

# BioSoc: the Biodiversity and Society Bulletin

Research highlights on biodiversity and society, poverty and conservation

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## IN SEARCH OF THE HOLY GRAIL: COULD PROMOTING UNDERUTILISED PLANTS PROVIDE A WIN-WIN FOR BIODIVERSITY CONSERVATION AND POVERTY REDUCTION?

It is well documented that a wide range of plant species support the livelihoods of millions of people worldwide. These include edible fruits, grains, leaves, nuts, oils, roots and tubers, medicinal plants, spices and so on. Many of these species are, however, only considered important locally and may present difficulties for broader uptake because of their harvesting, storage or processing requirements. As a result, such so-called “underutilised plant species” (UPS) have received little investment to date through formal research and development activities. Nevertheless, with the focus on the international community on achieving the Millennium Development Goals, increasing attention is being paid to better exploiting the potential of these plants to contribute to the nutrition, health and income of poor communities while at the same time delivering on environmental sustainability objectives. A new report by the International Centre for Underutilised Crops (ICUC) highlights the potential benefits – but also the risks – that increased cultivation and commercialization of traditional varieties and wild resources could present for both poor farmers livelihoods and for biodiversity.

Currently only a few dozen crops dominate world agriculture. Intensive promotion of this small handful of high-yielding crops has, in general, led to significant biodiversity loss in farm ecosystems, with displacement of traditional varieties and other species. Promotion of UPS could thus lead to a far more diverse agricultural landscape and help reduce the rate of biodiversity loss. Incorporating diversity into farming systems because of the benefits it can bring to rural communities, rather than as an ‘end in itself’, is however, behind ICUC’s rationale for promoting UPS. Poor farmers can benefit in a number of ways:

- By making these species more accessible than their “wild” counterparts (which may require considerable time and effort to collect or harvest), they can contribute to increased food security and health care.
- For poor farmers who are unable to afford the inputs required to sustain the yields of modern crop varieties, reducing risks by growing older types may be more important than increasing returns, since the results of crop failure are often catastrophic.
- Some species may have commercial potential and may present opportunities for poor producers to move beyond subsistence use and start generating cash income.

Well-meaning efforts to promote UPS must, however, take care not to fall into the same traps as modern agriculture by focusing on a limited range of species at the expense of maintaining a diverse – but stable – resource based. The ICUC recommends a ‘spear and shield’ approach where certain UPS are championed for intensive domestication, large increases in production and immediate impact (‘spears’), while use of a much wider range of taxa (the ‘shield’) is enhanced through a range of different and more diffuse actions that are needed to provide the poor with the strategic skills they need to respond to changing preferences for different products. As well as helping to develop ‘intelligent markets’ for varied products, a key challenge is to ensure farmer’s access to germplasm. Seed fairs and community knowledge networks can help but policy interventions are also important to allow access to sources that are often not available to communities. Restrictive protected areas and centralised genebanks may need a rethink.

## SOURCE

Dawson, I.K., Guarino, L. and Jaenicke, H. (2007) Underutilised Plant Species: Impacts of Promotion on Biodiversity. Position Paper No. 2. International Centre for Underutilised Crops, Colombo, Sri Lanka.

The report is available to download from: <http://icuc-iwmi.org/files/Publications/ICUC-PP2%20web.pdf>

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