Human Capital Development Strategy for the Biodiversity Sector

Executive Summary

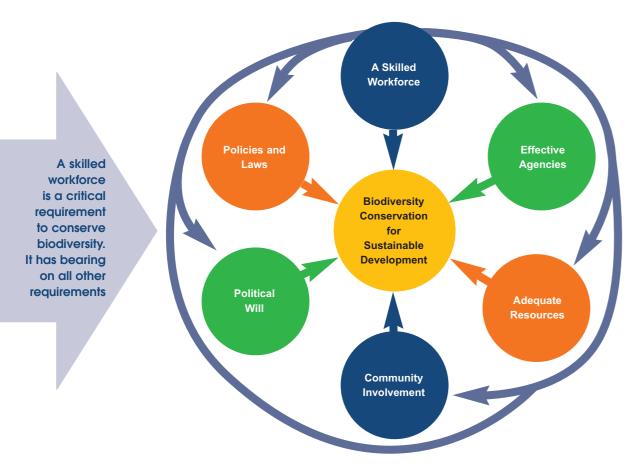






Rationale

South Africa is world-renowned for its wealth of unique plants and animals. The country's biodiversity is a resource that supports income generation and job creation; it is also vital for the ecosystem services needed to sustain human development in rural and urban areas alike. However, South Africa has a shortage of skills to manage its biodiversity, as well as historical inequalities in the sector. Even as unemployment continues to climb, companies, universities and government agencies are unable to recruit suitably qualified biodiversity managers and scientists, particularly from previously disadvantaged groups.



This strategy is therefore relevant to all organisations involved in biodiversity management, research and conservation, and in skills development generally. Conservation agencies, research institutes, government departments, business and not-for-profit organisations with a role in biodiversity management all need skilled managers and researchers to be effective, and to help increase the racial diversity of the personnel leading these functions. This is the two-pronged focus of this strategy, which responds to a multi-facetted problem, outlined below.

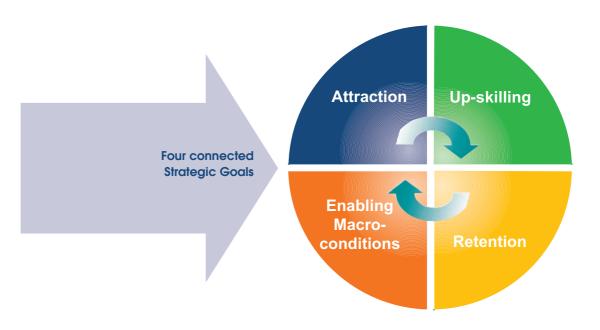
While young people who have had the benefit of exposure are often interested in biodiversity related careers, the sector is relatively unknown to the majority of South Africans. The quality of skills from school leavers and graduates is a further issue, as is the levels and kinds of skills available. In 2009, an estimated 33% of biodiversity-specific staff were underqualified for the positions they held, while other positions were vacant because the skills could not be found.

In addition to supply side issues, available skills are not always effectively deployed, and resource constraints mean that many organisations find it hard to appoint or retain the required skills, or to afford staff and career development. These problems are shared by other sectors, but the biodiversity sector is particularly hamstrung by its near 'invisibility' in the national skills planning system.

Against this backdrop organisations struggle to attract, retain and promote biodiversity managers and researchers. This situation poses a significant threat, given the increasingly important and complex task of managing biodiversity in the face of both ecological risks, and the country's socio-economic development challenges.

Vision and Goals

The vision pursued by the Human Capital Development Strategy is a socially equitable and suitably skilled workforce of biodiversity leaders, professionals and technicians to optimally implement the sector's dynamic, expanding and increasingly complex mandate. This vision is being pursued through four mutually reinforcing Strategic Goals.



Strategic Objectives and Project Plans

The Strategy has 7 Strategic Objectives (SOs), most of which contribute to more than one Goal (see Figure 1, pages 3-4). Nearly 40 distinct projects have been identified under the 7 SOs, targeting all aspects of the human capital development 'pipeline'. Some projects are small/discrete; others are bigger/of a longer nature. New projects may be added and existing ones revised or removed as contexts change and as research indicates new needs.

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Goal 1: Increase the number of talented South Africans attracted to working in the biodiversity sector

Focus: Primary, but not exclusive, black South African school leavers, students and graduates

Strategic Objective 1: Promote biodiversity sector among South Africans and key decision makers

- · Set up reference group to develop national career guidance plan;
- Develop careers resources & guidelines for use;
- Strengthen biodiversity elements of existing careers programmes;
- Explore the value of Youth Clubs;
- Provide more, more adequate and targeted bursaries for post-graduate studies in particular, linked to bursary support programme.
- Position the sector within the revised SETA
- Lobby for the inclusion of biodiversity related skills needs in the National Skills Development Strategy and Human Resource Development Strategy;
- Lobby for improved national statistics on biodiversity occupations

Strategic Objective 5:

Contribute to better science, maths, literacy and environmental learning in schools

- Lobby the Dept of Basic Education to retain and strengthen biodiversity education in the national curriculum;
- Inform textbook writers and publishers to improve biodiversity and environmental learning through new textbooks, influence criteria for selecting textbooks;
- Support science and maths schools and strengthen their biodiversity education components;
- Resource partners in teacher development to promote and improve science, maths, literacy and environmental learning through train-thetrainers courses and resources.

Strategic Objective 7: Increase the supply of scarce skills through targeted higher education initiatives

- Explore and, if relevant, support the establishment of Centres of Excellence in i) Biodiversity Informatics and ii) Statistical Ecology with Dept of Science & Technology, SANBI and Higher Education Institution partners.
- Support the mainstreaming of biodiversity in general planning an environmental management courses;
- Investigate means to strengthen agricultural extension skills with a biodiversity component.

Goal 2: Improve the quality, level and relevance of skills available to the sector Focus: Employees & Training providers

Strategic Objective 4:

range of higher education institutions and other training providers

- Resource Higher Education Institutions that have had some success in biodiversity related programmes, but lack adequate capacity or funds to address strategic needs, in a manner that will increase pass rates and
- Develop a database of training providers and courses relevant to the environmental sector broadly, with a built-in peer review mechanism;
- sector and the national funding and skills planning system.

Increase relevance and quality of educational provisions by a wide

- entry into post-graduate studies;
- Publish and promote educational guidelines to improve the quality of short courses and short course choices;
- Convene an annual Skills Summit for training providers, employers, the

Goal 3: Improve the retention And effective deployment of skills in the sector Focus: Employers & Employees

Strategic Objective 2: Extend existing capacity of those already in the work place (skills development)

- Investigate the quality, relevance and scope of inter- and trans-disciplinary Higher Education courses, to inform an possible new in-service Masters in Conservation Leadership;
- **Explore Learnerships for National Diploma** holders;
- Set up a pilot programme for work-place-based
- Extend bursaries that are insufficient to support mid-career Masters and PhD students in priority fields for full or part-time study;
- Fund more internships in priority fields in organisations with proven capacity to mentor and advance biodiversity practitioners; support institutions starting internship programmes.

Strategic Objective 6: Increase the impact of the collective effort of human capacity development initiatives relevant to the sector

Goal 4: Create

enabling conditions

for skills planning,

development and

evaluation for the sector

Focus: Decision makers in

and development system

national skills planning

- Develop a system to track programme beneficiaries from school and training to the workplace;
- Evaluate the outcomes of the programme and communicate the results;
- Encourage wider and on-going stakeholder participation in Biodiversity Human Capital Development (BHCD);
- Create synergy across BHCD activities;
- Continue research into BHCD issues and best intervention models;
- Use the annual Skills Summit (SO4) to encourage evaluation, collaboration and collective action.

Strategic Objective 3:

Improve retention and effective deployment of suitably skilled people in the sector

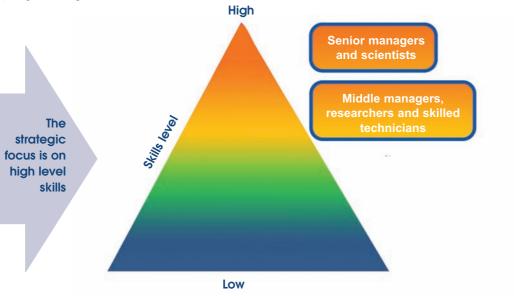
Convene, support and resource a Human Resource Development network to strengthen organisations' skills planning capacity through tangible initiatives, including:

- Better practice models for integrating racial diversity in organisations and to improve mentoring capacity;
- Tools for competency profiling and skills audits;
- Improved career paths;
- Contemporary job titles and qualification requirements;
- Standardised occupational descriptions.

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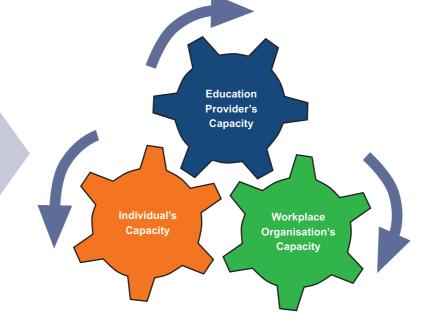
Scope and Approach

The Strategy is focused on high level skills, i.e. professionals and associated professionals or technicians qualified at level 6 or higher on the National Qualifications Framework (that is, with a national diploma, first degree or higher degree). It targets in particular, though not exclusively, black South Africans, to undertake biodiversity conservation, management and related natural and social science research, and play a leadership role in organisations with a biodiversity management. While lower level skills are vital for the effective implementation of biodiversity management, the scarcity of skills and the need for racial redress are both particularly high at higher skills levels.



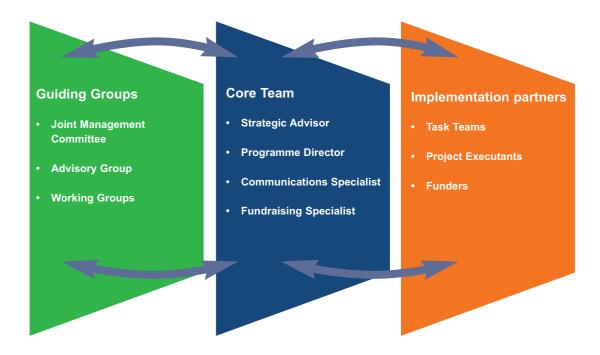
The Human Capital Development Strategy for the Biodiversity Sector has a twenty year horizon. It addresses attraction, up-skilling, retention and macro-conditions, and reaches across the sites of human capital development, from schooling through higher education institutions into the workplace. While this makes for an ambitious strategy, and one which may only show results in the longer term, all indications are that only a concerted and farreaching effort will be effective in achieving the vision.

Given that the issues affecting the provisioning and deployment of high level skills in South Africa are multi-facetted and interlinked, the approach to the strategy is systemic



Implementation

To give momentum to the implementation of the strategy, a Human Capital Development Programme has been developed. The Programme got underway in 2010 with start-up funding from the Lewis Foundation. The Programme has the following implementation structure:



The Core Team, currently funded by the Lewis Foundation, reports to the Joint Management Committee, which comprises of senior representatives from the two principal partners (the Lewis Foundation and SANBI). It draws guidance from an Advisory Group consisting of professionals with a sound understanding of biodiversity sector skills and related matters. From time to time working groups with a special focus (such as higher education) also provide guidance. Stakeholder engagement with the sector as a whole is on-going.

Implementation is shared with skills development agencies and biodiversity organisations from across the sector. Partners help to identify and shape projects through special task teams. Projects are executed by individuals from within the sector, or consortia of partner organisations. As more funding is mobilised, further projects will come on stream.

SANBI and the Lewis Foundation invite organisations and individuals who are passionate about South Africa's biodiversity and the strengthening of its human capital, to participate in the programme: fund new projects, respond to the open calls for project executants, or volunteer to serve on a task team or working group.

For more information visit our website at www.skillsforbiodiversity.org.za

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Background

The need to strategically and comprehensively strengthen and diversify the human capital of South Africa's biodiversity sector is indicated in the National Biodiversity Strategy and Action Plan of 2005 and the National Biodiversity Framework (2007). The South African National Biodiversity Institute (SANBI) has been designated to lead this process, in partnership with key role players like the Department of Environmental Affairs (DEA), South African National Parks, provincial conservation agencies, higher education institutions (HEIs) and relevant Sector Education and Training Authorities (SETAs). The Performance Framework of the Minister of Water and Environment further includes the need to address scarce and critical skills gaps, along with biodiversity protection.

In 2008, SANBI formed a partnership with the Lewis Foundation. Both principal partners have extensive experience, resources and reach, and combine the remit of a national agency with the flexibility of a private foundation.

These partners commissioned a sectoral analysis by the Human Sciences Research Council and conducted a wide stakeholder consultation, which lead to the development of the Strategy. The Strategy was also informed by the research and stakeholder engagement underpinning the Environmental Sector Skills Plan, produced under the auspices of the DEA in 2009-2010. These strategies are closely aligned. There is also alignment with the Department of Science and Technology's Global Change Grand Challenge Human Capital Development Strategy, which has a significant biodiversity-related component.

The innovation of the Human Capital Development Strategy for the Biodiversity Sector lies in its unique, systemic approach, which provides mechanisms for connection, co-ordination, and periodic evaluation across the sector, as well as sector-wide initiatives, that have thus far been limited.

For More Information

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Street address: Botanical Gardens, 2 Cussonia Road, Brummeria, Pretoria This pioneering programme comes at a critical time in our history, as South Africa is poised to either make the most of its natural resources for sustainable development, or risk increasing the loss of species and ecosystem services, at great cost to the economy, human livelihoods and future well-being

Human Capital Development Strategy for the Biodiversity Sector