

## CONCEPT

### **A Community of Practice for Responsible Earth Stewardship in the Garden Route: Learning Together to Influence the Future**

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**Stewardship**<sup>1</sup>, as used in this document, refers to an underlying philosophy regarding the relationship that people have with nature (rather than a legal or formal responsibility). As stewards, we (e.g. individuals who own land or use natural resources, private companies who use natural resources, conservation agencies and mandated government departments) are entrusted to take care of resources that strictly speaking do not belong to us. These resources are common pool resources in that the use of their services by some subtracts from the availability of such services to others, also across generations. Good stewardship implies that we care for these resources and use their services wisely so that their ability to function and generate these services is not compromised.

*A **Community of Practice** is a group of people informally bound together by shared expertise and a common domain of interest who interact regularly in order to collectively learn to improve in their common endeavour (Lave and Wenger 1991). The currency in these communities is experiential knowledge and membership is based on participation rather than official status. Communities of practice constitute webs of inclusive relationships in which people feel valued when they share their knowledge and are not bound by organizational affiliations. To be successful, communities must generate enough excitement, relevance, and value to attract and engage members. The self-organizing nature of these communities is the key to extracting their full potential.*

#### **Purpose**

Prof. Maarten de Wit, Chair of Earth Stewardship at NMMU, recently conceptualized the term "Earth Stewardship", and the notion that "the entire earth is our heritage (and that of all other species) for which we are all responsible and accountable" (De Wit 2011, P. 1). The Garden Route Earth Stewardship Programme, envisaged as a region-specific sub-component of the NMMU Earth Stewardship initiative and inspired by it, is seen as a 'virtual' community of practice with a common goal: to develop the capacity for adaptation and management towards a sustainable future in the Garden Route. This is done through applied, user inspired research, engagement with stakeholders, learning together about sustainability in all its facets through formal and informal learning programmes and building relationships for an enduring community of practice. The Programme will focus on a handful of priority Earth Stewardship initiatives, which would form the basis for collective learning and action, within the NMMU Earth Stewardship initiative.

#### **Context**

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<sup>1</sup> Cf. the August 2011 discussion document by Maarten de Wit: "The Case for Earth Stewardship Science at NMMU"

The Garden Route, in the Western Cape Province of South Africa is a melting pot of ecosystems, stakeholders, social-ecological processes and governance issues which present unprecedented challenges for our earth stewardship capacity. The area's diversity of landscapes, governance systems and stakeholders are overlaid onto a rapidly changing social and ecological context. This represents a window into current and future challenges facing our planet; how to navigate complexity, and promote a healthy and responsible society in a way that exemplifies the principles of earth stewardship. These challenges, which are not unique to the Garden Route, require special efforts and innovative approaches that could offer lessons for the rest of South Africa and the continent. The Garden Route is an ideal 'laboratory' for earth stewardship practices applicable to the management of complex systems. The programme supports and forms part of a greater Earth Stewardship initiative at NMMU and elsewhere, motivated by the realization that the challenges facing our generation can only be addressed collaboratively, through a complex systems 'lens'.

The area which provides the geographic focus of this Community of Practice is the Garden Route of South Africa. The spatial extent of the Garden Route is variously defined and for our purposes it is broadly seen as the area from Still Bay in the west to Storms River in the east and from the Indian Ocean in the south to the Outeniqua and Tsitsikamma Mountains in the north. This area includes the towns of Mossel Bay, George, Wilderness, Sedgefield, Knysna and Plettenberg Bay. It is home to the three spatially separate sections of the Garden Route National Park, namely the Wilderness, Knysna and Tsitsikamma sections and contains the Wilderness lake system as well as Swartvlei and Groenvlei lakes.

#### **Key Concepts**

The conceptual (and practical) challenges shared by members of the Community of Practice are:

a) *Conservation in a multi-use landscape*: Given current-day realities in most parts of the world, it is debatable whether effective conservation (representation of biodiversity features and persistence of ecosystem processes and services) can be achieved through focusing on Protected Areas only. While Protected Areas can help to reduce the degradation of biophysical habitats and the associated loss of biodiversity, realistically, these areas can only play a partial role in overall efforts to conserve a representative sample of our natural and cultural heritage. The most feasible management solution is one of social-ecological integrated landscape-scale resource planning and management, for example within whole river catchments or drainage basins. To elaborate on the freshwater example, integrated planning could start with the development of joint freshwater conservation visions and targets and their integration within water resource management plans. This would include alternative management strategies to achieve off-reserve conservation, such as the application of multiple use zones, riparian zone protection, adherence to ecological flow requirements and eradication of alien species. Managers of Protected Areas can play a key role in facilitating whole catchment visioning exercises and promoting conservation partnerships.

b) *Facilitating cooperative behaviour*: The governance and management of common-property natural resources is always a multi-stakeholder affair. To achieve effective conservation and management of these resources and the effective use of human capital and financial resources close coordination and cooperation is required across various knowledge domains. This includes cooperation across: science, policy and management domains, public and private sector organizations, several scientific disciplines, administrative and policy sectors responsible for water

resources management, biodiversity conservation, integrated development planning, and land use management (including agricultural resources) and levels of governance (e.g. national, provincial and local). Cooperative relationships have to cross boundaries defined not only by organizational affiliations, but also by disciplinary backgrounds and discourses, sectoral policy contexts, social-ecological perceptions, as well as spatial and social jurisdictions. Based on these different contexts, each organisation frames its responsibilities and acts on its mandate from a distinct knowledge base. How can we establish trust, promote cooperative behaviour and orchestrate concerted action among groups who have diverse realities and potentially different reference systems yet stand to benefit from reciprocal relationships within their social-ecological system?

c) *Navigating social-ecological feedbacks in the face of complexity:* Human and economic aspirations have resulted in a worldwide and progressive loss of biodiversity, degradation of ecosystems and subsequent loss of ecosystem services. The past 50 years have witnessed particularly severe ecosystem alteration (Millennium Ecosystem Assessment, 2005). The supporting, provisioning, regulating and cultural services that we get from ecosystems are integrally linked to sustained human wellbeing. Yet, more people mean more pressure on ecosystems and an increased likelihood that thresholds of sustainable use will be exceeded, resulting in unintended and undesirable consequences. Furthermore, human actions and environmental responses tend to be connected across spatial and temporal scales in often non-linear relationships. While the need to understand the attributes and behaviours of ecological systems remains, it is increasingly important to understand this within a social context. Even more important is to develop an understanding of the interplay between changes in social and ecological systems respectively, while acknowledging that surprise and a degree of uncertainty will always be part of the game.

d) *Achieving equitable and sustainable benefit sharing:* Ecosystem services are considered to play an important role in offering a wide range of benefits that support human wellbeing. Yet, in many parts of the world the sharing of these benefits remains contentious and challenging. As demands for access to and use of ecosystem services become more diverse and grows, relative scarcity will increase, fostering competitive rather than cooperative behaviours necessary for sustainable allocation of the associated benefits. In such complex contexts, governing and managing the use of benefits from ecosystem services is not simply a matter of setting a utility function and selecting the option leading to the preferred set of consequences. On the contrary, it requires a systemic framing of key determinant variables which define the effectiveness, efficiency, equity and sustainability of benefit sharing arrangements. Knowledge about benefit sharing must be scientifically reliable and evolve to remain contextually relevant.

e) *Learning and adapting as a collective:* New knowledge comes through learning, and group knowledge through learning together. Social-ecological resilience ultimately depends on our capacity to learn together and respond jointly to changing circumstances (Keen et al., 2005). Social learning, mutual learning and co-learning are terms and concepts that are receiving increasing attention as options for improving the collaborative responsiveness of social systems. Social systems occur at multiple scales and might be defined as the inhabitants of: a town (e.g. learning to embrace slow living), a river basin (e.g. learning to equitably and sustainably share the benefits derived from the river), a country (e.g. learning to overcome a particular legacy), or a planet (e.g. learning to respond to the threats of climate change).

### **Strategic Partnerships**

The Garden Route Earth Stewardship Programme forms part of a larger umbrella programme under the direction of the NMMU Chair in Earth Stewardship. It will be supported by the Sustainability Research Unit of NMMU, whose primary role is that of catalyst, 'connector' and knowledge steward. SANParks, the custodian of Garden Route National Park, is an equal partner in the initiative. Other key stakeholders in The Garden Route Earth Stewardship Programme are: NMMU faculties; the Garden Route Initiative (GRI); the Eden District Municipality; the Wildlife and Environment Society of South Africa (WESSA); the Water Research Commission; the National Research Foundation; the Department of Environment Affairs: Natural Resource Management programmes (e.g. Working for Water, Working for Wetlands, Working on Fire); the George, Knysna and Mossel Bay local municipalities and other universities (e.g. Stellenbosch, Rhodes and UCT).

### **The Core Group**

It is proposed that The Garden Route Earth Stewardship Programme is driven by a core group of senior 'connectors' and 'communicators' whose primary role would be to mentor and coach others, catalyse change, influence decision makers, raise core funds and assist with defining priorities. Examples of core group members include Maarten de Wit, David Bell, Christo Fabricius, Dirk Roux and Sue Dean.

### **Community of Practice**

The 'community of practice' will vary, depending on the specific project or activities being undertaken, and will consist of a mix of academics, scholars and students, practitioners, policy makers and other users of information. Potential funders will also be part of the community of practice. Criteria for inclusion will simply be an individual's stakeholdership and whether they could potentially make a difference to the initiative in question or whether they could be affected by the outcome of the project.

### **Governance**

It is proposed that the Programme will be accountable to the Sustainability Research Unit which is accountable to NMMU governance structures (Faculty Boards), processes and systems; with the NMMU Chair in Earth Stewardship playing an important guiding and coordinating role within NMMU. From a strategic perspective it will be driven by the Core Group and advised by a Garden Route Reference Group consisting of experienced decision makers and or senior representatives from the respective stakeholder groups within the Garden Route.

### **Capacity Development**

The Garden Route Earth Stewardship Programme's commitment is to 'develop the capacity for a sustainable future' in the Garden Route, by catalysing a process of learning and togetherness, which will ultimately influence the future trajectory of development in the area. Adaptation to change, and finding ways to 'navigate' change, is central to the capacity development focus. The ultimate outcome is to promote and develop a 'new generation' of students, managers, and ultimately decision makers from diverse backgrounds who are able to collaborate, synthesize information and make decisions in a complex world. Capacity development can be formal, through post-graduate

studies and learning programmes, as well as informal, through thought leadership discussions, advice, mentoring and coaching. The core group will play a key role in the capacity development programme.

### ***Infrastructure, Systems and Processes***

The enabling environment for The Garden Route Earth Stewardship Programme will be created by NMMU's Sustainability Research Unit. Technology will be used to connect the community of practice through a Garden Route Earth Stewardship Programme web site, and video conferencing to facilitate national and international connections. The Garden Route Earth Stewardship Programme will also organize an annual 'Garden Route Earth Stewardship' event, for example a colloquium, symposium or workshop. This will be prepared collaboratively with all stakeholders, in the same spirit of cooperation that characterizes all Garden Route Earth Stewardship Programme activities.

### ***Methods and approaches***

- Action research
- Transdisciplinary research
  - a. addresses problems that are user inspired and context driven;
  - b. draws on, integrates and synthesizes insights from different disciplines to produce a more comprehensive understanding or conceptual advancement;
  - c. embracing complexity and an associated degree of uncertainty linked to research and decision outcomes; and
  - d. acknowledges and incorporates multi-stakeholder perspectives and values.
- Knowledge hub
- Facilitation, Catalyst and connector

### ***References***

**De Wit M. 2011.** The case for Earth Stewardship in NMMU. Discussion document, Nelson Mandela Metropolitan University.

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**Millennium Ecosystem Assessment. 2005.** Ecosystems and Human Well-being: Biodiversity Synthesis. World Resources Institute, Washington, DC.