Our Concept of Resource Management and Its Technical Development <Part 3>

African Leafy Vegetable in Kenya Program

In agricultural production, there is no doubt that the most important "resource" contributing to production is plant genetic resources, which constitute the production environment including the ecosystem.

In the context of "resource management based on sustainability", which was raised in the introduction to this series (AAI News No. 126), a case study of a program to revive the cultivation of indigenous traditional vegetables is presented in this article.

This "Low Input and Sustainable Agriculture" (LISA) technology, which the author piloted at his project sites in Kenya in 2014, exemplifies practices that successfully maintained and propagated indigenous/local genetic resources used since ancient times that were at risk of being forgotten due to modernization, keeping them in active use.

Alliance Bioversity International (formerly the International Plant Genetic Resources Institute, or IPGRI; hereinafter "BI") was engaged in the collection and classification of plant genetic resources for indigenous vegetable varieties from across Africa at its regional branch in Nairobi, Kenya.

The effort aimed at preventing the loss of valuable global plant genetic resources and promoting their conservation through utilization. Having identified nearly 200 varieties in Kenya alone, BI was exploring methods to advance conservation efforts through the use of these genetic resources.



Introductory workshop

Even in Kenya, the diversity and utilization of traditional indigenous crops were being lost with modernization and Westernization. Unfortunately, this trend was driven by an underlying perception that consuming introduced (Western-origin) vegetables is "modern," whereas consuming local indigenous vegetables was viewed as "backward" or a sign of poverty.

Consequently, the production and consumption of indigenous local crops including the gathering of wild plants for self-consumption had been declining rapidly.

From 1996 to 2004, BI implemented the African Leafy Vegetable program in Kenya, working together with crop scientists and nutritionists to demonstrate that indigenous vegetables, particularly leafy green vegetables, were highly nutritious and easy for farmers to cultivate with low inputs. They disseminated these findings through television, posters and workshops that included cooking demonstrations.



Not only fresh but also dried and frozen produce are available recently

Consequently, these indigenous local vegetables began appearing in major Nairobi supermarkets. Initially, urban wealthy consumers, in particular, were motivated by a desire to revive their cultural heritage and traditional roots, leading to increased consumption of these local vegetable varieties and driving a subsequent expansion in both demand and production across suburban and rural areas.

The "reintroduction of indigenous vegetable varieties" in this program was piloted as a LISA technique due to several outstanding characteristics: (a) being native to the region, they required no modification of the cultivation environment; (b) they were easy to grow, resistant to pests and diseases, and highly sustainable, requiring minimal inputs such as chemical fertilizers and pesticides; (c) procuring and saving their own seeds was relatively easy; (d) they contributed to maintaining crop diversity; (e) they were highly nutritious and effective for improving nutritional status; and (f) they possessed potential market value in addition to their utility for home consumption.

Aimed at improving the livelihoods and nutritional status of small-scale rural farmers, this program to promote the cultivation of traditional vegetables continues today with the support of various aid organizations.