



Institute of Natural Resources NPC

Jon McCosh

Agricultural Scientist

Principal Scientist



TRANSLATING SCIENCE INTO SOLUTIONS

Biography

Jon is a Principal Scientist at the INR with twenty years' experience. He holds a National Diploma in Agriculture, a B.Sc (Soil Science and Hydrology) and has completed a Master of Environment and Development degree, which examined the role of social learning and systems thinking in the advancement of organic farming systems. His professional work lies at the interface between agriculture, water and livelihoods. He is an active practitioner across these thematic areas having been involved in policy and strategy development for agriculture and rural livelihoods, field-based participatory research, water research in the agricultural sector and landscape management and restoration.

Core Skills

- Project management, implementation and logistics
- Strategic planning and policy development
- Sustainable use and management of natural resources
- Landscape rehabilitation and restoration

Expertise

Jon's expertise includes enterprise assessment and development, business planning, strategy development and implementation. Jon has compiled agricultural strategies for a number of local and District Municipalities and was the team leader of various of strategies for agricultural sectors at a national scale. He has provided specialist agricultural input into a number of Environmental Management Frameworks (EMFs), including the Newcastle, uMgungundlovu and Amajuba EMFs, as well as the eThekweni Strategic Environmental Assessment (SEA).

Jon also has experience in landscape management and restoration and is currently leading a project supporting restoration and rehabilitation in the uMkhomazi Catchment in KwaZulu-Natal, South Africa, of which key elements are rehabilitation of eroded areas and the introduction of improved grazing management systems with a particular focus on rotational resting systems. He also led a Water Research Commission funded project examining the role of rainwater harvesting and the impact of grazing management on livestock performance and biomass production. He has also been involved in a number of climate change adaptation projects in Lesotho, focusing on capacity development of the small-scale farmers and the introduction of climate smart agricultural systems (grazing and cropping).

Jon has strong technical agricultural (crop and livestock) and water skills, based on his 5 years' experience in managing commercial farms as well as a deep understanding of the challenges that rural and marginalised agricultural communities face on a daily basis as a result of his 15 years' experience working with small-scale farmers providing technical and institutional support.

Additionally, Jon has expertise and skills field-based participatory research, water use in the agricultural sector, sustainable agricultural production systems and rural enterprise development.

Work Experience

2000– Present **Scientist, Senior Scientist, and Principal Scientist | Institute of Natural Resources**

Roles:

- Networking, stakeholder engagement and partnership development
- Development of project concepts, proposals and engagement with potential clients
- Project management and reporting, including financial management and ensuring achievement of deliverables
- Staff support, management and mentorship and capacity development of young scientists

Address

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Contact details

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Summary information

M.Env,Dev, BSc, N.Dip.
Agric
Pr.Sci.Nat. Agriculture

Language

English: Excellent
Afrikaans: Fair
Zulu: Fair

Professional Profiles



<https://www.linkedin.com/in/jon-mccosh-43510627/>



https://www.researchgate.net/profile/Jon_McCosh

Key Projects

- 2019 – 2020 **Client:** Umgeni Water
Project title: The Conservation and Restoration of the upper-Mkomazi River Basin
Description: This project involves developing a business case to motivate for catchment-scale interventions to support landscape rehabilitation in the uMkhomazi catchment in KwaZulu-Natal. The purpose of the rehabilitation is to secure water services for the proposed Smithfield dam. In addition, the project implemented pilot interventions to demonstrate the opportunities for investment to the local community and potential investors. Phase 2, also led by the INR is now being implemented as a result of this research.
- 2019 – 2019 **Client:** Mahlathini Development Foundation
Project title: Collaborative knowledge creation and mediation strategies for the dissemination of water and soil conservation practices and Climate Smart Agriculture in smallholder farming systems
Description: The INR is working with Mahlathini Development foundation to implement this research project in KZN and Limpopo province. The purpose of the research is to develop and test decision support tools for the selection of locally relevant climate smart agriculture and soil and water conservation practices among smallholder farmers. In addition, this process will test knowledge mediation and dissemination strategies and indicators for monitoring of CSA practices. Furthermore, primary research into water use of these systems is also being conducted.
- 2017 – 2020 **Client:** Water Research Commission
Project title: Water use of agroforestry systems for food, forage and/or biofuel production
Description: This research project involved testing the water use of different agroforestry systems in formal controlled trials using soil water flux measurement instruments combined with participatory research in communal areas to understand the institutional, socio-economic and technical requirements to inform the wider application of agroforestry systems in South Africa.
- 2015 – 2016 **Client:** Department of Agriculture, Forestry and Fisheries
Project title: Development of a strategic framework for agroforestry development in South Africa
Description: This appointment involved the development of a strategy and implementation plan for the development and support of agroforestry in South Africa.
- 2012-2012 **Client:** Food and Agriculture Organisation (FAO)
Project title: Capacity building for climate change adaptation in Lesotho
Description: This project focuses on building the capacity of communities in the Lesotho highlands to be more resilient in the face of climate change. The project involves training needs assessments, development of climate change adaptation training materials and the application and testing of training materials with communities, district technical teams and national stakeholders.
- 2017-2018 **Client:** Department of Environmental Affairs / Department of Water and Sanitation
Project title: Development of a National Rainwater Harvesting Strategy for South Africa
Description: This project developed a national strategy for rainwater harvesting. Research was conducted to evaluate drivers and barriers to the uptake of RWH, governance requirements for upscaling, and identification, selection and mapping of RWH best practices.
- 2017 – 2020 **Client:** University of East Anglia
Project title: Increasing resilience to water-related risk in the UK fresh fruit & vegetable system
Description: This research project aims to understand the resilience of the UK fresh fruit systems, given that over 60% of fresh fruit is imported from other countries. South Africa is a case study site, where the resilience of the fresh fruit system is being investigated in participation with local producers. There is a particular focus on water use – efficiency and productivity.

Education / Qualifications

2007-2010	University of KwaZulu-Natal, PMB Master of Environment and Development
1995-1999	University of Natal, PMB B.Sc. (Hydrology, Soil Science)
1991 – 1992	Cedara Agricultural College National Diploma: Agriculture

Publications

Dedekind, L. McCosh, J. Everson, T Morris, C and Trotter, D. 2020. The value of rested sourveld in a communal grazing area in the Eastern Cape, South Africa. *African Journal of Range & Forage Science* 2020, 37(2): 191–195

McCosh, J. Dedekind, L. Ntombela, Z. Khuzwayo, M Letty, B. Shezi, Z. Bambalele, N and Gasa, N. 2017. Upscaling of rainwater harvesting and conservation on communal crop and rangeland through integrated crop and livestock production for increased water use productivity. February 2017. WRC Report No. 2177/1/16

Pringle, C., Bredin, I., McCosh, J., Dini, J., Zunckel, K., Jewitt, G., Hughes, C., de Winnaar, G. and M. Mander, 2015, 'An Investment Plan for securing ecological infrastructure to enhance water security in the uMngeni River catchment', Green Fund, Development Bank of Southern Africa, Midrand

Muchara, B. Letty, B. McCosh, J. Arowolo, S & Adeyemo, A. 2015. Investigation of smallholder food value chains: evidence from Eastern Cape and Kwazulu-Natal provinces. Report to the Water Research Commission. Report No. 1879/1/14. January 2015

McCosh, J., Letty, B. Nxele, Z. Parry, A. & Dlamini, B. 2012. Is commercialisation advantageous for smallholders? A comparison of formal and informal banana value chains in KwaZulu-Natal and Eastern Cape Province, South Africa. Southern and Eastern African Association for Farming Systems Research and Extension (SEAAFSRE) Conference, Pretoria, 20 November, 2012

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