



Ireland and ICRISAT

Reducing hunger and poverty in the drylands of Africa



for groundnut and pigeonpea that will assist both breeders and seed regulatory agencies in ensuring that seed quality standards are maintained through maintenance breeding.

Conclusion

ICRISAT has a strong imperative to hold a “people and poverty focus” to primarily address the needs of sub-Saharan Africa and South Asia as

Ireland does. In pursuance of this goal, mention must be made of another upcoming initiative between ICRISAT and the National University of Ireland (NUI-Galway) to develop cooperation and collaboration in research for development, training and other activities for the mutual benefit of both institutions.

Therefore, ICRISAT looks forward to an ever-strengthening partnership with stakeholders and donors, such as Ireland and others.



Malawian woman farmer with extension workers and ICRISAT scientists.



H E Liam MacGabhann, Irish Ambassador to Malawi, encouraging smallholder farmers in Malawi to use certified seed.

Introduction

The goal of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is to harness the power of technology for development, food security, poverty alleviation and environmental protection, targeted at poor rural families in the semi-arid tropics (SAT) of the world. But ICRISAT cannot do this alone. Countries, such as Ireland, help ICRISAT achieve this goal through their support and encouragement, as well as through financial assistance.

Along with research for development, ICRISAT sees the need for more effective social assistance programs to help the poorest of the poor connect to markets, but in a way that builds their own resilience rather than creating dependency. ICRISAT’s Inclusive Market-Oriented Development (IMOD) strategy focuses on helping the farming poor in the drylands to move from a subsistence to market-oriented agriculture, thus improving their incomes and livelihoods.

The Government of Ireland believes that the eradication of hunger is the key to development, and this perspective forms an important part of its foreign policy. Through Irish Aid, it focuses on reducing global hunger and thus achieving the first Millennium Development Goal of halving poverty and hunger by 2015. Given this policy, one of the priorities of Irish Aid is to increase agricultural productivity. The emphasis is on smallholder farmers, especially women who account for 80%

of food production in many of the developing countries. But Ireland cannot do this by itself. This is where international agriculture research institutions, such as ICRISAT, come in. Thus, agricultural development is central to the mandates of both Ireland and ICRISAT.

Progress on Addressing Hunger Task Force Goals

The *Hunger Task Force: Report to the Government of Ireland* identified three critical areas for action in addressing hunger in Africa. The first of these, and perhaps the most important single factor, is to increase agricultural productivity.

The Malawi Seed Industry Development Project

Irish Aid has already made a significant and strategic commitment to support the Malawi Seed Industry Development project. This initiative was developed by ICRISAT and, although launched just two years ago in 2009, is already having an impact. The project has made significant contributions to seed availability of groundnut and pigeonpea for the Farm Input Subsidy Program (FISP) of the Government of Malawi. Smallholder farmers accessed about 500 metric tons of improved seed of the two legumes from the project through FISP in 2010.

About ICRISAT



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that does innovative agricultural research and capacity building for sustainable development with a wide array of partners across the globe. ICRISAT’s mission is to help empower 600 million poor people to overcome hunger, poverty and a degraded environment in the dry tropics through better agriculture. ICRISAT is supported by the Consultative Group on International Agricultural Research (CGIAR).

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The primary objective of this project is to make quality seed available to smallholder farmers as this will enable them to increase their yields. Most farmers use “farm saved” seed by holding back grain and planting it to grow their next crop. Over time, the “seed” loses its vigor, and yields decline. Use of farm saved seed could also prevent the introduction of improved varieties to farmers due to the lack of formalized production and distribution systems.

Agriculture in Malawi is crippled by an inadequate supply of a basic farming necessity – seed. “Our biggest problem is that we cannot get enough foundation seed. Small companies are not surviving,” says Felix Jumbe, Executive Secretary of the Seed Trade Association of Malawi (STAM).

Foundation seed is used to produce certified seed, which is what farmers would, ideally, plant every season for increased yields. Without foundation seed there is an insufficient supply of certified seed, leaving Malawian farmers with little choice but to repeatedly endure poor harvests. This, in conjunction with the limited variety of crops grown, has led to one of the highest malnutrition rates in the world. Thirty-four percent of Malawi’s population is malnourished and 22 percent of Malawians are chronically food insecure.

Vital need: seeds for the smallholder Malawian farmer

Ireland’s history and experience with crop failures and famine have influenced this approach to the fight against poverty and hunger. In Malawi, Irish Aid has recognized the value of seed to

smallholder farmers by partnering with ICRISAT, an international agricultural research center committed to improving food security through the development of better crop varieties and improved ways of growing crops.

Rather than giving out free seed, the present project is supporting local entrepreneurs in seed production and marketing of crops such as groundnut and pigeonpea that are not only highly nutritious but also have a ready market both within Malawi and overseas. The project benefits from research investments in groundnut and pigeonpea breeding that have been supported by multiple investors, including Irish Aid through its core contribution to ICRISAT.

Partners in the project

The project involves all the major stakeholders in Malawi’s seed sector including the National Smallholder Farmer Association of Malawi (NASFAM), a 100,000 member farmer cooperative, to promote a cohesive market-driven approach.

Ranked 164 out of 177 countries in the 2007/8 Human Development Index, Malawi is one of the poorest countries in the world. Ever since the food-security crisis in 2002, the Irish Government, through Irish Aid in the department of Foreign Affairs, has funded programs of humanitarian assistance and provided support for the strengthening of Malawian Civil Society Organizations. This funding has amounted to approximately € 3 million per year and is largely focused on responding to food crises and strengthening democracy. The present project furthers these goals.

Agro Dealer Training and Seed Production

Groundnut is a high volume, low margin crop that does not travel well. To address this, ICRISAT launched an innovative test program to determine whether local, small-scale seed production is a viable proposition. Thirty selected agro dealers received comprehensive training to help them expand their businesses to include seed. They also received 40 kg of groundnut foundation seed each, which they planted. The resulting crop – high quality, certified seed – will be cleaned and bagged locally for sale by the dealers. With support from a series of “educational” radio programs to stimulate demand for certified seed, it is anticipated that the results of this test program will lead to its expansion into other locations. These agro-dealers have also mounted demonstration plots promoting the use of improved seed. Field days will be held at demonstration sites and smallholder farmers will be invited.

Current Status and Plans for the Future

The Malawi Seed Alliance – MASA

Together, Irish Aid, ICRISAT, NASFAM, and STAM launched the Malawi Seed Alliance (MASA), an ‘umbrella’ brand that could be used by small-scale seed producers to promote certified seed.

Support for Seed Services

In response to feedback from farmers and seed companies on the inefficiencies of the certifying agency, the Seed Services Unit (SSU) of the Department of Agricultural Research Services, Irish Aid donated one vehicle and new laboratory equipment to help upgrade the SSU.

In addition, ICRISAT recently completed an analysis of the operations of the unit and has determined that a modest investment in database software could increase the efficiency of the unit by 200%. Irish Aid is funding the initial development phase of this project.

From 2010 onwards, the fertilizer and seed subsidy program (introduced in Malawi in 2004) will only subsidize certified seed, which will mean wider adoption of quality seed by smallholder farmers. Initially endowed by USAID, the fund for foundation seed used for multiplying certified seed is managed by ICRISAT with supplements from Irish Aid.

Ensuring Seed Quality

It is very difficult to differentiate seed from grain, and to be sure that the seed is genetically ‘true to type’. Conventionally, seed samples are drawn from seed lots and grown, so that the morphological features of the grow-outs can be compared against a set of descriptors; but this takes time and is expensive. The identification of molecular markers that can be used for variety identification is not only quicker but also cheaper. With the additional funding from Irish Aid in 2009, ICRISAT is developing a set of markers