CO2BIT TECHNOLOGIES WHITEPAPER

(Updated August 1, 2021)

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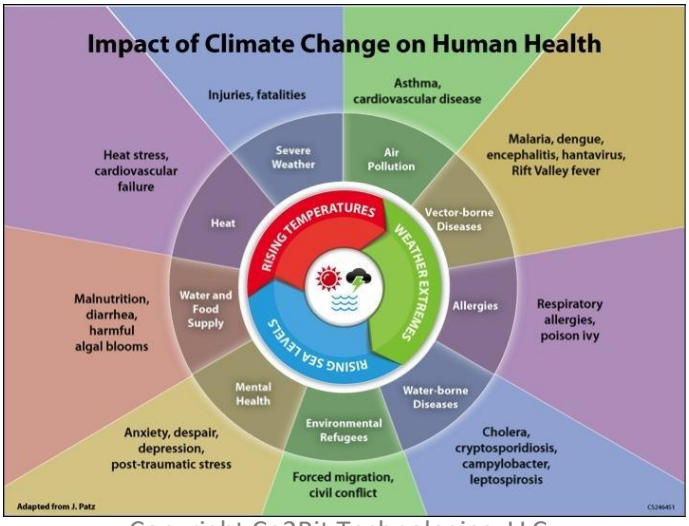
I. CHALLENGES ➔ OPPORTUNITY

If you are reading this, you may be one of the fortunate inhabitants of this planet with the ability to make a difference. We are facing the most existential threat to humanity since the proliferation of nuclear weapons. Climate Change, Global Warming, Increasing Severe Weather Events, Changing Water Cycles, Droughts, Floods, Acidification of our Oceans, and Pandemics are all related to Human Behavior on our fragile planet.

We take so much for granted in our day-to-day existence. But ignoring challenges does not make them go away. Eventually their impact is felt, amplified by how much we ignored them.

As an example, **fresh water**. We hear that 70% of the earth's surface is covered by water. But, if the earth were a basketball, all the water on earth would fit in a ping pong ball and fresh water is only 3% of that, or **basically a small pebble**.

We can live without oil, but not without water. And our emissions and pollution are threating life itself. Yet **our political, governmental, and financial systems are woefully unprepared to save us**.



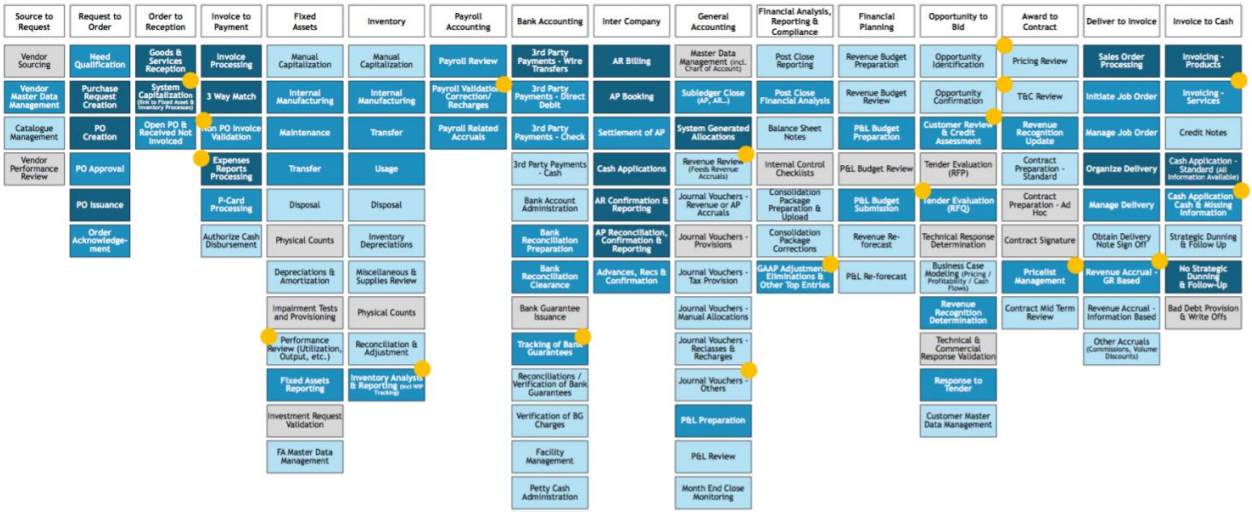
A. Fossil Fuels Era ➔ Sustainable Green Renewables

Over 65% of the CO2 generated over the last 50 years has been generated by 10% of the world's population. The creation of CO2 gases in our atmosphere has fueled the industrial revolution for the western world. Now as the rest of the globe looks to catch up, the ramifications of duplicating that CO2 footprint to fuel their success would destroy the planet for all of us. The dilemma is how do we deny 90% of the world the same benefit enjoyed by the prosperous 10% who exploited the fossil fuel era of the last century.

The problem is exacerbated by geopolitical interests that prevent the common solution to this global problem. Currencies vary widely in their stability; corruption runs rampant in developing countries, and energy is needed to fuel development. The options for generating power at a scale sufficient to fuel

economic growth are limited and take a long time to plan and build. Even when the energy-generating resources are built, the capital to continue to operate them is difficult for developing countries to sustain. Capital is not easily affordable in the 3rd world and most certainly not the un-banked.

B. Outdated Financial Intermediary Systems ➔ Capital Access for All



Financial systems have grown increasingly complex. The costs of intermediaries in banking, accounting and security have not only impacted expense but efficiency. We are losing time and options, as our dinosaur of a financial system slows down our ability to address our largest challenges.

As technology advances allow for the large-scale deployment of renewable assets with fuel sources that are free, such as solar, wind, and geothermal, we could address many of our climate issues. The difficulty is that with these renewable assets, it is often like paying for your cell phone bill for the next 7 years *upfront*, to provide for 20 years of useful cell service. Because of the unachievable upfront costs in these regions where the financial systems are unsophisticated with loan expenses and interest charges often approaching 40%. they have little choice but to go with coal, wood, or other fossil fuels. There needs to be a way to allow these developing countries to have access to the capital to allow them to make investments in renewable, non-CO2 producing assets.

Sadly, today investment in renewable assets across borders is difficult. Currency conversion and relative inflation rates make the economic risk for investors unpalatable. By utilizing a more stable uber-currencies such as CO2Bit's the currency hedge can be self-contained. There is also an issue with sovereign control over currency conversions and monetary policies governing the movement of fiat currencies into other more globally accepted currencies such as dollars or euros. This is usually done to control inflation and the value of the fiat currency on the world market. National GDP imbalances and other factors all contribute to making it more difficult for developing countries to attract capital

investment, especially into their domestic infrastructure. However, without this investment, it is difficult for them to establish a competitive position in the global economy.

For developing countries, non-utility scale solar projects remain the most underserved segment of the market today due to its size which creates significantly higher transaction costs. Smaller projects mean smaller off-takers, which require unique credit review criteria to try and mitigate the inherent risk.

C. Stalled Projects Due to Lack of Capital ➔ Sustainable Public Private Partnership

Co2bit is well positioned to help this segment, which needs our expertise in originating, underwriting, designing, and building solid bankable assets that will last more than 25 years. Our team has established deep long-term relationships with key partners to lead the explosive growth in this segment of the market, including Engineering, Procurement, Construction (EPC) firms, equipment supplier, channel partners, and long-term financial partners to finance and own the projects in a portfolio approach in diversifying credit risk and reduce transaction cost through achieving economic of scale.

A unique bonus to using Co2bit's System is the engineered sustainable design that allows developers to recycle CO2bit's investment + IRR and reinvest in other projects.

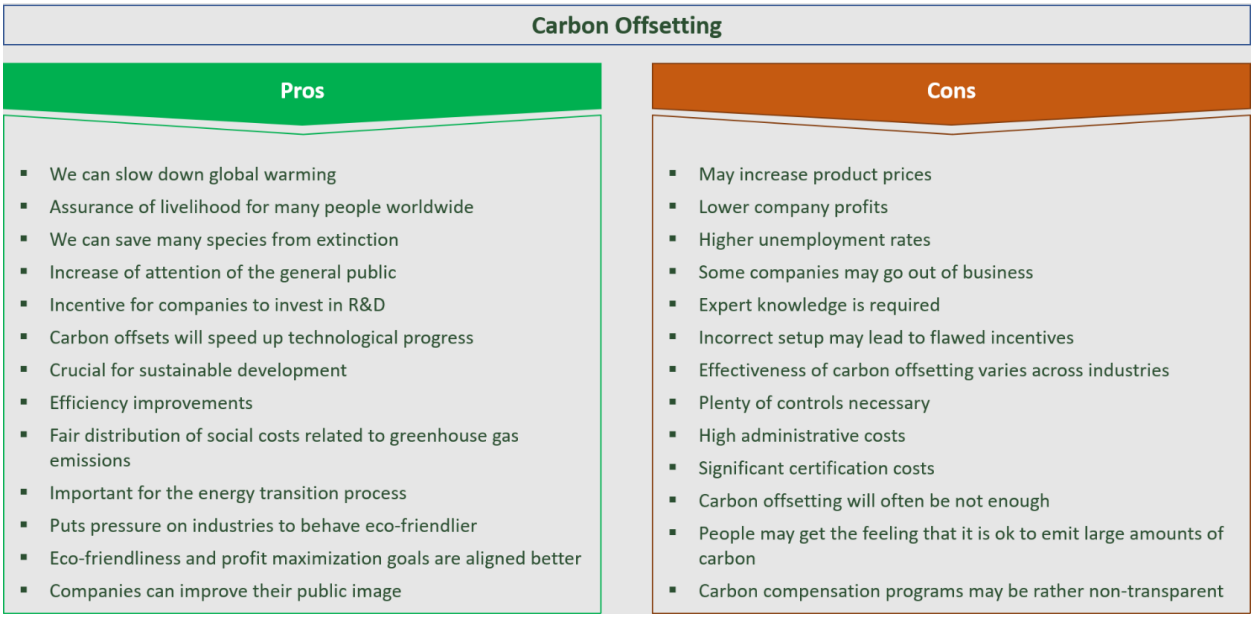
Although utility scale solar, storage, and wind are a mature market segment, it is fragmented, and driven by local developers who often lack financial expertise to finish the projects. Too many development projects don't move forward because they were unable to identify the right capital provider in time. Most developers misunderstood the challenge of quantifying and mitigating development risk, and therefore were unable to fund in time and/or carry the projects through commercial operation. CO2Bit is equipped to resurrect solid financeable projects and bring them to the finish line, producing renewable energy.

D. Carbon Cap and Trade Inherent Abuses ➔ Transparent Immutable Blockchain Alternatives

If we are to have an impact on carbon emission levels, then we need to be able to track the carbon impact that projects have from beginning to end. Past attempts at tracking carbon and creating cap and trade systems have been relatively ineffective due to the abuse that becomes proliferated in the system once large amounts of money become involved. Because of the amount of money that we spend as a society on energy, it is impossible to stop any carbon trading system from becoming a large financial engine. Our ability to create a system of transparency and fairness has been elusive because of many factors, including the sheer amount of money involved, and the geo-political overtones present in the carbon discussion.

Today blockchain technology brings new hope to solving this problem for us to create a fully transparent and fair carbon trading system. The Co2Bit tokens have been created as a significant part of this answer. The Co2Bit tokens leverage the public ledger of the Ethereum blockchain to track all the information necessary to be able to validate and track a carbon credit.

E. Blind Acceptance ➔ Analyzing the Advantages and Disadvantages of Carbon Offsetting



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1. Advantages of Carbon Offsetting

a) We can slow down global warming

One major advantage of carbon offsetting is that it can be suitable to slow down global warming. We all know that we do not have too much time left until it will be too late.
Since greenhouse gas emissions are a main driver for climate change, we all must reduce our greenhouse gas emissions as best as possible. This is not only true on an individual level, but it is also crucial that companies contribute their part.
To make it more attractive for companies to reduce their greenhouse gas emissions, introducing carbon offsetting programs is a great way since companies will become more aware of the problem and will also try to reduce greenhouse gas emissions as best as possible so that profits can be maximized.

b) Assurance of livelihood for many people worldwide

Global warming will affect the poorest among us most. This means while we in the industrialized Northern hemisphere and first world countries emit large amounts of greenhouse gases, billions of people in the Southern hemisphere and 3rd world countries will have to pay the devastating price soon. Hence, to assure the livelihood of billions of people in the poor countries of our planet, it is crucial to introduce carbon offsetting programs so that people and companies have a bigger incentive to act in an eco-friendly manner.

c) We can save many species from extinction

Climate change is also quite harmful when it comes to the preservation of species. Many animals and plants are quite sensitive to their natural living conditions and have adapted to those conditions for thousands or even millions of years.
Thus, a sudden increase in temperature over a rather short period of time may lead to the mass extinction of species, which we will never get back.
Therefore, if you want to be able to show your kids or your grandchildren a big variety of animals and plants in the future, you might also want to support carbon offsetting programs to protect those species from endangerment and extinction.

d) Increase of attention of the public

Many people are still not too aware of the problem of global warming. In fact, many people are so stressed in their daily life and do not want to deal with the climate change issue at all since they consider it not to be important.
However, through the introduction of carbon offsetting programs, it becomes more likely that those people become aware of the problem since those programs may have a direct impact on their finances and on their investment decisions.

e) Incentive for companies to invest in R&D

Another advantage of carbon offset programs is that they give companies the incentive to invest more money in research and development.

Since those programs make it more expensive to emit greenhouse gases into our atmosphere, companies will have a greater incentive to do extensive research on how to lower greenhouse gas emissions to avoid paying to much for those carbon offsetting programs.

f) Carbon offsets will speed up technological progress

Since companies are incentivized to spend more money on R&D, it becomes also more likely that technological progress will speed up.
This is quite important since we as humanity will only be able to solve our environmental problems if we continue to develop new sophisticated technologies on a consistent basis.
Thus, technological progress will not only benefit a few big corporations, but also the public in various areas of daily life.

g) Crucial for sustainable development

We also must make our lives more sustainable. This means that we should not emit more greenhouse gases than our earth can handle in a healthy long-term manner.
To reduce greenhouse gas emissions and to make our production and consumption behavior more sustainable, it is crucial that carbon offsetting schemes are introduced to really push people into a more sustainable lifestyle.

h) Efficiency improvements

Carbon offsetting programs also have the potential to improve the overall efficiency of processes. This also implies that the greenhouse gas emission process will be optimized in a way that every unit of unnecessary greenhouse gas emission will be avoided. Over time, it is likely that our overall carbon emissions will significantly decrease.

i) Fair distribution of social costs related to greenhouse gas emissions

The implementation of carbon offsetting schemes will also contribute to fairer compensation for greenhouse gas emissions from a social perspective. For instance, just a few years ago, it was possible for companies to emit large amounts of greenhouse gases literally without having to pay anything for it. Yet, those greenhouse gases are extremely damaging and impose significant negative externalities on every one of us, especially on poor people in the Southern hemisphere of our planet since those people will suffer the most from the adverse effects of climate change.
By charging money for greenhouse gas emissions through carbon compensation programs, companies now must pay a higher share of the social costs that are related to greenhouse gas emissions.

j) Important for the energy transition process

We all know that to slow down global warming, it is also crucial that we transit from fossil to renewable energies as soon as possible. In order to speed up this process, introducing carbon offsetting programs may be a valid tool to do so since companies are more likely to invest money in research regarding alternative energies.

k) Puts pressure on industries to behave eco-friendlier

In general, the pressure on several industries to behave environmentally friendly can be increased significantly through carbon offsetting policies. Companies now have a real incentive to act eco-friendly to assure their competitiveness.

l) Eco-friendliness and profit maximization goals are aligned better

Let's be honest. Most companies out there are meant to make money and decision-makers in those companies will often act according to this profit-maximization goal.
Therefore, it is crucial to align the goal of eco-friendliness with the goal of profit maximization. One way to do so is to introduce carbon offsetting schemes since companies will be able to increase their profits by reducing their emissions and therefore, carbon emissions are likely to decrease in a quite natural manner.

m) Companies can improve their public image

Through engaging in carbon offset policies, companies will also get the opportunity to strengthen their brand and their public image. For instance, some companies are known to be rather eco-unfriendly. However, those companies may be able to change their public image through those greenhouse gas offsetting programs, which may translate into higher profits in the long run.

n) Simple way for companies to offset their carbon emissions

Since the process behind carbon offsetting is rather straightforward, it provides companies with an easy way to compensate for their harmful effects on our environment.
Thus, engaging in those kinds of programs may be easier than setting up those programs by themselves, which can save significant administrative efforts and costs for those companies.

o) Carbon offsetting might give you a good feeling

If you or your company engages in carbon offsetting, you might also have a much better overall feeling since you may have a clean conscious. Therefore, your overall quality of life may also increase due to that.

2. Disadvantages of Carbon Offsets

a) May increase product prices

Although there are many advantages to carbon offsetting, there are also some problems related to it.
One downside of carbon offsetting is that it might increase product prices for us as consumers.
If companies have to pay more for carbon offsetting due to the production of certain goods which are carbon-intensive, chances are that those products will in turn become more expensive.
Thus, we as customers should expect a certain price increase in products that involve high levels of greenhouse gas emissions.

b) Lower company profits

In some industries, the profits of companies may also greatly drop due to the introduction of carbon offsetting programs. This is especially true for companies who engage in a rather competitive or regulated space and will therefore not be able to increase product prices too much. In turn, their profits as well as their competitiveness will likely suffer in the long run.

c) Higher unemployment rates

Due to the introduction of carbon offsetting programs, some people may also lose their jobs. The production of some products may simply not be profitable anymore if carbon compensation payments are too high and therefore, workers who engage in the production of those products may be fired. Hence, especially in structurally weak areas where unemployment already is a big problem, carbon offsetting schemes may even exacerbate this problem.

d) Some companies may go out of business

Some companies may even go out of business due to the implementation of carbon offsetting programs. This will be especially true for companies that emit large amounts of greenhouse gases into the air and have to pay large sums of money to compensate for that.
Moreover, companies may also have to put in significant administrative work in documentation and control processes, which may especially problematic for smaller companies who often do not have the manpower for that.

e) Expert knowledge is required

In order to work properly and to reduce greenhouse gas emissions as best as possible, experts are needed to set up those carbon offsetting schemes so that companies are really incentivized to save carbon emissions on a large scale.
However, those industry experts are not cheap and governments around the world might have to spend plenty of money for those experts in order to create a functioning greenhouse gas offsetting framework.

f) Incorrect setup may lead to flawed incentives

Since those offsetting schemes are rather new and there are not many empirical values regarding the true effects of such measures, the incorrect setup of those schemes may lead to flawed incentives for companies and the real goal to reduce greenhouse gas emissions may not be accomplished.
Thus, it is crucial to monitor how those schemes work out so that governments can adjust those schemes if needed.

g) Effectiveness of carbon offsetting varies across industries

Those carbon offsetting programs might also be much beneficial in some industry branches than in others. For instance, while carbon-intensive industries will likely greatly reduce their emissions due to the introduction of those carbon offsetting schemes, other industries that are not carbon-intensive at all might not need those programs at all.
Hence, a certain level of differentiation might be needed across industries in order to avoid high administration and documentation efforts for companies in industries that actually do not need those schemes at all.

h) Plenty of controls necessary

In order to make those offsetting programs work, plenty of controls will be necessary in order to guarantee that companies pay an adequate amount of money in line with their carbon emissions.
This also implies plenty of effort for regulators to monitor those schemes, which can also be considered to be quite inefficient.

i) High administrative costs

Due to the controls that are necessary for monitoring and controls related to carbon compensation schemes, the costs to do all this work will also be significant.
Many people have to be employed who carry out controls and document their findings. Thus, the use of those policies may also imply significant public costs that have to be borne by the taxpayer.

j) Significant certification costs

Companies might also need certain certifications that they comply with the introduced carbon offsetting programs. This may also lead to significant additional costs for companies since those certificates may have to be renewed and controlled from time to time.
Hence, there might also be significant amounts of unproductive work related to the implementation of carbon offsetting schemes.

k) Carbon offsetting will often be not enough

Even though carbon offsetting schemes can be regarded to be one step in the right direction, it might not be enough to offset carbon. Instead, additional measures might be necessary to further reduce greenhouse gas emissions and to slow down global warming and its related adverse effects.

l) People may get the feeling that it is ok to emit large amounts of carbon

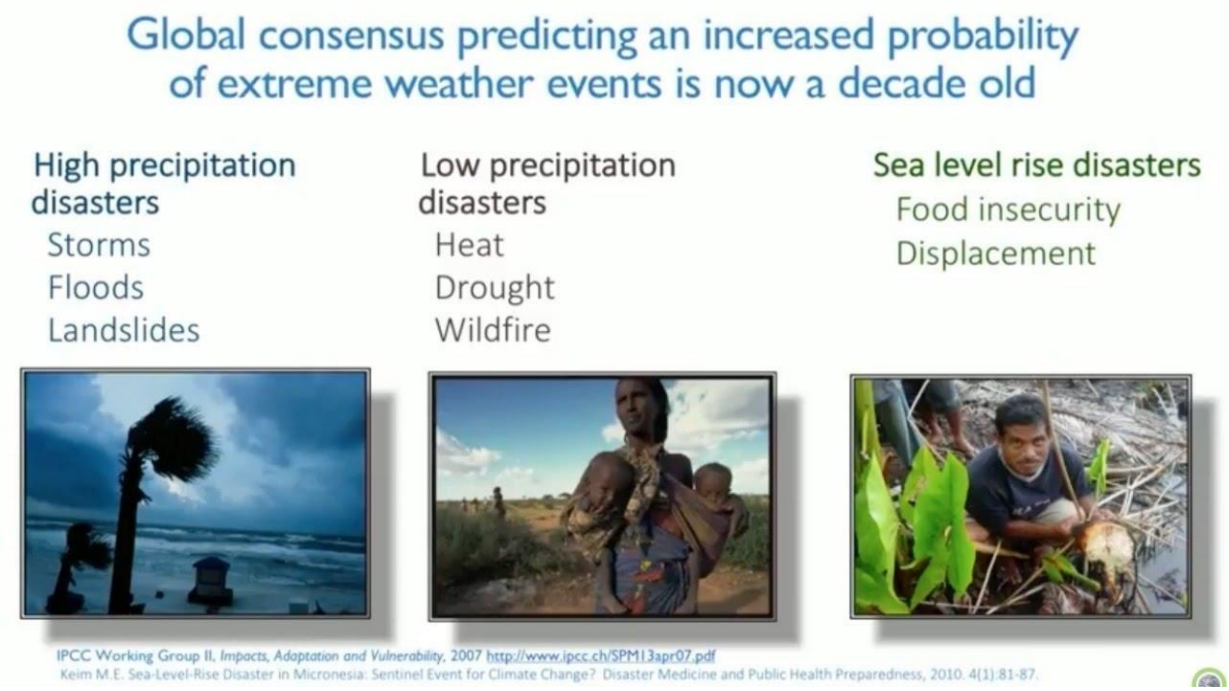
People may also get a certain feeling that carbon emissions don't matter as long as they are compensated. However, this is kind of flawed logic. Although we can offset carbon emissions to a certain extent, it is still crucial that we further reduce our carbon footprint in order to slow down global warming.

m) Carbon compensation programs may be rather non-transparent

Although many companies already engage in carbon offsetting programs, those programs are often quite non-transparent, and it takes plenty of experience to understand how those schemes exactly work.
Thus, for the public, it is almost impossible to understand the mechanisms underlying those schemes in detail and we therefore must rely on the knowledge of regulators to set up those policies in a proper manner.

https://environmental-conscience.com/study-materials/

F. Rising Emissions ➔ Tracking Incentivized Emission Reduction and Long-Term Sequestration



A carbon credit is commonly defined as 1 Metric Ton of CO2 gas. The objective is for us as a society to have less of these units generated (emissions) as well as to find ways to have units pulled out of our atmosphere (sequestration). One path helps us reverse the previous exploits while the other helps us to curtail the continued production going forward. Both have value to us as a global society and therefore need to be incentivized through any carbon incentive-based trade system.

Carbon that is pulled out of the air and somehow sequestered is an effective way to mitigate the damage that CO2 can do to our atmosphere. And in this case, the biggest issue is to make certain that the CO2 unit is sequestered in a medium where it can be held and not released back into the atmosphere. So, in this case the value is not just for sequestering the carbon but it is also for maintaining the carbon in that holding vessel over time (e.g. Trees or Soil) The longer the time it is held the higher the value it is to us as a society.

In the case of avoided carbon, the equation gets a bit more involved. For example, how do you measure the CO2 impact of energy generated from sources that do not use carbon as part of the process? If the idea is that you are avoiding the carbon cost that other methods would use to generate the same amount of energy, then it would be necessary to understand better what those methods would be. For example, a coal powered plant would have a different carbon impact than a natural gas-powered plant. So, to really understand the carbon impact of a deployed carbon-free production technology then you would need to look at what the local method is that would otherwise be used to generate that same energy.

The other issue is that the manufacture of the materials themselves also have a carbon impact. So, for example the manufacture of a solar module could through its manufacturing process possibly cost as much in carbon creation for its manufacture then it would save in its lifetime of energy production. So even though the solar module's process of generating electricity is carbon-free it might have already created a carbon debt that would need to be satisfied before we can look to its ability to eliminate carbon by generating clean energy.

To accurately gauge the impact of any asset we will need to look at all these factors and track them against the results so that we can accurately account for the carbon benefits of our choices. Therefore, this task entails tracking the method and location of manufacture, the energy-generating method used in the manufacturing process, the energy generation being replaced at the location where the manufactured asset is being deployed. To do this then the blockchain needs to be able to track assets from the cradle to the grave.

The CO2Bit system and its underlying blockchains can be public ledgers that track all the information needed to be able to value the investment in assets that produce carbon credit units generated by the asset throughout its lifetime. By also tracking the location of the asset as well as the financial attributes and the actual energy produced from the asset during its lifetime, we can make sure that the carbon accounting is done fairly and with the ultimate amount of transparency.

Tracking carbon is not as hard as it sounds, but it is something that requires a good deal of information and a trusted process. The Co2Bit systems are uniquely positioned to be able to track the information necessary to properly value carbon credits and monetize them. Depending on the location of the renewable assets, the projects produce renewable energy certificates (RECs), which are transferable and can be purchased to offset shortfalls in their CO2 emission commitments / mandate.

II. Climate Change Mitigation ➔ Visible Climate Change Adaptation

A. Over Taxation ➔ Attracting Private Capital

To promote the reduction of CO2 in our atmosphere, we need to continue to incentivize the appropriate climate behavior in all areas of the world. Every molecule of CO2 that is generated into our atmosphere matters and we need to make sure that we continue to provide the proper incentives to actors around the world. These inducements must be able to rise above local, national, and even international politics to continue effectiveness. To do this we are looking to leverage the innate abilities and powers contained in blockchain technology.

By creating global currencies whose focus is not only on the reduction of CO2 in our atmosphere, but also on solving the first problem of attracting private capital to invest in building these assets. We will

be able to attack the problem on multiple levels and ultimately provide the financial support that we need globally to make a difference.

Co2Bit is broadening the attraction to individuals, brands, and institutions by also focusing on mitigating the inevitable social and economic ravages that climate change will have on inhabitants, not only those forced to migrate, but those who will be challenged with integrating these nearly one billion refugees worldwide into the economic and cultural fabric of their new homes over the next 15-30 years.

These humanitarian projects pull on our collective heartstrings in a more visceral manner than simple CO2 Sequestration or emission reduction. Voluntary Carbon Credits have done little to stem the tide of investor desertion from large emitters while they reduce their carbon footprint at substantial expense.

The Co2Bit system is inherently more attractive to both the companies and its investors during these transitions. Unlike todays CCs which are immediately retired, Co2C can be redeemed after 2 years.

While the challenges of climate change adaptation for humans will make the current pandemic look like a mosquito bite, animal migration and species impact could create even greater challenges to natures balance. Additionally, migrating species will likely encounter other species that may not possess the native immunities that the migrating species have, triggering viral jumps from species to species and even humans, with devastating consequences. Public awareness of these risks is nascent. The Co2Bit system inherently brings awareness and private capital to these woefully underfunded projects not measurable in tons of CO2 and thus not addressed by current cap and trade mechanisms.

B. Limited Offset Purchasing ➔ Broad Sustainable Participation

Because of limited understanding or minimal emotional impact on investors, the current voluntary carbon credit offsets, specifically their utilization and effectiveness as an investor retention tool, are poor. For the companies/brands that have purchase them they not only have been ineffective at positively turning investor sentiment, but they also represent a “one-and-done” annually repeating expenditure on already struggling balance sheets.

The same one-and-done challenge is felt by philanthropic donors. Their investments are

not inherently sustainable. (E.g., Feeding a child this year with your donation may require you to find new additional capital to fund her sustenance again next year, and the next.)

Co2Bit's system solves these issues brilliantly creating sustainable impact from the initial purchase of its financial instruments. This "fishing rod vs. a fish sandwich" mechanism will attract broader and broader participation and positively impact on those most in need!

Participants in the Co2Bit currency ecosystem, can help direct the future efforts of the world in fighting climate change and financing the innovations that will make it possible to reduce our collective carbon footprint. Just by using the currency as a store of wealth you will be able to participate in the appreciation of the currency on the world markets. This appreciation created by demand will allow more projects focused on reducing our CO2 levels and helping those most impacted by the changing water cycles and commensurate extreme weather / natural disasters. Second, the currency itself will be an incentive for more people to participate and invest in"

New technologies that can impact our effective transition to a global green economy CO2-reducing assets such as renewable power generation, to promote more sustainable farming, packaging, and manufacturing, the forestation of our planet, and the planning and social change necessary for adaptation services. Together we will be able to place the proper incentives to make our planet a better place for our children and theirs.

C. Vague Use of Funds ➔ Full Cycle Visibility

Any number of projects, from carbon-neutral steel manufacturing to agricultural advancements that better utilize existing plots of land and reduce further forest clearing to strategic initiatives that plan for and build a pool of resources to be deployed when large populations are displaced from their homes and farms by rising sea levels will have the ability to benefit from CO2Bit investments. Eventually, these assets will work by using 3rd party Internet Of Things ("IOT") technologies to self-report and generate evidence of the benefits of using CO2Bit. The system will use blockchain technology as a means of assuring accurate transparent and immutable reporting.

The CO2Bit incentives offered to nation-states, NGO's, and developers will be done in a way that encourages a broadly shared visibility of the progress toward the collective goal of reducing CO2 emissions while helping all inhabitants adapt. These stories, pictures, testimonials, and videos will help

emitters balance their carbon footprint more effectively than current voluntary carbon credits do and, in the process, make CO2Bitcoins viable and attractive in the markets where it is desired to achieve global CO2 reduction goals.

The blockchains associated with the CO2Bit system and related tokens will also track the human benefit that they generate so that the ecosystem can monitor the benefits created by each individual project in the ecosystem. Blockchain readers will allow holders to see where the CO2Bit tokens have been in their circulation.

III. Outdated, Expensive and Abusable Fiat Financing ➔ Secure Blockchain Financial Engineering

A. Co2Bit Mission ➔ Plugging the Holes

CO2Bit Technologies is an internationally dispersed group of technologists and philanthropists undertaking the creation and support of the CO2Bit Ecosystem, Network-Based Digital Assets created as a mechanism to finance and promote the proliferation of sustainable carbon-neutral energy generation projects and assets to enable evolving participation in our global economy for all.

Joint Ventures continue to be formed for the purpose of utilizing CO2Bit tokens as part of a finance mechanism within countries for the sole purpose of addressing Climate Change and its socio economic impact associated with Climate Change through the increased implementation of Agricultural Efficiencies, reducing the cutting and clearing of tree stands, Regulations and Economic Incentives for significantly reducing Commercial Deforestation, and increasing implementation of Solar Energy Grids to reduce the use of all CO2 emitting fuels.

The CO2Bit Team and its partners have been able to implement dozens of solar projects, acquired control of hundreds of thousands of hectares of land to mitigate deforestation and continue to pursue

carbon credit projects from cookstoves to wind farms from Brazil to China. In many of these projects, the group has endeavored to use CO2Bit collateral to top off the finance stack and allowing financing partners to covert CO2bit token into cash under certain circumstances to allow these projects to progress when they otherwise floundered while awaiting final funding. If a country manages their tokens properly, they can continue to turn the coins over to help finance more projects and create a more sustainable future.

Unfortunately, investment and donations have shrunk over the years and more and more projects have stalled due largely to greed, corruption and limits to existing financing mechanisms never designed to support ESG initiatives.

To address the corruption inherent in traditional fiat financing, Co2Bit turned to the transparent and immutable blockchain. Awards are made to sovereign nations that can only be used as collateral. Their use is contractually as well as technically limited to a certain percentage of given projects and a percentage of the unpledged balance of their Co2 Token holdings ensuring they never exhaust their holdings and can reuse pledges as their liens are satisfied.

For the lenders, Co2Bit guarantees the regulated entity, that should a project fail and default, thus releasing the pledged collateral, the Co2 Tokens are exchangeable by the bank at fixed ratios into one of several publicly traded tokens (whose value was likely used to determine the value of the collateral).

B. Stalled Projects ➔ Sustainable Financing

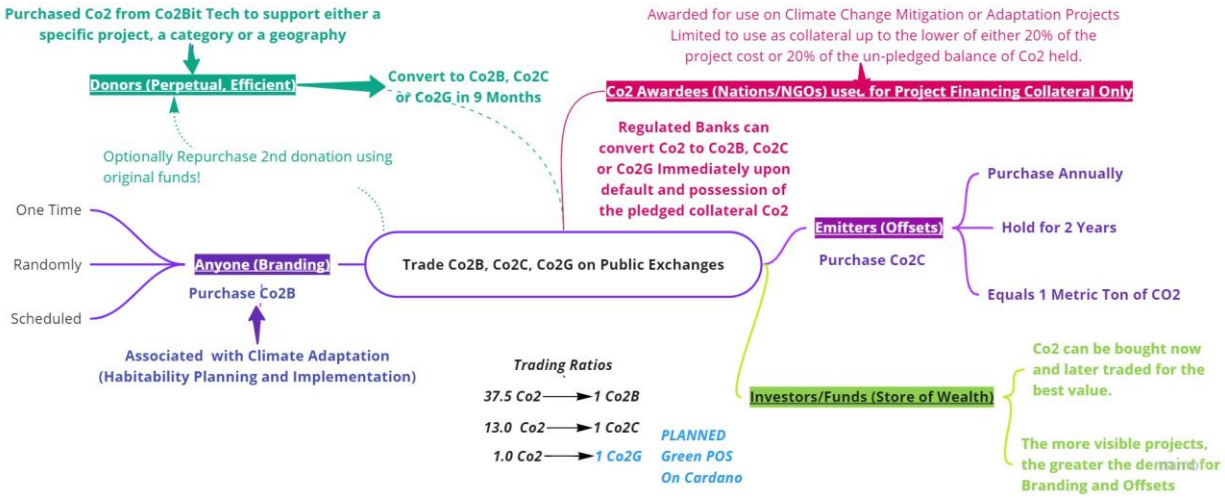
As lenders introduced terms into the finance stack such as convertible debt, where a portion of the profits from a successful project (e.g., carbon credits or revenues from energy projects) were effectively liened by the lenders option to convert some of the debt into equity if the project was proceeding successfully, finance stacks came up short. There often wasn't enough reward for the equity investors to cover their perceived risk.

The team was inspired by the government backed mechanism used in the U.S. called Private Mortgage Insurance (PMI) which enabled certain homebuyers, without the prerequisite 20% down payment required by the mortgage lenders, to get additional collateral, usually 15% in the form of PMI to

complete the finance stack and allow the transaction to proceed despite their only having 5% to contribute to the down payment.

Similarly, Co2Bit collateral is pledged as part of the financing to fill the shortfall.

The complete Co2Bit Ecosystem and its interdependencies can be seen in the diagram below.

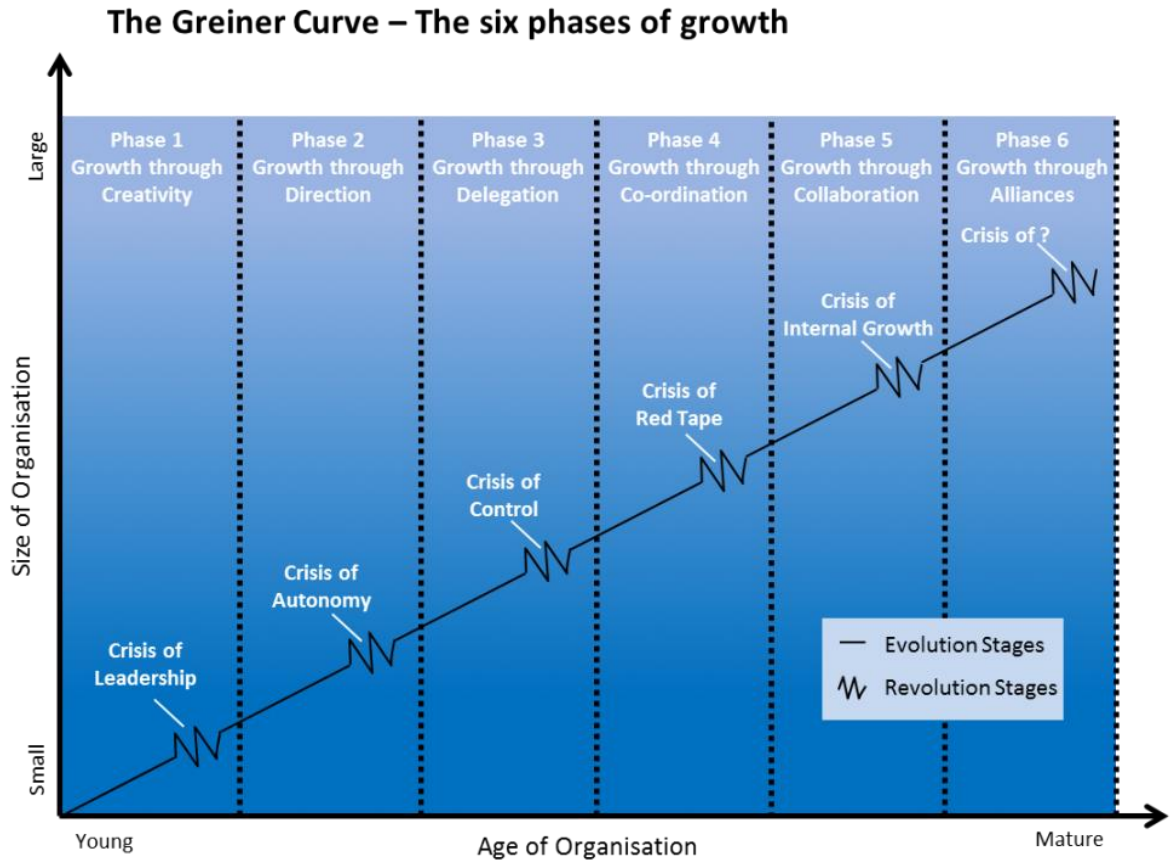


See the Co2Bit Family of Proposed Co2Bit Tokens with their exchange ratios in Table below.

Token	*Use Case*	*Qty Minted / Reserved for Exchange*	*Co2 Trade Ratio:*	*Launching / Exchangeable after date:*
Co2	Collateral for Nations and NGOs or purchases by "donor" to fund specific projects or initiatives	1.5 Billion		28-Jan-21
Co2B	Free trading Token used as part of the collateral valuation	70 million / 40 Million	37.5 Co2 per Co2B	28-Oct-21
Co2C	Purchasable Free trading token -- 1 Co2C represents an offset of 1 Metric Ton of CO2	150 Million / 115 Million	13 Co2 per Co2B	15-May-22
Co2D **Co2E** **Co2F**	TBD TBD TBD	TBD TBD TBD	TBD TBD TBD	TBD TBD TBD
Co2G	Green - PoS Token under development using Cardano	2 Billion / 1.5 Billion	1 Co2 to 1 Co2G	TBD

C. Conceptual Idea ➔ Functional Reality

Inspired by the Greiner model, below, Co2Bit has chartered a unique course, which is perpetual. Each Phase is dependent upon earlier phases, and its true impact upon later phases. Once initiated all phases may be continuously expanded in parallel.



Phase 1: Growth through creativity

With the birth of an organization the focus is on creating a new product or service and creating a market. Characteristics include:

• The founders are usually technically or entrepreneurially oriented, they often disdain management activities and their energies are absorbed in making and selling a new product or service.
• Communication is frequent and informal
• Long work hours are rewarded by modest salaries and the promise of ownership benefits
• Control of activities comes from immediate marketplace feedback. The management acts as customers react.

This period ends with a crisis of leadership where professional management is needed that can steer the organization and pull everyone together.

Phase 2: Growth through direction

If companies have survived the first phase they continue to grow under new directive leadership. Characteristics include:

- Growth continues and more organized structures are introduced for different functions
- Systems are introduced for accounting and customer management
- Budgets and work standards are adopted
- Communication becomes more formal
- New leadership and management team set the direction

This period ends with a crisis of autonomy where lower-level managers demand more say and involvement. Many companies flounder here as, while delegation and autonomy are seen as the solution, companies who have been in this stage for a long time have not developed their people to be able to make decisions for themselves.

Phase 3: Growth through delegation

- Greater responsibility is given to managers
- Profit centers and bonuses are used for motivation
- HQ executives manage the business by exception based on periodic reports from the field
- Leadership focuses on new acquisitions that can be lined up beside other decentralized units
- Communication from the top is infrequent

Decentralized managers with greater autonomy have been able to penetrate new markets and respond faster to customers but leadership sense they are losing control over a highly diversified business. This period ends with a crisis of control as local managers wrestle with leadership who try to pull together a total company once again. Companies that succeed move ahead with co-ordination techniques.

Phase 4: Growth through co-ordination

- Decentralized units are merged into product/service line groups
- Formal planning procedures are established
- HQ staff are hired to initiate company-wide control programs
- Capital expenditure is careful weighed up and parceled out across the organization
- Each product group/service line is treated as an investment center where return on invested capital is an important criteria used in allocating funds
- Stock options and company-wide profit sharing are used to encourage whole firm identity

Both HQ staff and business unit staff criticize the bureaucracy that has grown. Local managers resent interference from HQ staff and HQ staff complain about the lack of cooperation from managers. Procedures take precedence over problem-solving and, as a result, innovation is dampened. The

organization has become too large and complex to be managed through formal programs and rigid systems. The next phase is underway.

Phase 5: Growth through collaboration

This builds around a more flexible and behavioral approach to management. Its characteristics are:

- Focus on problem-solving quickly through team action
- Teams are combined across functions for task-group activity
- HQ staff numbers are reduced and reassigned to consult with, not to direct, the business units
- A matrix-type structure is frequently used to assemble the right teams for the appropriate problems
- Previous systems are simplified and real-time systems are integrated into daily decision making
- Conferences of key managers are held frequently to focus on major problem areas
- Educational programs are used to train key managers in behavioral skills for achieving better team work and conflict resolution
- Rewards are geared towards team performance rather than individual achievement
- Experiments in new practices are encouraged throughout the organization

This phase ends with a crisis of internal growth where further company growth can only come by developing partnerships with complementary organizations.

Phase 6: Growth through alliances

Greiner recently added this sixth phase where growth may continue through extra-organizational solutions such as mergers, outsourcing or networks involving other companies. A crisis of growth may occur because an organization is more focused on alliances than on its own core business and there is a good chance that an identity crisis will present itself. The organization may be taken over completely by other businesses and the 'old' situation will disappear completely but the cycle in the new organization will continue.

Co2Bit System Phases:

Phase 1: Develop a Financial Engineering Model that would significantly mitigate bribery, corruption, misallocation of funds or misdirection of funds to "bad actors" and be sustainable, both for the project financing and the "donors". ---- *(Underway- using multiple crypto-currencies – free trading and secured - as collateral. We are still evolving the additional coins and Exchange relationships referred to in Phase 3 below.)*

Phase 2: Develop agreements with sovereign nation states to declare the currency legal, a suitable alternative or supplement to carbon credits and to be used only for climate mitigation and adaptation projects as collateral. All this while not threatening their local currency – which we did by holding it in the treasury of the nation, not airdropping it to the population. ---*(Underway in 60+ countries with more than three dozen agreements already signed.)*

Phase 3: Develop contracts with Banks / Lenders to accept the collateral at a valuation based upon rights to immediately exchange any surrendered Co2 for a Free-Trading crypto i.e., Co2B (currently trading on *Coinsbit* for EU investors and *Stex* to accommodate U.S. investor regulations), Co2C (each token representing a metric ton of CO2) is planned for trading globally, and early next year (2022) Co2G

our Proof of Stake version is being developed on Cardano's Blockchain. *---(Under development –several African, EU Americas and Pacific Rim banks.)*

Phase 4: Identify Projects that the Co2Bit can be associated with as part of an international branding exercise to create demand in Phase 5. Initially, start small to minimize the risks for lenders and facilitate broader Phase 3 participation. Best targets are stalled projects with "short" finance stacks needing additional collateral to make the deal work for all parties. In all cases the Co2 is not "liquidated" it is used as collateral on projects who's financing is at least 80% from other sources. (Debt & Equity). The next step is the identification of projects who have already done their feasibility studies, identified most of their financing and need some additional collateral to make the numbers work. This isn't ready for "brand new" projects until Phase 3 is further along. *---(Some project candidates have been identified a few are planned to be presented to Phase 3 candidate lenders.)*

Phase 5: Solicit companies, donors (through the project "Hope Videos"), institutions and 1st world nations to invest in the Co2Bit free-trading currencies as a supplement to or alternative to voluntary carbon credits because of the broader, habitability focused project portfolio. *---(1156 target companies identified, initial conversations with a few dozen are all very optimistic.)*

D. Sustainable Financing Model ➔ Releasing Stalled Projects ➔ Accelerating Impact

In Summary, the innovative Co2Bit Financing Model and its supporting Ecosystem will enable all participants a means to jumpstart our environmental initiatives and accelerate the number of projects financeable globally.

There are no guarantees of the value of Co2Bit's various free-trading coins. If we implement the phases outlined above successfully and prevent any derivative markets from emerging on them (no-shorting), then everyone in the eco system encourages the value of the collateral to continue to rise.

1. The donors get to contribute by purchasing Co2 Tokens, convert and hold or sell their tokens and contribute to even more projects using the same initial investment over and over again!
2. The nations want the value to rise to do larger projects, so they will hold the currency in their treasuries as collateral thus not inflating the supply circulating. This organic growth enables more impactful projects to the benefit of all inhabitants.
3. The banks/lenders (in the unlikely event of a default and them taking possession of some of the collateral) will liquidate it carefully to maintain the price so as to not be upside-down on the rest of their Co2-collateral backed loans.

4. Crypto investors watching the demand rising faster than supply and proving to be a better store of wealth than over-printed fiats, with a help everyone else in the process, are likely to support its sustained value as well.

IV. Conclusion

While we are bullish on humanity's adaptability, it is our humble opinion that reversing the impacts of climate change or even meeting the goals of the Paris Accord requires a level of heroism not probable. We hope our leaders, politicians and institutions will respond less half-heartedly when they begin to comprehend and accept the scope and magnitude of the challenges we will all face over the foreseeable future.

We believe our focus on adaptation or more specifically habitability planning (more effectively than the world did for the recent pandemic) for displacements, migrations, and their snowballing impact, will facilitate the global cooperation, and the sociocultural changes associated with the adaptation to inevitable climate change.

Nothing truly great was ever accomplished before it was first imagined, and rarely, if ever, was it done alone.

Join us today, your inputs are welcomed.

The Co2Bit Team