

## Forum

# Poverty alleviation and biodiversity conservation: a South African perspective

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The relationship between poverty alleviation and biodiversity conservation has been the subject of intense debate amongst academics and development practitioners for several decades, yet consensus on how to reconcile these two disparate goals is far from being reached. The debate is often characterized by polemics between different camps, particularly on which strategy works best. Without trivializing the quality of scholarship within this debate, we argue that it is delineated by two major factors. Firstly, residents of rich countries and residents of poor countries are often assumed to be in opposition on this matter. On the one hand, some analysts tend to blame the loss of biodiversity on alleged excessive use of natural resources by residents of poor countries, while on the other hand there are those who blame residents of rich countries for alleged unsustainable livelihood strategies. Secondly, the debate on the contested relationship between biodiversity conservation and poverty alleviation is often characterized by a tussle between proponents of biodiversity conservation and human rights/anti-poverty activists.

Clearly, therefore, any proposal put forward for reconciling poverty alleviation and biodiversity conservation is likely to continue being contested, depending on the disciplines or areas of operation of the individuals involved. It should therefore not be surprising that the tone of the authoritative and well presented argument by Sanderson & Redford (2003) is that conventional strategies to alleviate poverty constitute one of the greatest threats to biodiversity conservation. Similarly, it should not be surprising that there is a widely held belief in some quarters that concerns for biodiversity conservation present a challenge to numerous small- and large-scale poverty alleviation strategies.

Like many others (e.g. Reed, 2002; Jehan & Umana, 2003) we believe that there are no straightforward answers; nor are there outright winners or losers in this debate. What is needed is an acknowledgement that the

linkages between poverty and conservation are dynamic and context-specific, reflecting geography, scale, and social and political issues among the groups involved. Hence we choose to contribute to the debate by commenting on how South Africa is currently negotiating the poverty-environment nexus.

South Africa ranks as the third most biologically diverse country in the world, with between 250,000 and one million species, many of which are endemic (Wynberg, 2002). In addition to its ratification of the Convention on Biological Diversity, as well as several other international and regional environmental agreements, the government has committed itself to biodiversity conservation by enshrining it in the country's Constitution (The Constitution of the Republic of South Africa, Act 108 of 1996, Section 24). The Constitution not only commits government to biodiversity conservation, but also to eliminating poverty (The Constitution of the Republic of South Africa, Act 108 of 1996, Section 27).

Over half of South Africa's 44 million people live in poverty, with over 70% of these living in rural areas (Aliber, 2003). In the light of mounting concerns about environmental degradation (Hoffman & Ashwell, 2001; Wynberg, 2002), the post-apartheid government has made an attempt in its policy formulation to ensure that poverty alleviation strategies incorporate environmental concerns, and that some biodiversity conservation strategies make a contribution to poverty alleviation. On paper these attempts are impressive, but whether they are successful in practice is open to different interpretations. We wish briefly to explore what we think are some of the synergies and conflicts in South Africa's attempts to reconcile biodiversity conservation and poverty alleviation. The issues we explore are people and parks, agriculture and land care, the Working for Water Programme and genetic engineering in crop production.

Firstly, prompted by a compulsion for broader social justice so that protected areas would no longer be islands of privilege in seas of poverty, linked to the realization that 'fortress' conservation is an unviable strategy for the future, the government has been vigorously promoting community-based natural resource management projects as a means to safeguard the environment while at the same time addressing livelihood needs of local communities. In places where protected areas exist,

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co-management projects between local people and government are being set up. Local people are encouraged to allow the conservation of the area to continue, in exchange for economic benefits from ecotourism. Private investors are encouraged to enter into deals with these communities, as a result of which there has been an increase in land dedicated to conservation. However, critics warn that these arrangements are unlikely to make a major contribution to the elimination of poverty (Magome & Murombedzi, 2003). They also argue that, more often than not, the need for economic benefits outside the protected area is far greater than the benefits yielded by such areas. In other words, these projects are only viable in situations where there are few poor people. Additionally, weaker property rights of the rural poor jeopardize equitable arrangements with investors; this undermines poverty alleviation and conservation efforts (Katerere, 2002).

Secondly, conservation agriculture forms a central component of the government's approach to poverty alleviation and conservation. Land-Care, a national programme supporting sustainable land use practices, promoting and raising awareness to develop a resource conservation ethic at local community level, is one example of this approach. A key principle of the programme is that if land degradation is addressed and sustainable natural resource utilization promoted, land and other natural resources have a meaningful chance of contributing to the alleviation of poverty. It must be noted that in some cases it is seen mainly as a short-term poverty relief measure, using government poverty relief funding, and takes a technically old fashioned labour intensive public works approach to conservation that may reduce the chances of sustainable enhancement of the natural resource base. However, the link between Land-Care and poverty alleviation is not easy to measure, thus leaving doubts as to the success of the programme.

Thirdly, with an estimated 10 million hectares (8%) of South Africa invaded by *c.* 161 alien plant species that jeopardize water availability (Wynberg, 2003), the government introduced a Working for Water Programme in 1995. As a way of addressing conservation and poverty, local communities are given temporary employment, again using poverty relief funding, to clear alien vegetation all over the country. However, two controversies bedevil this project. The first is that many of the alien species serve as fuelwood or food for some of the poorest communities. In such cases the benefits brought by employment in the project are outweighed by the loss of such vegetation for local livelihoods. The second controversy is that commercial forestry, one of the enterprises seen as potentially making a contribution to poverty

alleviation, notably through the transfer of state forests to community ownership, is largely dependent on alien species. These controversies represent some of the challenges associated with reconciling conservation and poverty alleviation.

Lastly, the introduction of genetically modified crops as one possible way of alleviating poverty through increasing crop yields (Beyers *et al.*, 2002), serves as another good illustration of the dilemma faced by government in its attempts to reconcile biodiversity conservation and poverty alleviation. South Africa is currently the only country in Africa where genetically modified crops are grown commercially. However, critics point out that the dilemma and the risk of this technology are compounded by the fact that there are no less than five government departments responsible for regulating genetic engineering, leading to the absence of a coherent policy (Wynberg, 2002). Additionally, the impact of genetic engineering on biodiversity remains a controversial issue, with government dodging public debate on this (Ho, 2004).

In conclusion, we believe that South Africa is not unique in struggling to reconcile poverty alleviation and biodiversity conservation. Such challenges should be expected wherever there is a history of political upheavals that exacerbates poverty. Many governments that have emerged from colonialism within the last 50 years or so find themselves having to make trade-offs between meeting the immediate livelihood needs of all their people and safeguarding the environment for future generations. While we agree with Sanderson & Redford (2003) about the numerous challenges facing biodiversity conservation, we disagree with their emphasis on poverty alleviation strategies as one of the challenges facing biodiversity conservation. We believe that if any blame should be assigned, it should be on the massive inequalities – that often translate into poverty – that still exist in former colonies. Thus, the trial-and-error strategies of poverty alleviation, which often pose a threat to the environment, are not likely to yield meaningful results if the historical, political, social and geographical contexts are ignored. Lastly, even though it is problematic to ensure adequate protection of nature through these various integrations of poverty alleviation and conservation, it has become clear that there is no future for fortress conservation that ignores the needs and rights of the rural poor.

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