Voices of Change

GFAR

A taste for something better - introducing improved banana varieties to Burundi

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There is a French expression, à chacun son goût - to each his own taste. Palates can evolve, and it is a changing taste that is creating new opportunities for banana farmers in Burundi.

Banana is a staple food crop for households eking out a living on Burundi's countless hillsides. The level of per-capita consumption here is amongst the highest in the world. But a raft of social, agronomic and plant disease challenges is eroding the ability of farmers to cultivate one of their favourite foods. Vulnerable to diseases such as Xanthomonas wilt and bunchy top, low-yielding, and labour-intensive, the cultivation of traditional banana varieties is becoming counterproductive. There are too many mouths to feed, and with significant urban migration, there is often a shortage of young helping hands to look after the farm. Some farmers have already given up, turning to alternative crops like beans and vegetables.

Exotic banana varieties can offer new perspectives. In the late 1990s, the Kagera Community Development Programme received Belgian technical and financial support to introduce improved hybrids and exotic banana germplasm to the Kagera Province in North-Western Tanzania. Amongst the new varieties, the hybrid 'FHIA-17' stood out. It proved to be highly tolerant to many pests and diseases, and it gave an excellent yield. Farmers weren't fond of it- at first. The taste and texture were not what they were accustomed to. And yet, pole pole (slowly), it caught on, its multiple superior agronomic traits winning favour over flavour.

The enthusiasm for exotic varieties in Kagera has now spilled over into Burundi. Farmers are quickly warming to FHIA-17, and increasingly prefer it to the traditional 'Kamaramasenge' and 'Gros Michel'. It is valued for its short stature (meaning much less effort to harvest and maintain), sweet flavour and large fruits. Farmers are also impressed by its productivity and short crop cycle. FHIA-17 can easily yield two or three times as much as local varieties - and that means more food in mouths and more money in pockets.

A partnership between the international agricultural research centres Bioversity International, CIAT and IITA called 'CIALCA' is working with development organizations and farmers to develop solutions to Burundi's banana woes. Since 2008, CIALCA has established banana germplasm evaluation trials (comprising FHIA-17) and refined technologies for safely multiplying banana plantlets. These 'clean seed' propagation techniques help ensure that banana plantlets are largely free of disease. For the evaluation trials, verified, clean FHIA-17 source material was acquired from the Bioversity Musa Germplasm Transit Centre in Leuven, Belgium. It was initially multiplied in Burundi by private-sector tissue-culture laboratories, and subsequently by CIALCA-trained farmer associations using 'macropropagation' humidity chambers in the field.

In the Eastern Muyinga Province, the entrepreneurial Garukirigitoke farmers' association is turning FHIA farming into a lucrative business. Training by CIALCA agronomists in macropropagation techniques and good management practices has allowed them to establish over eight hectares of disease-free FHIA plantations. The harvest is in high demand, sold to factories across the border in Kagera Province for processing into banana juice and chips. The Association has also recently started selling macropropagated plantlets to neighbouring provinces in Burundi, and to as far away as DR Congo. This is also an exceptionally good income generating activity. Banana plantlets of local varieties obtained via macropropagation fetch around 700 Burundi Francs, (0.44 US Dollars) but FHIA-17 plantlets sell for 1200 Francs (0.76 US Dollars) - nearly double the price.

With an ever-increasing interest in FHIA-17, this cultivar is now also multiplied using macro-propagation techniques in Makamba province by the NGO CADEK, and in Bujumbura Rural Province by the NGO Floresta, as an income generating activity. 'We've already delivered over 1,700 plantlets to farmers, says Floresta's Director Lazare Sebiterereko, and we're expanding our macropropagation activities as fast as we can so we can keep up with the demand'.

Perhaps the best future prospect for the dissemination of FHIA-17 at scale is an opportunity arising from tragedy. Banana Xanthomonas wilt (BXW) is a serious bacterial disease that can cause complete loss of plants and harvests. Since first appearing in Burundi in late 2010, it has spread rapidly throughout the country. Unfortunately, all banana varieties are susceptible to BXW - including FHIA-17 - but farmers can effectively avoid new infections by adopting a simple package of management technologies developed by CIALCA. If BXW affected fields are replanted with 'clean seed' FHIA-17 and other improved varieties, there is an excellent potential for enhancing the contribution of banana to food security in Burundi.

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