CASE STUDY 18

The commercialization of traditional knowledge about an appetite suppressant in South Africa and Namibia

This case study shows that research groups and pharmaceutical companies seeking to exploit traditional knowledge for commercial gain can be encouraged towards ethical practice through media pressure even where legal protection for community- held intellectual property rights is not yet in place. But, as this case study also shows, even where benefit-sharing agreements have been negotiated, communities will not necessarily benefit, financially or otherwise, from the commercialization of their traditional knowledge; they may also be unhappy about the results of commercialization. This underlines the importance of thorough consultation with the community concerned before agreements are concluded. The study also shows, however, that it is often difficult to determine who *is* the community.

#### Commercializing Hoodia without prior consultation

The hunger-appeasing properties of the *Hoodia gordonii* plant have been known to the San (Bushman) communities in southern Africa for many centuries and were documented as early as the eighteenth century. In the mid-1990s, after ten years of research, the Council for Scientific and Industrial Research (CSIR), a State-funded organization in South Africa, identified the pharmacologically active component of *Hoodia*, which they named P57, and filed several patents on it in South Africa and elsewhere. The CSIR then signed a worldwide licensing agreement for the development of *Hoodia*-related products with a British company, Phytopharm plc.[[1]](#footnote-1)

Phytopharm did further work on P57 and finally entered into an agreement with Unilever in 2004 to produce an appetite-suppressing drug based on *Hoodia*.

In undertaking this work, the CSIR failed to acknowledge or consult the San people whose traditional knowledge had led to the development of P57. In 2001 Richard Dixey, chief executive of Phytopharm, stated that ‘the people who discovered the plant had disappeared’.[[2]](#footnote-2) Biowatch, a South African NGO that had been monitoring this issue, was assisted by Action Aid (an international development charity) in bringing the story to the attention of the international media. The CSIR and Phytopharm, under mounting pressure about claims of biopiracy, began negotiations with representatives of the San community. In 2002, following these negotiations, a Memorandum of Understanding (MOU) was reached between the CSIR and the South African San Council: it recognized that the San were the bearers of the traditional knowledge on the human uses of *Hoodia*.

#### A benefit-sharing agreement

This MOU later played a central role in the formulation of a benefit-sharing agreement between the CSIR and the South African San Council in 2003. The terms of this agreement stated that the CSIR would pay the San 8 per cent of all milestone payments from Phytopharm, as well as 6 per cent of all royalties that the CSIR received once the drug was commercially available. ‘Milestone payments are subject to agreed technical performance targets of P57 during its clinical development over the next three to four years, and royalties are based on sales which were not set to commence before 2008.’[[3]](#footnote-3)

San community representatives agreed that San structures should ‘actively strive to ensure that a clear majority of funds received should reach and benefit San communities’, with a maximum of 20 per cent to be spent on organization and administration. The San Hoodia Benefit Sharing Trust was established to manage the funds from the CSIR agreement.

#### Problems associated with commercialization

The publicity around the drug led to many copycat products that infringed the patent. It also led to unsustainable harvesting of the plant in the wild and it was inscribed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 2004). In spite of CITES controls, plantations of *Hoodia* sprang up in other parts of the world. This led to a drop in the market for commercially produced *Hoodia* from southern Africa by 2009. The San were not involved in the commercial farming of *Hoodia* and there were few non-monetary benefits from the CSIR agreement, such as capacity building or seed funding for farming enterprises. In 2007 South African farmers growing *Hoodia* as a raw material for the herbal and dietary supplement market negotiated another benefit-sharing agreement with the San, based on a levy on exported *Hoodia*. By 2009, however, no payments had been made because of problems in calculating the export figures for *Hoodia*.[[4]](#footnote-4)

In a further complication, Unilever withdrew from the Phytopharm licensing agreement in 2008 and abandoned plans to develop *Hoodia* as a functional food, citing concerns about safety and efficacy. By October 2010, therefore, the San had received only US$100,000 from their benefit-sharing agreement with the CSIR, a tenth of the projected profit. Their organizational structures have struggled to deal with even this modest financial benefit.

#### Community views on the commercialization of Hoodia

San community members have mixed views on the benefits of the commercialization of their knowledge of the *Hoodia* plant. In interviews conducted with them a few years after the agreement was signed, many felt that they had not been properly informed about the benefits by their representatives on the San Hoodia Trust and other organizations. There were problems interfacing between the organizations and the various agreements they had drawn up around community benefits from *Hoodia* commercialization in South Africa and Namibia. Another indigenous group, the Nama, has claimed that they should also benefit from the commercialization of the indigenous knowledge about the *Hoodia* plant.

Most of the San community were prepared to commodify their knowledge, especially as they are a socially and economically marginalized community; but they also continue to value their medicinal plant knowledge for their own symbolic, supernatural and ritual reasons. To some extent, the commercialization of the plant has changed this meaning for them.

The San consider *Hoodia* to be one of their most important plants – a ‘life force’ giving food, water and energy, but also representative of ‘the old days when we could still go on hunting trips and collect food in the veld’ [i.e. in the wild]. They feel that the power of the plant is linked to its natural habitat, something that is lost when it is cultivated commercially in containers. According to one community member:

When you eat the *Hoodia* in the veld, you can enjoy the powers of the plant. … You cannot experience these powers and energies of the *Hoodia* in pills; we gave the power away for money. … The *Hoodia* enjoys life and that is how it gets its forces, you will never get these forces by cultivating the *Hoodia*.

Some members of the San community thus find it difficult to understand how the pill can achieve the same effect as the wild plant, and believe that some other agents are added to it. They feel as though they have given away some of the meaning of the plant through the commodification process. Thus although they continue to use the plant themselves in the old ways, this pattern of use may be threatened over time. The commodification of *Hoodia* is viewed by the San as another example in the historical process of marginalizing their culture and way of life.

For further information:

* Vermeylen, A. 2008. ‘From Life Force to Slimming Aid: Exploring Views on the Commodification of Traditional Medicinal Knowledge’. AppliedGeography, Vol. 28, No. 3, pp. 224–35.
* Wynberg, R. et al. (eds). 2009. Indigenous Peoples, Consent and Benefit Sharing: Lessons from the San-Hoodia Case. Heidelberg, Springer Science+Business Media B.V.
* Secretariat of the Convention on Biological Diversity. 2008. “Access and Benefit-Sharing in Practice: Trends in Partnerships Across Sectors”, *CBD Technical Series* No. 38, p. 23. Montreal, http://www.cbd.int/doc/publications/cbd-ts-38-en.pdf.
1. . Phytopharm is a company specializing in the development of phytomedicines, a category of drugs made from plants in which the active ingredients are present in carefully measured doses. [↑](#footnote-ref-1)
2. . A. Barnett, 2001, ‘Pharmaceutical firms stand accused of once again plundering native lore to make fortunes from natural remedies’, The Observer, 17 June. [↑](#footnote-ref-2)
3. . ‘The San and the CSIR announce a benefit-sharing agreement for potential anti-obesity drug’, Media Release, 24 March 2003, http://ntww1.csir.co.za/plsql/ptl0002/PTL0002\_PGE013\_MEDIA\_REL?MEDIA\_RELEASE\_NO=7083643 [↑](#footnote-ref-3)
4. . Report on the Hoodia multi-stakeholder meeting, !KHWA TTU, 22–23 January 2009: https://www.uclan.ac.uk/research/explore/projects/assets/cpe\_genbenefit\_hoodia\_stakeholders.pdf [↑](#footnote-ref-4)