Earth Pulse Concept Note

Goal:
To launch an ecological regeneration effort that empowers anyone in the world to be rewarded when they protect or help restore our world's natural capital.

Executive Summary:
To develop Earth Pulse (EP) -- a blockchain based, technology-backed community that incentivizes and scales protection of biodiversity. Pilot activities will protect and restore wild tiger populations and mangrove forests. EP will be designed to eventually build out and include global participants to monitor our planet's forests, oceans, climate, and wildlife.

Efforts to protect Mother Earth are failing due to one overarching reason: nature's commercial exploiters employ a more effective systems of rewards than nature's protectors.
Result: we are experiencing the fastest rate of species loss in history, fisheries are collapsing, and Earth's temperature continues to rise.

EP will expand the protection and regeneration of Mother Earth by transforming monitoring and evaluation to include a rewards component grounded in blockchain architecture. This platform empowers anyone to replenish depleted natural capital (e.g, wildlife, forests, oceans, etc).
The project focuses initially on wild tigers and mangroves in Southeast Asia through our established activities and relationships in two globally significant biodiversity hotspots. Impact tokens (TYGER and TREE) will be issued to EP members who will combine people power with technology, including everything from the naked eye to drones, satellites and social networking, to pull information where help is needed, and confirm (and reward) where help is happening.
IBM and NASA are involved in our planning. All data collected will be stored permanently on Blockchain, and sharing of data incentivized with a token economic model. Artificial Intelligence (AI) oracles will analyze data, and provide real time alerts on emerging threats which trigger response (e.g., drone monitoring of an area). Think Minority Reports for Mother Earth.
EP will provide infrastructure for other natural capital projects to issue impact tokens on the EP blockchain to support UN Sustainable Development Goals, improve corporate supply chains, and invest in natural capital assets like forestry and conservation projects.

Impacts:
1. Resurgence of endangered wild tiger populations and mangrove forests in Southeast Asia within 3 years. This model will be adopted by, and inspire, wildlife and forest protection strategies and projects globally.
2. New, powerful, decentralized, open source Monitoring, Evaluation & Rewards (MER) platform that empowers any organization or individual in the world to protect and restore depleted natural capital.

KPIs to be measured:
- Increased Numbers of tigers and protected hectares of mangrove forest
- # of organizations onboarded;
- # of issued EP denominated tokens, and their market capitalization;
- Biodiversity: CO2 sequestered, biodiversity recovery;
- Composite change in performance of all organizations employing the tool.

Why Earth Pulse?:
Current approaches of wildlife and forest protection are based on 1980s style bureaucracies. Carbon credit validation are expensive and slow. EP's technology-based approach for Monitoring, Evaluation, and Rewards (MER) effectively incentivizes the protection of vital ecosystems. EP will first safeguard and regenerate endangered tiger and mangrove forests, then with lessons learned, enable effective protection of critically endangered biodiversity globally. Within a period of of 3 years MER can be deployed to restore and protect millions of hectares of endangered rainforest, mangroves, sea grasses, and coral reefs globally. EP would use machine intelligence to estimate CO2 sequestration, O2 production, and biodiversity. MER credits would be issued on a daily basis to key stakeholders, from local communities to investors and donors.

Evidence that this idea will work?
We have already teamed up with Government agencies and local NGOs in Thailand and Myanmar to establish a foothold that has led to initial positive impact. We teamed up with the Department of National Parks in Thailand to locate and protect the highly endangered Indochinese tigers in the Eastern Forest Complex. Wildlife and trees were under threat from poaching and logging. Tigers had been written off by experts. Highly prized rosewood forest habitat attracted AK-47 toting loggers who shot and killed rangers. Over 4 years, rangers were trained and equipped. Local communities were constructively engaged. Youth and consumers educated, and state-of-the art technology introduced to guide patrolling. The project worked. This population – once thought to have disappeared—is now considered the most important population of Indochinese tigers in the world. Declared a "conservation miracle" in global media: https://www.bbc.com/news/world-asia-39423053 The key to success: all stakeholders were rewarded at key moments. This success was achieved without systematically rewarding good actors and impact. With Earth Pulse, an exponential recovery of more species and habitat will be achieved.

Unique Selling Point(s):
What sets EP apart is its dogged pursuit of a mission to create a public good that can be shared by an immense array of projects globally. Unlike stand-alone philanthropies, EP is designed to scale up its capabilities exponentially, leveraging of a core platform asset to rapidly increase the strength, value, and resilience of the underlying network.

For example, as more and more organisations issue EP-denominated impact tokens, the efficiency and integrity of the underlying blockchain infrastructure improves exponentially. As more and more organisations link EP-denominated tokens with on-the-ground Eco Heroes via transparent smart contracts, the network's value proposition to corporate sponsors increases exponentially. And as both dynamics accelerate with global adoption, the attraction of working as a EP verifier will transcend the allure of existing alternatives such as Mechanical Turk and other cloud-based employment options. Viral growth of the verifier network will slash operational costs, control latency and delay rates, and steadily improve the intelligence of collective assessments.

1-minute video describing Earth Pulse:
    https://vimeo.com/274310210
    The password is "freeland"