Dear EarthEnablers,

Welcome to the 2020s!

In 2019, we had nearly as much impact as we did in 2014, 2015, 2016, 2017, and 2018 combined! This is entirely because of several pieces that we have been developing for years came together and enabled us to build on our solid foundation (pun very much intended).

Some of the things I’m most proud of:

• We redesigned our Quality Assurance system to put the right incentives in place to assure quality and ensure information accuracy. We have learned that earth construction can be better than concrete when done well, but worse when not done well. As a result, a water-tight QA system is paramount to our success.

• Years of investing in our junior team have paid off, and we have made over a dozen internal promotions to middle-management positions! Some of these positions had been open for a long time, and others were created over the years with scale. This has validated our belief that our road may be longer, but it leads to a stronger company.

• Building our Research and Development Department. We realized that one of EarthEnable’s comparative advantages is our understanding of the needs of the world’s poor when it comes to unhealthy housing, and designing ultra-affordable solutions for them. We have assembled a superstar team in Rwanda and Uganda, recruited first-class technical advisors, and made major headway in core product improvement and designing new products.

This year, we also identified the building blocks to a scaleable impact. We believe we know what needs to happen to get to maximal impact and profit, and our strategic plan focuses on tackling each building block, step by step. The building blocks are:

1. Leanifying district overheads by decentralizing more of the operation to our field staff (masons and customer reps). We must build the systems for the field team and capacity among the field team to enable this.

2. Massively increasing volumes per district. We must invest in marketing, financing, and developing new products to enable this.

3. Reducing costs of goods sold. We must invest in R&D, specifically in using even more locally available materials to reduce transport and material costs, to enable this.

4. Scaling to more geographies. We must develop an easy-to-replicate system to scale to more geographies, identifying the variables that led us to tweak our business model in our existing districts (e.g. topography, material availability, demographics, etc.).

Truly, we are building a new industry to serve one of the most basic needs of the world’s rural poor, which no enterprise has done before. We know it will be another decade of grit to make a dent in this problem, but we won’t stop going, and are so grateful to have you along on this ride.

With gratitude,

Gaya
OUR IMPACT

CUMULATIVE FLOORS BUILT

EARTHENABLE
CONSTRUCTION PROCESS

1. excavating
2. leveling
3. compacting
4. screeding
5. varnishing
Developing a professional R&D Department

While we have always had an R&D department, we never had a strategy or professionals with expertise in material science or chemistry (other than our co-founder Rick who had been advising us for a few hours a month). This year, we built up a team of R&D officers in Rwanda and Uganda, and brought in several consultants with the necessary expertise.

For example, Graham Wright, a coatings consultant, helped us improve our current product by refining our varnish production process to make an end product that dries faster and harder. Gnanli Landrou, a material scientist with a Ph.D. from ETH Zurich focused on earth building, visited and taught us about the material science behind compressing earth and clay. We also worked on new products including wall plasters, a low-cost floor, and a premium floor.

Co-founding the Local Building Materials Think Tank

In 2018, Rwanda Building Code changed to allow residential construction with adobe blocks. However, they wanted a research-based standard for these blocks to abide by. We co-founded the Local Building Materials Think Tank in conjunction with the Rwanda Housing Authority, and brought on member organizations such as the Rwanda Standards Board, Rwanda Polytechnic, and the Africa Design Center to conduct research on various soils, manufacturing techniques, water quantities, and stabilizers that could improve adobe blocks. The Rwanda Standards Board will use this research to develop a standard specification and code of practice for rural populations to help them build with earth blocks in safer ways.
Gross profitability

After breaking even on gross margins in 2018 for the first time, we achieved 9% gross profitability in 2019! This was due to both gaining operational efficiencies from scale (e.g. investing in a fleet of dump trucks), and improving our margins through institutional contracts.

Financing our product in-house

We launched a loan program in Uganda in-house, building on our Uganda MD’s previous experience running an asset financing company. We tried this in-house instead of through a partner to be able to design and adapt a lending system that would work best for our floor. Customers had 6 months to pay for the product in equal payments. Our take up rates doubled when we started offering loans on our floors.
Ensuring customer satisfaction at scale

As we increased our number of builds substantially in 2019, we also had to revamp our quality assurance system. We made the following changes:

- Converted our “sales reps” to “customer reps”, so that they were equally focused on customer service as sales, visiting customers several times after floor construction to ensure they knew how to clean and maintain their floor
- Added a new role in every district to focus on procuring quality materials (which used to be the role of the Construction Manager in the district, who also oversees masons)
- Ensured we identified any unhappy customer promptly through a call center and a field QA team conducting frequent visits

Our customer satisfaction has shot up thanks to these changes, with a net promoter score of 99% in quarter 4 of 2019!
Reaching the extreme poor through NGO partnerships

We partnered with Catholic Relief Services (CRS) to implement a contract that involved flooring over 700 homes in two of our Rwandan districts. Through this partnership, we managed to reach a population that was previously priced out of our regular floor model, which has been a long-standing goal. In addition, these floors were built over a period of three months (July through September) and we built 3x as many floors as we ever have in that amount of time in each of the two districts, proving that we have the operational base to build at scale.
Evaluating our impact

The Randomized Control Trial (RCT) officially began in Uganda! This study aims to assess and analyze the biological pathways through which dirt floors make people sick, analyze pricing and take-up given various interventions, and evaluate health outcomes of living in a home with a sealed floor versus an unsealed floor. The baseline data for the health aspect of the study has been completed while the takeup study is currently underway. We believe the results from these studies will not only have implications on EarthEnable’s work but on the WASH sector in general.
Team

Our team is the foundation of our company and we have invested heavily in the past years to build entry-level teammates into managers. This all came together in 2019 when we internally promoted dozens of teammates to various open manager positions in both Rwanda and Uganda! This created a ripple effect within the organization where former masons and sales reps were promoted as well. We believe that personal and professional growth of a values-aligned team is a core aspect of our business model, and it has become one of our competitive advantages.
KEY METRICS

FLOORS BUILT IN 2019
2269
Up from 858 floors in 2018

TEAM MEMBERS
500+
Including masons and sales reps

NET PROMOTER SCORE
99%
99% of our customers say they would recommend our floor to a family member or neighbor

DISTRICTS SERVED
9
2 districts in UGANDA
7 districts in RWANDA
Patrice Barame
(Customer from Kamonyi District, Rwanda):
it can be hard to express your thanks when you don’t speak the same language as the people you mean to thank, but from the bottom of my heart – thank you, EarthEnable. My home is a lot cleaner since I got an EarthEnable floor, it’s not dusty anymore.

I am really proud of my home when my neighbors and other guests come over.

The service I received from EarthEnable was unmatched, they even spray your house for termites!

Anathalie Benegusenga
(Customer Rep from Kamonyi District, Rwanda): Joining the EarthEnable team has made me more confident; I used to be really shy but now I can relay information to clients in a clear and concise manner and for that reason, they know that they can trust me and come to me if they have any issues with their floors. I have also made enough money to buy myself and my parents a floor as well as some livestock.

Being part of this team has given me skills that have changed my life.

David Kayongo
(Customer and Sales Rep from Luuka District, Uganda): Working with EE has enabled me to have a steady income which I have invested in a number of projects (including poultry) that are boosting my family’s livelihood. Also, with the savings from my salary, I think I will be able to send my son to a better school. My communication skills have improved tremendously! I am a teacher by profession and was teaching young adults in junior secondary.

Joining EarthEnable helped me improve how I relate to people by exposing me to a diverse community.
IN 2020 WE ARE LOOKING FORWARD TO:

Three times the impact of 2019!

We nearly tripled from 2018 to 2019, and are aiming to do it all over again in 2020! This will primarily be driven by increased affordability through financing our products through SACCOs and cooperatives (local savings groups), and by an extensive marketing campaign of demonstration floors. We have noticed that areas without “early adopters” have very low take-up rates, as most customers want to see a floor performing for several months before purchasing.

Thus, we expect marketing events around demonstration floors to increase sales significantly. We will also be selling additional products (including a lower-cost floor and plaster), and expanding to additional geographies: another six districts in Rwanda and two in Uganda!
Microfranchising

One of our four building blocks to a scalable model is to shift to a leaner district overhead structure, by decentralizing much of the district’s planning and logistics activities to masons. To test this, we are launching a micro-franchise whereby masons will become small business owners, obtaining their own sales and materials (either themselves or through people they hire), and simply purchase a varnish application service from EarthEnable. Quality assurance will be built into this model, as an EarthEnable QA professional will only varnish the floor if it meets our quality standards, and only EarthEnable teammates will have access to our varnish (our “secret sauce”!).
Continued Innovations in Healthy Housing

Lastly, our Research and Development Department will continue to find ways to reduce the prices of our products. Our main hypotheses for doing so are:

1) using even more locally available material to obviate the need for delivery or purchase of raw materials,
2) continuing to reduce the cost of and improve the quality of our floor’s surface sealant, and
3) increasing mason productivity (sqm per month) to reduce labor cost per square meter while increasing mason income per month.

We will also introduce an “Innovation Fund” that any EarthEnable mason can apply to if they have a new idea they want to test. Each R&D teammate will have 20% of their time set aside to support these masons with technical advice, and work on innovations of their own!
FINANCIALS

Total 2019 Customer Revenue
$182,056

Total 2019 Grants Revenue
$2,644,264

Total 2019 Expenses: $1,625,022

- Cost of floor installation
- Salaries, benefits & professional development
- Depreciation of fixed assets
- Office administration
- Consultancy fees
- Sales and marketing
- Tools and equipment
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