



Ethiopia

accelerator lab

# 2021 YEAR IN REVIEW

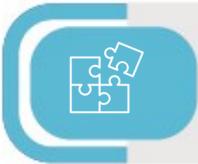


## Summary of key results



**20,481**  
Citizens reached by the lab

Solution fest, IVR and SMS covid messaging, BI study, Inclusive innovation dialogue, Tifter Ethiopia, HCD trainings, Co-creation workshops



**47**  
Sustainable development solutions mapped

Portfolio of solutions mapped include fintech, energy, Covid 19, e-governance, digital health, circular economy



**13**  
Innovation methods used

Sensemaking, Behavioral Insight, Backstabbing and Desired future, Scenario planning, Horizon scanning, Collective intelligence, Prototyping, Co-creation, Human-Centered Design, Design Thinking, Solutions Mapping, Ethnography



**8**  
Data sources used

Open data, Ethnography data, Geospatial data, Big & Raw data (Structured, unstructured, semi-structured data), Focus group discussion, Direct Interview, Survey, Mobile data



**8**  
UNDP projects benefitted from the lab

NAMA Compost, UNDP- SIDA Environment and Climate Change, BCP, Inclusive and Innovative Finance, COVID -19 recovery, Beautifying Sheger, Innovation for Development, Ethiopia National Youth Volunteer Community Service



**11**  
External partners engaged with the lab

Indigenous Innovation, Bahir Dar university, The Urban Center, X-HUB, VIAMO, Ministry of Innovation and Technology, Ethiopian Biotechnology institute, IPDC, Addis Ababa solid waste management agency, Bahir Dar City Administration .



**3**  
Partners practiced lab methodologies

EbTi adopted nature based solution introduced via the lab. X-Hub Addis and Bahir Dar university have exercised design thinking as part of their entrepreneurship development efforts.



**12**  
Knowledge product produced and disseminated

Blogs and quarterly news letters

Please let us know your thought about our work through [ethiopia.acclab@undp.org](mailto:ethiopia.acclab@undp.org)

Follow the work of the accelerator labs at <https://acceleratorlabs.undp.org/>

Co-building the Accelerator Labs as a joint venture with:



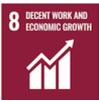
UNDP  
Core  
Partners

# Executive Summary

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UNDP Ethiopia's accelerator lab launched in December 2019, as part of the largest and fastest learning network of 91 accelerator labs across the world. The lab is a space for UNDP to explore, test and grow innovations for development challenges through collaboration and partnership. We are bringing a new way of working to meet the 2030 sustainable development goals by mapping, testing, and growing grassroots solutions that are crafted by those close to the problem.

After our first year of work on frontier issues like youth unemployment and COVID-19 in line with UNDP's and Ethiopia's development agenda, 2021 was a year of deep diving into our portfolio on solid waste management, expanding our support on COVID-19 and exploring new challenges in knowledge management. Despite the challenging circumstance that happened in the country due to security issues and COVID-19, the lab has been able to continue its work with supporting the Country Office and the innovation ecosystem.



## Work in 2021

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### Sensing Knowledge Management

The accelerator lab is part of a new way of working for UNDP to bring innovation into how we identify, understand, and solve challenges. This new way of working requires a shift in our culture when it comes to how we create, share, and manage knowledge. Recognizing this, UNDP Ethiopia is creating open, innovative, networked, and collaborative programs anchored in a portfolio approach for inclusive economic growth, climate resilience and democratic governance. To spear head this approach, the lab set out to sense knowledge creation and sharing culture as basis for the knowledge management in the country office.

The lab set out to learn how our office creates and shares knowledge as a means for fostering collaboration and innovation. We analyzed existing data, like general staff survey and blog engagement data, conducted brainstorming exercise with team leader on how they envision their teams collaborating and innovating, and launched a staff wide survey on what knowledge creation and sharing culture is. We triangulated this data to get a full picture of the perceived value of knowledge, how it is developed and consumed.

To explore this further, we conducted a behavioral insight survey that specifically looked at how knowledge is created and shared within the CO. This exercise outlined some insights from staff but also the unspoken norms that are practiced. The staff expressed interest in sharing knowledge but doesn't always know how to and tends to wait until requested to share. Knowledge usually moves vertically within the hierarchy but there is limited horizontal knowledge sharing because of the perceived lack of readily available platforms to engage in. We also identified the need to constantly articulate a shared vision and objective to break down traditional silos and become more integrated.

Our sensemaking exercise with team leaders showed that to be

- Open and innovative we need motivated and passionate teams that regularly interact with each other but also work together to learn new things through experimentation.
- Collaboration requires giving value, time, and resources to budding connections with the direct support of management. We need to experiment with different modes of working together such as regular brainstorming sessions and joint planning across the teams.

- Networked means teams having shared goals and interests to which they dedicate time and resources to create multiple platforms (formats) for sharing and building horizontal linkages. The platform, however, needs to show how they benefit the teams and motivate teams to share.

In 2022, we will continue collaborating with a UNDP-SIDA (Swedish International Development Cooperation Agency) project and the communication team within our country office to jointly design and experiment with scalable solutions that can bring more openness, better collaboration and tighter network.



## Exploring Waste Segregation Behavior and Technology

Waste management as it relates to job creation and environmental sustainability was the big frontier challenge, we worked on in 2021. It is an urbanization issue that most cities in Ethiopia struggle especially household waste segregations. For urban waste, residential areas contribute a considerable amount of waste so addressing the behavioral and practical issues at the household level could make a difference on waste management. Therefore, one aspect of the waste management portfolio was understanding the knowledge, attitude, and practice around waste segregation at households with a behavioral insight survey.

The behavioral insight survey covered 1500 households across 3 different locations in Addis Ababa. It explored whether households have knowledge and understand the need for waste segregations, if waste segregation habits were different across socio-economic status, and if volume of waste and distance from transfer stations affected the decision to dispose waste improperly. In the study, locations were used as proxy indicators of economic class based on residential type and distance from city center was also factored in.

We have learned that considerable share of households still lacks basic knowledge about proper solid waste segregation but households in low economic class neighborhoods are better because they used the waste they generate for upcycling or selling to informal waste collectors showing an encouraging sign the value waste has for them. Transfer stations, where waste is sorted before going to landfill, are unevenly distributed, with more transfer stations available in higher income neighborhoods than others. In the coming year we will be working with municipalities across the country to disseminate the learning we have gathered into proactive community outreach programs.



The lab team also conducted a deep dive exercise to understand household waste flow and collection system. Insights from the deep dive exercise helped us to co-create desirable and user centered door to door waste collection pushcart prototypes.



## Testing Digital Technology for Business Continuity

The COVID-19 pandemic triggered an unprecedented demand for digital solutions to ensure continuity of critical services. The demand is not just in the private sector but also in governments and this has opened a new and exciting space for experimentation within Government tech. UNDP Ethiopia, through the accelerator lab, continued its partnership with Ministry of Innovation and Technology to enlist local innovators on digitizing critical government functions to ensure business continuity. A challenge grant was created to allow government institutions to enlist private technology startups and SME to pilot and test digital services for business continuity. From solutions submitted across 8 challenge areas, the grant identified 7 government tech solutions that have been enrolled to a business incubation program to refine their products.

After completion of the program the tech companies have been paired with government institutions to test their minimum viable products in the real world. The testing will continue into 2022 but so far, we have learned that government institutions have a strong appetite for and have clear ideas about what they want and need.

Moreover, as part of the Country Office COVID-19 response plan, the lab team partnered with the Industrial Park Development Corporation and VIAMO, a mobile tech company to develop an awareness creation campaign to empower employees to keep themselves safe and create a positive work environment. This experimental exercise allowed us to reach close to 20,000 Industrial Park workers across the country in multiple languages. Making sense of the vast amounts of data collected within the industrial park through implanting the digital innovation and visualizing it helped to support IPDC revisit its business continuity plans and take some corrective measures for continuity of their function. The team continued exploring possible expansion of such innovative mobile tools with Ethiopia National Youth Volunteer Community Service Programme.



## Scale up Waste Solutions and Create Market Connections

Our portfolio of work on solid waste management continued with the challenges of downstream waste management, specifically recycling, and reusing waste to create new and sustainable products. We noticed that there was a missed opportunity to create market connections between stakeholders within the value chain. There were some promising initiatives from the private sector, but they were fragmented and have not been formally integrated into the waste management system. To address this, the lab hosted a 2-day solution fest and panel discussion.

The solution festival had an exhibition for start-ups and innovators building diverse waste products to display their work, connected with large-scale recycling companies, governments, and development organizations. There were also two discussion forums, one on *The Future of Waste Management: Strategies for Economic Opportunity and Environmental sustainability* and another on *What opportunities exist. Their role in building a circular economy on waste*. The fest saw 25+ companies, 300+ visitors and 85 panel discussion participants. There was tremendous interest in the topic and appetite from the participant to network and connect on the waste topics.

The futuristic and solution-driven discussions highlighted the need for the proactive creation of economic opportunities through public-Private partnership for job creation and lack of research and data driven approach for a coordinated effort to create an environmentally sustainable waste management system. At a systemic level we need a shared responsibility approach from government, industry, and consumers to tackle the frowning demands of waste management resources. In the coming year, we will be working with municipalities across the country to disseminate these learning and bring a systemic approach.



# Beyond the Big Bet

## Generation unlimited:

The multisectoral partnership on the youth agenda between UNICEF, UNDP and Ministry of Labor and skills in Ethiopia was officially launched on March 31<sup>st</sup>, 2021. The lab has been supporting the initiative take shape in Ethiopia by creating a bridge to youth organizations and bringing the much-needed voice of youth to the table. The lab led future thinking



exercise with young people to determine the desired future for education, school to work transition, employment, and civic engagement. In addition, the lab took the insights from these exercises to build strategy for the active engagement of youth in setting the priorities for Generation Unlimited and empower themselves in building youth focused platforms. Most recently, the lab supported the development of the rapid assessment tools development to create a tool to assess the scalability of solutions before investment. When launched this tool will be available to the public to use and identify bankable solutions of Gen U.



## Partnership on nature based solution:

The toothpick is an Agri-Tech innovative solution to the agriculture sector, which enhances crop production, household food security, and farming community income. The project has developed a biological herbicide to eradicate Striga (a significant yield-reducing weed for sorghum and maize). This solution has been awarded a grant by the Singapore Center for

Innovation, therefore, to test in a practical field setting. To this effect, the accelerator lab has been facilitating local partnerships development, capacity support through exposure visit to the Kenyan lab, and further engagement to take the solution into a pilot scale. Following their training in the Kenyan lab, the EBTi experts have continued to collect fusarium species and conduct molecular screening, which is a crucial step in proceeding to pilot this biological herbicide in maize and sorghum fields. The same lab protocol could also be applied to solve weed infestation of other crops.

## Expanding the lab's methodologies:

The Accelerator lab is dedicated to sharing its methodologies and tools to build the capabilities of partner organization and UNDP Ethiopia in creating spaces for innovation and collaboration. One way we did this in 2021 is by organizing at Bahir Dar Institute of Technology's Business Innovation and Techno-Entrepreneurship Center. The Bootcamp empowered 30 students with tools and methods on how to innovate and put humans at the center of the solution through hands-on exercise, presentations, and pitch sessions.

With the country office, the lab held two open learning sessions that explored the tools of the lab that can be leveraged by project to invite collaboration and think outside of the box. In March, we held a session on working-out-loud and thought leadership. More specifically on how to use them to create visibility for our work while inviting collaboration and tracking learning along the way. In July we explored different data sources to inform decision making, bring innovation and diverse viewpoints to our work. We also invited VIAMO, a technology company that uses mobile phones to disseminate and collect data from hard-to-reach places to give us an overview of how their system can be used to get real time data that can aid decision making, create strategies and build robust citizen data.

## Building an inclusive innovation ecosystem

The lab has been supporting the innovation ecosystem in Ethiopia with activities for both the private and public actors. But we want to make sure that the ecosystem we are building is inclusive of all peoples especially of marginalized groups like People with Disabilities (PWD) because we can't think of economic growth and transformation without inclusion.

17.6% of the working age population in Ethiopia has some form of permanent or temporary disability. Despite laws that protect their rights, People With Disabilities



(PWD) still get discriminated against when looking for jobs and getting a job women is even more difficult for women with disability. Therefore, the lab partnered with the Indigenous Innovation Center (I2) and Center for International Private Enterprise (CIPE) to organize an advocacy and engagement event for PWD including a showcase innovation for and by PWDs. The event served as a collaboration point for different actors to connect their activities and coordinate voices in advocating for more awareness and better accountability of institutions in including support services for PWD.

**The Czech UNDP Partnership for SDGs :** The partnership aims to bring innovative solutions for a variety of development challenges to different communities, from the Czech Republic's private sector, NGOs universities, state institutions, research centers and individuals to tackle specific developmental challenges in the priority countries. Two innovations namely DOT glasses and AQUATEST benefitted from the first-round challenge fund and got a chance to test and pilot their innovations and business model with their local partners through the support of the lab. DOT glasses offer low-cost eyeglasses via non vision care supply network. This company secured license for its product sold 7,000 eyeglasses through its 135 trained youth networks. AQUATEST is another company benefitted from this challenge to test Shallow ground water monitoring in Oromia and Sidama regions in partnership with ATA (Agriculture Transformation Agency) with monitoring devices installed for observation of groundwater level, temperature and electric conductivity fluctuations. The experiment was successful, and ATA is considering own funding to scaling up the ground water monitoring technology to other regions of the country. Currently there are other two ongoing projects benefitted from this partnership working on mapping ground water in Somali region and test nature based solution for waste treatment in Hawasa city.

## Our blogs

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### KNOWLEDGE MANAGEMENT

- [Sensing the culture: How can we work better together?](#)

### WASTE MANAGEMENT

- [Modelling of household's waste disposal behavior in contrasting locations of Addis Ababa](#)
- [Co-creation: Reinventing how we collect and transport waste](#)
- [Fashion Art Food: Stories of people turning waste to livelihood](#)
- [Celebrating waste: How do we build an ecosystem in solid waste recycling, reuse, and upcycling?](#)

### INNOVATION AND SCALING

- [Learning from remote solutions in Ethiopia: Embracing the new normal in the emerging economic context](#)
- [Growing solutions: Insights from our scaling journey](#)
- [Creating Opportunities and Entry points for Local Innovators to Digitize Government Functions](#)
- [Idea to Business to Jobs: Developing Economic Opportunities Through Entrepreneurship](#)