see a second rainbow-shaped cloud traced across the sky, this time from East to West, again made by an aeroplane. It too is white, with a brownish edge. Again we see inside it the same Order Member, still happy and inspired, full of gratitude and faith, having completed their Pilgrimage.

Now we see two envelopes of gas, one above the Mahabodhi Temple in Bodh Gaya and one above the Order Member's head in the West. Each is the size of an international football stadium. The Order Member is planting trees; they wish their pilgrimage to be 'carbon-neutral'. The trees are small, but we see how they will grow and over time absorb the envelopes of gas. We see that it takes 100 years for this process to complete.

Finally one sees oneself and all beings around one. The beings are arrayed edge to edge in one plane, stretching almost to infinity. Above the head of oneself and each of the beings, we see balloons the size of international football stadiums, again filled with air having twice the normal concentration of carbon dioxide. As before these have no colour, sound, smell, taste, or touch: almost nothing for the mind to take hold of. Yet they float above the

beings' heads and move with them wherever they go: standing, sitting, or lying down. We see that some beings have one balloon above their heads, some two, some even a dozen or a hundred or more. We see the sky is full of these balloons, more balloons being added all the time, all lasting for at least hundred years, karmically linked to each being.



Slowly the blue sky fades away.

We reflect that the Buddha was known as Akiriya, the Trackless One, the One who walked without leaving a footprint. Finally we reflect that Awareness is Revolutionary.

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### **NOTES - emissions calculations**

- A return flight to India produces about 3 tons of CO<sub>2</sub> per passenger, 1.5 tons each way.
- 1 ton of CO<sub>2</sub> (1000kg) occupies 1.54 million m<sup>3</sup> at normal atmospheric concentration and pressure (there's 0.648gms of CO<sub>2</sub> in 1 m<sup>3</sup> of air).
- A international football stadium has a ground area of approx 50,000 m<sup>2</sup>; it is approx 30m high.
- Thus it encloses a volume of 1.5 million m<sup>3</sup>.
- Thus 1 ton of CO<sub>2</sub> occupies almost exactly the same volume as a stadium
- Thus the CO<sub>2</sub> generated by a single passenger on a single flight would occupy 1.5 stadiums - let us say 1 large one.

## Slideshow captions

1. First one visualises a vast expanse of clear blue sky: radiant, pure, stretching to infinity in all directions.
2. High in the sky one sees a cloud in the shape of a rainbow, stretching in a great arc from West to East.
3. At the Eastern end of the cloud we see a tiny aeroplane, the cloud stretching out behind it as it travels across the blue sky.
4. The cloud is white, with a brownish edge.
5. Looking closer, inside the plane we see an Order Member.
6. Their eyes are closed and they are meditating. They are happy and inspired, going to India on Pilgrimage to the Holy Places of the Buddha.
7. Now we see the Order Member at the Bodhi Tree, circumambulating, making prostrations, and doing Puja. Again they are happy and inspired.
8. Rainbow light shines out in all directions.
9. Above their head we see a shape. It is a great envelope of gas, in the shape of a hot-air balloon.
10. It has no colour, sound, smell, taste, or touch: almost nothing for the mind to take hold of. Yet it floats above their head and moves with them wherever they go: standing, sitting, or lying down.
11. It is very large, the size of an international football stadium. In the balloon we see there is air, but with twice the normal concentration of carbon dioxide.
12. We reflect that if all air had this concentration of carbon dioxide, life on earth as we know it would be annihilated.
13. We reflect that the balloon and the air in it are not really above the Order Member's head: in reality the gases emitted by the aeroplane are high in the blue sky.
14. We visualise the balloon above their head to symbolise the karmic connection between their actions and the stadium-sized volume of gas.
15. Now we see a second rainbow-shaped cloud traced across the sky, this time from East to West, again made by an aeroplane.
16. It too is white, with a brownish edge.
17. Again we see inside it the same Order Member, still happy and inspired, full of gratitude and faith, having completed their Pilgrimage.
18. Now we see two envelopes of gas, one above the Mahabodhi Temple in Bodhi Gaya and one above the Order Member's head in the West.
19. Each is the size of an international football stadium.
20. The Order Member is planting trees; they wish their pilgrimage to be 'carbon-neutral'.
21. The trees are small, but we see how they will grow and over time absorb the envelopes of gas. We see that it takes 100 years for this process to complete.
22. Finally one sees oneself and all beings around one.
23. The beings are arrayed edge to edge in one plane, stretching almost to infinity.
24. Above the head of oneself and each of the beings, we see balloons the size of international football stadiums, again filled with air having twice the normal concentration of carbon dioxide.
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above the beings' heads and move with them wherever they go: standing, sitting, or lying down.

26. We see that some beings have one balloon above their heads, some two, some even a dozen or a hundred or more.

27. We see the sky is full of these balloons, more balloons being added all the time,

all lasting for at least hundred years, karmically linked to each being.

28. Slowly the blue sky fades away.

29. We reflect that the Buddha was known as Akiriya, the Trackless One, the One who walked without leaving a footprint.

30. Finally we reflect that Awareness is Revolutionary.

A month or so ago many of us went to Bodh Gaya for the Order Convention. Everyone flew. I another month or so I dare say lots of us will go off on our holidays - many will fly. This year's 'batches' of men and women have gone to Guhyaloka and Akasavana for their ordinations - many flew.

At the same time climate change continues to be in the news - with scientists apparently coming close to despair that the politicians (and the public) will ever do anything meaningful about it.

They are warning that we are ever-closer to the 'tipping-point'. None of us want the planet to tip over into climactic chaos - especially of us with children. Yet we don't change. Why are we so resistant to change? To my mind it's partly a question of greed, and partly of imagination.

Our share of the carbon dioxide produced by a return flight to India is around 3 tons (<http://www.terrapass.com/carbon-footprint-calculator/#air>). But what does that mean?

Let's try and get imaginatively involved - let's visualise it.

Imagine above our heads there's a giant hot-air balloon. Imagine it's the size of a large international football stadium - that's big! That contains about 1 ton of carbon dioxide along with the rest of the air in it.

So if we put an extra ton of CO<sub>2</sub> into the atmosphere we're doubling the CO<sub>2</sub> in an international football stadium sized hot-air balloon. And let's be clear - doubling the concentration of CO<sub>2</sub> in the atmosphere is enough to completely greenhouse the planet.

Our contribution (per ton) is therefore to double it in an international football stadium sized volume. Flying to India just once doubles it in three such stadiums. A typical year's worth of Western lifestyle might produce 10 tons CO<sub>2</sub>, doubling it in 10 stadiums. If you're an average American, it's 20. An African, well under 1 ([http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_carbon\\_dioxide\\_emissions\\_per\\_capita](http://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions_per_capita))

Now imagine all of us walking about our high streets and driving up and down our roads. Above the heads of every one of us there's 1, or 3, or 10 vast stadium-sized hot-air balloons - imagine how crowded the skies are going to look. The balloons will have to be stacked in layers one above the others to fit them all in. Multiply them by 5 billion. And add the same number again every year. No wonder the climate is changing!

Do we WANT to be personally responsible for messing up such vast volumes of air? I imagine not. Maybe we just haven't connected with the reality of what we're doing: producing 'one ton' is just a couple of words on a page - producing one stadium's worth of planet-cooking atmosphere is perhaps a little more vivid.

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### Calculations

- There are approx 0.648gms of CO<sub>2</sub> in 1 m<sup>3</sup> of air at normal atmospheric concentration and pressure.
- Therefore 1gm of CO<sub>2</sub> occupies 1.54 m<sup>3</sup> of air, 1kg occupies 1540 m<sup>3</sup>.
- Therefore 1 ton of CO<sub>2</sub> (1000kg) occupies 1.54 million m<sup>3</sup>.
- A large stadium is approx 50,000 m<sup>2</sup> in area.
- It is approx 30m high.
- Thus it encloses a volume of 1.5 million m<sup>3</sup>.
- Thus 1 ton of CO<sub>2</sub> occupies almost exactly the same volume as the stadium.