



# BETTER MONEY FOR A BETTER WORLD

## Manifesto

**CARBON IS MONEY**

**PROTECT THE COMMON**

**FIX THE SYSTEM**



TOCOS ARE VERIFIED BY  
THE CARBON RESERVE



@carbonismoney



tocos.org

## What are our goals?

To prevent climate change by accelerating carbon reduction activities. To fix the current economic model so it places value on the environment. To unite a global community that believes carbon mitigation has intrinsic value. To bypass the institutions that are failing us and give communities the power to act. To collectively invest in environmental assets to create environmental wealth for all.

## What do we believe?

Carbon is Money believes that climate change is one of the greatest existential threats to humanity. Greenhouse gas (GHG) emissions are the main drivers of global climate change. The world must urgently reduce these emissions to avoid the worst impacts of climate change.

Despite the commitments made by countries, companies, and individuals to become carbon neutral, efforts are failing. Currently, we do not meet The Paris Agreement goals to reduce greenhouse gas emissions (GHGs) and limit global warming below the 1.5°C target set by the international community. Carbon is Money believes that economic activity and ambition are not inherently negative but lead to positive outcomes such as reducing poverty, enhancing the quality of life, enriching cultural heritage, and improving health.

These benefits have, however, come at a cost to the environment that has not been accounted for in our present economic model. The effect of greenhouse gas emissions (GHGs) on the atmosphere's limited capacity continues to add undisclosed off-balance sheet liabilities that will be paid for by current and future generations. We believe greenhouse gas emissions (GHG), which lead to climate change, are such externalities. GHG emissions are a side-effect of economically valuable activities. The problem is that much of the impact of these emissions does not fall on the entities conducting the activities. Instead, the impact is borne by the world at large and for generations to come. The adverse effects of greenhouse gases are external to the



market. In the current economic system, there is no economic incentive for businesses and individuals to reduce emissions.

We believe it is unrealistic and unfair to expect economic activity to cease or diminish simply to lessen GHG emissions. Still, it is realistic to expect an effective and efficient market to innovate, conserve, change demand patterns, invest, and trade in carbon reduction activities once the true costs of our economic activity are discovered. We believe that the pricing of GHG emissions, such as in the carbon markets, where carbon emission reductions in the form of credits or offsets are traded, is an important mechanism to value emission reduction activity and correct this market failure. Pricing carbon via market action should be one of the most effective and lowest-cost ways of incentivising atmospheric carbon reduction.

We believe this allows the costs of climate impacts and the opportunities for low-carbon energy options to be better reflected in our production and consumption choices. However, we believe that the carbon market, in its current state, has not succeeded due to limitations that stem primarily from its design rules - the result of nations' inability to find agreement on how they should operate. Their failure to deliver is not a matter of opinion but objectively true in the sense that CO<sub>2</sub> concentrations continue to rise while carbon reduction demand and prices remain too soft to shift behavior and stimulate significant investment to meet the internationally agreed targets. Carbon markets remain fragmented and overly concentrated by large players with limited liquidity and high transactional friction. They lack transparency and fungibility, while the actual mitigation value of carbon assets is hard to ascertain. They have been susceptible to fraud, double counting, and other risks that have damaged trust.

We believe this inability of nations to find the required agreement and cooperation arises from a classic collective action problem, or a "tragedy of the commons" - where a shared resource tends to be rapidly depleted because no single actor considers how their actions affect other users of the resource.



We believe this will not be fixed. Our institutions will not be able to find the agreements and cooperation required to tackle this global issue. There are simply too many inherent disparities and skewed vulnerabilities between the nation-states to expect this, including:

- (i) the inequality of economic welfare and ambition among different nation-states;
- (ii) their respective historic contributions to emissions;
- (iii) the variation in the planetary impact/cost felt by different geographies across the globe; and
- (iv) the unfair inter-generational distribution of current economic benefits and the future environmental costs of emissions.

We believe we need a people-driven solution, independent of governments, that gives every person, organisation, business, and institution a simple and cost-effective ability to take climate action and transmit their climate needs in the market. We believe we need a solution that everyone should participate in to grow the carbon economy by creating an efficient marketplace for all participants. There is a large pent-up demand by people and organisations to take climate action and reduce or offset their carbon emissions – but there is no efficient and easy way to do so. We believe expanding and improving on the current voluntary carbon markets will require a significant use case for carbon reductions that have everyday utility.

Up to now, the demand for carbon has mainly been driven by the compliance needs of a handful of regulated industries in some countries or the ethical needs of organisations and individuals who wish to reduce their carbon footprint or attain neutrality voluntarily. To generate a significant expansion of the carbon markets, we will need to create a source of demand that has actual utility value to the market.

We believe such a use case exists – that the properties of carbon reductions are well-suited to be the basis for money supply. It is currently traded as a commodity. There already exists an institutional market that provides a floor price at inception. It is costly and challenging to produce, making supply reasonably inelastic and predictable, which curtails sudden supply shocks. It has very limited real-world industrial usefulness, so sudden demand shocks are almost certainly not possible.



These are perfect properties to keep currency values stable – a prerequisite to any form of money is that the monetary supply be predictable. Crucially, the supply of these carbon reductions is limited, providing the necessary scarcity which combined with the high effort to produce, are the requirements for it to be a good store of value. We believe greater cultural value is increasingly being placed on the environment. Similarly, the means to measure and demonstrate one's personal contribution to ensuring the sustainable future of our environment is becoming more important to individuals and organisations alike. This makes carbon reduction a unit of account that demonstrates environmental value creation.

## What do we propose?

We propose a new international monetary system (a carbon standard) based on a carbon currency to tackle the two pressing externalities in today's global economic and political context: the dangerous and irreversible effects caused by unconstrained greenhouse gas emissions and the correction of the current limitations of the carbon market and its expansion.

Carbon is Money proposes a new unit of international trade, the toco – short for tonnes OCO [molecular formula for carbon dioxide], or tonnes of carbon dioxide, where each toco in circulation represents one tonne of carbon dioxide that has been credibly removed from the atmosphere. We propose that the toco is represented by a portfolio of carbon mitigation assets held centrally in the form of tradable certificates that represent credible carbon credits, carbon offsets, carbon reductions, or carbon avoidances verified by independent accredited third parties.

We propose a central carbon reserve that acts as an independent, non-profit, and non-government institution and is responsible for toco issuance, purchases, and the custody of the portfolio of carbon assets. Carbon is Money aims to maintain the convertibility of toco to carbon assets, to responsibly grow the toco supply, and



expand the voluntary carbon market. We propose a similar monetary framework to the gold standard where the money in circulation was linked to the gold held in a nation's central reserve.

The central reserve's function was to ensure that this relationship was maintained and that the convertibility of the currency into gold was kept at a fixed rate per ounce of gold. In the carbon standard adopted by toco, the relationship is maintained as one toco per tonne of carbon reduction achievable. We propose the carbon reserve perform a role analogous to that which reserve banks have in applying monetary policy within the monetary framework. The Carbon Reserve will manage a portfolio of carbon mitigation assets to support the issuance of the currency and address any market risks and failures that may arise. In this manner, it will provide a key source of liquidity to the market through the issue of its currency. We propose that the carbon reserve follow a risk-based approach to assess the mitigation value of the carbon assets it purchases. The need to assess mitigation value arises from the fact that many different actions have mitigation outcomes but that they don't necessarily have the same mitigation outcomes. Risk-adjusted mitigation values are intended to provide a way to differentiate between assets that are generated from mitigation actions that vary in their design, implementation, and impact.

We propose the carbon reserve strives to fulfil a dual mandate:

- (i) targeting exchange rates that achieve the Representative Concentration Pathway (RCP) adopted by the IPPC (or other expert body) in an economically sustainable and responsible manner and
- (ii) to maintain mitigation value stability for its currency. We propose to introduce a new global settlements platform to support both
  - (i) the payments and receipts of its issued currency among account holders and
  - (ii) the recording of carbon mitigation asset contracts and their exchange among market participants. Toco is issued to unique digital wallets created by toco account holders.



We propose to use blockchain technology to create the platform because it is fast and cost-effective, scales easily, results in immutable records, can deploy in a decentralised manner, and can be independently scrutinised by observers. We oppose the creation of traditional cryptocurrency on philosophical grounds. Current permission-less, fully decentralised, and anonymous protocols suffer from volatility, performance constraints, moral hazards, and lack consumer protections. We propose toco transactions take place on a low footprint, permissioned blockchain that is regulatory compliant (KYC and AMLA) in the jurisdictions it operates. Carbon is Money believes in the ongoing stability of national currencies, safe, secure, and stable banking systems, and strong consumer protections.

We propose the carbon reserve work with policymakers as the financial network expands and as regulations change. We propose the blockchain protocol and design be focused on being capable of handling the daily transactional needs of billions of people. The network shall be secure while capable of high volumes with quick finality. Payment shall be mobile-capable and designed for low latency. The network shall be query-able, auditable, administrable, and modular.

## Who Benefits?

People or organisations who wish to offset or lower their carbon footprint can simply do so by purchasing the desired amount of toco and holding it in their account. By saving their earnings in it, it allows people to contribute to emission reductions directly by investing in mitigation activities. In essence, converting their economic wealth into a store of environmental wealth.

Importantly, each toco is backed by carbon mitigation assets purchased and held in reserve. By demanding that wealth be stored in a currency backed by carbon mitigation assets, it directly increases the demand for carbon emission reductions.



This increases the market price of carbon, which in turn not only incentivises investment in more carbon emission reductions but strengthens the economic exchange value of the toco.

Thanks to the liquidity and the real-world assets underpinning the currency, individuals whose needs change from time to time can easily convert their toco back into fiat currency or eventually exchange them for their desired goods or services. Environmental contribution is made liquid and fungible, which lowers the barrier to entry to participants. By pooling global demand for climate action into a single currency backed by emission reduction assets, the collective environmental good can be served without sacrificing individual needs

Businesses who wish to become carbon neutral can similarly either invest their earnings into toco as a liquid asset on its balance sheet which accurately records and transmits the environmental value of investments made. They can directly exchange their goods and services for the new currency from their customers, or they can use toco to purchase carbon assets from the reserve to permanently retire on their behalf.

Carbon miners, aka originators or project proponents of offsets in qualifying schemes, programmes or projects that engage in legitimate mitigating activities, can earn toco directly by selling their carbon mitigation assets to the reserve at toco prices influenced by the demand of the toco market.





## Who should get involved?

Those who want to manage their carbon footprint easily. Those who want to expand the voluntary carbon market responsibly to combat climate change.

Those who want a new economic system that correctly assigns financial value to our environmental assets through market action. Those who want to invest and trade in the carbon market because they recognise that the price of carbon will have to significantly increase if we are to meet the carbon reduction requirements that avoid the worst effects of climate change.

Those who understand that the incentives of our current political and economic structures will not find the agreements and cooperation required to tackle this global issue.

Those who believe that we, ordinary people, have the means to easily unite across borders and agree that removing carbon has intrinsic value and that the simplest way to demonstrate such agreement would be to use such carbon removals as a means to exchange value amongst ourselves.

