

Abstract

Keywords

1. Introduction

2. Methods

2.1. Study area



2.2. Sample

2.3. Interview design

2.4. Modification of the Millennium Ecosystem Assessment (2005) framework



2.5. Community values/threats mapping task

2.6. Spatial database assembly and data analysis

3. Results

3.1. Respondent characteristics

- ▶ Read-only
- ▶ Non-printable

Abstract

Whilst biophysical, and increasingly economic, values are often used to define high priority hotspots in planning for conservation and environmental management, community values are rarely considered. The community values mapping method presented in this paper builds on the concept of natural capital and ecosystem services and the landscape values methodology to link local perception of place to a broader measure of environmental values at the landscape level. Based on in-depth interviews and a mapping task conducted with 56 natural resource management decision-makers and community representatives, we quantified and mapped values and threats to natural capital assets and ecosystem services in the South Australian Murray-Darling Basin region. GIS-based techniques were used to map the spatial distribution of natural capital and ecosystem service values and threats over the region and analyse the proportional differences at the sub-regional scale. Participants assigned the highest natural capital asset value to water and biota assets primarily for the production of cultural, regulating and provisioning services. The most highly valued ecosystem services were recreation and tourism, bequest, intrinsic and existence, fresh water provision, water regulation and food provision. Participants assigned the highest threat to regulating services associated with water and land assets. Natural capital asset and ecosystem service values varied at both sub-regional and place-specific scales. Respondents believed people were integral to the environment but also posed a high threat to natural capital and ecosystem services. The results have implications for the way values toward natural capital and ecosystem services may be integrated into planning for environmental management.

Keywords

Sense of place; Threat; Ecosystem services; Natural resource management; Social-ecological systems; Environmental management; Systematic conservation planning; Landscape