

## Summits Empower Local Innovators to Create Development Technologies in Zambia

A Spotlight on the MIT-led International Development Design Summit

## Innovators Connecting to Accelerate Global Development

## The Story

Over the past seven years, MIT and its partners have convened several International Development Design Summits (IDDS), described by the MIT team as an "intense, hands-on design experience that brings together people from all over the world and all walks of life to create technologies and enterprises that improve the lives of people living in poverty." The latest IDDS was held in Zambia in July 2013. led by the International Development Innovation Network (IDIN), an MIT-led Development Lab that is part of the Higher Education Solutions Network, a new collaborative academic network funded by USAID.

At IDDS, local innovators, professionals, and students from different backgrounds and with different skill sets, from developed and developing countries, come together, examine needs in local communities, and then work together with those communities to "co-create" practical, user-friendly innovations that will improve economic activities and quality of life. This is in line with the IDIN Lab mandate to set in motion a new process that will stimulate, amplify and promote locally generated technologies that will bring tangible benefits to emerging markets. At the same time, the IDIN Lab will support local innovators in the long and arduous process of production, scaling and distribution of their products or services.

Under the theme Better Living through Collaborative Innovations, the Zambia summit identified prospective innovations inspired by the collaborative principle of "co-creation". In the course of the IDDS exercise, participants formed teams that traveled to different villages, each with a different project agenda based on the needs of local communities. At the end of the month long experience, community members and IDDS participants showcased their prototypes to more than 300 local government, NGO, and academic representatives. Through the support of IDIN, many of the innovations and technologies created through the village experiences will be further developed and refined. Here is one example of what the innovators, working in teams, co-created.

The Palms Project Team went to Mwavi, in Zambia's Central Province, where many local craftsmen are engaged in mat and basket weaving activities because of the abundance of palm trees. As conditions for agriculture are not favorable, palm leaf weaving is the main way to make a living in Mwavi.



Amy Smith (founder of D-lab and PI for IDIN) and four IDDS participants demonstrate how to make charcoal from bio-waste. The demonstration took place at the residence of the Chief of Kamphelo, who is closely observing the process.

Photo courtesy of Elizabeth Hoffecker Moreno.















However, the craftsmen face problems in treating the palm leaves so that they are dry and in optimal conditions for weaving, especially during the rainy season. Improved palm leaf treatment, storage, and preservation for use is vital to obtain better leaves and consequently better products made with the leaves.

The Palms Project Team aimed to improve product quality and variety through the introduction of new technology, while simultaneously improving the working conditions and tools of the people involved in the process. The team designed a new tool that decreases the time necessary to strip the leaves, while enhancing the uniformity of the product. The team also designed a new "Stick and Nail" loom that improves on the existing weaving techniques, making it possible for the Mwavi people to make new items that can be sold as high end-products in foreign markets. Focusing on workplace conditions, the team made a new weaving stand that improves positioning, ergonomics, and reduces production time.

Beyond the technologies developed addressing the needs of the people in the villages, the Zambia summit turned out to be a source of inspiration for local innovators. Jordan Blekking, a Peace Corps volunteer connected with the effort, tells the story of what Nshimbi, a Zambian who took part in the IDDS experience, has been up to following the summit. "Nshimbi is always out, teaching and working with people,"

says Jordan. "The man is a machine. He's working with the women's group to make the phone chargers and blenders right now. We've also been working incredibly close with a local welder to make the bicycle plow, which we had done a bit before, but now that Nshimbi has been to IDDS he has seen the importance of manufacturing and trying to do things in a more industrial way. What Nshimbi has gained from this one month of IDDS experience has been amazing", continues

Jordan."



July 7-11 2013, Kamphelo, Zambia. Three IDDS participants demonstrate how to make and use a simple water pump at a community meeting in Kamphelo during the first IDDS community visit.

Photo courtesy of Elizabeth Hoffecker Moreno.

This is the true value of the IDDS summits. The experience set in motion a new dynamic. Participants now are motivated to keep searching for new solutions, while realizing that their efforts have to be structured and organized to be more effective.