

HELLO TRACTOR! AN UBER FOR FARMERS



For small-scale farmers in Nigeria, especially in the northern parts of the country, getting access to tractors for use on their farmlands to boost their yield has always been difficult.

Many farmers can't afford to buy one due to the high cost, while the country's federal government, which is the major supplier of tractors, is not able to meet more than 4% of their requirements.

Africa has less than 50 agricultural tractors per 100km² of arable land, according to the Food and Agriculture Organisation of the UN, which ranked Nigeria 132 out of 188 countries surveyed on agricultural mechanisation. Added to this, farm sizes in Nigeria are small, making it difficult for individual farmers to own a tractor.

However, since mid-2014, the introduction of the Hello Tractor project has been addressing the prevalent problem of crippling poverty and poor crop yields among small-scale farmers.

Hello Tractor is the brainchild of Jehiel Oliver, an American who developed the idea while working as a global finance consultant focused on small and medium-sized enterprises (SMEs) and agricultural industries at Aya Consulting in the United States.

He relocated to Nigeria to implement the project - a social enterprise that improves food and income security by facilitating Nigerian farmers with the right tools to efficiently harvest their land. Hello Tractor promotes collaborative consumption by building a network of "smart tractor" owners, enabling small-scale farmers to request and pay for tractor services via SMS and mobile money, as and when they need specific services.

On what makes the solution unique, the operators say: "Our powerful booking system allows farmers to conveniently request, schedule and prepay for tractor services from nearby smart tractor owners, through SMS messaging and mobile money. Once service is

GOOD TO PLOUGH
A small-scale farmer makes use of the Hello Tractor service to get his land tilled in a fifth of the time it would take him to do it without the machine's help

PHOTOS: SUPPLIED



SEEDING INNOVATION
An owner of a smart tractor gets his equipment ready to go out on a ploughing job as the programme takes root in Nigeria's northern farming districts

It takes a farmer 40 days to prepare his land for planting, a smart tractor can do it in eight hours - this can increase small-scale farmers' yields by 200%. **The Nation's Lekan Otufodunrin** reports

completed, the prepayment is automatically released to the smart tractor owner."

Since it was launched in mid-2014, farmers who participated in the beta period have reportedly seen their yields increase by 200% using a machine that's 40 times faster than manual labour.

"We have designed an innovative, low-cost 'smart tractor' specifically for small farmers' unique needs," remarks Oliver.

"The smart tractor is a two-wheeled tractor with GPS antennae that allows us to track its usage and telematics, which collects and transfers data in no-internet areas such as the rural areas," Oliver adds.

According to Oliver, each tractor on the platform works on approximately 250 hectares of farmland annually, which is substantial in Nigeria where farmers own, on average, just over one hectare of land.

With one of the fastest growing populations in the world, and huge pressure on the employment market to provide new jobs, optimising Nigeria's agricultural industry is key to combating youth unemployment for the next generation.

"Despite the profitability of agriculture in Nigeria, there remains a substantial risk (both real and perceived) preventing banks to engage more deeply,"

says Oliver.

To address this issue, Hello Tractor also coordinates low-cost financing to help facilitate the purchase of a smart tractor.

"Equipped with various attachments, owners can tailor its use for a variety of crops and stages of the production cycle, allowing them to serve their customers throughout the year. The GPS antenna allows Hello Tractor to track its usage and gather data on location, market trends, and uptake," Oliver explained.

"At the beta phase we're prioritising land preparation because, first of all, it's the first stage of production," Oliver said. "It's also the most labour intensive. It takes about 40 days of manual labour to prepare the land. Our tractors do it in eight hours."

On the impact so far, Oliver told The Nation that "Farmers are reporting that having access to tractor services saves them money on land preparation while removing the labour constraints that have prevented them from planting the land that they have access to."

Hello Tractor was launched as a pilot project in Kenya this year. Oliver believes the results there should be as promising as in Nigeria.

• <http://www.hellotractor.com/>



A BREATH OF FRESH AIR
Cheap air-con units, developed by Grey Dhaka using bottles and cold drink cans, have been installed in homes in Bangladesh

Air-con from plastic bottles

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In Bangladesh, most of the population still resides in rural areas where access to electricity is limited. More than 70% of the country's citizens live in corrugated tin houses, which amplify the sun's heat. During summer, temperatures can get as high as 45°C.

Grey Dhaka, the Bangladesh unit of US-based multinational advertising and marketing agency Grey Group, has developed an ingenious way to tackle the sweltering conditions for those living in impoverished areas in the country.

The agency has introduced the Eco-Cooler, the world's first "zero electricity" air conditioner.

Made out of repurposed plastic bottles or cold drink cans, the Eco-Cooler is cost-effective, environmentally friendly and simple to make.

Repurposed plastic bottles are cut in half and mounted onto a board or a grid with the bottlenecks facing the inside of the house, and this board is then installed onto a window.

Hot air enters the open end of the bottle and is compressed at the neck of the bottle, turning the air cooler before it reaches the inside of the house. The Eco-Cooler can reduce the temperature by as much as 5°C.

In collaboration with Grameen Intel Social Business, Grey Dhaka distributed Eco-Cooler units for free in villages across the country. Today, more than 25 000 households have an Eco-Cooler in their homes in Bangladesh.

The innovation has brought relief to thousands of people, whose lives are now a little more comfortable thanks to this simple device.

• <http://grey.com/apac/work/key/eco-cooler/id/12475/>



TINY HEROES
Merry the rat, pictured here with one of her handlers, can check an area the size of a tennis court for mines in just half an hour

A nose for trouble

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Merry usually wakes up before the sun rises and is driven to work along with 11 of her colleagues. They work for a few hours, napping between shifts.

Her job, detecting landmines and other unexploded ordnance, requires a laser-like focus. It also helps that, at about 1kg in weight, she's light on her feet.

Merry is an African giant pouched rat, an exceptionally smart rodent with superior olfactory abilities. She's one of a team of HeroRATS that are bred, trained and deployed by the Apopo Foundation, a Belgian nonprofit organisation that is headquartered in Tanzania.

After working successfully to help detect mines in Mozambique and Angola, the organisation partnered with the Cambodian Mine Action Centre in 2015.

• <http://apopo.org/>

mine-contaminated countries in the world. The effect of mines and unexploded ordnance on communities has been nothing short of devastating. According to the latest figures from the Cambodia Mines/UXO Victim Information System, more than 64 000 casualties were recorded between 1979 and February.

Tethered to a cable and attached to handlers on either side, the HeroRATS work the ground with their noses, sniffing for trinitrotoluene, a powerful explosive substance. They are able to check an area the size of a tennis court in 30 minutes, much faster than a person with a detector could.

"We never miss mines using rats," says Vendeline Shirima, Apopo's international mine-detection rats supervisor from Tanzania.

If you want to support Apopo, consider adopting a HeroRAT.

• For more information about Apopo, go to apopo.org



FROM PAIN COMES BEAUTY
Evgenia Zakhar tattoos over scars on women who have been abused

PHOTO: VADIM BRAYDOV

Tattoos against violence

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Evgenia Zakhar (33) is not your regular tattoo artist - every Monday, in her studio in Ufa, Russia, she turns the scars of abused women into works of art, for free.

Inspired by the work of Brazilian tattoo artist Flavia Carvalho, who also covers up the scars of abused women, Zakhar started her project in August.

She offers this service via the Russian social network Vkontakte. In six months, more than 200 women have found themselves in Zakhar's expert hands, each of them a victim of abuse from a violent father, husband or lover.

Her role has become that of psychologist to them too.

"To start with, it was painful to hear these stories, but, little by little, I learnt how to listen," she confides.

"Now, I even suggest that they share their story one last time - before leaving it behind them forever once the tattoo is finished." Zakhar hopes to set out on her motorbike to travel around Russia with her partner to offer her services to abused women from other regions, and is looking for potential sponsors.

The commitment of this tattooist is symbolic in a country that has recently introduced a law that decriminalises domestic violence. The legislation provoked strong reactions from the Russian public, with some people fearing that it would trivialise the phenomenon.

According to the Russian minister of internal affairs, 36 000 women are victims of domestic violence every year, with 12 000 dying as a result of the abuse.

Worldwide, nearly one in every three women is a victim of domestic violence.

• <https://takedela.ru/2017/01/tatu/>

IMPACT Journalism Day by Sparknews

EDITORIAL

Global fixes for shared problems

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Today, for Impact Journalism Day, 50 newspapers join forces to highlight stories that change the world.

City Press has been the movement's South African partner since inception, and continues to seek out global solutions to our shared challenges.

Beyond the constant stream of negative news, there are many stories of hope and of concrete solutions.

Stories about people who tackle some of the world's most pressing issues with innovative ideas to change the lives of millions for the better. Stories worth reading and spreading, not only to rebalance our view of the world, but to help these existing solutions get replicated worldwide.

The media can play a crucial role in telling the individual stories behind this global movement, which is why, for the past five years, Sparknews has invited newspapers to take part in Impact Journalism Day, harnessing the power of collaborative journalism to bring stories of change to the surface.

Every year, these newspapers explore and publish an array of groundbreaking solutions in special supplements on the same day, reaching 120 million people worldwide in print and digital media.

For the fifth edition of Impact Journalism Day, the media is

joined by organisations that believe spreading these stories is the first step towards change.

These include the UN and One Young World, which annually gather together 1 500 young leaders from social and corporate sectors who are involved in positive innovations.

A large community of well-known personalities and ordinary citizens have also joined the chorus in signing a manifesto to show that everyone - governments, the private sector, civil society, nongovernmental organisations and everyday people - can take action for a better future.

You, too, can be part of this transformational movement.

Discover those who have successfully brought answers to challenges such as good health, access to water, quality education, decent employment and clean energy.

Each serves as a concrete example of the power of individual or group initiatives to help reach the UN Sustainable Development Goals, to end poverty, protect the planet and ensure prosperity and good health for all.

We hope you enjoy the read and that you become part of the solution.

Sign the manifesto at sharestoriesofchange.org and share the stories that impress you most on Facebook and Twitter - #ImpactJournalism, #StoryOfChange, @Sparknews, @City_Press.

De Boisredon is the founder of Sparknews

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Today, 50 of the world's leading newspapers are publishing, in more than 40 countries, 60 positive innovations that are changing the world.

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