



Innovating for children in Burundi

WHY INNOVATE FOR CHILDREN?

Burundi is one of the poorest, least developed countries in the world, ranking 178th on the Human Development Index 2013. In this context, children and communities face significant challenges to fulfilling their rights. Through its newly established Innovation Lab, UNICEF Burundi is leveraging innovation – in the form of new technologies, products, partnerships, and processes – to improve the delivery of services and information, with focus on the most marginalized.

Innovation Lab

Part of an expanding global network of similar structures, the Burundi Innovation Lab is a creative space, both physical and virtual, that brings together different partners – including children and young people, technologists, academics, and policymakers – to co-create solutions to pressing local problems.

Housed within UNICEF premises – and outfitted with cutting-edge hardware and open-source software – the Lab regularly hosts interns from local universities to support with developing contextually relevant technologies, and engages international universities and volunteers in the areas of design, business, and engineering.

The Lab also provides a unique opportunity to connect leaders in the private sector and academia directly with end-users, project staff, and partners to come up with

innovations that have local applications and global scalability.

The Lab is guided by an overall Innovation Strategy that is founded on three key pillars:

- 1. New models for youth and community engagement and empowerment**
- 2. Real-time information to improve essential service delivery, especially for the most vulnerable**
- 3. Innovation for environmental sustainability**

Current projects include mobile-based platforms for monitoring/reporting and community engagement; off-grid energy entrepreneurship models for community volunteer groups; and expanded access to digital learning tools through solar-powered computers.

While the Lab coordinates and technically supports these projects, a majority are integrated into programme sections, including Health/Nutrition, Education, Child Protection, WASH, etc. In this way, innovation is leveraged across the entire UNICEF Burundi programme to accelerate results for children.

KEY PROJECTS



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U-Report

U-Report is designed to amplify the voices of young people and community volunteers through basic text messages. The project creates direct feedback loops with these groups, allowing them to report on service delivery in their communities for greater transparency and accountability.



Project Kira-Mama

UNICEF and partners are setting out to reduce maternal and infant mortality rates in Burundi, which currently rank among the highest in the world, through the use of mobile technology. Project Kira-Mama proactively tracks pregnancies from the early stages through prenatal and postnatal periods, increasing the likelihood of early warning in case of complications.



Project Lumière

Project Lumière is a social enterprise model that facilitates the distribution of safe and affordable renewable energy products through community-based volunteer groups.



Digital Drums

Digital Drums are solar-powered computer hubs that come preloaded with digital content and provide tailored learning opportunities and information to vulnerable children.

Pillar 1: New Models for Youth and Community Engagement and Empowerment

Burundi is home to one of the youngest populations in the world, with more than 3.77 million people (or 51%) under the age of 18. If the country is to embark on a path to sustainable development, it has to invest in its young people and give them an opportunity to meaningfully participate in the development of their communities.

U-report, first piloted by UNICEF Uganda in 2010, is a mobile-based system that allows young people and community volunteers to speak out on issues important to their lives. In addition to voice amplification, U-report fills the significant need for real-time information that can be used to strengthen essential service delivery and hold government and development partners accountable.

Poll questions – generated by key partners on a range of social themes – are regularly sent out to registered users, or “U-reporters”, via text message. All responses are collected, aggregated, and visualized by the U-report platform. They are then shared back with U-reporters along with useful information and facts for action, as well as with service-providers and media – creating feedback loops that can influence policy decisions in real-time.

As the network of users continues to grow, the data becomes increasingly accurate. This enables better aid decisions by donors and government institutions, and improves overall service delivery.

An example of a recent success involved using U-report during a Cholera outbreak to promote hand-washing practices and direct people to the nearest health center for treatment.

U-report was launched in Burundi in early 2014, and already has 16,000 users who are engaged in regular reporting within the communities.



Pillar 2: Real-time Information to Improve Service Delivery

In recent years, real-time information systems powered by mobile technologies have emerged as accelerators of development processes. In Burundi, where 89% of the population lives in rural areas, these mobile-based systems have “game-changing” potential – connecting thousands of volunteers and frontline service-workers to important monitoring tools and lifesaving information.

An example is **Project Kira-Mama**, which was launched in two provinces in Burundi in late 2014, to address soaring maternal and infant mortality rates. Using basic mobile phones, community health workers are able to register pregnant women and follow up with them throughout their pregnancy to improve demand for and supply of quality medical services.

Project Kira-Mama also acts as an early warning system for obstetric emergency cases by reporting complications and danger signs during pregnancy and birth. Furthermore, the platform allows health workers to continue inputting data after birth, and monitor infant development during the critical first 1000 days.

Pillar 3: Innovation for Environmental Sustainability

In Burundi, energy poverty is widespread: only 3% of the population has access to the national electricity grid. As a result, the vast majority of the country is reliant on simple biomass fuels, such as wood, coal, and kerosene, to meet their cooking and lighting needs. These dirty energy sources negatively impact all aspects of daily life – exposing households to severe health risks, restricting income-generating opportunities to daylight hours, stunting learning outcomes for children, and preventing the delivery of critical health services.

In this context, a switch to off-grid renewable energy solutions is necessary for overall human and economic development. UNICEF Burundi has been integrating environmental sustainability into its programmes for the past two years, and is making this a central area of focus going forward.

The Office has been piloting a social enterprise model known as **Project Lumière** for delivering sustainable energy supply to rural households.

As its entry point, Project Lumière uses village savings and loans associations called the Nawe Nuze groups. It works by giving the groups an opportunity to purchase a pedal-powered generator and rechargeable, long-lasting LED lights to sell within their community. In this way, the project introduces a steady revenue stream into the community while providing off-grid energy solutions to even the poorest families.



Project Lumière was launched in September 2013 with 14 community groups from four different provinces. The project is currently being scaled to an additional 40 groups, with the aim of reaching 16,000 households by the end of 2015. Part of the scale up will entail widening the range of energy products offered, with focus on solar power.

In addition to household energy solutions, the Burundi Office is looking to broader social infrastructure electrification – including the electrification of health centers and schools – with support from leading private sector and academic partners.

To date, five **solar fridges** have been installed in health centers to enable proper storage and management of critically needed vaccines. This initiative will be expanded to include other services, such as indoor and outdoor lighting as well as mobile phone-charging hubs for frontline health workers.

Plans are also underway to **electrify schools** as a way to bring light for extended study time and introduce new technologies for delivering educational content.

In a context of overcrowded classrooms (72 students per classroom), lack of school materials (one textbook per four students), and high teacher absenteeism, these innovations are necessary to ensure that students receive the quality education they deserve.

A project that is already being piloted in this area is the **Digital Drum**, a rugged solar-powered computer hub preloaded with digital content. The content ranges from language to hygiene, and is intended to stimulate discussion and the discovery of new topics. With the Digital Drum, students can learn in a dynamic and self-directed way, while gaining an understanding of how to use a computer and perform basic functions.

In September 2013, UNICEF Burundi installed the first Digital Drum in a youth center in Bujumbura. Going forward, additional drums will be installed in youth centers and schools as a way of expanding learning opportunities

and advancing quality education for all.

All of these initiatives are part of a broader **Decentralized Rural Electrification Strategy** that UNICEF Burundi is developing to maximize the social impact of decentralized renewable energy. The strategy spans a number of programmatic sectors and aims to tackle energy challenges at all levels, including the creation of an enabling policy environment and incentives for private sector development.

What's next for innovation at UNICEF Burundi?

Building on successes to date, UNICEF Burundi will continue to harness, roll out, and scale new technologies and approaches in line with its Innovation Strategy. Partnerships are essential to this process and to achieving wide-ranging impact for children in Burundi.

