Regenerative agriculture

Our second hotseat session

4 May 2022

FOOTPRINTS AFRICA

About our hotseat series

What do circular businesses need to grow sustainably?

In building the first and most comprehensive database of over 500 examples of circular business models, we always ask this question to entrepreneurs. For the most part, the answers are not surprising.[1]

There is one, though, which has cropped up a lot more than we would have predicted. First and foremost, many entrepreneurs want to be connected to other businesses doing similar things elsewhere on the continent. They want to learn from the experience of their peers and get diverse perspectives, whether that be from people who have been there already, who have deep subject-matter expertise, or simply with a different problem-solving mindset.

The idea for the hotseats

We developed the idea for a series to bring together a group of entrepreneurs and experts and invite them, through rapid-fire questions, to help people with the thorniest challenges they are facing. We have chosen four themes where we see the greatest numbers of businesses working in parallel across the continent:

- Plastic waste to construction materials;
- Regenerative agriculture;
- Black soldier fly farming; and
- E-waste.

On 4 May we held the second of these hotseat sessions, convening a group of 48 farmers, subject matter experts and investment specialists. We selected three challenges and put them to the wisdom of the crowd. As with the first session on plastic waste to construction material we were delighted with the intensity of the discussion and the generosity of people's contributions.

We are sharing this writeup so that more people can draw on the insights, and so that the session participants can reflect on them again.[2] We have followed the Chatham House rule (no comments are attributed) so that people could express themselves as freely as they like.

We are grateful to the support of **Sitra**, the Finnish Innovation Fund, which has made this hotseat series possible.

Footprints Africa's work on the circular economy transition

At Footprints Africa we are on a mission to prove business can be a force for good at scale. We have an ambitious circular economy programme which maps and measures businesses' circularity and increases their impact across the African continent, as well as our B Corp programme. Our first report showcasing circular economy businesses across Africa is **here**.

Our latest report on Regenerative Agriculture is **here.**

You can find more information and a presentation on our extensive case study work on our site: **www.footprintsafrica.co.**

Why regenerative agriculture?

We focused on agriculture in this session for two reasons:

First, because it is the backbone of most African economies, and it is where we are mapping a significant number of circular businesses across the continent. Roughly a quarter of the businesses responding to our circular economy questionnaire tell us they work in agriculture and food systems, [3]and we have researched over 60 regenerative agriculture businesses to date.

Second, we chose the theme because regenerative agriculture is critical for people and planetary health. Its widespread adoption is therefore urgent. We outline the benefits, approaches and steps to the transition in our latest report, **Roots of the Future The businesses regenerating Africa's soils.**

Simply defined, regenerative agriculture is a way of farming to build and improve soil fertility, whilst sequestering and storing atmospheric CO2, increasing biodiversity and improving water and energy management. It encompasses no-till/minimum tillage techniques, the use of cover crops, crop rotations, compost, and animal manures, the inoculation of soils with composts or compost extracts to restore soil microbial activity, and managed grazing.

In African contexts regenerative approaches It is a broad theme but we believe that there are some challenges that regenerative farmers have in common as they build their businesses: getting access to investment or other forms of funding, how to create long term strategic partnerships, obtaining technical information, measuring impact, or establishing support networks. And it is important that we create more space for entrepreneurs to work on these challenges together if we want regenerative approaches to be adopted at the speed that is needed in this critical decade.

The challenges

In preparing the session we received many interesting challenges. We chose three that appeal to as wide a business audience as possible, from a business that invests in regenerative agro-processing across southern and eastern Africa, a biochar consortium, and a biodigester initiative:

- **How do we develop a model or structure that breaks the chicken and egg of raising funding to invest in regenerative businesses when funding is required to prove the business model?**
- **How do we create agile feedback loops that help us to make the right decisions as well as provide evidence that meet the needs of and appeal to investors and other stakeholders?**
- **What funding model can support the next phase of broad adoption of 500-1000 biodigesters into rural communities in Niger?**

We are grateful to the three businesses for exposing and articulating their challenges, and sharing them with the session's participants.

1 See page 8 of our first circular economy report: **The Circular Economy: Our Journey in Africa so Far**

2 Please note that the content of the summary has been lightly edited for clarity and length.

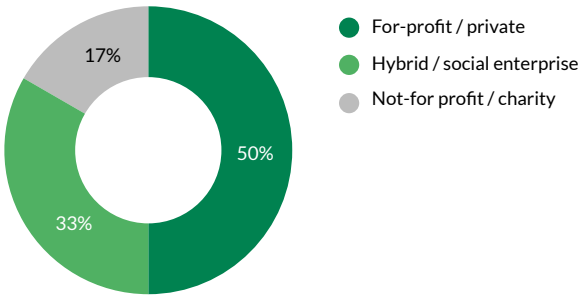
3 47 respondents have indicated this as their industry of operation, based on a sample of 187 responses to our ongoing surveys launched in 2021.

Profiling the hotseat participants

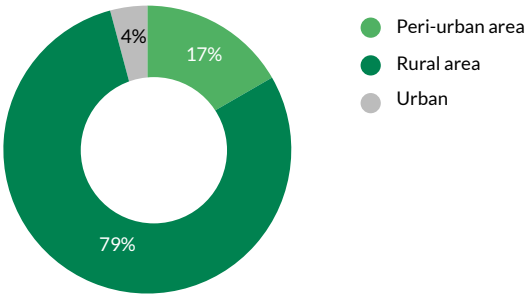
Key details on participants' businesses

These figures are drawn from 24 responses by participating businesses to the **Footprints Africa circular economy questionnaire.**

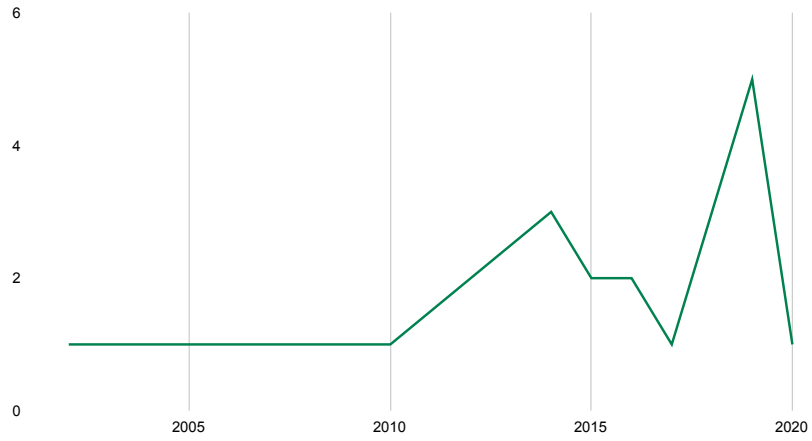
Business type



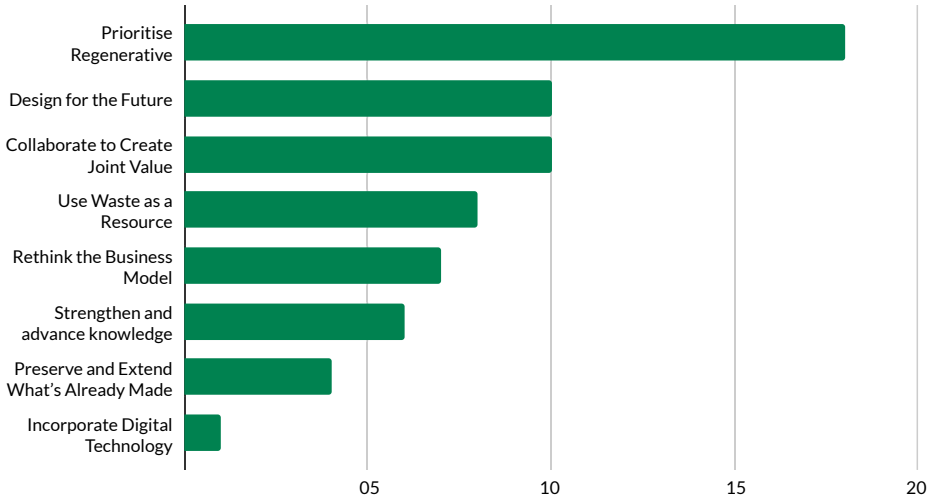
Context of operations



Businesses' start years



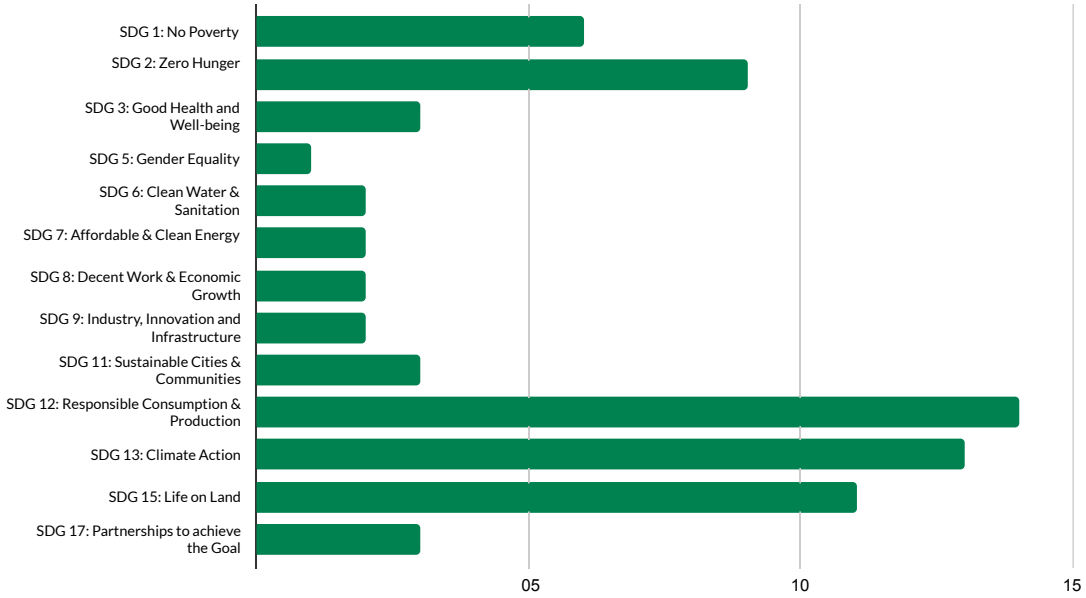
Circular economy strategies



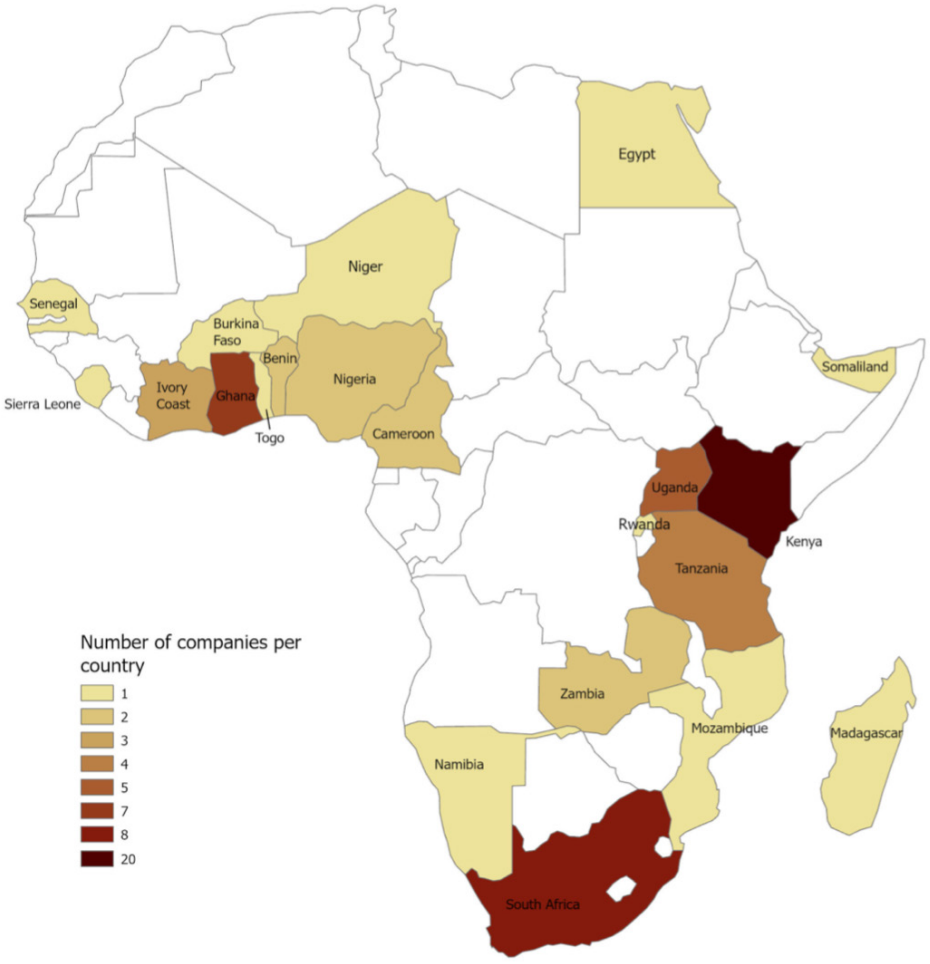
For our mapping work we use Circle Economy's **circular economy strategies** as a reference point.

Priority Sustainable Development Goals

Summary of the top three SDGs selected by each business.



Mapping regenerative agriculture initiatives across the continent



Map courtesy of GRID-Arendal plotting the locations of the 50 businesses we have researched across the continent.

Challenge 1

How do we develop a model or structure that breaks the chicken and egg of raising funding to invest in regenerative businesses when funding is required to prove the business model?

Business 1's background

- Business 1 previously founded companies in regenerative agriculture from scratch. Now they have set up a holding company to enter into joint venture relationships with existing agri-processing companies.
- The business raises investment for the agri-processors they identify, which then become subsidiaries of the holding company.
- Regenerative agriculture is often not suited to the 3-5 year exit horizons of venture capital investors. Nor is debt suitable, as it focuses on micro-entreprises or very large companies. The 'missing middle' tends to be left out.
- Funders want to see a strong pipeline and proof of the viability of opportunities. On the other hand companies need investment to prove this same viability.

More information on their challenge

- Business 1 works with agri-processors across southern and east Africa to enable them to produce regenerative agricultural products. Their goal is to create market drivers for regenerative farming.
- They build companies to process these products and bring high-quality regenerative ingredients to markets, while making sure that all players in the value chain — not only farmers — work together to fairly distribute the burden of risk.
- They supply their customers with a selection of regeneratively produced tea, herbs, spices and oils.

The questions that were asked

- What is in it for the agro-processors? How have you gone about getting them to understand the benefit to them of supporting this approach?
- Have you looked further along the supply chain, to agro-processors' buyers, and the commitments they have made to, say, net zero or biodiversity, and then try to join the dots?
- Have you looked at grant funding and 'unconventional' forms of funding, with funders who are prepared to take higher forms of risk?
- How are you going to convince people not to go for imported inorganic fertilisers, but rather to use a natural approach that is working?
- Are you able to use predictive modelling to showcase how your business strategy makes money over time ? What proof of purpose can you show investors?
- Can you use the impact of recent global events - the war in Ukraine for example, with its impact on fertiliser imports and local food security - to strengthen your business case(s)?
- Have you tried to get evidence that these regenerative approaches work?
- Is your business or partnership commercially viable, and if not what can be done to improve that?
- How do you evaluate funders' willingness to pay? Can you estimate how much investors would be willing to pay to get a gateway into a network business?
- What if you were to become vendors, much like Twiga Foods in Kenya - that connects farmers to markets?
- How can you use your market position to assure investors that by funding you they're not only investing in your business but also in all the other businesses you bring to the equation?
- Have you had any luck with impact investors - what resonates (or doesn't) with them?
- Have you considered carbon financing as a way of generating more income for farmers than insetting?

Challenge 2

How do we create agile feedback loops that help us to make the right decisions as well as provide evidence that meet the needs of and appeal to investors and other stakeholders?

Business 2 background

- Business 2's closed-loop model remediates high carbon crop and processing residue (tea bush prunings, nut shells, sugarcane bagasse etc) that is not suitable for compost or animal feed, and is currently left to rot or is burned.
- incentivises farms and agri-processing factories in Kenya to extract nutrients from agricultural residues. These high carbon residues such as nut shells, tea prunings, husks and tree litter are currently burnt or left in the fields and whose value is ignored.
- The model generates both (1) reliable, competitively-priced renewable energy, and (2) carbon sequestering biochar which reduces fertiliser use and nitrogen emissions, improves water retention and increases productivity for farms.

More information on their challenge

- Business 2 is a consortium that needs to attract proof of concept funding for six to seven digit upfront capital expenditure. Funding typically comes with conditions and results will need to be evidenced.
- Business 2 wants to be prepared with data and answers to any resistance from different stakeholders (funders, tea companies, voluntary sustainability standards providers, and gasification manufacturers).
- The business addresses its stakeholders' financial, environmental and social challenges simultaneously.

The questions that were asked

- Your business model is unique. Have you thought about how you can break it into steps that are easily grasped by potential funders and stakeholders?
- Who are the pioneers who you could partner with - the ones with solutions that are not so fixed as other partners?
- Have you ever considered different **project assessment methods** to suit your measurement goals?
- Have you been able to look at innovations to reduce the amount of direct human labour that is involved in tea production and how that produces new jobs?
- Have you pursued the possibility of a partnership from your stakeholders, with diversified ownership?
- How can support organisations or ecosystem builders facilitate partnerships and help businesses like yours to move towards regenerative agriculture?
- Have you considered partnering with design institutes or universities to develop something like 'plug and play' systems that might allow for cheaper customisation?
- Have you looked at how you can harness microfinance alongside organic growth?

Challenge 3

What funding model can support the next phase of broad adoption of 500-1000 biodigesters into rural communities in Niger?

Business 3 background

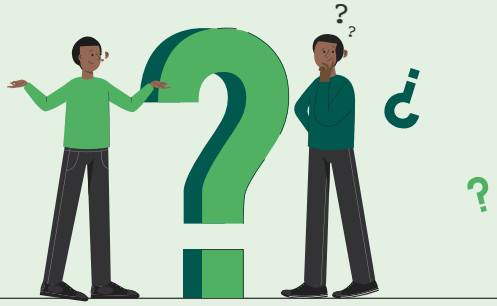
- Business 3 produces biofertilisers and biopesticides from water hyacinth and plant in West Africa. They have also designed and trade-marked biodigesters used for production of biogas in a new market. These biodigesters are adapted to the conditions of peri-urban and rural areas, promote income-generating activities and contribute to expanding access to clean and affordable energy.
- Business 3 also provides training on sustainable agricultural techniques in rural areas to facilitate women's access to biofertilisers and develop their skills.

More information on their challenge

- Business 3 has worked on a biodigester to produce bio-fertiliser for rural communities to build their resilience.
- They received grant funding to develop their proof of concept with 20 communities. Communities bring organic waste to the biodigester and the fertiliser is ready in three weeks.
- Rural communities cannot afford the upfront payment for the biodigesters of 4.5 million CFA francs (roughly $7,200), which includes six months of training and servicing.

The questions that were asked

- Why are you focusing on the biodigester, which costs a relative fortune, when you could do the composting, sell the know-how, and make money from the compost instead?
- Do you plan to sell the biodigesters and then offer services at an additional charge or would it make sense to lease the production?
- Is the biofertiliser lower in carbon or nitrogen impact on the planet? If so, do you have a calculation to prove it and have you considered including this in a carbon or nitrogen reduction scheme to unlock financing?
- Are you considering using micro lenders who are able to give direct funding to farmers?
- Have you considered looking at development finance institutions such as the African Development Bank who work with banks to offer credit lines for this kind of work, or donors like GIZ who invest extensively in these projects?
- Do the communities going through this then profit from composting? If so, have you considered linking women's groups to microfinance institutions to finance the biodigesters?
- Have you explored ways of reducing the cost of the biodigester units, for example, through different forms of construction?
- Who owns the biodigesters?
- Have you linked the project to youth employment and tracked down the donors who invest more heavily in these kinds of projects?
- Have you checked the Verra registry to see if there is an ongoing programme with which you can align?
- Are there cooperatives, savings and credit cooperative organisations (SACCOs), or other groups that can guarantee financiers that their investment will be recouped?
- If you're able to lower the cost of the biodigesters, would you be able to agglomerate farmers to meet the cost over time?



Hotseat participating organisations

Business name	Country	Website
ABC Grower	Benin, Togo	www.facebook.com/abcgrower
African Circular Economy Network	All Africa	www.acen.africa
Afrikan Regenerative Solutions	Kenya	www.facebook.com/regenerativeafrika
ambakofi	Tanzania	www.ambakofi.org
Amelia Agro Ltd	Uganda	www.ameliaagro.com
B Labs East Africa	Kenya	www.b-labafrica.net
Fetola	South Africa	www.fetola.co.za
Climate Neutral Group	South Africa	www.climateneutralgroup.co.za
Co-REGEN	Kenya	www.rb.gy/jyndkt
Farm Africa	Kenya	www.farmafrica.org/kenya/kenya
Farmer Max	Kenya	www.farmermax.co.ke
Grounded	South Africa	www.grounded.co.za
Howard G Buffett Foundation Centre for No-Till Agriculture	Ghana	www.centerfornotill.org
Jacigreen	Niger	www.facebook.com/JacigreenAFR
Laikipia Permaculture Centre	Kenya	www.lpct.or.ke
Mama-Itohan RegenSoil Ltd	Nigeria	www.mama-itohanregensoil.com
Ndanifor Permaculture Ecovillage	Cameroon	www.betterworld-cameroon.com/ndanifor-permaculture-ecovillage
Nestlé	UK	www.nestle.com
One Billion Trees for Africa	Cameroon, Nigeria	www.onebilliontreesforafrica.org
Rabobank	Netherlands	www.rabobank.com/en/home/index.html

Sabon Sake	Ghana	www.sabonsake.com
Safi Organics	Kenya	www.safiorganics.co.ke
Shumei International	Madagascar	www.shumei-international.org/case-study/madagascar
Sitra	Finland	www.sitra.fi/en
Smart Cultivation Group	Rwanda	-
Sustainable Design Transitions	Uganda	-
Tamalu Farms	Kenya	www.tamalufarm.com
The Compost Kitchen	South Africa	www.compostkitchen.com
The Regeneration Fellowship	Netherlands	www.f6s.com/the-regeneration-fellowship
Transforming Rural Economies and Youth Livelihoods project (Practical Action)	Kenya	www.practicalaction.org/our-work/projects/transforming-rural-economies-treyl
Wable	Kenya	www.wable.org
World Agroforestry	Belgium	www.worldagroforestry.org

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See www.footprintsafrica.co for more information on the programmes Footprints Africa runs to support businesses to develop purpose-driven cultures and so empower their employees to improve their social and environmental impact.

Front cover image courtesy of the **Center for No-Till Agriculture, Ghana.**

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