



plant-a-tree-today.org

Carbon Free

Offset your lifestyle emissions

A Guide

PATT Foundation
- 2006 -



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Offset Your Emissions

As a non-profit environmental organisation PATT is committed to action against climate change. With this pledge in mind, we have developed a carbon emission offsetting program which allows you to plant trees, through PATT, that will absorb the equivalent amount of carbon dioxide your actions produce. This is called Carbon Free.

Options:

Quick Offsets

Use this convenient tool to calculate and offset emissions for your lifestyle.

OFFSET YOUR PERSONAL EMISSIONS FOR ONE YEAR

OFFSET YOU FAMILY'S EMISSIONS FOR ONE YEAR

OFFSET YOUR CAR FOR ONE YEAR

OFFSET A FLIGHT

Your Emissions:

In the developed world the average individual's carbon dioxide emissions are almost 10 metric tonnes per year. This is called their 'carbon footprint' and comes mainly from their household energy usage and transport requirements – car travel, flights and commuter transport. Carbon dioxide is a greenhouse gas which, when released into the atmosphere, acts like a thickening blanket, trapping the sun's heat. Too much carbon dioxide in the atmosphere is causing the planet to warm up. To help prevent global warming, we all need to reduce our emissions and look at ways we can mitigate the emissions left over that we are responsible for. As an individual, you have to take responsibility.

How Do We Make You Carbon Free?

The PATT Foundation's ethos is to plant trees. Trees are an effective means of absorbing carbon from the air. Therefore we use a tree absorption model of carbon sequestration as our offset mechanism.

We have taken figures from the United Nations on average emissions per person for the developed world and calculated how many trees are required to absorb that carbon from the atmosphere.

How Does the System Work?

Log on to www.plant-a-tree-today.org/carbonfree and choose an option. For the purpose of quick offsets for individuals we have used average emissions for the developed world with figures provided by the UNDP.

To offset your car, choose the option that reflects the size and type of car you drive. For a flight, simply choose long, medium or short haul – if you aren't sure where your flight comes in, check 'Our Assumptions' in the right hand menu box. Then simply follow the steps to donating online through our payment system.

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Where Does My Money Go?

Your money goes towards the costs of planting your trees in whichever project we are working on at the most suitable time when the donation comes in. To undertake a project PATT must cover the costs of all expenses within the project on the ground, PATT employee time to work on the full project and PATT expenses in relation to the full project. As PATT is a non-profit organisation all funds donated in all our offset programmes are taken up in expenses related to the project and regenerated within PATT to fund the foundation's works.

What Sort Of Projects Does PATT Invest My Money into?

Our projects may be for the purpose of forest restoration, community forestry in rural villages to provide sustainable development, urban forestry for carbon sequestration, aesthetics and shading, and research projects for education purposes. We are operational in Thailand and link with experienced and reputable project implementation partners including academic institutions, local NGO's, government forestry organisations, and development agencies. With all our projects we concentrate on the principle goal of the trees.

Trees in our projects have far reaching benefits that extend well beyond simply absorbing carbon from the atmosphere so when you commit to offsetting your emissions through PATT, your donation also reaches far and wide. By donating to these projects and effectively funding trees to be planted in these projects, we allow you to attribute the carbon your trees will absorb to your offset programme. Without you, these trees would not be planted, and the carbon would still be in the atmosphere.

How Many Trees Will I Need to Plant?

On average, 1 tree in our projects will absorb and store about 20 kilograms of CO² (tCO²) every year over the course of its lifespan. Choose the menu option you want and you will see the number of trees required to soak up your carbon.

Can I Trade 'Carbon Credits' or Can PATT Trade Them?

No. PATT is not in the business of trading or facilitating the trading of carbon credits or emission reductions of any form on any type of platform, either voluntary or certified, within any type of market be it formal or informal. PATT will simply plant trees with funds donated by any individual that will absorb the required amount of carbon dioxide from the atmosphere. You are then at liberty to use the PATT **Carbon Life Credit** logo and term in direct relation to the emissions you have offset for the rest of your life.

What is Climate Change?

Climate change or global warming is the result of a build up of greenhouse gases (GHG), chiefly carbon dioxide, in the atmosphere. GHGs serve to trap the sun's heat in the earth's atmosphere, forming the 'greenhouse effect' – a natural phenomena that keeps the earth warm. However, when the concentration of GHGs gets too large, and the earth's equilibrium gets out of balance, we experience a dangerous rise in temperatures, which can result in severe and extreme weather conditions. In effect, earth's blanket thickens and our atmosphere absorbs and holds more heat than it radiates back. This could directly affect rainfall, flooding and droughts, agriculture, economies, health and biosecurity.

The reason for the unprecedented rise in GHGs is largely a direct result of human intervention. In its 2001 report, the the United Nations' Intergovernmental Panel on

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Climate Change (IPCC) stated, "There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities." In fact, since the industrial age began around 150 years ago, man's burning of fossil fuels — coal, oil and gas — to fuel machinery has meant a rise in GHG emissions, mainly carbon dioxide, for the past 2 centuries. Some scientists estimate the increase in carbon dioxide emissions over the last 150 years to be 35 – 60 percent.

The IPCC projects that global temperatures will rise an additional 3 to 10 degrees Fahrenheit (1.6 to 5.5 degrees Celsius) by century's end.

Tell Me More About Trees and Carbon.

Trees are green machines that act as natural filters of our air. Through the process of photosynthesis they absorb carbon dioxide (a key GHG and principle contributor to global warming) from the atmosphere and store it in their trunk, branches, leaves, roots, soil and foliage, while releasing oxygen back out. The Union of Concerned Scientists (2005) states *"As globally important storehouses of carbon, forests play a critical role in influencing the Earth's climate. Forest plants and soils drive the global carbon cycle by sequestering carbon dioxide through photosynthesis and releasing it through respiration"*

Whereas deforestation, degradation and poor forest management reduce carbon storage in forests, sustainable management, planting, and rehabilitation of forests can increase carbon sequestration. In fact the United Nations Food and Agriculture Organisation states *"global carbon retention resulting from reduced deforestation, increased forest regrowth and more agro-forestry and plantations could make up for about 15% of carbon emissions from fossil fuels over the next 50 years (2006)."*

Not only are trees an effective means for absorbing and storing the carbon you emit, they have far reaching benefits that extend well beyond that of filtering the air. Sustainably managed forests and urban forestry projects have multiple environmental and socio-economic functions important at the global, national and local scales, and play a vital part in sustainable development. Forests are sources of wood products. They help regulate local and regional rainfall. And forests are crucial sources of food, medicine, clean drinking water, and immense recreational, aesthetic, and spiritual benefits for millions of people.

Our Calculations

Our emissions rates are based on the latest published figures of the United Nations Development Programme's Human Development Report (UNDP, HDR), the World Resources Institute's Climate Analysis Indicators Tool (WRI, CAIT) for developed nations and their GHG Protocol, the UK government's Department for Transport, and UK DEFRA's Guidelines for Company Reporting on Greenhouse Gas Emissions.

Our sequestration information has been provided by the Asian Institute of Technology Forestry Department.

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