

## **Recycling is no good for sustainable development**

Part of our business at the Royal Botanic Gardens, Kew, is to deal with issues concerning plant conservation and to handle requests for information about the uses of plants, especially in Africa. The latter falls within our own remit in the Centre for Economic Botany. In December 2001, for example, an NGO in Mauritania wanted to know about multi-purpose trees that could be planted for poverty alleviation. With extensive libraries, collections, and databases, our own institute is a relatively easy place to do the job of giving a comprehensive answer, certainly much more so than almost anywhere in Africa. It is a common irony of course: head for the information-rich North if you want to learn about the biodiversity-rich South.

The uses of plants – for food, fodder, medicine, timber, and others ranging from incense to glue and fibres – are well recorded in widely scattered literature, both old and new. Only well-resourced northern institutes could be expected to have even a certain proportion of it. So, what happens when such institutes, with funding from some national or international development organisations, try to analyse and review all this literature, with the intention of sending the results southwards?

We have looked at the contents of some of the resulting publications in relation to a number of species, including the widespread savanna tree *Acacia seyal* (commonly referred to as 'seyal'), an important source of dry-season fodder throughout Africa. It also supplies a durable timber, yields an edible gum, and its bark and roots are used locally in medicine.

One would expect the amount of information on uses to increase over time. Taking as a starting point a 1988 FAO publication on selected arid zone trees in Africa, we counted the number of 'data points' (i.e. items of information) referring to uses for seyal in this and in three subsequent publications and two databases funded by northern development agencies.

From a count of 26 data points in 1988, peaks were reached in 1993 with the publication of a monograph that included an entire chapter on uses supported by quantitative data, and in 1995 with Burkill's *The Useful Plants of West Tropical Africa* (Volume 3), with 43 data points. Since then, two databases, one of them published as a CD-ROM in 2000, have added no new information and, indeed, have reduced numbers of data points (39 and 17, respectively).

Of course, one can argue the precise definition of a 'data point', but the general pattern holds for other species as well. In short, what we see is that at least 10 development organisations and agencies have been involved in funding the six publications/databases we looked at. None of the six sources is absolutely comprehensive with respect to information on uses; all of them recycled information and, worse, the amount of data presented over time actually diminished, rather than expanded. A further disturbing feature of some of the publications is that they do not directly reference their data sources – almost as though a slipping of scientific standards will be acceptable for an audience in Africa.

The duplication of effort seems a sad way of using development funds, especially when the end products are so demonstrably incomplete. No doubt the authors and editors of each of these products were trying to fit whatever they could into their own formats and budget lines. But we know from our own experience that much of the information has simply been passed from one northern institute to another. The worst example we have encountered involved another institute downloading information from one of our databases, reformatting it, and then printing it out as a project report, despite the fact that our information was far from comprehensive (as we were well aware). It is difficult to see how the information-poor South gains from this sort of exercise – much easier to count up how many jobs have been maintained in the North – hardly the idea behind development funds!

Problems do not cease once publication has occurred. Firstly, books go out of date quickly; no new information can be added. Yet, is not new information just as pertinent to conservation and development? Secondly, any publication must be distributed. Although we have not obtained figures for how many of the products we looked at have been sent, or to where, a good proportion must remain in the North in order to stock up the shelves of institutes such as ours. Passing information, literally, from North to South is expensive: Burkill's volume, weighing 1,405 g, will cost £12.37 by air mail and £5.70 by surface mail at printed paper rates. Multiply these figures by, say, 500 (a standard print run for many scientific books) and it is easy to see why, for any institute dedicated to the notion that biodiversity information is one of the keys to conservation and sustainable development, information dissemination is a considerable financial and time-consuming commitment.

Moreover, are 500 copies really enough to supply Africa's information needs? The Mauritanian NGO certainly missed out on copies.

Our concerns therefore focus on the fact that much of the information about plant uses (and probably about many other related topics too) compiled for and sent out to countries in the South is recycled, restricted, and quickly out of date. It is an expensive process, but not an additive one. Clearly, if any one publication had already done the job properly, and been distributed far and wide, there would have been no need for any others later.

What we propose is both a change of policy and delivery. If information is indeed power, then we need strategies from national and international development bodies in the North for how they are going to deliver it southwards. Instead of just books, we advocate a far greater role for the Internet as a primary means of

dissemination; downloads and print-outs can follow if required. There are no limits on the information that the Internet can show, it can be updated at any time, and its reach is extending at an ever quickening rate to areas inaccessible to post vans. Of course it needs to be well managed, and it needs to be there in the first place. There is no point in increasing the amount of information online, as our own institute is committed to doing, if the target audience cannot get online itself – a critical, and poorly explored issue. We look forward to the time when use of the Internet will bypass the current duplication, repetition and comfortable 'jobs for the (northern) boys' and provide first class delivery straight to any African screen.

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