

**A**gnes Ngwabi is a Zimbabwean farmer. On her farm she grows various crops from seeds recommended by the local extension agent. But in a corner of her fields she also grows her own, traditional crops, selecting the best seeds and keeping them from year to year. She knows that her local seeds do not mature as fast as commercial seeds, but they have other qualities that she wants: “they taste good, they are bigger than the seeds you buy and I trust them to grow well here”.



**LIKE MILLIONS OF OTHER FARMERS**, Agnes Ngwabi is a custodian of detailed knowledge about local natural resources.

Farmers such as Agnes know how to select seeds to get the characteristics they want, which plants can be used to treat different illnesses, how to breed livestock to get the best traits, and many other practices for resource management.

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On the local livestock breeds he keeps on his farm:

*“These animals can survive with very little grass. also, they can survive other problems caused by water shortages and drought.”*

(From the video: “Sharing the knowledge” FAO, 2001)

**LOCAL OR INDIGENOUS KNOWLEDGE** has developed over time; shared within and between farming communities and handed down through the generations, constantly subject to experimentation, innovation and change. Different groups – men and women, young and old – have different roles, responsibilities, needs and perceptions, and as a consequence hold different types of knowledge. These rich, dynamic and time-tested systems of knowledge continue to play a crucial role for the food security of people around the world, especially the poor.

**For example**, an estimated 1 400 million rural people, mostly poor farmers, depend on farm-saved seeds, local plant breeding and selection as their primary source of seeds. They keep and refine local plant varieties because they have what farmers are looking for: taste, seed size, cooking time and – perhaps most important – an adaptation to local conditions such as pests and diseases, climate and soils.

© **Rural farmers in Zimbabwe**  
Challenged on the local crops they grow:

*“But we city people don’t eat local crop varieties anymore...” “That’s why you are weak!”  
Farmers know the value of the crop varieties they have developed themselves. they may not yield as much as improved varieties, but have got other strengths and characteristics that people need.*

(From the video: “Sharing the knowledge” FAO, 2001)

**LOCAL KNOWLEDGE IS ALSO CRUCIAL** in other sectors: estimates show that more than three quarters of the world’s population depend on traditional health care based on local plants and practices for their primary medical needs, while at least 40 percent of the world’s “modern medicines” are based on plants and traditional medicines. There is a growing recognition that local health practitioners and traditional medicines have a key role to play for current and future health care needs.

**THE VIEW THAT LOCAL PEOPLE’S KNOWLEDGE** is inferior to scientific knowledge and irrelevant for a country’s development is now changing. Researchers, policy-makers and development workers are realizing that rural men and women nurture knowledge that offers valuable opportunities for biodiversity conservation, increased food security and sustainable livelihoods for the poor.



**LOCAL KNOWLEDGE AND BIODIVERSITY** are closely linked and mutually reinforcing. Local knowledge systems emerge from and are situated in a cultural context. Many species and ecosystems are preserved because of their cultural importance. A threat to cultural diversity – traditional farming systems, languages and cultures – is also a threat to biological diversity. And vice versa: If species disappear, so too do the cultural institutions and knowledge systems associated with them.

**THE HIV/AIDS PANDEMIC**, and its effects on family structures and agricultural production patterns, represents a serious threat to the continued survival of local knowledge systems. As adults fall ill and die, families face declining productivity as well as loss of local farming knowledge. Agricultural skills and knowledge may be lost since children are unable to observe their parents working.

**TRADITIONAL CROP VARIETIES AND LIVESTOCK BREEDS** provide the biological basis for world food security. In fact, all improved crop varieties come from genetic material originally developed by local farmers. Today, however, local livestock breeds and crop varieties, and their wild relatives, are lost at an alarming rate. For example, about 30 percent of all livestock breeds are at risk of extinction. This loss is caused by factors such as replacement of local breeds and varieties by exotic ones, neglect of local breeds and varieties, land degradation and overharvesting of wild species. Plant and animal diversity provides stability in farming systems, a buffer against future environmental changes and a rich source of potentially useful traits and characteristics, thus representing a critical asset for efforts to increase global food security.