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Managing Director Asia Society for Social Improvement and Sustainable Transformation



Amrita Padda

VP for Human Resources Unilever Philippines



Titon

Mitra **Country Director** United Nations Development Programme (UNDP)



Abigail Cabanilla

Director Hub of Innovation for Inclusion (HiFi)



Terri Jayme-Mora

Country Manager Ashoka Philippines



Chris Morris

Head, NGOC Asian Development Bank (ADB)



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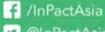


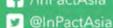
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28 MILLET TO WIN IT

A group of small-seeded grasses are being hailed as a probable solution to issues such as food insecurity and malnutrition, but challenges are hindering the true potential of the superfood, finds Meera Rajagopalan.



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Editor's Note

Dear reader,

This issue on Agriculture and Food Security has helped us explore within, even as we stepped outside our cities.

At iMPACT, we strive to reflect the aspirations and attitudes of the world we live in, with all its attendant complexities and paradoxes. The facts on the looming food crisis have been enunciated and discussed, and our explorations into some of the solutions gave us a lot of hope.

Working on these stories has also given us something more special: a mooring of sorts.

As we spoke to people who feed us, we realized that we sometimes fail to reflect the beautiful diversity and intricacies of life in our parts of the world. Data tells us that Libya is the country that most helps strangers, followed by Iraq and Kuwait; that beyond a purchasing-level parity (around USD 15,000) an increase in per-capita income does not increase well-being; and that GDP might not accurately reflect the well-being of people. Consequently, we will eschew the term "developing" and "developed", instead using terms that more accurately describe the countries in specific contexts that we want to examine: low-income countries, countries with low mortality, etc.

Similarly, we have been using, as part of established journalistic practice, the full name on first reference and, thereafter, the last name of respondents. Henceforth, we will use the names that our respondents are comfortable with—be it first, last, or an only name, once again, allowing for the tradition and culture of places that we report from.

The stories in this issue range from the millets journey, to climate-smart villages, from ideas for better social change management to the journey of innovation.

We hope you are inspired by this issue, as we were.

Warm regards,



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- 14 2019 Forum to Advance Women's Leadership in the Global Development Sector
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- 20 Ecosperity Week 2019 Singapore | June 4-7 Temasek
- 21 BlueTech Forum 2019 London, United Kingdom | June 5-6 BlueTech Research
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 Italy, Rome | June 5-6
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- 29 11th Sustainable Oil Palm Summit Jakarta, Indonesia | July 2-3 Centre for Management Technology Pte. Ltd.
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Rats! Mammal forced to extinction

Human-induced climate change claims its first mammal victim—the Bramble Cay melomys. The rodent had not been seen for almost ten years, and was officially declared extinct by Australia's environment minister. The International Union for Conservation of Nature had declared the rodent extinct in May 2015.

The brown rat-like rodent lived in a tiny island located in the Torres Strait, near the coast of Papua New Guinea and was last seen by a local fisherman in 2009. Europeans first sighted it in 1845, and from a several hundred in 1978, its population dwindled to double digits in 1998.

According to scientists, habitat loss caused by rising sea level and water temperature led to their extinction.



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Abyssmal gender parity at work: WB report

A new report conducted by the World Bank revealed that only six countries have achieved true legal gender equality—all of them in Europe.

Belgium, Denmark, France, Latvia, Luxembourg, and Sweden scored a perfect score of 100 in the "Women, Business and the Law 2019: A Decade of Reform" report which studied 35 indicators of legal equality across 187 countries.

The 2019 report details how law affects women's economic decisions across eight indicators: the ability to travel, start a job, get married, have children, run a business, get paid, manage assets, and obtain a pension.



Retrieved from www.cfr.org

Of those countries, France made the most progress in gender parity. In 2018, the French government introduced new policies to address domestic violence. The country also introduced paid parental leave as well as increased penalty for sexual harassment in the workplace.

In Latvia, more than two-thirds of mothers with dependent children have jobs. In 2015, the country signed an agreement that allows for flexible work arrangements for parents with abnormal schedules. Meanwhile, women in Belgium are covered by a system that automatically raises their wages to meet the growing cost of living.

Ugandans quit social media after tax

A new legislation that imposes a charge of 200 Ugandan shillings a day to access social media sites has prompted millions of Ugandans to abandon the internet.

Following the enforcement in July 2018, more than 2.5 million users declined to subscribe to the internet, said the Uganda Communications Commission. The social media tax has also caused the value of mobile money transactions to drop by 4.5 trillion Ugandan shillings (\$1.2 million).

Several critics have backlashed the new tax, calling it an attempt to control free speech. Users have also highlighted the importance of mobile transaction to send money, citing the country's lack of formal banking services.



Retrieved from Getty Images

David Bahati, Uganda's finance minister, said the tax was meant to raise revenue for public services. However, Ugandan president Yoweri Museveni said the new tax would help deal with "online gossip" in the country.

WB pledges \$22.5 b for Africa climate support

At the One Planet Summit in Nairobi, the World Bank Group more than doubled its support toward Africa's climate adaptation and mitigation plans, to the tune of \$22.5 billion, for five years from 2021-2025. More than half of the financing will work towards adaptation and resilience in Africa, including a results-based support program for improved watershed management and land administration systems.

In addition, the Bank will carry out intensive Nationally Determined Contributions (NDC) engagements with Rwanda and Kenya, with support from BMZ from Germany.



Retrieved from www.goodnewsnetwork.org

The quest for food security can be the common thread that links the different challenges we face and helps build a sustainable future.

You pray for the hungry. **Then you feed them.** This is how prayer works.

José Graziano da Silva

United Nations Food and Agriculture Organization (FAO) Director-General

Pope Francis Head of the Catholic Church

We need a **shift in our attitudes** to food waste—I think we need to get to the point where it just **isn't acceptable to throw food in the bin**.

Nature provides a free lunch, but only if we control our appetites.

Liz Goodwin

Director of the food loss and waste program at the World Resources Institute

William Ruckelshaus

American attorney and the first head of the Environmental Protection Agency (EPA)

Most companies, when they're doing good, they enjoy today's wonderful life. They don't worry about five years later—but I worry about five years later.

Buy less, choose well.

Jack Ma

Co-founder and executive chairman of the Alibaba Group

Vivienne Westwood

British fashion designer and businesswoman

We are using resources as if we had two planets, not one. There can be no 'plan B' because there is no 'planet B.'

This magical, marvelous food on our plate, this sustenance we absorb, has a story to tell. It has a journey. It leaves a footprint. It leaves a legacy. To eat with reckless abandon, without conscience, without knowledge; folks, this ain't normal.

Ban Ki-moon

Former United Nations secretary-general

Joel Salatin

Farmer and author of Folks, This Ain't Normal; You Can Farm



80%

of cricket is edible compared to 55% of chickens and pigs and 40% of cows.



Crickets pack almost 15 times of magnesium as beef and 2.5 times as much Vitamin B12 and 3 times as much iron.

Common house crickets pack 4 times as much protein as chicken, pound-forpound.





Cricket farming uses **75% less CO₂** and requires **50% less water**







Mealworms contain 23.1% of calcium and 4.6% of zinc compared to 12% & 1.5% of



Mopane caterpillar contains 48g of protein versus pork's 20g.

About **150** different insect species in **Thailand** are consumed and part of their regular diet.

What Insects Are Actually Edible



Beetles



Cicadas



Grasshoppers, Crickets, Locusts



Wasps, Bees,



Caterpillars



Stink bugs

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Excuse me, there's gum on my shoes!



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n Amsterdam, there are about 3 million pounds of discarded chewing gum on the street. However, a sustainable solution could help solve the sticky problem—by creating stylish sneakers out of gum!

City marketing organization lamsterdam has collaborated with sustainability firm Gumdrop and fashion company Explicit Wear to create "Gumshoe", whose sole is made of 20% recyclable gum compounds. The scraped gum from streets is broken down to form a new kind of rubber, called "Gum-Tec", which is then moulded into the sole of the shoe. For every 2.2 pounds of discarded gum, four pairs of sneakers can be made.

The limited-edition "Gumshoe" is priced around \$232 and available in both bubblegum pink and black/red options. Adding to the style quotient is a map of Amsterdam, moulded into the bottom of the shoes to remind people of the city's littering problem. What's more, the sneakers actually smell like bubblegum!

Cutting back on mishaps

t is everyone's nightmare having their finger cut by a knife when cooking. But things are much worse for the visually impaired. Design student Kevin Chiam's answer is an inclusive kitchenware collection, Folks Kitchenware.

The idea won at the James Dyson Awards 2018, and utilizes sensory feedback and tactile cues to aid the visually impaired and helps them become self-sufficient.

Utensils include a retractable guard for knives that guide the fingers to avoid direct blade contact and a chopping board side tray that serves as an extension of the hand to help transfer food ingredients with less spillage.



Retrieved from Kevin Chiam on Behance

Plastic from grapes: wine not?



Retrieved from Unsplash

rapes are not only associated with wines anymore—that is, after researchers discovered that the fruit can produce durable and ecofriendly plastics.

The study conducted by researchers at the University of Clermont Auvergne in France involved placing grape waste—skins, stems and seeds—inside a microwave before freeze-drying. The result is a liquid-turned-powder, which is then mixed into the structure of melted polypropylene, a plastic frequently used for packaging.

But what makes the solution special are the polyphenols found in grapes. When eaten, they prevent diabetes and cardiovascular diseases in humans, and when used to make plastics, they help the plastic from becoming brittle, after long periods of exposure to air and light.

Labels enable

ating contaminated store-bought food could be a thing of the past, thanks to a high-tech label that can detect pathogens instantly.

Researchers from McMaster's University in Canada have come up with the "Sentinel Wrap", a patch that turns fluorescent when it comes in contact with bacteria. Powered by a special ink made of DNA, the patch has been tested in meat products, but applications can be expanded—to liquids such as milk, and hospital floors.



Retrieved from 123rf

Eye see you driving



pair of smart glasses is aiming to reduce the number of road mishaps caused by drowsy driving.

Ellcie Healthy's eyewear uses sensors trained by machine learning that emit a bright light when drivers have closed their eyes for too long. The glasses are compatible with prescription lenses and can connect to the company's mobile app allowing the user to contact loved ones and send a notification.

Priced at \$250, Ellcie Healthy hopes to distribute the smart glasses outside France and expand its features to allow activity tracking and even fall prevention for elderly users.



Bee-gone, pesky mites!

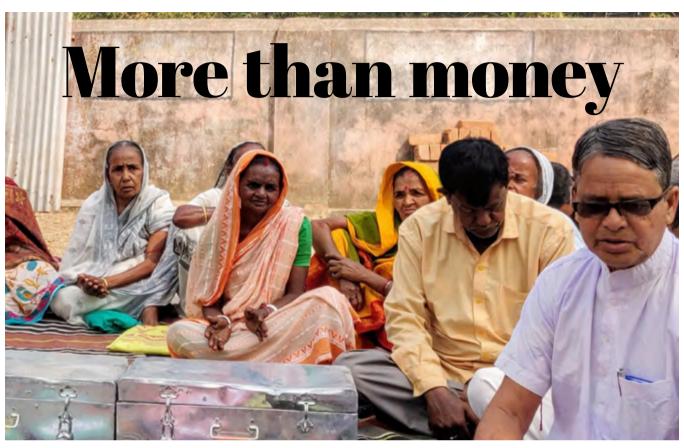
he decreasing population of honeybees can partly be blamed on parasitic mites such as the Varroa destructor. A modern beehive may save the bees and make the world sweeter!

CoCoon, the man-made beehive uses heat manipulation to repel Varroa mites. While bees can survive high temperatures, Varroa mites can't stand temperatures above 108F (42°C).

A solar panel powers a heating system, effectively rendering pesticides, which mites are becoming resistant to, unnecessary. The temperature can be controlled through an app and even allow beekeepers to monitor hive activity.



Retrieved from Steemhunt



Elderly self-help groups in rural areas provide more than just financial security, finds Aditi Chatterjee.

West Bengal, India

ational Bank for Agriculture and Rural Development (NABARD) in India defines Self Help Groups (SHGs) as "small economical homogenous affinity groups of rural poor, voluntarily formed to save and mutually contribute to a common fund to be lent to its members as per group decision." The loans that the rural poor can avail of is utilized in a number of ways, including generation of income through entrepreneurial pursuits.

Earning a living, however, is not the sole reserve of under-60-year-olds. Given their vulnerabilities, elderly people in villages need it just as much. In the last two decades, HelpAge India has pioneered the creation of Elder Self-Help Groups or ESHGs in rural India to provide livelihood support to the elderly. The success of this model has led to its adoption by the Ministry of Rural Development for the National Rural Livelihoods Mission in India, for 5,543 ESHGs, impacting 67,014 elders across 12 states in India.

The ESHG members may save as low as an amount as INR 30 (USD 0.42) per month per person, and then pool their resources to inter-lend within their group of 10-20 people, eventually moving on to larger loans

through financial linkages with banks. They may then individually or collectively engage in incomegenerating activities, such as taking on the project of cooking the midday meal for children in the village school.

While ESHGs have potent financial impact on the lives of the aged, there are also some lesser-known social aspects that are harder to quantify and may often be empirical in nature. However, there is no denying the positive impact they have on the personal psyche and relationships of seniors.

Increased inter-generational bonding

Travels into rural West Bengal brought us in touch with 10 such ESHGs, including a few 80-year-olds

Commentary



The elderly having their own social circle led to decreased stress for the care-givers in the family too, and therefore often resulted in more harmonious family relationships. ""

who walked into the ESHG meeting bent over crude walking sticks. They were too old to earn the INR 1 (less than 2 US cents) a day that they had to contribute to the collective savings fund. They proudly announced though, that their grandchildren gave them INR 1 a day from their own daily "pocket-money" of INR 5 so that the grandparents could be a part of the ESHGs. Though anecdotal in this instance, ESHGs have been known to increase intergenerational bonding within the family due to similar circumstances.

Improved status within the family

Old age is sometimes associated with familial neglect. However, ESHG members often enjoy improved status within their families. One of the reasons for this is that they are able to contribute to the family income through their own earnings via the ESHG. Even in the absence of such earnings, the elderly nominate family members who will be the recipient of their ESHG savings and the interest it accrues upon their demise. Having an inheritance to leave behind therefore also contributes to their improved social standing within the family.

Antidote to loneliness

Even with improved social status

in the family, loneliness is a real concern for the aged. Amidst their own work and household chores, family members may have little time to spare to engage with the elderly folks in the house.

However, village elders who had become ESHG members said that they had organized outings to picnic spots and religious sites as a group - something they had never tried before. Others mentioned that when ill-health hampered their mobility, the whole group congregated close to their house for the weekly meetings so that they could be a part of it. Interestingly, the elderly having their own social circle led to decreased stress for the care-givers in the family too, and therefore often resulted in more harmonious family relationships.

Broadened horizons and collective action

Among the most remarkable effects of the ESHGs however, is the impact of exchange tours to other ESHGs. Not only does this expose members to wonders they had never experienced in their own lives (like travelling by train for the first time, or seeing running water flowing out of a tap), it also gets them acquainted with best practices of other groups. There have been reports of groups who

almost doubled their contribution to the savings fund to provide small stipends for more destitute members. Dolon Mukherjee, a PhD scholar in gerontology and a HelpAge India veteran, commented that ESHGs who had met such groups came back to their own villages and started to save INR 2 instead of INR 1 per month. The reason? To set up a parallel avenue of pensions for members of their ESHGs who did not have access to state pensions and social security benefits.

Elder Self-Help Groups have, therefore, not just helped the elderly financially, but also given them a new lease on their social and personal lives in their twilight years.



Aditi Chatterjee works on livelihood and education projects with Sattva Consulting, an impact consulting firm in India that works to create social impact at scale. Aditi holds an MBA with a focus on social entrepreneurship from the University of Oxford and has also worked at the grassroots as a Gandhi Fellow.

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CSVs are not just about climate-smart agriculture: Leocadio Sebastian, regional program leader, Southeast Asia, CCAFS



Participatory vulnerability assessment. Photo credit: CCAFS Southeast Asia



Leocadio Sebastian, regional program leader, Southeast Asia, CCAFS

ne of the biggest paradoxes of the world today is the malnourishment of more than a billion people, and the "obesity epidemic" that some countries face. Add climate change to the fact that a third of the food produced is wasted, and the nature of the resulting concoction is anybody's guess.

The IPCC warning of an increase of 2°C and its resulting weather changes mean that crop yields will be affected too-most models point to a decreasing crop yield from 2030, and a yield decrease greater than 10% beyond 2050.

Climate-smart agriculture, or CSA, aims to battle just that: issues of food security and sustainability, through agriculture that enhances resilience,

increases productivity, and reduces greenhouse gas emissions.

Through its Climate Change, Agriculture and Food Security research program (CCAFS), CGIAR is working towards creating participatory models where several stakeholders come together to establish Climate Smart Villages (CSVs) that are used to scale up climate-smart agriculture.

Pilots in Africa, South Asia and Southeast Asia have yielded interesting insights and practices, paving the way for better understanding of how CSA can work in larger contexts. An important part of the CCAFS engagement is the CS MAP, or the Climate Smart Map and Adaptation Plan, which, through a participative approach, helps identify climate-related risks and proposes adaptation plans. The CS MAP can also be used for



Pest Smart Clinic



CSV roving workshop

land-use planning and crop insurance.

In Southeast Asia, CSVs have been established in four countries. **Leocadio S. Sebastian**, regional program leader, Southeast Asia, CCAFS, says that the signs are very encouraging, and governments are slowly becoming interested in the scaling up of the solution. In fact, that is the desired outcome, as CSVs focus the principles of climate-smart agriculture to the village level, and create a sandbox in preparation of a region-wide or state-wide adoption.

One of the essential features of a CSV is that it is customised to the particular village. While that does limit the immediate upscaling of climate-smart agriculture, the idea behind the CSVs was never to create a template for all villages to follow, but rather provide a set of processes that can guide the community to become climate-smart, says Sebastian.

In a chat with iMPACT, Leocadio Sebastian talks about CSVs in Southeast Asia and how they could hold the key to a more sustainable future. iMPACT: How has your experience in Southeast Asia been, given that it is one of the most climate-dependent regions in the world?

Leocadio Sebastian: Each region, each community we work in is different. The challenges are different as well. In Africa, one of the biggest issues is water. However, in Southeast Asia, many of the villages are located in mega deltas—Ayeyarwady in Myanmar, and the Mekong and Red River deltas in Vietnam, for example.

Food production here is also very intense. So what farmers are doing is not just coping with climate change but also with market competitiveness. Simply focusing on climate change is not sufficient; you need to worry about the markets as well. So any climate change adaptation and mitigation measures will need to take into account the markets and other issues that concern the farmers and consumers.

We're seeing a lot of interest from the governments, and that is very encouraging.

How have your experiences in other parts of the world fed into your Southeast Asian experience? Do you see any changes you have to make between regions?

As I said earlier, each region has its specific characteristics. As a matter of fact, we don't want to look at villages with similar issues—we want to diversify our body of knowledge.

For example, in the CSVs in Southeast Asia, the concept of community cohesion is much stronger than in South Asia. While South Asia may focus more on scaling CSA practices right away, the CSVs in Southeast Asia first work closely with the community in the CSA scaling part.



Vietnamese farmers using photos to describe their experiences on the impact of climate change on agriculture

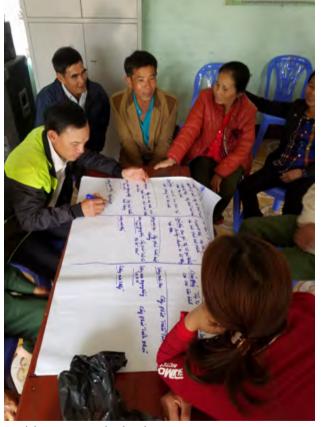
Having said that, of course there are similarities. One of the initiatives in our CSV project is a roving workshop, where people from one region visited another, to see CSV principles in action. Farmers picked up some interesting ideas from other countries. For instance, when farmers from Laos, Cambodia and Vietnam visited the Philippines, they were surprised to see that goats had their own elevated enclosure in the Philippines, which minimized the risk of diseases. Similarly, there was an exchange between farmers of Africa and Latin America.

In its heart, CSVs are basically a return to an earlier way of living-- sourcing locally, and diversifying crops. How do you think such a strategy fits into today's largely corporate agriculture sector?

Corporatization is not as much a challenge in Southeast Asia, but certainly, in some parts, like Haryana in India which is characterized by large landowners, it is. That's why we keep repeating that CSA must consider market imperatives. When we say climate-smart, it should look at productivity, profitability, emissions, and climate resilience. Of course, there are going to be some trade-offs, but it's important to keep an eye on all the factors.

Is there more to CSV than implementing climate change adaptation measures in agriculture?

Precisely. That is why CSVs are not just about climate-smart agriculture; we take a look at the larger ecosystem as well,



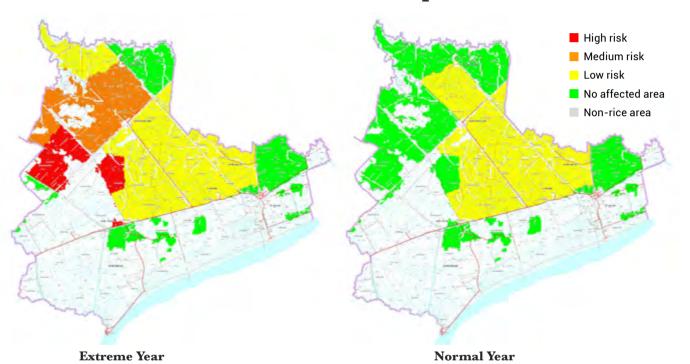
Participatory scenario planning

That Tra Hat!

In its very essence, the CSV is a participatory exercise, says Sebastian, pointing to the example of Tra Hat, a village in south Vietnam. CCAFS undertook the CSV project in Tra Hat with the International Rice Research Institute as the lead. The rice-growing village has been greatly affected by salinity in the dry season and threat of inundation during the wet season. The CS MAP was applied, suggesting mitigation measures for some of the climate-related risks in the village, commune, district and province.

In Tra Hat, one of the suggestions was to change the threerice cropping to two, minimizing the risk of salinity and flood. The resulting loss of a crop would be offset by cultivating high value varieties. In many of the villages, the usage of crop residue for energy and biochar has been promoted as well. The CS MAP for the province helped identify the regions with greater risk of salinity intrusion, and also recommend appropriate crop rotation measures.

Saline Intrusion Risk Map: Bac Lieu



and try and see where we can add value to ensure that agriculture, as a whole, does not cause or is not affected by climate change. The CS MAP is but one part of the entire program—we certainly want to see better and more accurate warning systems, as well as create larger systemic changes, including policy changes at the regional and national levels.

Where do you see CSA within the context of food security?

My view is that the key to coping with the issue of food security will be

addressing poverty first. Unless we address that crucial piece, the problem of food security will remain, regardless of yield and adaptation to climate change. If poverty levels are down, there will be a great shift when it comes to food requirements, and the pressure on the system will actually decrease.

We should use CSA together with other measure to alleviate and reduce poverty in the agriculture or rural sector; and make communities more resilient and food secure during changing climate and extreme weather conditions.

Where do you see the future of

climate-smart agriculture?

Across the world, conversations on climate adaptation and resilience are getting louder.

However, greenhouse gas mitigation is something that requires more work to scale. We have a lot of advocacy and communication that we need to put out there, to enable that.

Half a trillion dollars go to the agriculture sector as subsidies and direct payments. CSA might be accelerated by channelizing some of these farm subsidies specifically for climate-smart agriculture.



A farmer listens to radio while tending her garden - Arusha Tanzania - Photo Credit: Simon Scott

Connecting the disconnect: Radio, mobile and the farm

he screeching sound of radio static brought a different kind of alarm to Ugandan farmers. It wasn't the groovy music that they tuned into, but a local broadcaster's segment on orange-fleshed sweet potatoes. The seemingly archaic machine was now their guide to better farming.

According to the EFA Global Monitoring report, at least 75% of households in low-income countries have access to radio. Radio remains the most popular mass medium in Africa, with 93% of Tanzanians, 92% of Kenyans, and 90% for Mozambicans owning one.

Despite its unparalleled reach, radio finds itself in danger of becoming

obsolete in today's interactive media world. Organizations such as Farm Radio International are, however, trying to couple the reach of radio with the power of interactive information, to create solutions for farmers worldwide.

"Radio on its own is very one-way. That's just it. It's only when you mix it with technology like mobile where it fulfills its true purpose of providing information without restraints," said Mark Leclair, communications manager, communications and knowledge management, Farm Radio International, a Canada-based non-profit that works with radio broadcasters to improve food security and agricultural practices in Africa.

The marriage of old and new: Farm Radio International

Farm Radio's answer to the oneway communication limitation of radio is to link the old to the new technology: radio and mobile to empower small-scale farmers. Leclair called it a "perfect union of the old and new". The end product is their suite of services called Uliza (a Swahili term for "ask") which provides essential information such as accurate weather forecasts and farming tips through interactive voice response systems (IVRS) that enable listeners to communicate and exchange information with the radio station.

Through radio and mobile,

Farm Radio has produced a variety of programs that cater to different issues in Africa's agriculture and food industry. For instance, a special radio program in Uganda helps spread the word of planting an orange-fleshed sweet potato which contains high amounts of vitamin A to solve the deficiency in the country.

"We wanted to create something informative but engaging at the same time. Using radio has been a great platform for us to entertain our listeners (farmers) without veering away from the real information," Leclair said.

Tech Today

In India, it's a different story for local farmers. For Indian Society of Agribusiness Professionals (ISAP), a development organization that utilizes ICT and sustainable farming approaches to empower rural India, employing radio and mobile technology has been a kind of mixed bag: high penetration of mobile phones, yet a lack of awareness on how to use interactive technology.

On the plus side, farmers are given a variety of options. A testament to this is how farmers use mobile technology to access certain radio features, where inconsistent power supply hampers technology development in far-flung areas. "We actively deploy all options available through ICT for reaching out and information dissemination amongst farmers. We found that 49% of our listeners in Madhya Pradesh (a state in India) use mobile phones to listen to our radio programs," said Gaurav Vats, head of ICT & innovations, ISAP. "This is pleasing to note that new technology is propping up old age technology."

However, low reception of newer tech in rural areas is posing



Nelson Kawawa of Radio Citizen interviews Magret a mango farmer in Kenya. Photo Credit: Farm Radio International



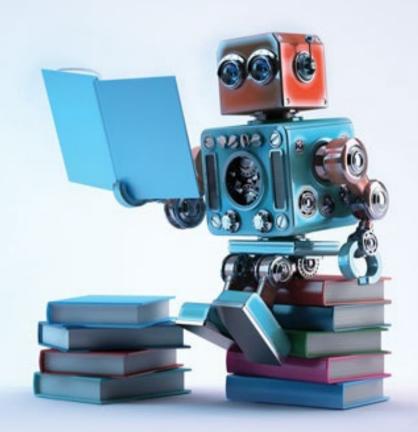
Woman farmer viewing an animation video. Photo Credit: Pradeep Rathore

challenges, with lack of familiarity with technology being the biggest hurdle. Many farmers require training to use basic technologies, and complications arise when implementing social projects.

ISAP hopes that by incorporating ICT and sustainable methods in agricultural projects, more farmers will continue to embrace newer technologies of today. The combined power of the old and the new can complement each other to good effect.



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in agriculture-focused regions, is fraught with complexities that are often not discernible to the urban mind. Yet, many rural development projects, successful ones at that, are founded and run by people with no significant exposure to rural dynamics.

Today's technology also provides one with possibilities of scale hitherto unimagined. If a changemaker in Bangkok want to impact thousands of households in the northern province of Chiang Mai, is it possible without experiencing the region first-hand? Does the universality of human experience apply, or is sustainable change only possible through immersive experiences of rural hinterlands?

In this issue, we try and answer the question through our Face-Off feature: Is it essential for founders of organizations working in the rural space to have lived in rural areas for a significant period of time?



Kenneth Y. Hartigan-Go, MD, MD (UK) School Head and Associate Professor, Asian Institute of Management-Stephen Zuellig Graduate School of Development Management, Manila

evelopment agencies face great challenges. Often, they are driven by the personalities of the leader as seen in our Asian context. As such, the leadership has to demonstrate authenticity if they are to drive meaningful change in the organization and in the communities they serve.

Suppose the leader or the founder of the organization has not truly immersed themselves in rural areas, they may not understand the nuances of the work needed ahead. These realities cannot be derived vicariously and cannot be learned by reading research reports alone. These lessons cannot be achieved by going on field visits occasionally. People do not usually disclose true feelings until trust is achieved. Non-verbal cues and body language reveal a set of needs that cannot be obtained by superficial exposure. Many such needs are not articulated and hence there will be cracks in the wall. By living in the same environment as the community being served, one raises the bar for partnership and dialogue and the rural community is not just a recipient of aid. Even in the new concept of serving and creating new solutions, empathy is a requisite to design thinking. Leadership is about co-creation of solutions if one wishes to achieve sustainable answers to rural problems.

One might argue that one may learn the essentials through brief visits and extensive research, and provide objectivity to the analysis, and one might also provide an out-of-the-box solution, but these are rather exceptionally rare. Not all can be creative problem solvers.

LL Immersion leads to empathy, which leads to effective design."



Extensive research may be enough if familiar with community."



Jordianne GomezProject Manager, ASSIST Social
Actions, Manila

f one has lived in a rural area for some time, it may not be necessary to revisit before starting a social project. Because of their first-hand experience, they can easily empathize and understand the situation despite possible geographical differences. Hence, the use of extensive research or interview social workers and community leaders are enough to decide which among the viable solutions or innovations may work for the area.

If this question is asked specifically for researchers, program designers, and program implementers, yes, community visits or immersions are a must-do, to understand the unique dynamics of the community they plan to serve, to determine if the community has appropriate resources needed for the project, so we can better plan the materials needed and its logistics, and to establish community advocates and good partnership with the community.



Janina AstillaProject Manager, Private Sector
Partnerships, ASSIST, Manila

o effectively implement a project for rural communities, I find it necessary for founders/heads of organizations to immerse themselves in the communities they intend to work with. It is only by being with the community and spending a significant period of time with them that a person would be able to have a holistic understanding of the situation on the field. The time spent in the community would allow organizations to get inputs and ideas from community

members themselves that would ensure strong local buy-in once projects and initiatives have been created. It is essential to not only work for the communities, but work with them in creating sustainable and relevant projects to address their needs and concerns, and not only what is deemed necessary for them. It is important for organizations to also build relationships with the community, and it could only be done if they intentionally spend time in the field.

LL It's about building relationships to understand the field."



he first time I started to consistently hear about the health benefits of millets was about seven years ago, when "organic" began making a buzz too.

The narrative was intrinsically connected with the lost heritage and ancient knowledge of India, something we could apparently reconnect with through the stalks of any of the various types of millets we could consume (see box).

Image courtesy of ICRISAT

A millet by any other name

The generic name "millet" does not quite capture the variety in these superfoods. Here are just a few varieties of millets grown around the world.



Sorghum Pearl Millet Finger Millet Foxtail Millet Barnyard Millet Kodo Millet Little Millet Proso Millet Browntop Millet

However, my first foray into cooking healthy with millets did not go down well. The millets I had planned to make were not as easy to cook as rice, and I had no one to tell me how to cook it, simply because the millet tradition had disappeared over one generation.

The players of this scene were clear: Rice was the villain, oats was the benign foreigner, and then, millets came on to the stage as the forgotten home-grown hero who would eventually save the day. The scene is still being played out in various parts of India.

Millets, which were part of the natural crops of the region, have systematically been muscled out of agriculture by the more attractive rice and wheat. In India, the area under millet cultivation was down 63% from 1978 to 2013. Little wonder then, that rice and wheat dominate today's plates of Indians.

The truth, as I found out after several half-used packets of millets was this: one cannot migrate to a millet-heavy diet easily. Eventually, it all boils down to convenience.

Now or never

However, we might not have the luxury of convenience for too long. With the everincreasing burden on our already parched and over-fertilized land and bodies, solutions for sustainable food solutions are being sought, and diets examined worldwide. Millets are emerging as a natural solution, loaded as they are with minerals and importantly, for farmers, are able to withstand drought conditions.

Millets are a group of small-seeded grasses, mostly grown in semi-arid regions of Africa and Asia. In 2016, 28.46 million tonnes of various kinds of millets were produced around the world, according to FAO estimates, with more than 97% of the yield produced in low-income countries. India accounts for 36% of the world's production.

However, the initial question remains: How do you change diets of entire populations?

Joanna Potaka, executive director of Smart Food, an initiative by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), is aiming big. The India-Africa collaborative project aims to bring traditional foods back as a staple food, to diversify crops, and millets form a major part of the initiative.

"Millets tick all the boxes," says Potaka.
"When we say smart foods, we mean foods
that are good for you, good for the planet, and
good for the farmer."

Part of their work has been in working with the government at various levels: central and state governments, who, Potaka says, are creating an infrastructure that will help support the scaling up of millet operations.

Anshuman Das, programme manager, sector head for agriculture, and livelihoods, Welthungerhilfe India, an organization working in the space of rural development around the world, says large-scale adoption



Image courtesy of ICRISAT

of millets is only possible with the involvement of government. Other initiatives, he says, can increase awareness and drive demand.

Many initiatives are trying to plug millets into two of the largest purchasers of food grains in India, the Public Distribution System (PDS), and the noon mid-day meals scheme. While the Public Distribution System (PDS) supplies subsidized food grains and distribution of essential commodities, through a network of Fair Price Shops, the mid-day meal scheme provides school students with nutritious free lunches.

Recently, Smart Foods partnered on a pilot study with mid-day meals provider Akshaya Patra in the state of Karnataka in India to study the nutritional benefits of including millets as part of the children's noon meals. If successful, this could mean a huge shift in the middle-of-plate inclusion of millets. Akshaya

Patra has also introduced millets in government schools in another state, in the form of dessert and other margin-of-plate items.

Odisha, which has adopted the Millets Mission with great fervour, has embarked upon a project that incentivizes millet promotion and cultivation with the help of NGOs.

Vilas Tonapi, director of the Indian Institute of Millets Research (IIMR) in Hyderabad, says plans of the government include a ramp-up of all activities related to millets: production, processing, and consumption. The plan, he says, is to target all stakeholders of the millets equation who might have a position of influence, including the wellness industry: dieticians, nutritionists, and gym owners.

Das, whose "Promoting Sustainable Local Food Systems" project aims to address the food value chain from three nodes - the producer, consumer, and the marketplace organizes several workshops and awareness campaigns, while also working with millets farmers.

Pieces of the puzzle

Yet, challenges remain, especially with respect to increasing the demand for millets. How, and from where do we start?

The way forward might lie in the unsung heroes of the millets story who are often ignored in the high-decibel discussions around the farmers, consumers, and the government: the small and medium enterprises who work to make millets more palatable to today's populations.

"These companies spend years in research and development, and struggle to find funders because of the nature of the product cycle," says Potaka, maintaining that they form the key to popularization of millets. Millets tick all the boxes. When we say smart foods, we mean foods that are good for you, good for the planet, and good for the farmer. If you just bring out a millet cookie, that's not going to have the impact we need.



Joanne Potaka, executive director of Smart Food, ICRISAT

"People are actively trying to fight lifestyle diseases, and this (millet adoption in diet) will happen first in the cities and then trickle down to towns," says Sai Krishna Popuri, founder and CEO of Health Sutra, a company that produces ready-to-eat and ready-to-cook millet products. The focus is not on changing the diet, says Popuri, but just the ingredients. The company sells 600 tonnes of products a year, and is born of the idea that to sell health, "we need to fit into the traditional food narrative."

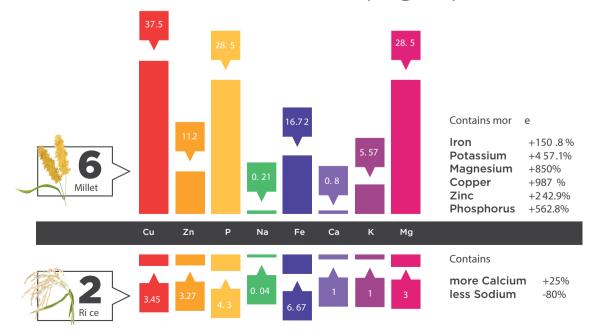
That means that millets can transform into an adjective where none existed before, to make available millet idlis, millet poha, and other foods that were hitherto made with other grains, especially rice.

This, the idea that millets are best introduced slowly to the diet is one that almost everyone agrees on. "A full shift from rice to, say, foxtail millet is too radical," says Popuri, whose products include ready-to-eat millet flakes, and millet raya for idlis. "People should be able to cook millets the same way they do wheat and rice—be it pongal, or rava upma (both traditional dishes using rice/wheat-based grains)," says Tonapi. IIMR conducts monthly programs for those interested, as well as workshops on preparing value-added millet items.

Small Millets Foundation (an initiative of the DHAN Foundation) helps consumption of millets, particularly small millets, through videos, live demonstrations, and cookbooks that are distributed to members of farmer's federations and women's groups. In fact, in association with the Tamil Nadu Agricultural University, the Small Millets Foundation has standardized the recipes for centre-of-plate, margin-of-plate, and bakery items for use by the general public and other small scale enterprises, typically led by women.

Nearly all people we spoke to included popularization of millet cooking in their program. For instance, Smart Food conducted a culinary competition at Ramayya University in

Nutrition: Rice vs. Millet (Sorghum)



















Products from HealthSutra

Processing of millets is drudgery, and farmers often prefer to sell the grains, rather than dehull it themselves, and they consume rice available in the PDS



M. Karthikeyan, CEO, Small Millets Foundation

Bangalore, India, where participants cooked an entire meal with millets. Two years ago, a reality cooking show on Kenyan TV sought to popularize traditional foods.

The IIMR often conducts awareness programs and workshops to encourage the use of millets at a household level, and Welhungerhilfe also conducts workshops to demonstrate how millets can be prepared.

Potaka, however, makes a distinction between changes in diet and supplementary foods, stressing that the Smart Food program is meant to bring back sorghum and millets as staple foods. "If you just bring out a millet cookie, that's not going to have the impact we need," she says.

While awareness on the consumer end is rising day-by-day, Popuri cautions against positioning millets as a panacea. "A lot of people are vaguely aware that millets are good, but don't know how to use them or how exactly they are good for their health," says Popuri.

The farmer in the dell

When demand rises, the millet farmer

 $^1Bandyopadhyay, Tirthankar \&\ Muthamilarasan,\ Mehanathan \&\ Prasad,\ Manoj.\ (2017).\ Millets\ for\ Next Generation\ Climate-Smart\ Agriculture.\ Frontiers\ in\ Plant\ Science.\ 8.\ 1266.\ 10.3389/fpls.2017.01266.$

must be ready to supply the grain, and also benefit from it, something that does not seem likely in the current scenario, say experts.

Millets remain a fringe crop, or an intervening crop; either way, not strong enough to warrant a concerted public policy.

"There has been a systematic dismantling of traditional foods due to various reasons. Who decided, for example, that rice and wheat are India's foods?" asks Das. He adds that over time, the systems in place for rice production and consumption have embedded themselves so deeply that it is very difficult to think of alternatives, least of all because of the indisputable convenience of rice.

The strong rice-wheat lobby, whose near-domination of the PDS, agricultural land, and markets, make millet growers particularly vulnerable to exploitation. The combined rice and wheat production in India is expected to be around 281.4 million tonnes this year, ten times that of millets.

With a looming food crisis on the horizon, though, it is time to look beyond rice and wheat, even if one is ensconced in its familiarity.

Millets hold great promise for food security and nutrition amid everincreasing agricultural costs, climate change, and burgeoning mouths to feed worldwide, says a 2017 study.

While "millets" is a blanket term we use for the category of cereals, there are some that are more equal than others, says M. Karthikeyan, CEO of Small Millets Foundation. "We often see that sorghum and pearl millet get the maximum assistance, and the small millets, each of which have different nutritional values, often get short shrift," he says.



Image courtesy of IDRC _ DHAN Foundation

What you sow, you don't eat

Millets still suffer from low consumption in rural areas, where they might arguably battle malnutrition better than rice can.

Tonapi agrees that there must be a concerted effort to get millets on to the plate of the rural and urban poor. Apart from the health and wellness industry, Tonapi says the plan is for the government to also tap into the ecosystem of rural health workers, because "the bottom of the pyramid is more important, and we see millets as a natural combatant of malnutrition, both urban and rural."

Small Millets Foundation works on decentralization of millets processing, and Karthikeyan says village-level processing is the only way to ensure that all millets are grown and consumed in rural areas.

"Processing of millets is drudgery, and farmers often prefer to sell the grains, rather than dehull it themselves, and they consume rice available in the PDS," he says.

If processing happens at the village

level, says Karthikeyan, value-added products will also happen locally, and that can significantly impact the livelihoods and consumption of different types of millets.

The rural consumption angle is a tricky one, admits Potaka, adding that programs are being considered and will soon be launched for rural areas as well.

Popuri says the demand will be led by the urban areas, trickling down to the other regions. "We are really managing perceptions," says Popuri. "In a town with a population of about 2 lakh (200,000), there is still the idea that millets are a poor man's food."

In a strange paradox, millets have become aspirational for the healthconscious urban elite, just as rice was an aspirational grain for large sections of the marginalized, less than a decade ago.

What's next?

The signs for a boom are all there, with increasing awareness and infrastructure noises around millets.

As a first step, Karthikeyan suggests consolidation, helping

farmers retain the crop. He cites the example of the village of Anjetti, where all six varieties of small millets would be cultivated less than a generation ago where, now, only one ragi is cultivated substantially.

He says that several processing companies, farmers, and allied stakeholders have left the millets space because of a lack of formal support. He advocates the setting up of a specialized organization dedicated to millets, with state-level organizations to help all stakeholders promote the grains seamlessly.

The National Policy on Millets, released recently, addresses gaps in various areas of the production and supply chain—from seed, to farmer producer clusters, to processing, to linkage with markets.

Part of the plan involves setting up 25 seed clusters and 250 processing centres across the country, creating farmer federations, and providing market linkages.

However, there is nearly no new land available for farming millets; instead, the national mission will focus on improving productivity, and promote millets as an in-between crop in "highly endowed" regions, where rice and wheat farming takes place.

Tonapi says the country is looking at an output of 30 million tonnes by 2023, two tonnes more than the current global production. The year 2023 is being planned as the United Nations International Year of the Millets, a distinction that might remind one of a declaration ten years earlier, in 2013, to the quinoa. If India and Africa are able to replicate the success story of the quinoa, it might well have substantially contributed to the food security solution.





What's the Catch?

Think food security, and what comes to mind is green as far as the eye can see. However, seafood forms a large part of the world's food security, supplying 154.85 million tonnes to the people of the world (compared to 317.85 million tonnes of meat, including poultry), according to 2013 FAO figures.

Fishing is happening at unsustainable levels, and the percentage of marine fish stocks fished within naturally sustainable levels has decreased: from 90% in 1974 to 67% in 2015, according to the 2018 FAO State of World Fisheries and Aquaculture (SOFIA) report. It is a matter of grave concern, especially for Southeast Asia, where seafood constitutes a major component of most countries' economies.

Overfishing is not the only problem facing coastal communities—garbage on the coast and climate change affect the regions disproportionately as well.

Our photo feature this issue captures the trials and triumphs of coastal communities.





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The ABCDS of Modern Agriculture

Welcome to the new age, where farming isn't just slash and burn. We decode some of the new practices and jargon that you may hear during conversations with new-age farmers!

Agropastoralism

Farming that combines crop production with extensive livestock tending.

Aquaponics

The combination of aquaculture (breeding fish) and hydroponics (cultivating plants in water). In aquaponics, fish waste are used as fertilizer for the plants cultivated.

Biofortification

Enhancing the nutritional quality of food crops through agronomic practices and modern biotechnology.

Contour Farming

The sustainable practice of planting crops across or perpendicular to a slope to break the flow of water and prevent soil erosion.

Cultural Control

A variation of pest management that uses techniques like tillage and sanitation to modify a growing environment and prevent pest growth.

Hyper-Local Food

Food that is grown and consumed in the same place with extremely low food miles (the distance food is transported from producer to the consumer). An example is restaurant roof-top farming.

Pervasive Automation

A component of agriculture technology industry that employs autonomous vehicles controlled through robotics to reduce operator workload.

Residue-Free Agriculture

The use of organically derived biocides and bio-fertilizers to protect and increase crop growth and reproduction.

Variable Rate Irrigation

A site-specific management of water that works by applying irrigation water based on specific water needs of individual zones rather than a uniform rate across an entire field to save gallons of irrigation water while increasing both crop yield and quality.

Vertical Farming

The practice of planting crops in vertically stacked layers to produce fresher foods at a faster rate, capable of thriving even in urban environments.



any in the social sector believe that large scale change can only happen if there is a system, a structure and, in fact, an organisation. That one essential part of what makes it all work is an independent Board of Trustees, or a similarly structured group.

A Board generally comprises a group of people who voluntarily give their time and talent to ensure that the NGO is compliant with the laws of the land and that it pursues its objectives as publicly stated. The reality, though, is that for the majority of the organisations, the role of the Board often stops with ensuring compliance.



Aarti Madhusudan runs Governance Counts, an initiative which helps non-profits build more effective Boards. She is associated with iVolunteer, India's largest volunteering organisation and Daan Utsav, India's festival of giving.

Most of the time, though, Boards in our region, especially in the non-profit sector, are made up of friends, connects, and sometimes, family members of the founder. Usually, as long as the organisation and its employees perform their functions within the legal and statutory framework, Boards play a marginal role.

However, there seems to be an increasing belief that Boards need to extend themselves beyond the minimum. This pressure might be led from donors (especially overseas), supporters, and occasionally from the founder/

CEO herself when there is a sudden crisis or a need for resources.

My view, based on years of working on non-profit governance, is that the function of a Board is for the founder to determine, and it is okay to retain a Board mostly for compliance. Pushing for an independent and robust Board when the culture of the organization or the will of the founder does not support it might do more harm than good. It is not necessarily detrimental for a non-profit to have a Board that is little more than a formality.

However, there is no doubt that a robust Board adds tremendous value to an organization.

But how does one get there? Once a founder decides that a robust Board will help, how does she go about it?

While there is no one-size-fitsall, here are some considerations towards building a Board that will serve its purpose.



Pushing for an independent and robust Board when the culture of the organization or the will of the founder does not support it might do more harm than good."

Role-setting:

One of the most important steps is to ensure that everyone is on the same page when it comes to the expectations and roles of the members of the Board, the founder, and the CEO: first, by carefully considering the kind of Board that the organization warrants and then, ensuring that everyone is on the same page.

Determining the role of the Board:

The CEO/founder (or even a Board itself) needs to reflect upon the role that it should be playing at a given point in time. This is contingent upon:

- The will of the founder to be governed
- The changing needs of the organisation
- The chemistry and rapport of the founder/CEO with
- The internal dynamics of the Board and
- The competencies in the Board to deliver on the new

Agreeing on and articulating the role of the **Board and each member:**

The next step is for the Board to articulate this role, the reasons for the change in role (if any), how it could impact the organisation, and what is expected of each member. This could include everything from taking on new and additional responsibilities, to meeting more often, from adding new members to weeding out those who cannot deliver. It is

E It is not necessarily detrimental for a non-profit to have a Board that is little more than a formality."

important to put this down and discuss it threadbare, rather than make assumptions based on prior experience and engagement.

For instance, if the Board member includes a person with a marketing background, it may be assumed that he will help in fundraising. The member may not want to.

At this stage, members of the Board and the founder/CEO must basically have a good idea of who will do what.

Populating the Board:

For an engaged Board focused on specific areas of expertise, four important factors help determine who gets to be on the Board.

- Commitment to time and being available
- Evidence of a stated competency
- Willingness to use the skill and competencies in the organisation's context
- Chemistry and rapport with the founder and other Board members.

The last mentioned is often ignored, but must not be. Good chemistry is critical in drawing out the member and engaging with him/her effectively.

Lastly, the Board Chair:

A Board Chair, mandated by law or not, is very helpful in determining and ensuring the efficacy of a Board. The Board chair is usually the "go-to person" for the CEO/founder, and consequently, must possess a great rapport with the CEO/founder. Equally important is the understanding of the dynamics within the Board and being able to manage the same. The Chair, while being close to the CEO/founder, also needs to have the ability to be objective in the manner in which she handles difficult inter-Board and Board-CEO dynamics.

Creating a strong Board is not as difficult as it sounds, mostly it's just common sense combined with some prudent consideration of what's best for the organisation and the people it seeks to serve.



You have an invention that will bring about a change for the better. Now what?



Steve Oh is the CEO and head of growth at Innerbottle, Inc. He is also adjunct professor, Department of Intellectual Property at Dankook University, South Korea.

Social enterprises are considered the most viable solution to social problems that cannot be addressed by mere aid or government action. They emphasize market dependence and therefore, are seen as the most natural intervention.

However, concerns remain as to how sustainable they actually are: A 2017 study by the Failure Institute, focused on Mexico, revealed that 43.5% of social enterprises in Mexico survived less than four years, with 38.3% folding before a year of founding. However, to provide a context, the rates are similar for businesses.

Often, a social enterprise is founded on a passion for social change.

However, there is more to a social enterprise than that—factors that might surprise and blindside founders.

Innerbottle's CEO, Steve Oh, takes us through his experience in founding and running a tech-based company that promotes sustainability. Founded in 2018, Innerbottle solves the problem of those last few drops of creams, lotions and shampoos left inside bottles, and the inevitable dumping of those plastics. Oh and his team developed an eco-friendly expandable "bottle inside a bottle" that contracts as product is squeezed out, leaving less than 1% residue, and more importantly, allowing the outer bottle to be reused without a cleansing



process, drastically cutting costs and upping the ease of recycling. The Innerbottle solution allows infinite choice in the packaging material, as contents are contained within the Innerbottle, and the outer packaging can be designed with no other consideration than aesthetics. Innerbottle won the Presidential Prize at the biggest start-up competition held by the Korean government, "Challenge K-Start up 2019" in which 5770 teams participated.

It doesn't matter how the idea comes to you. Can you stick with the idea? The idea of Innerbottle came to me on a flight to San Francisco. The important thing to remember is that it might take a long time to operationalize an idea, because what's in your head may be very different from what is in your hands. What matters is that you see the possibility of your idea changing the world and decide that it is worth pouring your time and effort into.

There are several steps to bringing a product to the market. There's a lot of work involved after the initial idea. There is the research (market and technology), design, prototype, design for mass production, and then eventually, the product. Some people believe that the prototype stage

Business sense is very important. If you don't have it, hire it."

ends the design process. However, it's more than that—the design for mass production is a very important and sometimes, a time-consuming process.

In the case of Innerbottle, I merely thought about an elastic balloon-type cell, but when we started creating a working prototype, we had to consider several factors such as the material of the cell, hardness, chemical stability and thickness. Designing an optimized cell took more than six months, as we had to repeat experiments. Another factor is modification. During operationalization, the initial idea might not change but designs are likely to change. This modification takes time, and in our case, it almost took a year.

Be realistic about the competition.

Most inventors tend to think that their invention is the best and often misunderstand the market. Understanding the market has to precede building a product.

There will be delays and extra costs. Ours is a manufacturing business, and during development, we had to run a lot of trials. The theory would make sense but when we ran a test based on the theory, it sometimes didn't work, and we had to modify things. These came as a bit of a surprise, but our business model was robust enough to absorb them.

Business sense is very important. If you don't have it, hire it. Inventing a product and selling it in the market require completely different skill sets. Most inventors have an engineering background and while some of them are born with a knack for business, I would not recommend that inventors do marketing.

Again, business models. It goes without saying that changing society is really important. It needs time and effort. If you want to change the world with your idea, through your business, it has to be profitable. So even if your product is the best invention since sliced bread, it is imperative to structure a good business model.

Campaigns that push the excess away





bout 783 million in the world suffer from starvation, yet it's puzzling that so much food is being thrown away—1.6 billion tons to be exact. Now that food security is at the centre of conversations about the future, it's about time we think about how we consume. Here are a few campaigns that caught our eye for their impact on eliminating food waste.

1. The price is right

An Israeli tech firm is fighting food waste in the retail industry through a dynamic pricing approach. Wasteless utilizes machine learning to efficiently optimize product price based on factors such as expiration date, brand popularity, seasonal popularity and even location. Through it, supermarkets can sell more goods and increase their revenue, while also reducing food waste.



2. The cold never bothered the fruits anyway

In Nigeria and Kenya, 45% of fruits and vegetables harvested each year rot due to inefficient food storage. Enter the solution: modular walk-in cold rooms that can extend the shelf life of perishable food by weeks. Piloted by social enterprise ColdHubs, the cold rooms are solar-powered and offer 24/7 off-grid storage and preservation to extend the freshness of fruits and vegetables from 2 days to about 21 days.





3. Sipping sustainability

Fruit and vegetables are known for their short storage life and fragility. Because of this, most goods do not meet supermarket standards. Ooze Drinks decided to make use of discarded fruits and vegetables from local markets and turn them into sustainable, yet safe smoothies. The company aims to save 15 tons of excess food each year through its juice drinks.



4. Grab a grub

It's no surprise that insects are part of animal diet—but those critters are about to be more essential as ever, thanks to an innovation that transforms food waste into organic, protein-based feed. Pre-consumer food waste is fed into Black Soldier Fly larvae which converts it to a high-protein body mass. By the time of harvest, insects contain 45%-65% protein, and are processed into flour to feed farm animals.



5. Restaurant rescue

Saving over-produced food could be as easy as a single tap. The Grub Cycle app allows consumers to purchase food from partner restaurants that are about to be thrown out. The items are sold at a discounted price and users can subscribe within the app to receive notifications whenever a restaurant posts a delicious new deal.





6. A clean plate, either way

Household products made of food waste? Sounds like sorcery, but it is actually the magic of science. U.S.-based startup Industrial/Organic makes use of discarded food items and recycles them to home cleaners, fragrances and other organic chemicals. Thanks to a multi-step recovery method called "anaerobic fermentation", the process goes beyond composting and generates no methane, to create sustainable and eco-friendly bio-products.



hen 54 women from villages in the south Indian state of Tamil Nadu visited the northeast Indian states of Mizoram, Nagaland, and West Bengal to train and mentor women from self-help groups (SHGs) in micro-finance there was so much that was not common to the two demographics: the language, weather, crops, and food, to name just a few.

But at the end of the training and mentoring, the Tamil Nadu women had not only trained their counterparts in micro-credit and built systems, they had also helped secure bank loans to the tune of INR 18 crore (USD 2.6 million).

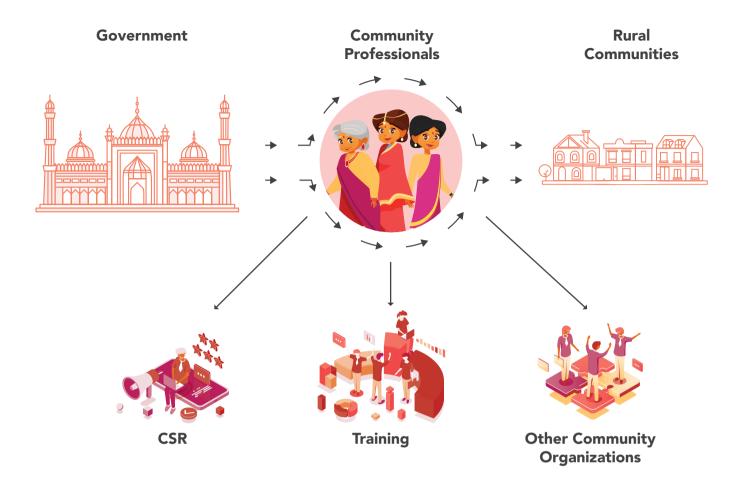
"Most of the time, we used sign language to communicate. We didn't know Hindi; neither did they. It was difficult, but we were able to do it, as our concerns were the same and our lives were similar," says Bala Saraswathi, one of the women. What's noteworthy is that the women had never been outside their village until they joined an SHG, and they now travel across the country training women and SHGs.

These women are part of Tamil Nadu's brigade of nearly 8,530 community professionals (CPs), also called community resource persons, culled from 32 districts of the state of Tamil Nadu. These women form a formidable and dependable first line of resource persons who are capable

of consulting, training, monitoring, and organising, and can act as a bridge between the government and communities.

The CPs are a pool of enterprising rural women of the Community Professional Learning and Training Centre (CPLTC), also called the Makkal Katram Maiyyam (Ma Ka Mai), established in 2009, as part of a World Bank-funded project called Pudhu Vaazhvu, which invested in developing multiple community-based organisations at the village and the panchayat levels.

CPs help various entities with their capacity building and other needs: other community institutions, local government departments, and other state governments, to name a few.



Conceivably, they can also find a place in the CSR ecosystem in various roles: in training, community mobilization, placement, etc. It's a model that leverages the collective power and local wisdom, and builds a sustainable livelihood for women, while creating a strong government-community link.

The women work primarily for the projects of TNVRC (Tamil Nadu Volunteer Resource Centre), a society under the Tamil Nadu Corporation for the Development of Women (TNCDW), recognised as a National Resource Organisation by the Government of India, to provide support to other states in their poverty eradication programs.

The CP's mandate is simple. For example, when we met the CPs, they were in an area near Chennai (the state's capital), on a 60-day assignment

to organize women under SHGs, start a livelihood project, train women in micro-credit, and build a basic community support framework to sustain the SHG activities. In less than 50 days they have formed 40 SHGs, identified livelihood opportunities and formed livelihood groups and organised job melas in the settlement. These women, who have never been to college, ably manage projects in Build-Operate-Transfer mode.

Deepa Rajkamal, CEO of TNVRC – NRO who oversees implementation says, "Today we have highly competent women who can take the project to other countries as well. We can organise women into SHGs and build institutions for the poor in no time, without compromising quality. The success in other states gave us confidence to take larger and

challenging projects like building livelihood in resettlements areas."

The women are also able to generate revenue through their training, and they have also helped redefine the involvement of NGOs in government schemes. NGOs, who used to earlier take over community mobilization and training, are now expected to be knowledge specialists alone. The role of community connect has been taken over by the communities themselves, for better efficiency, speed, and sustainability.

"The CPs are from the same community. It is like learning from your sister; women relate better with CPs than with professional trainers from outside," says Veera Pandian, special project manager, who accompanied the women on their northeastern trip.



Rajkamal says that what used to take years is now achievable in less than three months, while NGOs are retained for what they know best: providing specialist knowledge.

"Women-to-women relationships, dedication of CPs, accessibility and continuous support are things no one else can offer. Here, the development is people-driven not bureaucracydriven," she says.

The journey to the CP model was a long one, with roots in the SHG movement (see box).

People-Driven Development

The World Bank's learning from other countries as well as TNCDW's own experience suggested "that partnering with communities and local government institutions and handing over resources under the direct control of community groups, led to the efficient delivery of basic services, and, when sustained over time, measurable reductions in poverty, particularly among the poorest populations and communities".

So, when World Bank-funded Pudhu Vaazhu (Tamil Nadu Empowerment and Poverty Reduction Project) project was initiated in 2005 with the support of 274 million USD, community-driven development became the fulcrum around which programs were conceived. People institutions run by the poor were seen as critical for the success of poverty alleviation and rural development.

Ma Ka Mai was one of the unique community institutions initiated under the Pudhu Vaazhvu Project. CPLTC was established in the year 2009 as a registered Society under the Tamil Nadu Society Act in 26 districts and 220 blocks in the project area.

The backbone of every CPLTC are the CPs, who are recruited from different community-based organizations, and typically have experience in institutional strengthening, savings and microcredit, livelihoods, and can offer more than 40 types of services in these functions. These professionals have a wealth of on-the-field experience and have come together as a team to serve community members by offering them training and guidance on a variety of subjects.

Evolving Roles

The CPs' area of work can be widened, depending on need. In fact, Rajkamal talks about building CPs in disaster management and mental health, with 1000 CPs to be trained

Flower Power to the Fore

One of the watershed moments in India's policy making was the realization that the highly centralized bureaucrat-driven policies and programmes, although well intentioned, were not delivering results as envisaged. Elsewhere in the world, NGOs were working with groups of women, trusting their capability and wisdom. They were given freedom, access and training to choose their own plan to get out of poverty. These experiments in the 1980s were showing results.

TNCDW was India's first corporation for the empowerment of women with jobs and livelihoods as the main thrust areas. Some of the SHG experiments were happening in the most backward districts of Tamil Nadu, in partnership with NGOs and the government.

The learning from this had enormous impact in the way poverty alleviation and women empowerment programs were conceived in Tamil Nadu and in India. The SHG movement mobilized poor women, organized them and became a powerful people institution, supported, nurtured by the NGOs and the government. By the year 2000, SHGs were present in almost all villages. These SHGs were lending, starting businesses, taking up social issues and preparing a groundswell of social change.

In some districts, these SHGs were forming clusters (network of SHGs) to leverage their collective power. Federations of SHGs were formed, and this collective strength gave them more money, materials and people power. However, the movement itself was dependent on government grants, official/NGO support and non-income generating debts. It left out the poorest of poor and sustained livelihood couldn't be created at scale to address poverty in the villages.



We didn't know
Hindi; neither
did they. It was
difficult, but
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concerns were
the same and
our lives were
similar. JJ

Bala Saraswathi Community professional

as community counsellors and first respondents to natural disasters. "The possibility of layering CPs in different fields and with skill sets is a strong opportunity," she says.

CPs are evolving into consultants, trainers, organisers, implementers, and effectively becoming an extension of the government, in delivering government programs to the last mile.

Praveen Nair, managing director of TNCDW, in his speech during the organization's 35th anniversary, said that CPs would act as an extended arm of government machinery. Communitisation and convergence were twin strategies of TNCDW, and the eventual goal is for CPs to take over the field operations, enabling the corporation to slowly withdraw from many of its direct activities, he said.

The model is creating an entire legion of women who can lead and earn a decent income for themselves, working towards several SDGs at one go.

The training centres are moving towards financial sustainability, as they bid for inter-government projects, and offer more services to communities and governments. CPs role is also not a closed position, they are evaluated on a continuous basis and graded as A, B and C Level trainers. A "Level A" trainer can earn an income between Rs. 750 to Rs. 1500 (USD 10 to 20) per day.

However, the challenge is in sustaining the income, and Rajkamal admits that their continued success depends on the government's ability to provide them with employment for at least eight months of a year.

The model has inspired both the state and central governments to create a cadre of CPs in all districts and blocks of India, under the National Rural Livelihood Mission.

The demographic profile of SHGs

is undergoing changes, with graduates joining self-help groups. This will result in skilled and knowledgeable graduates becoming community professionals who can fruitfully use their skills in their own villages and earn a decent living.

But for the women whose lives it has enriched, the payoff is more than a cheque, as Parameshwari from Vellore says. "My husband was not very okay with the idea of my travelling, we fought a lot, but things have changed. When he saw the respect the villagers gave me, he understood the value of my work. Now he manages family and takes care of the children when I travel for work."



Prasanna is a management consultant with 15 years of experience in NGO management, human resources and CSR. He currently runs Aram Porul, a consulting firm for the development sector.



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ften, development projects require a lot of pieces to come together to scale effectively—investment partners, researchers, end users, and project implementers—who sometimes work in silos in an assembly-line format, rather than in a collaborative fashion.

With the FoodSTART+ project, we established an innovative partnership model in which a grant project with a research focus supports and collaborates with large-scale development-oriented International Fund for Agricultural Development (IFAD) investment projects to validate and take innovations to scale.

This has implied, among others, joint identification, implementation, and funding of the agreed activities, and locating project staff in the office of the investment partner or in an

organization working closely with the investment to facilitate and deepen the partnership.

The goal of FoodSTART+ is to enhance food resilience among poor households in upland and coastal communities of the Asia-Pacific region though the introduction of root and tuber crop innovations.

The project is implemented by the International Potato Center in collaboration with the International Center for Tropical Agriculture (CIAT), within the framework of the CGIAR Research Program on Roots, Tubers and Bananas, and is funded by IFAD and the European Union.

It has been an interesting project, with the new partnership models providing plenty of insights into the ways in which development actors can come together to enable effective and sustainable change.

The implementation focused on four

target countries: India, Indonesia, Philippines, and Vietnam, where research-development partnerships have been established with large-scale development-oriented IFAD investment projects¹.

It is important to note that FoodSTART+ does not work directly with farmers/end users, but rather to support large scale investments in doing so. Project success is predicated on the influence/effects of FoodSTART+ on the investment projects. The partner investments are expected to achieve impact at scale in part through using FoodSTART+ innovations such as the Farmer Business School (FBS) approach. Therefore, effective grantloan partnerships are an explicit output of FoodSTART+ and collaboration between FoodSTART+ and the investment projects formed the basis for cooperation, sharing of resources, and the execution of activities. In a

¹Investment partners include: Livelihoods and Access to Markets Project (Megha-LAMP) in India; Smallholder Livelihood Development Project (SOLID) in Indonesia; Fisheries Coastal Resources and Livelihood Project (FishCORAL) and Integrated Natural Resources and Environment Management Project (INREMP) in the Philippines; and Sustainable Rural Development Project (SRDP) in Vietnam.

It has been an interesting project, with the new partnership models providing plenty of insights into the ways in which development actors can come together to enable effective and sustainable change.

few cases these forms of collaboration were formalised via a contract. More frequently they were cemented via strong informal commitments, based on trust, mutual respect, common vision, and shared goals.

The grant-investment partnerships as a model for ensuring wider uptake, sustainability, and scalability of high-potential technologies and methodologies show promising results. Among others, these examples from FoodSTART+ illustrate this: the FishCORAL adaptation of Farmer Business Schools to Aqua-based Business Schools, the SOLID emphasis on root and tuber crops for its nutrition targets, or the replication of net tunnels for clean sweet potato planting material.

There were some challenges in the partnerships, including high turnover of staff in partner agencies with subsequent loss of trust and relationship previously built; cumbersome and lengthy internal procedures (e.g. for procurement) by government agencies implementing the IFAD investments; root and tuber crops largely neglected by government policy and in IFAD investment designs; and, in some cases, limited alignment in research grant (FoodSTART+) and investment project cycle.

The comparative analysis of the different partnerships allowed us to identify three key-drivers of the extent and rate of scaling of agricultural innovations: good alignment between the innovation supplied by research and demanded by the development partner, limited turnover of staff in the involved organizations, and timing engagement of the research organization in the development project's cycle.



Several major lessons were learnt through the implementation of FoodSTART+.

- 1. **Close partnership** between IFAD grants and loans is mutually beneficial when it builds on their complementary strengths.
- 2. A successful partnership should entail joint **priority-setting**, **work-planning**, and **implementation**.
- 3. Embedding staff of the grant project into investment projects is **conducive** to enhanced communication, coordination, and monitoring.
- **4. Alignment of investments (loans) and grants' implementation cycles** is key to enhance the effectiveness of the partnerships.
- **5. Close interaction with and support** by the IFAD country offices is critical in identifying the most suitable investment partners and addressing opportunities and challenges that may arise during implementation.
- 6. The grant may find it difficult to engage with the investment partner if its focus crops (root and tuber crops in the case of FoodSTART+) are not identified as priority commodities in the investment project's original design.

Deep and sustainable change does not happen overnight. It is long and complex process, involving a wide range of stakeholders, and dialogue is obviously a key factor of success. When it comes to agriculture and rural development, and other complex issues such as nutrition, resilience to climate change or gender empowerment, there is no silver bullet.

Development practitioners must be flexible and make the best use of the wide range of methods and tools available, taking into account varying local contexts. This requires in-depth and interdisciplinary knowledge, that research institutions such as CGIAR centres (e.g. CIAT, CIP) can provide, to help better apprehend and exploit the complexity of food systems.

Diego Naziri is a postharvest and value chain specialist at the International Potato Center and senior research fellow at the Natural Resources Institute of the University of Greenwich. He is currently principal investigator of the FoodSTART+ project, based in Vietnam.

Brice Even is a market access specialist at the International Centre for Tropical Agriculture. He has been working on inclusive business, cooperative development, and nutritionsensitive value chains.



hen I call Leeko
Makoene for
the interview,
we are unable to
hear each other
properly. The calls get cut; there is a
substantial delay. She sounds as if she
is reporting from the middle of a storm
and wants her voice heard above the
cacophony.

I realize it is not too far from the truth—literally and metaphorically—when I read her responses and trace her path towards inclusion of black farmers in the South African agrarian ecosystem.

Makoene's entrepreneurial spirit runs like a thread through the tapestry of her various avatars: as a management consultant ideating innovation; as founder of pepperbased agriproduct startup Chilladiddo Foods; and now, CEO of Made with Farm, a multi-stakeholder platform that connects farmers with sustainable markets; and the vice president of Farmers United of South Africa (FUSA), a black farmers' group organized around the idea of inclusive and sustainable growth.

Makoene makes connections and comes up with out-of-the-box solutions. When faced with the problem of produce being rejected because they were "out-of-spec"—too large, too crooked, etc.—she made the connection between farmers and an NGO working with people with

cancer and arranged to have the produce sent to the NGO. "Some of these products—bok choi or Chinese cabbage—are full of nutrients; yet, the recipients are seeing it for the first time. One of our biggest objectives has always been to feed the masses and democratize fresh produce," she says.

FUSA, a collective voice, has grown tremendously: The organization now has 2,200 members—in agriculture, livestock, and aquaculture—with access to around 40,000 hectares of land.

In an exclusive interview with iMPACT, **Leeko Makoene** talks about the struggle for inclusive growth of black farmers, and how organizations she is associated with help in various ways.

Change cannot happen through individual action; it needs to be done by a group."

iMPACT: Can you tell us a little bit about yourself, and what made you think about farming rights as an issue?

Leeko Mekoene: I was born in a small village called Hammanskraal, just outside Pretoria, in South Africa. Although my family moved close to the city when I was about three years old, I spent vacations visiting grandparents in the village. Every time I visited them, I saw just how families there were struggling to access sustainable markets with their fresh products.

When I started working in the formal food sector later, I took it upon myself to educate and train the farmers to be market-ready and be able to sell consistently to the retail markets. Rural communities are rich with arable land and water; yet they are excluded from the country's economy.

I look at all the natural resources found in these communities and I see a way they can help themselves out of poverty. All they need is to be shown

how and given a chance.

With Made with Rural, what were some of the problems that you wanted to address?

The first thing I wanted to address was inclusive growth. South Africa is still in some sectors racially divided. I wanted black farmers to participate meaningfully in the country's economy, to have a voice and for the industry to transform. This to me is the best way to address rural poverty and the issue of high unemployment in these areas.

Made with Rural exists on a technology platform, to help farmers reach markets directly. How relevant is technology for a farm-based rural company?

Made with Rural is forging forward despite the industry challenges we meet on a daily basis. The technology component is highly important in our industry. We work with rural farmers who are secluded/isolated, and mainly



located in remote places, far from information and services. With the mobile app Khula that we have created, the farmers are now able to sell their produce online and to also be trained and mentored through the app.

What lessons from Made with Rural led to Farmers United of South Africa (FUSA)?

As we worked with farmers, we realized the problems were systemic. The agriculture industry in South Africa is highly political. There are so many issues in this industry that cannot be taken on by an individual. Collective effort is needed to address and tackle a whole lot of issues in the industry.

How do you work with a system that you are critical of? In this case, large retailers? You help farmers find large retailers with Made with Farm, and are looking to change status quo with FUSA. How do you balance the two?

It is not easy to balance the two. We educate as we go. We have lost some clients and the ones we still work with are open to the criticism and together we try to address issues by finding a compromise. It's important to remember that, in the end, we are all working towards building an inclusive and better country for all.

How does FUSA plan to achieve those goals?

We plan to do this at several levels. We will lobby to the government and ensure that black farmers' needs and challenges are addressed. We also have member capacity-building and professional guidance, where necessary, with groups to enable peer-to-peer learning, as well as discounts to large conferences, meetings and workshops.



We've created a FUSA Savings Club that will provide all pertinent financial services to small black farmers. We work in commodity clusters; the aim is to supply in our own retail stores.

How far has FUSA come? What is the profile of a typical FUSA member?

We have come from members who were 100% reliant on government grants but are now coming off that system and building businesses that can carry their own expenses. Together we have opened a savings account and are able to save money that works like insurance and can be availed on a rainy day to assist the affected farmers solve their problems.

What's next for FUSA?

Next for FUSA is to disrupt the entire broken agriculture ecosystem in South Africa by working with the government and the private sector to have more black people participating in the entire value chain. We will ensure there are programs that will see the country have more black yets, and we will create a parallel system that will ensure our products are well represented in the economy. It is also our objective to see to it that we see at least 10 of our members become full-on commercial farmers and we create our own funding structures that understand how to fund emerging farmers looking to commercialize. In good time, FUSA will become a party on the election ballot paper of this country.

Any lessons from your experiences to small farmers across the world, who are staring at low prices for their produce?

First of all, change cannot happen through individual action; it needs to be done by a group. Farmers and farm workers need to come together and unite to be able to address their challenges. Big business doesn't buy regularly from small farmers because of quantity and quality challenges. United farmers can share resources and meet big order quantities. Farmers also need to come together and sell directly to the end user at a large scale. They can open retail stores or create their own brand that consumers can have access to in existing retail stores.





No Stranger to Philanthropy

When seeking the help of people who don't know you well, it is important to consider what makes a good giving experience, writes Anoj Viswanathan.

ccording to the CAF
Global Giving Index
2018, more than half the
people in the world report
helping a complete stranger. Yet we
often wonder whether the kindness
of strangers is real, and hesitate
before soliciting the help of someone
we don't know. With the internet
shrinking the world, it is now easier to
help a stranger and conversely, seek
help from one.

The top five countries on the Global Giving Index being Libya, Iraq, Kuwait, Liberia, and Sierra Leone; so it seems that helping a stranger is not dependent on economic factors. At Milaap, we see this every day with our campaigns for medical emergencies. In fact, on Milaap, around 80% of the people contribute towards individual campaigns compared to 20% towards campaigns benefiting an

organization. While urgent needs such as disaster relief and medical emergencies are obvious recipients of the kindness of strangers, they are by no means the only campaigns that strangers contribute to.

Several other factors contribute to a fundraiser's success: the personal network of the campaign organizer and the effectiveness with which they spread word about their cause using instant messaging, social media, or

Although it's been over a decade since I graduated from college, I would still stop at any post that mentions my college or department."

other activities.

Let's try and understand this phenomenon further, especially within the context of online giving.

First things first, **people are good**.

Empathy is natural to human beings.

We have all helped a stranger in some way or the other, whether it was a hawker or a person at a signal, or by contributing to relief groups during natural disasters. When it comes to organized giving, if given a credible avenue and a genuine cause, people do come forward to help another person in need.

Altruism does need to feel rewarded. This means that even when people help with no expectations of their own, they must be shown the difference their participation has made. One of the major factors that encourages people to give again is the fact that they have received an acknowledgement and update on the progress of the cause they have supported.

Yes, a few thousand dollars could have been collected to help victims in the aftermath of a natural disaster, but it always helps to tell donors exactly how many families were rehabilitated, how many houses were rebuilt, etc. It is important to be accountable for every penny received as help, no matter how large (or small) the total amount collected is.

In case of medical campaigns, updates are essential regardless of the success of the treatment. **Communities are crucial.** People have their own reasons for their generosity. Communities are crucial to gathering help. People are more susceptible to give when they identify themselves as part of a community, i.e, share a common factor with the person in need. For instance, although it's been over a decade since I graduated from college, I would still stop at any post that mentions my college or department. If the person in need is a passionate rider, it may be a good idea to extend the news of their need to online and offline groups for bikers and riders.

Convenience does matter. Donors could need hand-holding too. A large part of the donor's trust comes from how much you respect them. Since a donation is only an explicit expression of emotion, most donors would not wait forever to have their queries and problems resolved. While every popular mode of payment must be available to donors, the process of making a contribution must be simple, and all attendant security ensured.

Remember, you are only an enabler While your brand or name might be the primary reason for a donor's trust, you are never the reason the donor is giving. It is important to give donors a clear, simple way to directly communicate with the beneficiary. Moreover, being the medium that connects the giving and

receiving parties, it is almost crucial to encourage communication, especially on the beneficiary's end. Ensure that beneficiaries celebrate milestones and share progress and thank you notes with donors directly.

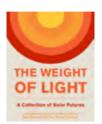
The kindness of a stranger is a real and beautiful thing, but it is important to understand that most strangers have their own motivations behind giving. Knowing and respecting that, we must never call existing donors over the phone or arbitrarily take their time for further help. A better way to go about it would be to earn their trust by being very prompt with any needs/queries they could have, ensuring they receive updates on the progress of causes they have supported before, and take their feedback very seriously to ensure their experience is seamless.



The author **Anoj Viswanathan** is the president and co-founder of Milaap, India's largest crowdfunding platform for personal and medical needs.



WHAT WE'RE READING



Natural Disasters

The Weight of Light: A Collection of Solar Futures (2019) Edited by Joey Eschrich and Clark A. Miller

This free-to-download collection of fiction, art, and essays features possibilities for human futures powered by solar energy with an upbeat, solarpunk twist. A product of the Arizona State University's Center for Science and the Imagination, the collection combines science, art, and narrative in geography- and size-specific contexts.

www.csi.asu.edu/books/weight

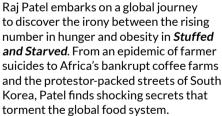
Climate Change and Natural Disasters

(2017) by Vinod Thomas

In this book, former director-general of Independent Evaluation at the Asian Development Bank and previous vice president of the World Bank Institute Vinod Thomas talks about how countries can promote sustainable economic growth while preventing natural disasters and climate change.

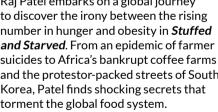
www.aim.edu/vinod-thomas-climatechange-natural-disasters

Stuffed and Starved: The Hidden Battle



www./rajpatel.org/2009/10/27/stuffedand-starved

for the World Food System (2007) by Raj Patel



WHO WE'RE FOLLOWING



RAJPATEL

World Food Programme Asia Pacific (@WFP_ AsiaPacific)

"Every #Rohingya refugee has a story. Of trauma, displacement, of survival. To recognize the journey that women have undertaken to build their lives in Bangladesh, @WFP held a photo exhibition on #WomensDay.

Looking for your next read, documentary to watch, or organization to follow? Look no further, for we share some of our favourites in the development space.

If you'd like to suggest a resource for inclusion in this list, email us at editor@asianngo.org

WHAT WE'RE WATCHING



Terms and Conditions May Apply (2013), directed by Cullen Hoback Internet's deepest and darkest secrets

are revealed in this 2013 documentary helmed by American filmmaker, columnist, and speaker Cullen Hoback. Terms and Conditions May Apply spotlights how corporations, organizations and governments spy on consumers through their internet and phone usage and the role cybersecurity plays in this digitized world.

www.imdb.com/title/tt2084953/

WHAT WE'RE STUDYING

Renewable Energy Will Not Solve Bitcoin's Sustainability Problem (2019),



Alex de Vries Bitcoin Energy is more energy-hungry than the traditional financial system, with an electrical energy footprint of 491.4 to 765.4 kWh per transaction on average. Alex de Vries from Vrije Universiteit Amsterdam exposes the reality behind bitcoin mining machines, and why renewable energy cannot save the bitcoin

industry's sustainability problem.

WHAT WE'RE DOWNLOADING



SafeNight

Aimed to support victims of domestic violence, the **SafeNight app** by Caravan Studios notifies individual donors when local domestic violence shelters are full and allows them to donate funds to support a hotel room for the victim. Users can also pick from a list of verified domestic violence organizations to support, and will receive a notification in case of an urgent requirement.

www.techsafety.org/safenight

Grants and Prizes

Grant Opportunities

In this section, we list a few select open grant opportunities. For the complete list of available grants, sorted by geographical location, thematic area, etc. please visit www.asianngo.org

1. Requests for Proposals: Conservation **Technologies**

Deadline: April 10, 2019 Amount: USD 150.000

The Conservation Technologies Proposals pioneered by National Geographic aims to support cutting-edge technologies that help monitor ecosystem health.

2. Requests for Proposals: Reducing Ocean **Plastic**

Deadline: April 10, 2019 **Amount: USD 100,000**

The Reducing Ocean Plastic intends to inform and advance national or subnational policies or management plans to reduce plastic source pollution and improve recycling of plastic.

3. Linking Actions for Unmet Needs in **Children's Health Grant Program**

Deadline: April 19, 2019 **Amount: USD 800,000**

The Linking Actions for Unmet Needs in Children's Health Grant Program seeks to promote the wellness of young children from birth to 8 years old, in local communities and tribes by addressing the social, emotional, cognitive, physical and behavioral aspects of their development.

4. Feminist Review Trust Fund

Deadline: April 30, 2019 Amount: £15,000

The Feminist Review Trust Fund is open to projects that support women equality. Focus areas include lesbian and transgender rights, and violence against women and girls.

5. Call for Applications: SeaWorld & Busch **Gardens Conservation Fund Grant**

Deadline: April 30, 2019 **Amount: USD 25,000**

The SeaWorld & Busch Gardens Conservation Fund Grant aims to support wildlife and habitat conservation by encouraging sustainable solutions through support of species research, animal rescue and rehabilitation, and conservation education.

6. Call for Applications: Environmental **Research and Education Foundation Grant**

Deadline: May 1, 2019 **Amount: USD 300.000**

The Environmental Research and Education Foundation Grant is dedicated to implementing research on solid waste management and technologies like waste minimization and recvclina.

7. Call for Applications: Nestle Foundation

Re-Entry Grants (REG) Deadline: May 10, 2019 **Amount: USD 50,000**

The Nestle Foundation Re-Entry Grants seeks to support research in human nutrition with public health relevance in low-income and lower middle-income countries as classified by the World Bank.

8. Request for Proposals: Innovative Small **Grants Program**

Deadline: May 31, 2019 Amount: USD 5,000

The Innovative Small Grants Program is intended to support innovative research focused on improving the health and wellbeing of new-born infants during their first month of life.

9. Call for Applications: Tropical **Rainforests Grant Program**

Deadline: June 1, 2019 Amount: £100.000

The Tropical Rainforests Grant Program seeks to implement projects that protect tropical rainforests for their value to the climate, communities and biodiversity.

10. The Conservation. Food and Health **Foundation's Grants to Protect Natural** Resources

Deadline: July 1, 2019 Amount: USD 20,000

The Conservation. Food and Health Foundation's Grants to Protect Natural Resources aims to protect natural resources by improving ecological and environmental conditions, support research-based efforts to improve food and nutrition security and public health programs that focus on populations rather than individuals

Open Prizes

In this section, we spotlight prizes that are offered to solutions that seek to create a better world. To feature your prize in this space, please send details to editor@ asianngo.org

1. World Agriculture Prizes 2019

Deadline: April 30, 2019 **Amount: USD 100,000**

The World Agriculture Prizes 2019 seeks to encourage the development of the mission of higher education institutions in education, research, innovation and outreach in the agricultural and life sciences.

2. 2019 UNESCO-Japan Prize on Education for Sustainable Development (ESD)

Deadline: April 30, 2019 **Amount: USD 50.000**

The UNESCO-Japan Prize honours outstanding projects by individuals, institutions and organizations that promote Education for Sustainable Development.

3. World Food Prize Foundation: Food **Security and Agricultural Champions**

Deadline: May 1, 2019 Amount: USD 250.000

The Food Security and Agricultural Champions Prize recognizes the accomplishments of individuals who have advanced human development by improving the quality, quantity or availability of food in the world.

4. 2019 Africa Food Prize

Deadline: May 14, 2019 **Amount: USD 100.000**

The 2019 Africa Food Prize is awarded to extraordinary women, men, and institutions whose outstanding contributions to African agriculture allow a new era of sustainable food security and economic opportunity that elevates all Africans.

5. 2020 Zayed Sustainability Prize

Deadline: May 30, 2019 **Amount: USD 600,000**

The Zayed Sustainability Prizes recognizes those who are driving impactful, innovative and inspiring sustainability solutions across five distinct categories: Health, Food, Energy, Water and Global High Schools.

6. Sydney Peace Prize 2020

Deadline: June 30, 2019 **Amount: USD 50,000**

The Sydney Peace Prize 2020 recognizes an organization or an individual whose work made a significant impact in achieving peace with justice, attainment of human rights, and the practice of non-violence.

THIS JUST IN!

By iMPACT Staff



e "happened upon" a top-secret job interview aptitude test for a large international aid organization. Should be self-explanatory. Go on and check whether you have the aptitude for it!

- 1. You need to fly to Africa to be part of a panel on environmental sustainability, says your boss. What do you think?
 - a. Beam me up, Scotty! What about my airline miles?
 - b. Oh well. But isn't it ironic, don't you think?
 - c. Sounds alright. Maybe I can plant some trees to offset my carbon footprint?
 - d. Boss, that just doesn't seem right. Think about the environment.

2

You are in a village in north Thailand, on a field visit. Locals are busy with their harvest festival. What do you do?

- a. Even better! I can make myself a "special guest" and get garlanded and the whole shebang. Here I come, Facebook!
- b. Oh well. I'll postpone my visit. I'll get some paperwork done in the meantime.
- c. They'd better depute someone to answer my questions. Surely, there's someone who can do this?
- 3. d. Let me call HQ.

You meet a reporter at a grand gala, and he wants to schedule an interview with you.

- a. Sure! What time next week?
- b. Why don't you email me? I'll see what my office can arrange.
- 4. c. Interview? Oh my! Oh no!
 - d. Let me call HQ.



Image from Freepik.com





- 3. You are on location, tasked with identifying partners for your project. What are your first three criteria for selecting them?
 - a. What do they say in real estate? Location, location, location. Closest to airports please.
 - b. Let's see. History, geography, economics?
 - c. I'll call each prospective over and understand them better, over dinner.
- Alcohol helps loosen tongues, you know?
 - d. Let me ask HQ.

Your partner's project report shows impact, but you can't see any impact.

What will you do?

- a. Question is out of syllabus. Of course our programs have impact! You're not seeing right.
- b. iMPACT, as in the magazine? I'll call for a subscription!
- 5. c. I'll call and speak with the partner about the project.
 - d. It might be time for an impact study. Might require some additional funds though.



You must make a presentation on your project when you return to HO.

What's the tool you think you'll use the most?

- a. Computer? I mean, Google?
- b. Last year's report. There's one in Word format, right?
- 6. c. Thesaurus.com. I need complex words!
 - d. Tool? Oh, that would be my assistant!



The rest of it was inaccessible, but if you'd like to add on to the question paper, or request the answer sheet, email editor@asianngo.org. Complete confidentiality assured. Or wait, let me call HQ!

TITLE OF ARTICLE	ORGANIZATION	WEBSITE
This Caught Our Eye: Excuse Me, There's Gum on my Shoes!	Gumshoe Amsterdam	www.gumshoe.amsterdam
This Caught Our Eye: Drone Eyes Litter Map	The Plastic Tide	www.theplastictide.com
This Caught Our Eye: Labels Enable	Nutrition Solutions	www.nutritionsolutions.ca/tag/sentinel-wrap
This Caught Our Eye: Bee-gone, Pesky Mites!	Bee Life	www.beelife.fr
This Caught Our Eye: Cutting Back on Mishaps	Kevin Chiam	www.kevinchiam.com/folks-kitchenware-for-the-blind
This Caught Our Eye: Eye See You Driving	Ellcie Healthy	www.ellcie-healthy.com
More Than Money	HelpAge India	www.helpageindia.org
Interview: Leocadio Sebastian	CCAFS	www.ccafs.cgiar.org
Connecting the Disconnect: Radio, Mobile and the Farm	Farm Radio International Indian Society of Agribusiness Professionals	www.farmradio.org www.isapindia.org
Millet to Win It	ICRISAT Small Millet Foundation Health Sutra Smart Food	www.icrisat.org www.dhan.org/themes/smallmilletfoundation.php www.healthsutra.in www.smartfood.org
All A-Board!	Governance Counts	www.ivolunteer.in
The Road from Idea to Product	Innerbottle	www.innerbottle.com
Campaigns that Push the Excess Away	Wasteless Coldhubs Ooze Drinks Entocycle Grub Cycle Industrial/Organic	www.wasteless.co www.coldhubs.com www.oozedrinks.co.uk www.entocycle.com www.grubcycle.my www.industrialorganic.com
Community Connectors	Makkal Katram Maiyyam (Ma Ka Mai)	www.tnvrc.org
Innovative Partnership Models to Help Scale Projects	FoodSTART+	www.rtb.cgiar.org/foodstartplus
Interview: Leeko Makoene	Made with Rural Farmers United of South Africa	www.madewithrural.farm www.farmersunitedsa.org
No Stranger to Philanthropy	Milaap	www.milaap.org

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