

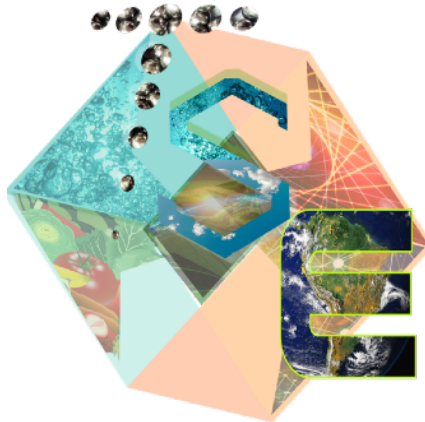
# A Sustainable Ecosystem & Biodiversity Protection system



Delivering Financial & Food Security,  
Expertise & Comprehension  
With Technology

# TOOLS FOR SUSTAINABLE EARTH

# **SUSTAINABLE ECOSYSTEM AND BIODIVERSITY PROTECTION**



Tools for Sustainable Earth

# Forward

© Gregory Williams

After writing a best-selling book on sustainability **‘Navigating the New Normal’** the worlds first novel to prove the connection between poverty, exploitation and sustainability. A publication inspired by witnessing the extinction of scores of the species during frequent visits to the Antarctic continent, South America, Asia and Africa and while diving endangered reefs across the world.

A passionate activist in the fight to stop the mass extinction event we are silently witnessing happening around us, a vocal member of S.I. and ESG Boards at the multiple companies he's served.

‘Tools for Sustainable Earth’ concept arose from an enormous number of reader requests to learn about real-world solutions for Eco-systems protection, as well as his experiences witnessing ecosystem destruction and species extinction. This motivated him to use his MIT degree in physics and skills in product design, systems integration, and artificial intelligence to innovate sustainable solutions that don’t only reduce food, water, and energy insecurity for economically disadvantaged communities across the globe but also remove their dependancy on land water and power - a network of devices forever de-coupling Earths resources from humanity’s needs, but also an environmental sensor network that enables the collection of detailed information on the health of our planet. Enabling humanity to thrive whilst having the ability to take timely action on future critical events we all face .

Gregory CR Williams

Zurich, Switzerland 2022

**The climate and ecological crisis is the greatest threat that humanity has ever faced. It will no doubt be the issue that will define and shape our future everyday life like no other. This is painfully clear. In the last few years, the way we see and talk about the crisis has started to shift. But since we have wasted so many decades ignoring and downplaying this escalating emergency, our societies are still in a state of denial.**

**Greta Thunberg**

# PROLOGUE

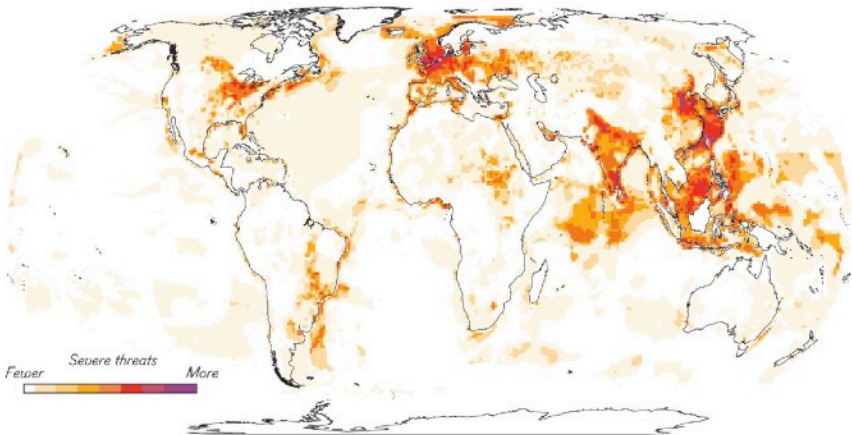
Tools for sustainable Earth - is a Swiss Technology startup dedicated to solving the worlds most substantial problems by leveraging state of the art sustainable technologies, practices and process -

Focused on combining abundant, cost effective viable technologies innovating new solutions committed to fixing the worlds legacy problems caused by agriculture, fossil and bio fuels and linear economics.



One of 'Tools for Sustainable Earth' research facilities

## The number of severe threats to biodiversity around the world



**Figure 1:** Throughout the world's lands and oceans 16 driver variables of biodiversity change – including climate change, human use, human population, and pollution – are mapped by number and intensity in 2020.

Source: The Climate Book 2022 - Greta Thunberg

## CHAPTER 1

# SUSTAINABLE ECOSYSTEM & BIODIVERSITY PROTECTION

Is It possible to forever end forest destruction, resource exploitation and dependancies, Green House Gas (GHG) production, water waste, power generation and agricultural pollution, fertiliser and pesticide contamination?

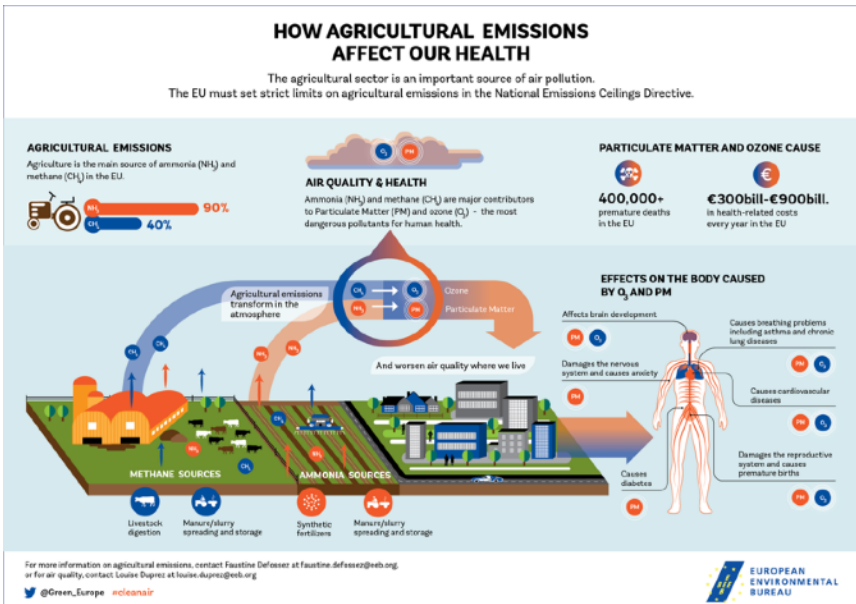
### **M**otivation:

The way we grow and transport our food has a significant impact on both our own health and the environment, so it is well worth the investment to get it right.

Humans farm over 30% of the world's available land for meat production, more intensively than ever before; an area equal to North and South America combined solely for livestock production the main source of GHG gasses and hence global warming, and destruction of biodiversity.

# The Status Quo:

Today's Environmental crisis has made it an imperative to stop one of the major sectors - agriculture from delivering further global warming, environmental pollution and ecological destruction using the excuse of vital food production for humanity.





# S topgap:

Organic and biodynamic farming, permaculture, and agroforestry are all great alternatives to conventional farming which in part meet this objective, but still require unsustainable energy, water, agro chemicals and land resources. Slowing the global warming can only be achieved by working with nature by encouraging insects to enrich soil, achieve plant propagation, rather than controlling them with destructive and polluting chemical supplements. These solutions are diverting resources and attention from potential technologies that address all humanities climate threats by design.



## CHAPTER 2

### Become a tree to grow a forest

**A**ncient rainforests balanced and met every need of the diverse populations of fish, insects, birds, reptiles, mammals and humans they supported for millions of years. Our approach has been to study nature's solutions, envisioning a bio-mimicry innovation simply called LifeTree.

**T**he Community:

'Tools for Sustainable Earths' proposal envisions a thriving nature-friendly farming sector with no impact on our planet's critically depleted land, water, and energy resources. A solution supporting millions of sustainable family farms. Viable local economies, meaningfully employing remote communities wherever they are from. Remotely located communities focusing on the long-term renewable production of energy, healthy food, soil care, atmospheric water and biodiversity support empowered by a remote sensor web facilitating instantaneous minute measurement of everything and communications of all environmental parameters for aggregation and modelling.

Connected agrarian communities producing primarily fruits, berries, leaf vegetables, legumes, melons, pulses, grains, and vegetables rather than meat on a sustainable basis. Communities commissioned to protect their ecosystems and environment for the future generations of all life.



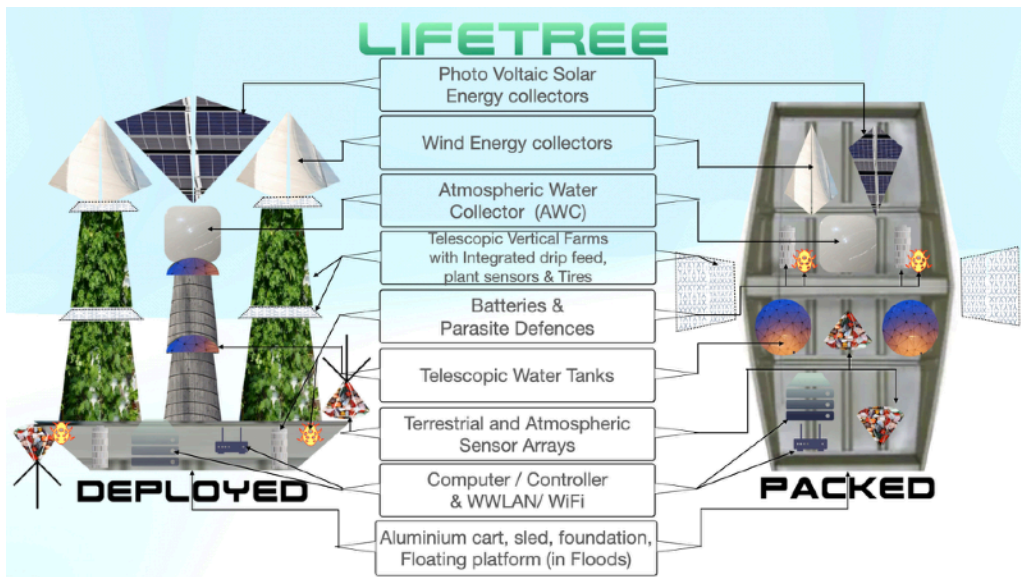
Community Energy, Communications, water and food production

## **T**he Tool:

Our Lifetree development has for the first time, the potential to provide a viable alternative to humanity's primary need for energy, land, and water in order to produce food. We have designed environmentally independent sustainable intensive cultivation environment that allows for a tenfold increase in food production while totally eliminating GHG emissions from bio-fuel and fossil-fuel combustion. A stand alone integrated system having no

impact on the local ecosystem's atmospheric, land, or water requirements, and sequestering CO2 in the plant life it cultivates. When implemented correctly, this technology provides a real opportunity to meet the missed 'Aichi' targets agreed in Japan for 2020, the United Nations targets for addressing poverty, and our GHG emission commitments all through a single strategy of developing and deploying this revolutionary technology.

Diagram 1 LifeTree unit components



Tools for Sustainable Earth Summary © Tools for Sustainable Earth

## Like Life - Lifetree is Architected to Evolve

**T**he system is built to be perpetually upgraded; it is based on the principle of standard, interchangeable Field Replaceable Units (FRUs), much like a personal computer's architecture, which allows for the rapid evolution of the technology base to better assist and evolve with the needs of the communities it serves. Upgrades designed include an electrolysis unit for water, to create hydrogen and oxygen for use in energy storage, geothermal units to capture geo-magma energy and solid state ion generators for future environmental energy capture.



## CHAPTER 3

### Humanities Next Chapter



**T**ools for Sustainable Earth volunteers have given their time and resources planning the evolutionary eradication of unsustainable energy, food production, and water supply processes, focused on meeting the United Nations' Sustainable Development Goals and eradicate global poverty within five years. To date we have not received any external funding. We're passionate about developing products that enable sustainable living and have the potential to disrupt the world's reliance on the combustion of fossil and bio fuels. With each of us

committing to enabling a future with the sustainable long-term abolition of global poverty, and the creation of a fund ensuring that this can never be repeated. This initiative represents the first critical step toward practically achieving sustainable societies everywhere whilst simultaneously eradicating poverty. We will deliver five of the United Nations goals in a feasible time frame - Aichi targets, Poverty eradication, Hunger, Sustainable Communities and Water provision SDG's.

The designs incorporate mass-produced components, system integrating them with an A.I. controller. This new product is aimed at resolving humanity's most serious existential threats -

The team will use all donations and grants to extend and share our knowledge about sustainable solutions, to inform, validate, and fine-tune our approach while identifying potential issues early on. We've implemented transparent accounting enabling all stakeholders access to how and where we spend your donations, the step by step progress on each of our projects and our sustainability and diversity credentials. Collectively were focused on expanding our community with the objective of optimising and testing the viability of our designs, as well as how technology infrastructure will be perceived, accepted, implemented, and used in multicultural environments whilst understanding the broader social, political, and cultural implications of this radical community shaping, earth saving, and independent enabling technology.



# ABOUT THE AUTHOR



**Gregory Williams** path towards a sustainable lifestyle has inspired his family, community, his readers and followers. It is the culmination of twenty years of research and experiences starting with growing up in central Africa, giving and living in several nations and cultures worldwide. Volunteering to better the human situation from South America to Asia while committing himself to establishing sustainable surroundings everywhere he lives.



These diverse experiences provided him with a wealth of expertise. From establishing internet-delivered education projects for teachers and children in the most impoverished areas of Mumbai and remote India to establishing care facilities for HIV-positive children in Africa, organising and carrying out vaccination expeditions in West Africa, planting trees in England, clearing beaches and reefs of plastic waste in the Red Sea, and providing support for dementia patients in Europe.

He wrote, edited, and published the best-seller "**Navigating the New Normal,**" which was the first publication to show how problems like exploitation, poverty, a linear economy, and unsustainable practises are all connected to humanities unsustainable economies, governance and communities. This book is freely available to everyone, everywhere to enable insight into the root causes of the existential threat we all face and how to use the power of choice to change and improve our lives and the planet by adopting sustainable lifestyles.

Researching and authoring this book was achieved while supporting and leading sustainable change among the world's largest energy, retail, banking, telecommunications, and technology companies and authoring sustainability and financial applications.