

'Crops of Truth': Conserving Agricultural Biodiversity in Andhra Pradesh, India



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Lionel Lumb

[Photo: Women farmers in Andhra Pradesh, India discuss the success of their seed preservation work.]

The land looks permanently thirsty, with rocky outcrops competing with patches of millets and pulses — crops that the farmers of Andhra Pradesh prize because they grow in the drylands and "don't desire water."

"People here have lived through years of drought, of devastation," says [Periyapatna Venkatasubbaiah Satheesh](#), Director of the Deccan Development Society (DDS). "They have steel in them to continue to live here, whatever the misery, whatever the wretchedness." What keeps them going is crops that demand nothing — not even water or good soil — and that the farmers, in gratitude, call "crops of truth."

Age-old bonds

But modern cultivation has threatened the age-old bonds between local farmers and traditional crops, which include foxtail millet, finger millet, sorghum, lentils, pigeonpea, and cowpea. Thirty years ago, up to 75 different varieties were grown in the region. The advent of hybrid seeds, chemical fertilizers, bore wells, and government loans has since lured many farmers into gambling on cash crops like cotton and sugarcane — sometimes tragically. In 1997, for example, a poor monsoon and heavy pest attacks devastated large tracts of cotton, causing several Andhra Pradesh farmers to commit suicide.

Other farmers and development workers are betting the other way, turning back the agricultural clock by delving into the living memory of farmers who still recall the rich diversity of seeds and crop patterns that could fertilize the soil, discourage pests, and weather a miserly monsoon.

In 1985, Satheesh and the Deccan Development Society began working in the semi-arid region around Zaheerabad, 110 kilometres west of the Andhra Pradesh capital of Hyderabad. This region gets, on average, only 800 millimetres of rain a year, mainly during the monsoon season from July to September. But the parched soil cannot absorb the intense monsoon downpours, so most of it is wasted. The rest of the year farmers grow crops that survive on subsoil moisture and night-time condensation.

Poorest of the poor

DDS chose to work with the poorest of the poor — low-caste Dalits, who own small patches of often degraded and unproductive land. Satheesh soon found that women are generally more interested than men in reviving traditional crops: they prefer to play it safe by planting a variety of food crops rather than relying on a single cash crop. Women also understand the dietary and medicinal benefits of different grains, and for generations have selected and preserved seeds from one season to another.

The Society set out to build village level seed-banks through sangams, or voluntary associations. The idea was to introduce farmers to permaculture or "designed organic agriculture." Satheesh and his colleagues discovered that local farmers already practised an elaborate system of diverse crop-sowing, rotation, pest control, and fertilization. "People here have all along used diversity as a basic tool," he says. "We were able to build on this oundation, and eventually achieved a fusion of the two systems."

Today, the DDS project involves 3,600 families in 75 villages of Andhra Pradesh's Medak District. The Society is helping the sangam women grow and distribute hand-picked seeds to farmers, who repay them with fresh seed from their crops. Eventually, the women will become entrepreneurs, selling seed to large-scale farmers.

Using Agricultural Diversity

In 1995, Satheesh and other activists, farmers, and scientists participated in an agricultural diversity workshop in New Delhi hosted by the International Development Research Centre (IDRC). Following the workshop, IDRC launched the "[Using Agricultural Diversity Network](#)." Under this program, a steering committee — consisting of about 12 representatives from South Asian countries — solicits, reviews, and funds research activities proposed by farmers, grassroots NGOs, and scientists that work with farmers.

Last year, DDS was awarded 350,000 rupees (about CA\$14,000) to document Andhra Pradesh farmers' use of agricultural diversity through oral histories, videos, and photo-slides. Over the winter, the Society recorded both what is grown and why on nearly 500 farms, and will do the same in the coming monsoon season. Groups of women farmers have already analysed the initial results and ranked 32 key crop varieties. At the end of this year or early next year, DDS plans to stage a huge jatra, or village fair, which will highlight the Dalit women's work through videos, seed displays, cooking contests, and discussion forums.

"When we walk through the fields now," concludes Satheesh, "it's no longer just crops we see. The women farmers have enriched us with insights and nuances about the intricate balance between their lives and crops, and we want to share that enrichment with the rest of the world."

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