

Towards a United Nations Environmental Airspace Agency [UNEAA]

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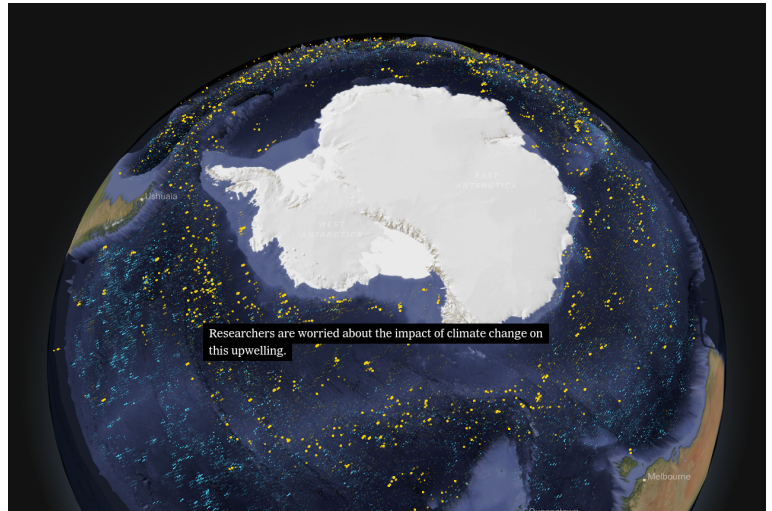
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Climate Change

Our planet is undergoing major changes, happening because of nature dialectics, but also induced by man-kind. Until recently, in the 19th century, these had a moderated, “natural” pace. However, with the advent of industrialization, and later human progress the changes to our environment are happening at a speed no one could fathom [The Guardian: Scientists watch giant doomsday glacier in Antarctica with concern.](#)



UN CLIMATE CHANGE CONFERENCE UK 2021

IN PARTNERSHIP WITH ITALY

Today, governments are trying to slow down the pace of these changes through UN coordinated action, as evident, at the recent 26th UN Climate Change Conference of the Parties (COP26) in Glasgow on 31 October – 13 November 2021. One of the primary goals identified is:

<quote>

[Mobilise finance: ... developed countries must make good on their promise to mobilise at least \\$100bn in climate finance per year by 2020. International financial institutions must play their part and we need work towards unleashing the trillions in private and public sector finance required to secure global net zero.](#)

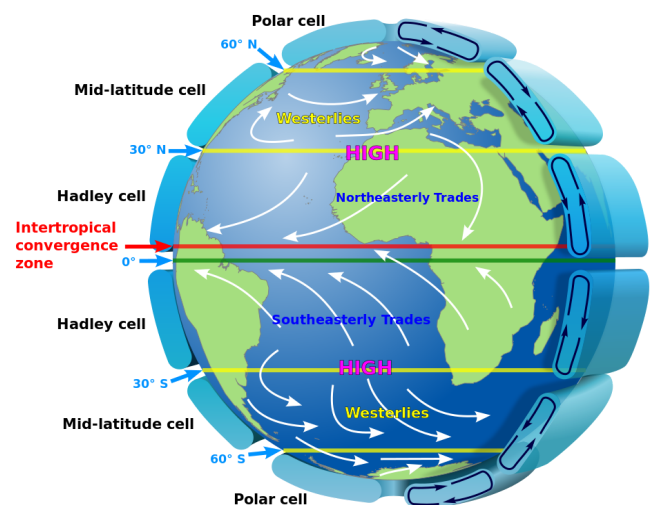
<unquote>

This goal is very noble but it lacks clarity regarding where these investments would be. We feel that this problem can be efficiently tackled by using blockchain technologies in general, and the Algorand blockchain in particular. The Algorand blockchain as being sustainable, that is, carbon neutral see negative, is the perfect technology that can contribute to this environmental challenge by promoting **Decentralised Finance (DeFi)**.

In order to have a better view on the problem, this project aims at modelling the atmosphere for better decision-making. We want to focus on the **troposphere** - the lowest level of the atmosphere. In particular, we want to model all the **emission sources** as well as the **sinks** in order to have a complete “balance sheet” of what’s going in and out of our atmosphere and at what location. Such a logbook would provide sufficient knowledge to build upon.

By Kaidor - Own work based on File:NASA depiction of earth global atmospheric circulation.jpg, CC BY-SA 3.0,

<https://commons.wikimedia.org/w/index.php?curid=23902538>



Our project will thrive in creating an organisation towards improved governance of our planet's environmental airspace. We think that a core enabler of this should be a (Algorand) blockchain ledger about global emissions.

This initiative should be similar and build upon the framework of the **International Maritime Organisation** IMO. IMO's goal is to promote safe, secure and efficient shipping on clean oceans. In a similar manner the new [United Nations](#) Environmental Airspace Agency (n.b.



working title that can change in the future) - UNEAA's goal will be to promote a safe, secure and sustainable ecosystem, especially focusing on air pollution and greenhouse gases emissions. It should be extended to include all emissions sources from industry, people, nature, but also the emissions sinks as forests, oceans algae, etc. Note that however, IMO is in that respect limited to ships and Maritime Transportation. In contrast, the UNEAA, would be an all inclusive survey, taking into account, as much as reasonably possible, a realistic overview of all the **contributors** to changes in our atmosphere, so not limited just to the aero-space transportation.

The UNEAA membership, as in IMO, would be limited to countries. And the rules and regulations would follow the same model: country airspace - international airspace.

This initiative is a pledge to:

1. Perform **research and development** in **blockchain** technology in general, and the **Algorand** blockchain in particular.
2. Use these technologies to build knowledge about Climate Change.
3. Apply the acquired knowledge for creating a United Nations Environmental Airspace Agency [UNEAA] - an organisation that should provide improved governance of our planet's atmosphere.

The Challenge

We are experiencing life-changing modifications to our environment such as long-term shifts in temperatures and weather patterns. These shifts may be natural, but since the 19th century human activities have been the main driver of climate change, primarily due to the burning of, so-called, fossil fuels (like coal, oil and gas), which produce heat-trapping gases. Consequently, our planet is undergoing major changes, and these changes are happening at a speed no one can fathom, and it is ever increasing: [The Guardian: Scientists watch giant doomsday glacier in Antarctica with concern](#).



In addition, the introduction of contaminants into the natural environment causes adverse change. Pollution can take the form of any substance (solid, liquid, or gas) or energy (such as radioactivity, heat, sound, or light). Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants. Although environmental pollution can be caused by natural events, the word pollution generally implies that the contaminants have an anthropogenic source—that is, a source created by human activities.

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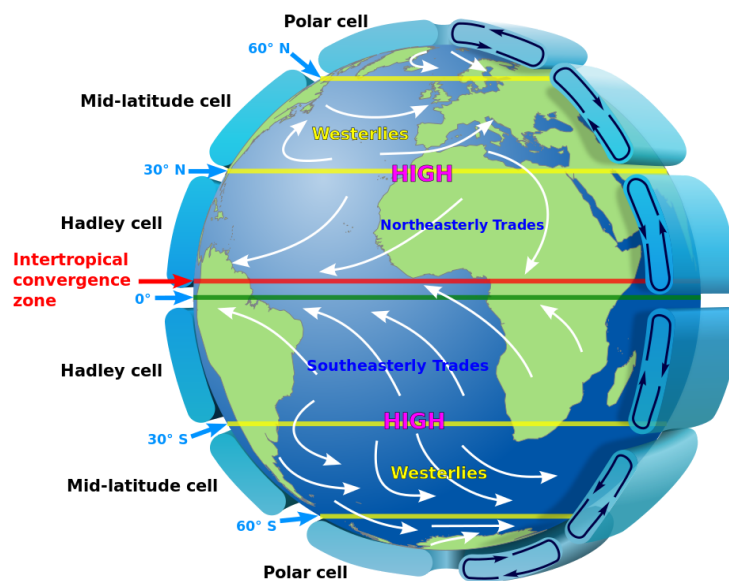
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The stakes are high, and the problem is complex which asks for consequential measures to reach the goal. We feel that by educating and preparing people on new technologies around the Algorand blockchain will create a fellowship of people that can provide innovative approaches and bring us closer to the solution - a sustainable future for man-kind.

IMO an Example to Follow

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Blockchain Technology

Blockchain technology enables the development of customised applications for companies to run business in a new better way, by applying the distributed encrypted and shared databases, thus working with a distributed ledger of pertinent information, which enables decentralisation of management and financial tasks.

Some benefits:

- Information is secured and time-stamped, thus it cannot be altered, reducing the risk for fraud & error, and making bureaucracy more efficient.
- Sustainability for selection of suppliers, vendors of materials/products, as well as more sustainable logistic networks for international operations.
- Making agency activities more transparent and democratic.
- Help tracking the origins and movements of services/products.
- Encourage people and institutions to adopt best practices (environmental).
- Help actors/members to be better informed how each activity/solution/tool is performing.
- Reward the participants for the implemented actions.
- Efficiently direct the resources from where they are to where they are needed.
- Breakdown of activities to SME-s and even individuals for efficient accomplishment of many small sub-tasks.
- Track the impact of the performed tasks, and reward the ones in a focused and transparent manner.
- Discourage governments from backpedalling on their environmental promises or misreporting their progress.

- As a non-profit organisation guarantees that the donated money is spent for what it was given.
- Focused Carbon-tax to the ones whose Carbon-footprint is measured transparently.
- Environmental sustainability based on transparency of information, focus credits to the real actors, and creating fair reputations for the involved members.
- As a driver-change to a better economy for future generations living on Earth.

The Algorand Protocol



The [Algorand Foundation](#) is a not-for-profit organisation that has a vision of a borderless, frictionless economy built on public, decentralised blockchain technology. The Foundation envisions a wide breadth of applications being built on the Algorand protocol by a new, broader community of blockchain and mainstream developers. The Foundation is committed to facilitating this innovation in a sustainable and eco-friendly manner.

Algorand's Leadership in Blockchain [Sustainability](#)

[Algorand](#) delivers sustainable blockchain technology that can be used for years to come without affecting the environment in a negative way. It's not only about the infrastructure – Algorand itself is an environmentally friendly ecosystem at every level, and this is reflected in its culture and use cases as well.



The fact that the Algorand network is built on an innovative, low power consumption, Pure Proof-of-Stake consensus protocol means that the carbon footprint of the Algorand blockchain is very small. This is especially so when compared with 1st and 2nd generation protocols such as Bitcoin or Ethereum. This low energy, low carbon footprint approach is a core feature of the Algorand network.

Algorand Pledges to be the Greenest Blockchain with a Carbon-Negative Network Now and in the Future.

The United Nations Environmental Airspace Agency [UNEAA]

The virtual UN agency operations would be supported with Blockchain software infrastructure, in order to address climate change initiatives for conserving better air quality on our planet Earth.

It is supposed that the agency would monitor ecological problems (incidents) through standard guidelines, for example “due diligence” as an obligation of conduct for all the world countries to fulfil the objective to conserve our nature, as a first subject we propose to tackle “air quality” initially.

There are several challenges to be addressed:

- How to establish such a UN agency?
- How to involve the world's countries?
- How to acquire data and analyse the data?
- How to involve the implementing solutions and their actors?
- How to award the best countries in fulfilling the goals?
- How to discover the country's “air quality” program?
- How to monitor and trace the implementations of these programs?

Concluding, this initiative will foster a “lobby” project with the main purpose to create enough momentum to form the UN Agency.

Collaboration with the UN

The creation of the UNEAA will require considerable effort in view of lobbying at the United Nations and affiliated organisations. This should include at least annual visits to the UN. Appropriate funding to be allocated.

Sub-Projects

It is planned to have the work organised around 3 sub-projects (tentative titles):

- Atmospheric Model Project - to include all work relative to the modelling of “air space”
- Data Governance Project - to include all work relative to data science.
- Tools (Apps) Development Project - to include work relative to programming of open source supporting applications.