

Valuing South Africa's Savannas: Methodological Issues

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SYNOPSIS

Natural resource valuation techniques have been applied in recent years to savannas and savanna resources in South and southern Africa. Results from these studies have been used to demonstrate the importance of savannas, and to assist in resource-use planning. Because these studies have been conducted to meet different research objectives a large number of disparities exist between studies. This makes comparison of results difficult and identification of underlying drivers of value is problematic. This paper discusses issues which can lead to differences in estimates of resource value, and makes recommendations for future studies to reduce incompatibilities. In particular, this paper recommends that future studies make full descriptions of the objectives of the study, the background characteristics of the study area (including the social, political, economic, cultural, and biophysical characteristics), the methods used, and assumptions made. In this way, the values reported from case studies may be used in other research and decision-making exercises.

INTRODUCTION

Why value natural resources?

Natural resource valuation is a relatively new discipline which attempts to attach monetary values to natural resources as a means of demonstrating their worth (Pearce and Turner, 1989; Pearce *et al.*, 1990; Staath and Baskind, 1992; IIED, 1997). Whereas traditional economic techniques may be used to value commercially traded natural resources (such as timber), natural resource valuation encompasses a range of techniques for assigning values to resources that are traded commercially and informally, as well as for resources which are not traded. These values can be used in decision making to assess planning and development alternatives, to allocate scarce human and financial resources, reconcile conflicting demands, to plan land uses, and to determine compensation levels for loss of resources. Thus, resource valuation can be the underpinning basis for decisions pertaining to sustainable development, from an economic and ecological perspective.

Why value South Africa's savannas?

Savannas cover just over one-third of South Africa, and are home to approximately 9.2 million rural inhabitants, just under one quarter of all South Africans. Because of this, savannas have the potential to make a marked contribution to the national economy. Not only is the large area of savannas important, but so too is their relatively high biodiversity. Whilst they cannot compare with the extremely species-rich fynbos regions of the Western Cape, the core southern African savanna biome contains about 5 780 species of plants of which 43 % are endemic (Cowling *et al.*, 1989).

The most widespread use of the savanna areas is for extensive ranching of livestock, mainly cattle, or game, largely under private tenure (Grossman and Gandar, 1989). These cattle and game enterprises focus largely on the animal component of the production system, and ignore potential benefits from the multitude of other resources (such as plant resources, insects, birds, clay and sand) that are to be found in savanna systems. In communal tenure areas (approximately 18 % of the biome), widespread use is made of the full range of resources available, including edible fruits, herbs, firewood, thatch grass, medi-