

Agroforestry Innovation and Collaboration between the UK and Africa

16th November 2022 10:00 – 12:00 GMT

Chris Till & Cameron Davies
Knowledge Transfer Managers - AgriFood

www.ktn-uk.org



Welcome to this webinar!

- Please keep your microphone **muted**
- Please use the chat function to introduce yourself, ask questions or highlight who you wish to connect with. Innovate UK KTN staff will work hard to facilitate connections, today and over the next week or so.
- If you have a technical issue, please message Andie McLean using the chat function.
- The webinar is being recorded and will be available on the Innovate UK KTN website next week.
- The networking element of today's session will **not** be recorded.

Innovate UK KTN

AgriFood Team

www.ktn-uk.org





About Us

Innovate UK KTN exists to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.





AgriFood Africa Connect
brings innovative people
and organisations together
across the UK and Africa
to address key AgriFood
challenges in Africa



InnovateUK
KTN



- Connecting the UK and Africa through events, funding, networking and information sharing.
- To realise the sustainable management of food production systems in a way that alleviates poverty, enhances economic prosperity, and delivers improved wellbeing.
- Delivered by Innovate UK KTN, part of GCRF AgriFood Africa, a £26M programme funded by the Global Challenges Research Fund.



What is today about?

- A platform to discuss challenges and success stories around agroforestry and the adoption of this land management practice in the UK & across Africa.
- An opportunity to forge powerful connections with people and companies working in agroforestry to stimulate knowledge transfer and innovation.

Agenda

10:00 Welcome from Chris Till, Innovate UK KTN – AgriFood Team

Keynote speakers:

10:05 Elaine Springgay, FAO

10:20 Evelyne Kiptot, Social Scientist

10:35 University of Newcastle – James Standen, Marion Pfeifer & Yit Arn Teh.

10:50 Question & Answers for Keynote speakers

11:00 Pitch Section Chaired by Cameron Davies, Innovate UK KTN – AgriFood Team

11:30 Collaboration Top Tips & Breakout Sessions

12:00 Wrap up and workshop closes

Keynote Speaker Introductions



Elaine Springgay

*International
Perspective*

Agroforestry
Officer,
Food and
Agriculture
Organization of the
United Nations
(FAO)



Evelyne Kiptot

*African
Perspective*

Agroforestry, Rural
Advisory Services
(RDA), Agricultural
extension
consultant and
Social Scientist



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Keynote Speaker Introductions



Overview of the Cockle Park Farm agroforestry platform, UK outlook on agroforestry, and synergies & differences with African Agroforestry

James Standen

Farm Director for
Cockle Park Farm
and Nafferton
Farm, University of
Newcastle



Yit Arn Teh

Professor of Soil
Science,
University of
Newcastle



Marion Pfeifer

Associate Professor
of Landscape Ecology
and Management,
University of
Newcastle



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Pitch Session



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Sven Verwiel

Technical Director
Tamula Farm – LEAF Africa
Kenya



There Are Big Problems

- Outdated farming methodologies
- Lack of access to market
- Ecosystem destruction and deforestation
- Lack of transparency, traceability, consistency and quality for the consumer



We Have A Solution

Our modular agroforestry approach integrates;
crops, forestry, fodder, and livestock

- Recreate natural environments
- High quality, nutrient dense produce
- Traceability, Transparency, Consistency and Quality



ForestFoods Pilot Farm 2020

Pioneers in East African Syntropic Agroforestry

Conventional Farming



Syntropic Agroforestry



VS



Higher nutrition density with better soil quality



Reforestation removes CO2 and fights climate change!



Fosters biodiversity compared to conventional ag.



Natural bounty removes need for fertilisers, chemicals, and pesticides

Our Impact

Environmental

- CO2 Sequestration
- Restore Indigenous Forest Cover
- Foster Biodiversity

Social

- Premium Margins
- Nutrient Dense Produce
- Improve Livelihoods & communities

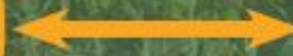
Economic

- Premium Margins
- Higher profitability per acre
- Develop SHF off-take model

Where We Are...



**450K
RAISED**



**50-200K
RAISING**

greenspoon
Honestly Delicious!

The
Artcaffè Market
GOURMET FOOD STORE

tribe

muna

**Farm
to
Feed**

Join
The
Journey!



Come and SEE
what we do!

www.forestfoods.co.ke

Felicity Jones

Founder & Director
Thinking Philanthropy
UK



Scaling Impact

First Stage Support
to Impact
Organisations
Aligned with SDGs
Vision for Scale
Community and
Purpose Led



Support for Business
Planning and Resource
Mobilisation
Up to \$30K/Up to \$1million
No/limited track record
Trading and Investment

Thinking
Philanthropy

Thinking
Philanthropy

Thinking
SDGs

Foundations, Impact
Funds, Institutional
Investors, ESG
Agroforestry and
Regenerative Agriculture
Key Areas

Bridging The
Funding and
'Risk' Gap

Fund4Impact



Resources for Changemakers

Thinking
SDGs

- Inspire
- Support
- Signpost

Fund4Impact

1 Learning



Shape your Most Important Plans for the Planet

- Impact Mapper identifies potential
- Top-level alignment with the SDGs
- Help to Build your pitch

2 Connection

Accelerate your SDG solution

- Build a sustainable business plan
- Deepen SDG and ESG alignment
- Connect with impact partners



6 SDG Champions

Graduate to become an impact star!

- We recognise and celebrate you as an SDG Champion.
- Your impact inspires others and the cycle starts again....

5 Impact

Your impact is measured and tracked against the SDGs

- Your Most Important Plans for the Planet is now a reality.
- You can show your impact and how you are part of the SDG solution

4 Funding

Secure the resources you need to thrive

- SDG-aligned capital is looking for projects and plans.
- Your accelerated progress means you are ready to partner and grow.
- Funders support you to scale.



3

Visibility



Showcase your Most Important Plans for the Planet

- Fund4Impact for access to early-stage donors and investors.
- Get your Plan off the ground
- Prove how your SDG solution can work.



Jaco Wilensach

COO

TERRAGRN

UK/South Africa



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Rosie Mercer

Business Development Manager
Destination Livingstone
Zambia

AGROFORESTRY FOR LIVINGSTONE, ZAMBIA

MAIN CHALLENGES:

- Deforestation for charcoal – rural income, urban use in Livingstone and further afield – disjoint between urban and rural dwellers
- Old trees being cut – no replanting, no seed collection/ nurseries
- Lack of understanding of benefit of trees across many factors e.g. temperature reduction, soil improvement, new products etc.
- Small scale farmers – traditional land tenure, low capital, women labourers
- Scepticism on mass tree planting initiatives – survival rates, species
- Elephants – very destructive of trees and crops



AGROFORESTRY FOR LIVINGSTONE, ZAMBIA

OPPORTUNITIES:

- People who have a passion for better land management
- Access to land for replanting/improvement schemes
- SMEs involved in charcoal alternatives, better cooking schemes
- Interest in commercialising traditional fruits, nuts, oils
- Tourist involvement – support our “Green Destinations” journey

? We need to hurry but where to start.....

? Where to find technical and financial support.....



Adam Charlton

Senior Research Fellow
BioComposites Centre,
Bangor University
UK, Uganda



Mount Elgon
Tree Growing
Enterprise



Seedling wrap: Biobased film packaging for tree seedlings to support agroforestry in Uganda

Adam Charlton, BioComposites Centre, Bangor University
(adam.charlton@bangor.ac.uk)

Agroforestry Innovation and Collaboration between the UK and Africa, 16 November 2022

- ❖ **METGE** is a 'not for profit' organisation based in **Mbale, Uganda**
- ❖ Supported by the Welsh Government's '**Wales and Africa**' programme through the Size of Wales charity
- ❖ METGE **promotes, facilitates and coordinates tree growing** enterprises in the Mount Elgon region
- ❖ November 2022: celebrated the distribution and planting of **20 million trees** and plans to distribute 25 million trees by 2025
- ❖ Seedlings are supplied in **polyethylene potting bags**
- ❖ No defined method of disposing of these used potting bags as they are **not recycled or re-used.....plastics waste issue**



Seedling wrap: Biobased film packaging for tree seedlings to support agroforestry in Uganda



Mount Elgon
Tree Growing
Enterprise



- ❖ **METGE wants to use a more sustainable film wrap for its tree seedlings**
- ❖ Six month collaboration: **METGE and NARO (Uganda) and Bangor University**
- ❖ Developing a film wrap which incorporates **Ugandan agricultural residues**
- ❖ Films produced at Bangor (**polymer formulation and processing**) in collaboration with NARO (**bioplastics**)
- ❖ METGE (**in-field trials**)
- ❖ Bangor (**soil microplastics research**)



Nina Ockendon-Powell




CONNECTED Network Manager
University of Bristol
UK



**COMMUNITY NETWORK
FOR VECTOR-BORNE
PLANT VIRUSES**



Community Network for Vector-Borne Plant Viruses

-  **WE CONNECT...** a multidisciplinary network of 1,500+ members in 87 countries.
-  **WE LINK...** plant pathology and entomology
-  **WE GROW...** technical expertise and knowledge, and increase international collaborations

The Community Network for Vector-Borne Plant Viruses (CONNECTED) is a vector-borne disease network based at the University of Bristol, UK.

We build multidisciplinary research capacity to tackle crop diseases spread by insects.



A TRULY GLOBAL NETWORK


1546
MEMBERS


87
COUNTRIES

JOIN OUR COMMUNITY TODAY



How we build research capacity



- Fund research projects between UK and Africa-based scientists
- Training opportunities for Early Career Researchers (ECRs)
- Networking events and resource provision



Management Board



What CONNECTED can offer Agroforestry



- Connections with an existing UK-Africa (global) community of plant pathologists, entomologists, and wider agricultural stakeholders
- IPM expertise
- Impact focused-Team, MLE expertise
- Vector-borne diseases affect trees as well as crops!
- Agroforestry provides an interesting approach to promoting IPM in ways that increase resilience to climate change – we're interested to get involved!



Joseph Gitigi

Director
Rwathia Agrofarms
Kenya



AVOCADO ORCHARDS FOR AFFORESTATION.

Fruit farming is an agroforestry practice that can be used to mitigate climate change through: The sequestration of carbon in soils and biomass. Reduction of greenhouse gas emissions from deforestation and agricultural activities.

Climate change mitigation has become an integral part of modern society; scientists, politicians, citizens and non-governmental organizations are working towards finding ways to mitigate our negative impacts on the environment. Integrating perennial fruit trees into agroforestry systems, can benefit both the people and the environment.

Trees play a vital role in moderating temperature because they take up carbon dioxide and release oxygen. Fruit trees are especially beneficial because the fruit is edible and can be sold or consumed by farmers or community members.



Setting Up A Pilot/Demonstration Orchard On 4 Acres.

- \$ 20,000.

THE TEAM.



Benson Gitigi
Operations Director.

- B.Com
- CPA.K.



Joseph Gitigi
Marketing Director.

- CPA



Samuel Muiruri

- Director.
Electrical Diploma

RWATHIA AGROFARM.

<https://rwathiaagrofarm.co.ke>

Rebecca Cole-Coker

Creative Director
PCI Technology Investments
Ltd/FarmSmarter
UK



FarmSmarter

The FarmSmarter app

Putting profitable farming in every
smallholder's pocket.

what we do



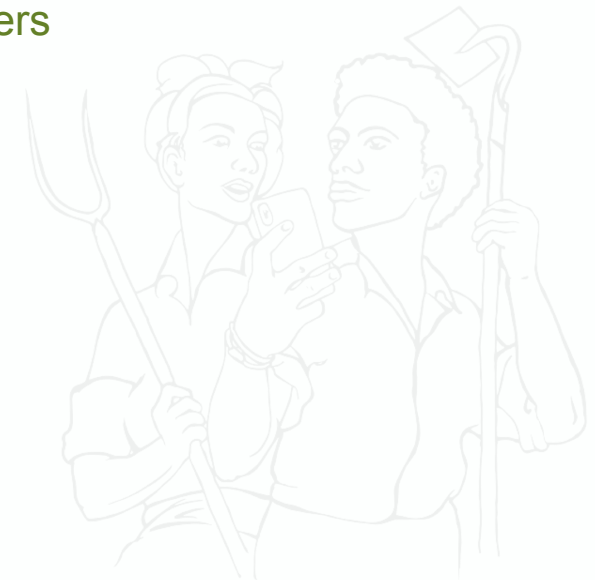
Nature-based farming solutions to increase yield

AI crop disease diagnosis

Field mapping and yield prediction

Connecting farmers, suppliers and finance providers

Building digital farming communities



why we do it



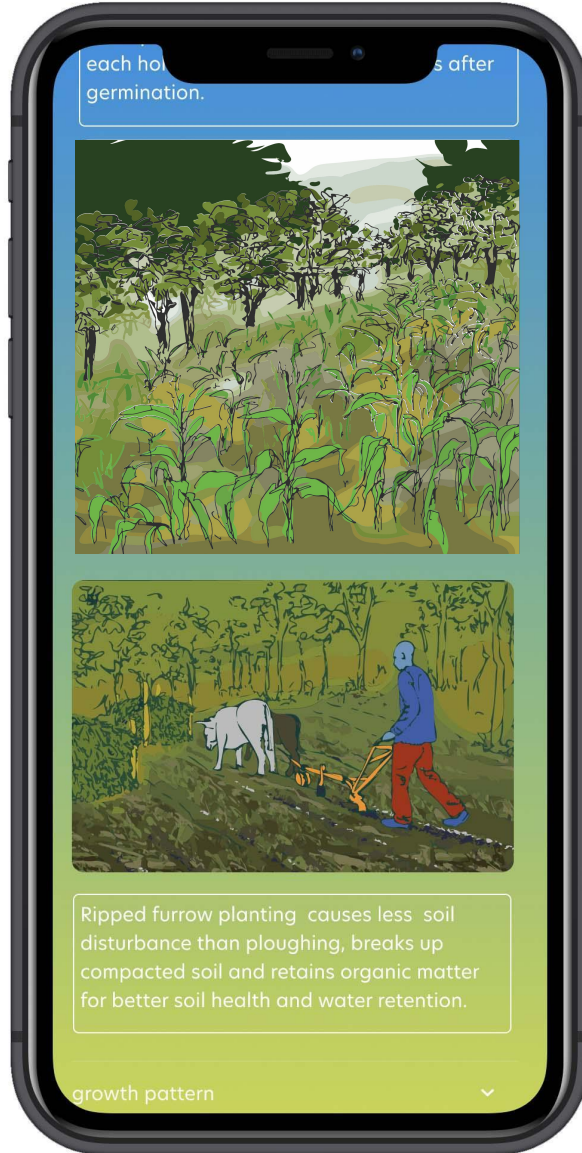
We need to feed 2 billion more people on this planet by 2050 in the face of climate change

Smallholdings cover 40% of farmland in developing regions but are often underproductive

We can improve livelihoods and food security through providing climate-smart farming information, access to markets and finance



how agroforestry fits in



Agroforestry is a natural solution to land degradation and moisture loss.

We are exploring the best way to support farmers in adapting agroforestry by providing accessible information

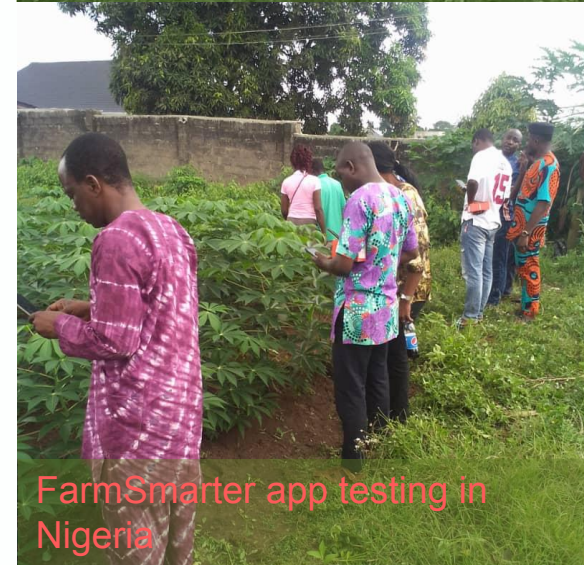
Our farmer test group in Nigeria is actively looking to adapt new farming methods

Our links with Government and farming associations in Nigeria alone allows us access to over 5 million farmers

We are constantly expanding our network of collaboration experts



Farming in the forest in Paraguay



FarmSmarter app testing in Nigeria



Opportunities for cocoa agroforestry



Let's help our smallholders move from subsistence farming to climate-smart success

Email: hello@farmSMARTer.app
www.farmSMARTer.app



Maurice Wanjala

Advisory Expert

Kipsaina

Kenya



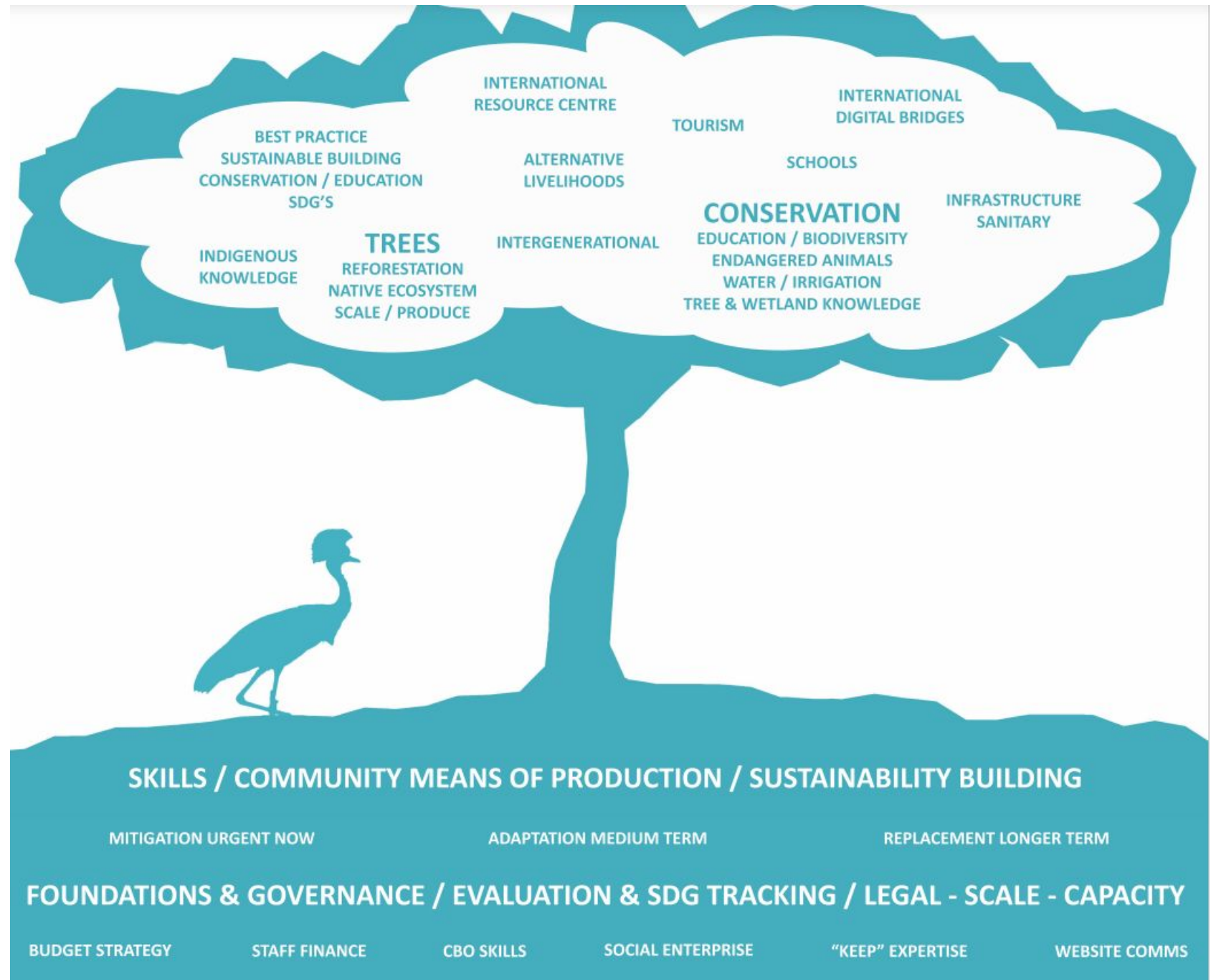
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www.kcwcg.org



ECOSIA





PRODUCE - PLANT - PROTECT

KUZALISHA - MMEA - KULINDA

Andrew Emmott

Chair

Neno Macadamia Trust
UK, Malawi



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Agroforestry Innovation and Collaboration between the UK and Africa

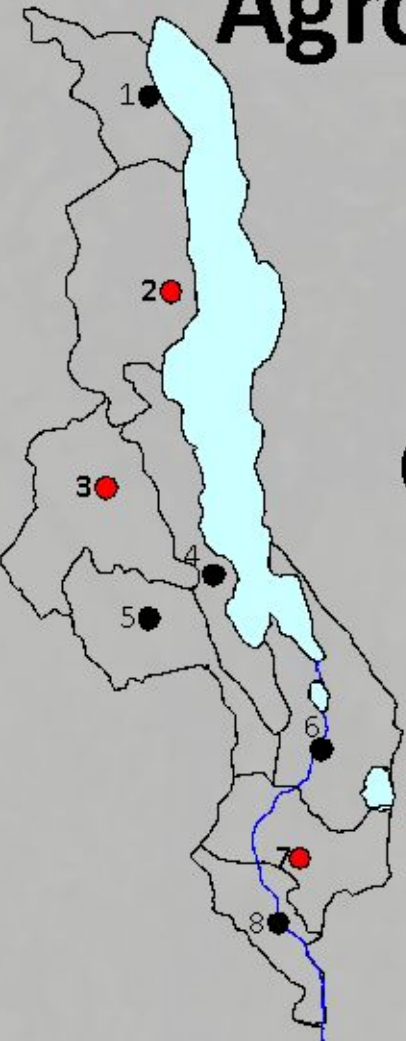
16/11/2022

Climate smart macadamia agroforestry collaboration in Malawi

Andrew Emmott (Chair)

Neno Macadamia Trust

www.nenomacadamiastrust.org





Soil temperature of soil
under shade of
acacia tree



Surface temperature of soil
exposed to sunlight



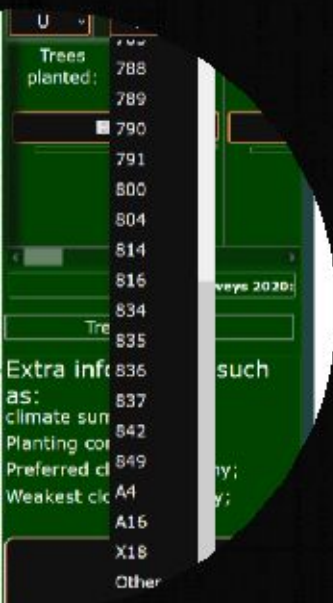
The problem:
Deforestation, degraded soils,
rainfed farming, climate shocks,
food and income vulnerability.





A solution:
Climate smart macadamia agroforestry
Reduce deforestation, regenerate soils,
conserve water, reduce impact of climate shocks,
improve income and food security.






Our approach: Farmer tree surveys

- Annual survey, by lead farmers & co-op staff, using mobile phones,
- Data collated by Neno Macadamia Trust,
- Carbon sold to partners, and
- Payments distributed to farmers and co-ops.




Our approach: Carbon Damage Mitigation Services



Home About Carbon Articles News Gallery Contact

DONATE



NENO MACADAMIA TRUST

Carbon Cost Calculator

Purchase certificates here taking responsibility for your carbon emissions with this carbon calculator.

Info +

Carbon Damage Mitigation Certificates are linked to smallholder macadamia trees and fund the smallholder Macadamia Farmers who plant & maintain the trees to help grow food security while the trees produce cash.

Individual

Flights

Driving

Domestic

Air Flight Footprint

One Way

Round Trip

Country

City

Code

From U.K. London LHR LHR

Via ...

To Malawi Lilongwe LLW LLW

Trips 1

Business class

Total Distance: 15948 km

2.26 tonnes CO₂ = £ 56.50

Add to Basket

My Basket

Flight_{1,000} Footprint

2.26 tonnes CO₂ = £ 56.50

Drive₁₀₀ Footprint

0.90 tonnes CO₂ = £ 22.50

Drive₁₀₀₀ Footprint

2.70 tonnes CO₂ = £ 67.50

Total Footprint

5.86 tonnes CO₂ = £ 146.50

Checkout

Certificates available from:
nenomacadamiastrust.org/carbon



Carbon sequestration

Income generation

Reliable nutrition

Sustainability

Climate Smart Macadamia Agri-business

Carbon Damage Mitigation Certificate

Building food security through trees that sequester CO₂

Awarded to: L

For: 0.20 tonnes CO₂ sequestered by 10 macadamia trees

From: Highland Macadamia Cooperative Union Limited, Malawi

Project: YR2P

Signed: 

Andrew Emmott, Chair - Neno Macadamia Trust

CO₂ is sequestered during 1 year of tree growth by healthy macadamia trees planted and maintained by smallholder farmers. Trees are surveyed annually by NMT and HINACUL.


CDMC number: NMT-CDMC-MW-YR2P-201611-201211-37337-37547-MAC-STD-P

Reclaiming payment: £5.00m 01.01.2014-30.06.2015

Registered charity number: 11049758

In partnership with
profswhofly.org

PROFS WHO FLY



ADDITIONAL TREES

Each tree planted offsets 100kg of CO₂ emissions. For every 100kg of CO₂ emitted, 1 tree is planted. This means that for every 100kg of CO₂ emitted, 1 tree is planted. This means that for every 100kg of CO₂ emitted, 1 tree is planted.

HOW IT WORKS

1. Calculate your carbon footprint

2. Offset your carbon footprint

3. Plant trees

4. Monitor the trees

CONTACT US

01234 567890

info@profswhofly.org

HOW IT WORKS

1. Calculate your carbon footprint

2. Offset your carbon footprint

3. Plant trees

4. Monitor the trees

CONTACT US

01234 567890

info@profswhofly.org



**We are expanding our partners
as we go to scale.**

If you are interested please contact.

**Andrew Emmott:
chair@
nenomacadamiaitrust.org**



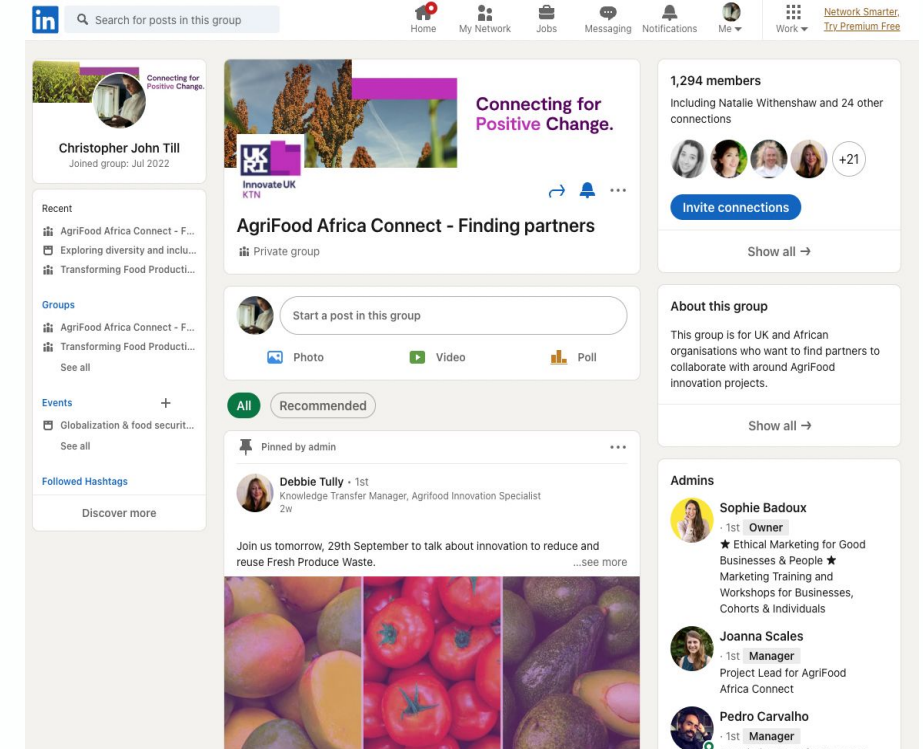
Collaboration Tips



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Networking - Partnership and Collaboration Top Tips

- Networking breakout sessions
- Collaboration document
- Good Application Guide - AgriFood Africa Connect
- LinkedIn group



Networking – Breakout Sessions

- Speed networking session.
- 15 mins in a room before we change.
- Please put your video & microphone on.
- Please introduce yourself in the chat (name/organisation/email).

Make the most of the opportunity to speak with those you wouldn't have otherwise

Networking – Breakout Sessions

Session 1 – Thematic rooms

Please self select the breakout room which would like to join:

1. Soil improvement & seed germination
2. Physical protection
3. Decision making and monitoring
4. Nursery establishment & technologies
5. Environmental benefits and value addition
6. General interest

There will be duplicates of each room

Session 2 – Randomised rooms

You will be randomly assigned to a breakout room.

Thank you for attending!

- Email: christopher.till@iuk.ktn-uk.org
- Collaboration document
- LinkedIn Group



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