Canada’s IDRC funds research that helps to reduce poverty and build healthier, more prosperous societies, the goal of Canada’s international development efforts. Here are a few examples that show how IDRC-supported research in Africa has improved lives.

**Battling malaria with treated bednets**

Among the best news of this century is that malaria deaths fell by 25% between 2000 and 2010, to 655,000 a year. Insecticide-treated bednets have proven crucial to this achievement. A study in the March 2012 *Malaria* journal concludes that the nets accounted for 99% of child malaria deaths estimated to have been prevented in sub-Saharan Africa in recent years.

In the early 1990s, IDRC and the World Health Organization co-funded large-scale trials of treated bednets in Africa. The 1996 publication of the research findings in the IDRC book *Net Gain* alerted the world to the nets’ life-saving potential. IDRC-supported researchers then focused on major practical questions, such as how to encourage the manufacture and use of treated bednets. In Tanzania, a campaign educated citizens on the wisdom of buying the nets, which were subsidized so more people could afford them. Researchers visited factories to make the case for bednet production, spurring the growth of a huge manufacturing industry.

**Grain dehullers: Less toil, more food**

In Senegal and other African countries, grain-processing machinery adapted from a Canadian design has reduced drudgery for women and girls, and made convenient food products more widely available.

Before grains like millet or sorghum can be milled into flour, the hulls must be removed. The grains are vigorously pounded with a large pestle in a mortar — tedious and physically demanding work when done by hand. Nowadays, this chore is encountered less often thanks to simple de-hulling machines designed in the 1970s by Canada’s National Research Council and since modified by African researchers.

According to former IDRC program officer Michael Bassey, this technology “created local businesses that produce a range of products for sale in supermarkets, such as couscous and bread. These products exist on shelves in Senegal everywhere today as a result of the IDRC-funded efforts.”

**Ceramic stove eases strain on forests**

A stove that has become popular in Kenya and neighbouring countries has taken pressure off Africa’s threatened forests by reducing the demand for wood and charcoal.

In the mid-1980s, IDRC began supporting research that led to the marketing of the ceramic Jiko stove, developed by the Kenyan agency KENGO. Today, surveys show that 80% of households in Nairobi and Mombasa use the stove, reducing their fuel consumption by up to 50%.

Several thousand large Jiko stoves have been distributed to institutions in Kenya. Many have also been exported to Ethiopia, Rwanda, Tanzania, Uganda, and other countries. With a smaller combustion chamber and insulated sides, the ceramic Jiko boosts the efficient use of wood. And in homes, where charcoal is used, the greener technology allows poor families to use money otherwise spent on fuel toward the purchase of food.
Improving the health of people and the environment

Research using ecosystem approaches to human health, pioneered by IDRC, has significantly improved health and welfare around the world. Ecohealth, as the approach is known, brings together scientists, decision-makers, and community members to improve the health of people and the environment at the same time.

The Soils, Food, and Healthy Communities initiative, underway in Malawi’s Ekwendeni region since 2000, shows how all the pieces fit together. Local problems include child malnutrition, degraded soils, and food insecurity. Working with farmers, a multidisciplinary team led by University of Western Ontario geographer Rachel Bezner Kerr believed these challenges could be addressed together.

The solution: rotate the traditional corn crops with legumes such as groundnuts and pigeon peas. More than 7,000 farmers have joined the project. The results: improved soils, larger harvests, and healthier children. Food security and farmers’ incomes have both increased.

To promote this innovative research approach, IDRC has spearheaded the creation of several Communities of Practice in ecohealth, including in West and Central Africa.

Telecentres spur policy change

Imagine a country with only one Internet service provider and barely 100 users. That was Mozambique in the late 1990s. Today, you’ll find a country that is committed to taking its place in the global information society. The change began when Mozambique’s government set out to establish a nationwide network of telecentres to provide public access to computers.

IDRC funded the first pilot centre in 1999, then the development of a network of centres, working through local grassroots organizations. Today the centres not only provide computer services, they also operate community radios and have become multimedia centres.

The champion of telecentres, Venâncio Massingue, a long-time IDRC grantee who went on to become Minister of Science and Technology, was one of the architects of Mozambique’s ICT policy in 2000 — the first in Africa. Nationwide access to these technologies is one of the pillars of the government’s science and technology policy.

Tanzania’s healthcare breakthrough

In the early 1990s, Tanzania’s health system was in dire straits. The Tanzania Essential Health Interventions Project soon ushered in a remarkable renaissance. Child mortality was reduced by an astonishing 40% over five years in two test districts in the late 1990s with a simple top-up of 80 cents per capita to health budgets.

The project — a collaboration between IDRC, the Tanzanian health ministry, and the Canadian International Development Agency — proposed that small, strategic investments could save lives. Tanzanian and Canadian researchers developed an easy-to-use computer tool to collect data on the major causes of death. This enabled health workers to direct more money toward combatting the diseases that killed the most people.

As many as 280,000 fewer Tanzanian children died between 1999 and 2005 than would have been expected to die in the early 1990s. Tanzania has rolled out the reforms nationwide. Burkina Faso, Ghana, and Nigeria are among the African countries following the TEHIP model in reforming their health systems.

South Africa prepares for democracy

When South Africa’s first post-apartheid government took office in 1994, it faced many daunting challenges. But the newcomers were well prepared, thanks in part to a bold IDRC initiative that helped South Africa’s government-in-waiting build the policymaking, economic, and consensus-building capacities it would need to run the country.

Relations between IDRC and South Africa’s exiled democratic movement began in 1988. With the goal of ensuring a government that could meet its population’s needs once international sanctions were
lifted, IDRC supported South African researchers focusing on concerns such as health, urban issues, and economic and industrial policy.

More than half the members of President Nelson Mandela's first Cabinet had been involved in IDRC-funded research. On a visit to Canada, Mandela noted that IDRC played "a crucial role in helping the African National Congress ... prepare for negotiations [and] was instrumental in helping us prepare for the new phase of governance and transformation.”

African economists inspire growth, reduce poverty

Talk to an economist in Africa and there’s a good chance you’re talking to a graduate of the African Economic Research Consortium’s training program. Founded in 1988 with support from IDRC and other donors, AERC has trained more than 1,800 students at the master’s level and 300 PhDs. This critical mass of experts has helped to steer economies in sub-Saharan Africa toward sustainable growth.

AERC awards research grants on issues such as poverty, trade, and finance. It manages collaborative master’s and PhD programs in economics with dozens of African universities. By strengthening university economics departments, the consortium is building research capacity in Africa and slowing the brain drain. Today, AERC alumni are in key government decision-making positions across Africa. They include central bank governors and ministers of finance.

Interpeace: Local solutions, lasting peace

A new approach to finding local solutions to armed conflict grew out of a response to a disturbing trend in the early 1990s. Although the Cold War had ended, new civil conflicts were on the rise.

“In 1994 there were 65 armed conflicts across the globe,” recalls Interpeace founder Matthias Stiefel. Sending peacekeeping troops to these regions was, at best, a short-term fix. And when ceasefires failed, “nobody knew how to stop those countries from falling back into an endless cycle of violence.”

With funding from IDRC, a United Nations pilot initiative, the War-torn Societies Project, sought durable solutions to the fighting in Somalia, Eritrea, Mozambique, and Guatemala. The goal: bring together representatives of rival factions in a neutral space to search for solutions acceptable to all parties.

The process was later formalized and a new organization, Interpeace, was born in 2000. Today, Interpeace facilitates this kind of peace process in 16 countries and territories, including Burundi, Guinea-Bissau, Liberia, Rwanda, and the Somali Region.

Connecting African universities to the world

Created in 2005 with IDRC support, the UbuntuNet Alliance has helped propel many of southern and eastern Africa’s academic institutions into the Internet age.

The digital revolution created a do-or-die situation for universities in Africa, where Internet access was extremely expensive. A large institution could typically afford only the level of connectivity available to a North American home. Without access to the digital tools that had become standard elsewhere, Africa’s best researchers could be expected to move abroad.

Enter the UbuntuNet Alliance, which represents academic communities in 13 countries, with four more waiting to join. The alliance fostered member countries’ National Research and Education Networks, which used their collective lobbying and purchasing power to obtain much cheaper Internet access.

Thanks to the work of the alliance, the European Commission committed funds to link researchers in Africa to each other and to the international research community with ultra high-speed connectivity. Today, academics in southern and eastern Africa are moving toward enjoying the same Internet access as colleagues on other continents.
About Canada’s International Development Research Centre
IDRC supports research in developing countries to promote growth and development. IDRC also encourages sharing this knowledge with policymakers, other researchers, and communities around the world. The result is innovative, lasting local solutions that aim to bring change to those who need it most.

Handheld boost to health care
Can wireless technologies improve health care in poor countries? By answering with a resounding “yes,” a seven-year IDRC-funded project in Uganda gave rise to a new way of practising medicine in remote communities.

Today, Uganda is among several African countries where smartphones give health workers instant access to information that enables them to more accurately diagnose patients’ symptoms. The phones also help clinics track diseases and remain stocked with critical drugs.

Yet these achievements were off in the future in 2003, when IDRC and the SATELLIFE Centre for Health Information and Technology launched their pilot program in Uganda. Relying on pre-smartphone technology — the personal digital assistant — required a reliable power supply. The project constructed on-site solar power stations, incidentally creating economic spinoffs for Uganda’s solar electricity industry.

“The rapid uptake of PDAs and then smartphones in Uganda and in Africa is a direct result of IDRC’s groundbreaking investment in communications technologies for healthcare,” says SATELLIFE Director Holly Ladd.

Agroforestry: From traditional practice to solid science
The World Agroforestry Centre has turned a traditional practice — growing trees and shrubs alongside crops — into a science-based discipline.

Agroforestry is now recognized around the world for its potential to provide food, fodder, increase crop yields and incomes, protect watersheds, provide energy, and prevent land degradation. IDRC was a prime mover in the centre’s creation.

Canadian forester and IDRC advisor John Bene was the catalyst for the 1978 launch of the International Council for Research in Agroforestry, as the World Agroforestry Centre was known until 2002. With headquarters in Kenya and regional offices in Malawi and Cameroon, the centre now works across Africa, as well as in South Asia and Latin America.

Bene had called for a more coordinated approach to the agricultural and forestry problems of developing countries. In recognition of his work, IDRC awards the John G. Bene Fellowship annually to a Canadian graduate student of agroforestry in the developing world.