



**Faculty of Economic and Management Sciences  
Centre for Sustainability Transitions (CST)**

**Researcher / Senior Researcher / Associate Professor: Biodiversity and  
the Economy**

**(Two-year fixed-term contract with the option of benefits)**

**Ref. EBW13/235/0924**

*The Centre for Sustainability Transitions (CST) is a leading research and postgraduate training centre within the Faculty of Economic and Management Science at Stellenbosch University (SU) in South Africa. It brings together research on transdisciplinary approaches, complexity, sustainability, governance and social-ecological resilience to inform pressing national, continental, and global sustainability and development challenges. The CST hosts leading scientists and students from diverse disciplinary backgrounds and fosters collaborations with a variety of departments across the University, nationally and globally, providing a vibrant hub for solution-oriented, transdisciplinary sustainability science, that is primarily funded from external research grants. The primary objective of the CST is to co-produce transformational knowledge on the dynamics of multi-scale social-ecological and socio-technical change in partnership with key stakeholders, and thereby provide strategic insights into the new modes of research and governance that can bring about a just transition to a more equitable and sustainable society, in southern Africa and globally.*

*A focal research area in the CST is exploring the relationships between biodiversity and human societies and economies, with a focus on building social-ecological resilience in a southern African context. The centre has expertise in co-producing large-scale measures of biodiversity, understanding how biodiversity influences ecosystem services and human well-being, as well as in leading participatory processes to explore social-ecological scenarios and possible futures for the region. The work is highly inter- and transdisciplinary, bringing together diverse stakeholders to ensure research is co-produced and relevant to supporting just transitions. We are seeking an exceptional researcher to advance CST research under this theme.*

*Specifically, the CST seeks a candidate who can play a leading role in the CST's research on biodiversity-economy connections and lead a new AFD-funded project, working with project PI, Dr Hayley Clements and other researchers at the CST. The position can be at Researcher, Senior Researcher or Associate Professor level. The successful candidate will take a leadership role in the new project aimed at assessing the socio-economic consequences of ecological trajectories in South Africa. The 2-year project is in partnership with the Agence Française de Développement (AFD) and multiple stakeholder groups. It builds on AFD's work on nature related*

*risks to the economy (see here: <https://www.youtube.com/watch?v=D2YHH2f6Cnk>). There is a need to translate the importance of biodiversity and trajectories of biodiversity change into socio-economic measures that speak to national development planning. A major aspect of this work is a participatory process to consider possible developmental and ecological trajectories and scenarios for the country. This process will involve both environmental and financial authorities in South Africa (e.g., the Department of Forestry, Fisheries and the Environment; the South African Biodiversity Institute; National Treasury; Development Bank South Africa; the South African Reserve Bank). The aim of the project is to translate these trajectories into socio-economic measures that are relevant to decision-makers. To do this, the researcher will advance a recent project that co-produced maps of Africa's Biodiversity Intactness linked to different ecological functions (<https://bii4africa.org/project-outputs/>). They will work with AFD to integrate these products into AFD's spatially explicit macro-economic models for South Africa. Considerable thought leadership will be required to advance conceptualisation and quantification of these linkages between biodiversity, ecosystem functions and services, and human societies and economies.*

*The project is envisaged as a pilot that can then be significantly expanded in scope (e.g., considering additional trajectories of change including climate; additional biodiversity-ecosystem service-economy connections; and additional countries and regions). As part of their scope of work over the 2-year period, the researcher will lead the development of collaborative project proposal to upscale the work, to be submitted for funding. If successful, this funding will also enable the extension of the researcher's contract, with the possibility to convert it to a permanent position.*

### **Duties:**

- Providing conceptual, strategic, and visionary leadership for CST under the theme of linkages between biodiversity, ecosystem services and the economy.
- Leading the new AFD project, including:
  - o Collaborating with CST researchers to conceptualise the project approach (especially in considering linkages between spatial biodiversity indicators, ecosystem services and segments of society and the economy);
  - o In-house AFD's existing work on nature related risks (engaging with AFD researchers to understand their process and outputs and to interface with their existing stakeholders);
  - o Identifying key stakeholders in South Africa's environmental and finance authorities and developing and maintaining relationships;
  - o Conceptualising, organising and facilitating a series of workshops with key stakeholders to co-produce trajectories of change for the country;
  - o Coordinating the translation of these trajectories into biodiversity, ecosystem service and socio-economic measures (working with CST and AFD researchers that have expertise in aspects of this process, and identifying, recruiting and managing a postdoc or consultant to fill skills gaps if required);
  - o Managing project timelines and budgets;
  - o Ensuring that all deliverables are met, including progress and final reports, participatory workshops, at least one academic paper, as well as a policy paper and brief;
  - o Leading the writing of a project proposal to up-scale the pilot project, collaborating with CST and AFD researchers and other partners.
- Publishing research under the theme of biodiversity-economy connections in recognised peer-reviewed journals.

- Contributing to CST institutional functions, including guest lectures as part of the teaching programme, and participating in CST seminars, events, and staff meetings.
- Supervising postgraduate students related to biodiversity, ecosystem services and the economy.
- Collaborating with Stellenbosch University colleagues from other departments (e.g. the African Wildlife Economy Institute) to strengthen multi-disciplinary research and overall institutional outputs.

## **Requirements:**

### **Minimum Requirements: Researcher:**

- PhD in a relevant field (e.g. geography, ecology, resource economics, sustainability science).
- Specialist knowledge of the connections between biodiversity (including drivers of biodiversity change) and ecosystem services.
- An ability to conceptualise how this knowledge applies spatially across national scales (e.g. linked to changes in land use).
- Experience or at least strong interest in conceptualising how ecosystem services connect to socio-economic measures.
- Experience in conceptualising and facilitating workshops with diverse stakeholders.
- Knowledge of participatory scenario / futuring methods.
- Experience in developing and maintaining relationships with diverse stakeholders.
- Demonstrable quantitative skills (e.g. the ability to extract, synthesise and interpret quantitative data).
- A publication record in areas such as sustainability science, social-ecological systems, conservation, biodiversity, natural resource economics.
- Experience in compiling fund-raising proposals.
- Experience in report writing.
- Experience and a desire to work in participatory interdisciplinary and transdisciplinary environments.
- Willingness to secure ongoing funding to support their position, as well as those of more junior researchers at CST.
- At least one peer-reviewed publication.

### **Minimum Requirements: Senior Researcher:**

- PhD in a relevant field (e.g. geography, ecology, resource economics, sustainability science).
- Specialist knowledge of the connections between biodiversity (including drivers of biodiversity change) and ecosystem services.
- An ability to conceptualise how this knowledge applies spatially across national scales (e.g. linked to changes in land use).
- Experience or at least strong interest in conceptualising how ecosystem services connect to socio-economic measures.
- Experience in conceptualising and facilitating workshops with diverse stakeholders.
- Knowledge of participatory scenario / futuring methods.
- Experience in developing and maintaining relationships with diverse stakeholders.
- Demonstrable quantitative skills (e.g. the ability to extract, synthesise and interpret quantitative data).

- A publication record in areas such as sustainability science, social-ecological systems, conservation, biodiversity, natural resource economics.
- Experience in compiling fund-raising proposals.
- Experience in report writing.
- Experience and a desire to work in participatory interdisciplinary and transdisciplinary environments.
- Willingness to secure ongoing funding to support your position as well as those of more junior researchers at CST.
- At least ten peer-reviewed publications with some as first/only author.
- PI (or Co-PI) on one or more grants (small or large), or *de facto* PI (i.e. assistant to a PI) on a large grant.
- At least one master's student graduated, and one or more PhDs enrolled.
- Some teaching experience, e.g. (co-)convenor of a course, course moderator, and/or delivery of lectures on one or more modules.
- Evidence of institutional leadership and service activities (both internal and external), e.g. thesis examination, course moderation, journal reviewer, service on institutional committees.
- Experience in running stakeholder workshops or policy engagement processes.
- National recognition e.g. NRF rating or serving on national scientific boards.

#### **Minimum Requirements: Associate Professor:**

- PhD in a relevant field (e.g. geography, ecology, resource economics, sustainability science).
- Specialist knowledge of the connections between biodiversity (including drivers of biodiversity change) and ecosystem services.
- An ability to conceptualise how this knowledge applies spatially across national scales (e.g. linked to changes in land use).
- Experience or at least strong interest in conceptualising how ecosystem services connect to socio-economic measures.
- Experience in conceptualising and facilitating workshops with diverse stakeholders.
- Knowledge of participatory scenario / futuring methods.
- Experience in developing and maintaining relationships with diverse stakeholders.
- Demonstrable quantitative skills (e.g. the ability to extract, synthesise and interpret quantitative data).
- A publication record in areas such as sustainability science, social-ecological systems, conservation, biodiversity, natural resource economics.
- Experience in compiling fund-raising proposals.
- Experience in report writing.
- Experience and a desire to work in participatory interdisciplinary and transdisciplinary environments.
- Willingness to secure ongoing funding to support your position as well as those of more junior researchers at CST.
- At least twenty peer-reviewed publications with some as first/only author.
- PI on a large research grant involving multiple team members, or on multiple smaller grants, plus co-PI or collaborator on raising other grants.
- Multiple masters and one or more PhDs supervised to completion.
- Leadership experience in teaching and training, e.g. programme leadership, course evaluation, as well as delivery of lectures at undergraduate and postgraduate level.

- Substantial institutional leadership and service activities (both internal and external), e.g. serving on University committees, institutional leadership roles, editorial boards of journals, lead roles in conference organisation.
- Substantial experience in running stakeholder workshops or policy engagement processes, including media contributions and policy work.
- National and international recognition e.g. NRF rating secured, serving on national or international scientific advisory boards.

### **Recommendations: Researcher:**

- Experience in quantifying links between land use and/or other human activities, biodiversity, ecosystem services, human well-being and/or economies.
- Advanced GIS skills, particularly regarding land use and biodiversity mapping.
- Coding skills (e.g. Python or R).
- Knowledge of macro-economics and/or finance.
- Familiarity with the South African context.
- A track record of being involved in projects / research that seeks to advance actionable research, especially in relation to supporting sustainability transitions.
- Evidence of institutional leadership and services activities (both internal and external).
- PI, Co-PI or collaboration with a PI to submit funding proposals to raise research funding.
- Some teaching experience, e.g. teaching assistance, course coordination support.
- Experience in running stakeholder workshops or policy engagement processes.

### **Recommendations: Senior Researcher:**

- Experience in quantifying links between land use and/or other human activities, biodiversity, ecosystem services, human well-being and/or economies.
- Advanced GIS skills, particularly regarding land use and biodiversity mapping.
- Coding skills (e.g. Python or R).
- Knowledge of macro-economics and/or finance.
- Familiarity with the South African context.
- A track record of being involved in projects / research that seeks to advance actionable research, especially in relation to supporting sustainability transitions.

### **Recommendations: Associate Professor:**

- Experience in quantifying links between land use and/or other human activities, biodiversity, ecosystem services, human well-being and/or economies.
- Advanced GIS skills, particularly regarding land use and biodiversity mapping.
- Coding skills (e.g. Python or R).
- Knowledge of macro-economics and/or finance.
- Familiarity with the South African context.
- A track record of being involved in projects / research that seeks to advance actionable research, especially in relation to supporting sustainability transitions.

**Commencement of duties:**

01 January 2025 or as soon as possible thereafter

**Closing date:**

11 October 2024

**Term:** Two-year fixed-term position. **The continuation of the position is subject to the availability of funding.**

**Enquiries regarding this post:** Nina Callaghan on 021 808 9607, or at [ninac@sun.ac.za](mailto:ninac@sun.ac.za)

**Enquiries regarding remuneration/benefits, as well as technical assistance with the electronic application process:** Human Resources Client Services Centre on 021 808 2753, or at [sun-e-hr@sun.ac.za](mailto:sun-e-hr@sun.ac.za)

*Stellenbosch University is committed to employment equity (EE), and appointments will be made in line with the EE plan for the specific environment as well as the institutional EE Plan of the University.*

*Stellenbosch University reserves the right not to make an appointment.*

Your application, comprising a **comprehensive curriculum vitae (including the names and email addresses of at least three referees)**, must reach the University before or on the closing date of the advertised post.

**APPLY ONLINE AT <https://www.sun.ac.za/english/careers> BY USING THE [APPLY NOW LINK](#) AT THE TOP RIGHT-HAND CORNER OF THE SPECIFIC VACANCY PAGE.**

*The University reserves the right to investigate qualifications and conduct background checks on all candidates.*

**Should no feedback be received from the University within four to six weeks of the closing date, kindly accept that your application did not succeed.**

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