

Measuring natural resource management outcomes

NRM targets and long-term impacts

Environmental Economic Accounting (EEA) is the internationally agreed, best practice way to understand, define, assess and report on the outcomes of natural resource management (NRM) projects and policies. Properly applied, it provides credible information about social, environmental and economic outcomes that can be compared across regions, and tracked over time.

Whether it involves approving a mining application or investing in revegetation, EEA allows natural resource decision makers to assess long-term consequences that may offset short term gains or costs. Specific benefits of EEA for natural resource managers include:

Understand risks and opportunities associated with the natural assets under management, to help identify solutions that offer the greatest potential value.

Communicate targets and trends in a way that is clear, credible and consistent with state, national and international reporting frameworks.

Assess long-term sustainability by applying robust, multi-dimensional models that incorporate all aspects of ecosystem services, including productivity, biodiversity, water quality, risk mitigation, etc.

Link environmental change to socio-economic impacts by demonstrating how the flows of social and economic benefits depend on the extent and condition of natural assets under management.

IDEAA Group

IDEAA Group is an Australian-based, international consultancy that supports the practical application of EEA at all levels, with many types of stakeholders.

IDEAA Groups' principals, Mark Eigenraam and Carl Obst, are world leading experts on the theory and practice of EEA. Both have played leading roles in developing the principles and piloting national implementation of the UN's System for Environmental-Economic Accounting (SEEA). And with more than 20 years' experience in Australian NRM issues and practices, they are also uniquely equipped to support EEA's application in the local NRM context.



Services

IDEAA Group tailors its services to reflect specific challenges for the practical application of EEA to NRM:

Understanding

Apply available data to gain a deeper and more holistic understanding of natural asset extent, condition and contribution to the flow of ecosystem services that benefit local stakeholders.

Communication

Establish on-going reporting of environmental economic accounts, in particular SEEA based measurement of ecosystem asset stocks and ecosystem service flows.

Assessment

Integrate scientific models from across disciplines to develop robust, inclusive empirical platforms for long-term trend measurement, outcome forecasting and trade-off analysis.

Linkages

Use available data to demonstrate how local economic and social wellbeing directly depends on the effective management of environmental assets.

Who do you call?

Find out more about IDEAA Group and EEA at www.ideeagroup.com, or get in touch with us directly:

Mark.Eigenraam@ideeagroup.com +61 412 239 492

Carl.Obst@ideeagroup.com +61 418 971 268



Applying SEEA to NRM

SEEA defines four main areas of measurement, as illustrated in the diagram below. IDEEA Group services relate to all four areas, but are particularly focussed in the critical new area of accounting for ecosystem assets and services, known as Ecosystem Accounting, which is critical to better NRM decision making and reporting.



The power of Ecosystem Accounting

Through application of spatially defined ecosystem accounting, it is now possible to credibly model, report and assess the impact of natural resource management decisions on the stock of environmental assets, and flows of ecosystem services.

Ecosystem Accounting connects environmental assets to economic and social outcomes through definition of the beneficiaries and benefits derived from the flow of ecosystem services.



Stocks of environmental assets are defined in terms of the extent and condition of asset types – such as grasslands, wetlands, agricultural land and forests. Asset condition defines the degree to which these assets are of good or poor quality and hence their capacity to deliver measurable flows of ecosystem services, such as clean water, amenity or food production. Benefits derived from these ecosystem services are quantified both economically and socially – for example in terms of contributions to local tourism income and to local communities' quality of life.

The information required to produce Ecosystem Accounts often exists, but is dispersed across agencies. Typically, the challenge is to gather the information and then place it into a spatially defined framework of asset types. It can then be linked to the specific impacts of NRM decision making.

Integrating environmental with socio-economic data

Integration of environmental & socio-economic data for EEA occurs at the level of spatial units. Asset definition and condition assessment involves a range of environmental data, such as biodiversity, water, carbon, soil and natural resources. Socio-economic data is then used to define and measure the flow of ecosystem services and benefits, including the extraction and harvest of natural resources, regulating functions such as air purification, soil retention, and carbon storage, and cultural and recreational enjoyment.

The terminology and measurement standards in this analysis are harmonised under the SEEA framework so that the outputs are comparable across regions, and over time. Spatial unit data is then aggregated to provide farm, catchment, NRM area, state or national level ecosystem accounts.



Supporting better NRM outcomes

IDEAA Group specialises in practical application of EEA methods and insights for NRM decision-making and reporting at the local, regional, state and national level. Key benefits of our inclusive, user-oriented approach include:

- Making the most of all available information
- Engaging stakeholders to understand and embrace shared data collection and reporting frameworks
- Adopting a universal language and definition of terms
- Comparing and assessing across regional, state or national levels
- Measuring trends, forecasting future paths and assessing alternative scenarios

IDEAA Group is the ideal partner to support adoption of EEA for improved NRM decision making because we:

- Have unrivalled experience of practical EEA application at regional, state and national levels
- Are widely networked with specialists across the disciplines involved in ecosystem accounting
- Work collaboratively to tailor local solutions that reflect multi-stakeholder inputs and perspectives