

Curriculum Vitae: Robin Arthur Chapman

Nationality	South African
Education	M. Sc (Hydrology) (1990) University of Kwa-Zulu Natal, Pietermaritzburg BSc (Hons) (Hydrology) (1987) University of Kwa-Zulu Natal, Pietermaritzburg BSc (Hydrology, Geology) (1986) University of Kwa-Zulu Natal, Pietermaritzburg. Pr. Sci. Nat. - 114331
Membership in Professional Associations	Associate at: <ul style="list-style-type: none">• Institute for Futures Research, University of Stellenbosch Business School, Stellenbosch, South Africa.• African Climate and Development Initiative (ACDI), University of Cape Town, South Africa• OneWorld Sustainable Investments, Cape Town, South Africa.• EcoAfrica Environmental Consultants, Cape Town, South Africa• Registered Natural Scientist under the South African Council for Natural Scientific Professions (SACNASP) - Registration Number Pr. Sci. Nat – 11433.
Languages	English (mother tongue)

Employment record

2015 - current	Associate (Research, strategy development and implementation) OneWorld Sustainable Investments, Cape Town
2009 – 2015	Research Lead and Contracts Manager OneWorld Sustainable Investments, Cape Town
1990 – 2009	Hydrologist and project manager Council for Scientific & Industrial Research, South Africa (CSIR), South Africa
1989 - 1990	Hydrologist Department of Water Affairs and Forestry, South Africa

Relevant professional experience (*selected, relevant*)

January 2018 – Dec 2018	“Climate Change Hazard, Vulnerability and Risk Assessment” Study to the Benefit of the City of Cape Town AFD – Agence Française de Développement, City of Cape Town <i>Climatology and Climate Change Consultant</i> The aim of this study is to assess the nature and spatial location of hazards, vulnerabilities, and risks in Cape Town given current climate change projections, to enable the City to make decisions not only on new investments, but also on how it should potentially adjust existing projects to ensure better climate proofing. Activities conducted: Preparation for and participation in project team meetings; contribute towards assessment of adaptation and investment options for the City of Cape Town; contribute to the development of the draft Adaptation Options and Investment Manual; contribute to finalisation of Final Adaptation Options and Investment Manual.
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January 2018 – July 2018	<p>Climate Change Risk & Vulnerability Assessment in Luapula, Muchinga, Northern & Western Provinces, Zambia, under the Pilot Program for Climate Resilience (PPCR) Ministry of National Development Planning</p> <p><i>Hydro-meteorology, Climatology and Climate Change and Public Health</i></p> <p>Identify responsive and feasible investments in climate resilience, enhanced water resource management and improved disaster risk reduction</p>
2017	<p>Climate Risk Management IPCC</p> <p><i>Principal author</i></p> <p>Background paper to the IPCC pre-scoping meeting, hosted by International Red Cross and Red Crescent Societies, Nairobi.</p>
Sep - Dec 2017	<p>Northern Zambia: 1) Landscape Vulnerability Risk Assessment Baseline; and 2) Development of a Decision Support Tool, for TRALARD-Zam under the Pilot Program for Climate Resilience (PPCR) Zambian National Climate Change Secretariat (NCCS)/Zambian PPCR Implementation Unit in Ministry of National Development Planning / World Bank</p> <p><i>Risk and vulnerability assessment and synthesis: Research and strategy development</i></p> <p>Development of a baseline landscape vulnerability assessment; and climate vulnerability decision-support framework for increasing adaptive capacity. Research; analysis of Risk & Vulnerability.</p>
2016 - 2017	<p>Southern Mozambique – Climate change adaptation strategies in agricultural value chains PROSUL (Mozambique) supported by IFAD (International Fund for Agricultural Development)</p> <p><i>Lead consultant and technical director</i></p> <p>The three agricultural value chains of red meat, cassava and horticulture are highly vulnerable to climate variability and change in various ways, and require adaptation options and validation of current strategies. Tasks: Research and strategy development, report development, integrative reporting.</p>
2016	<p>SCRiKa - Strengthening Climate Resilience in the Kafue Sub-Basin, Zambia, under the Pilot Program for Climate Resilience (PPCR) World Bank/ African Development Bank</p> <p><i>Risk and vulnerability assessment and synthesis: Research and strategy development</i></p> <p>Eleven districts in Central and Southern provinces are particularly vulnerable to climate variability and climate change. The project aims to strengthen adaptive capacity of rural communities, reducing poverty and enhancing food security.</p>
2015 - 2017	<p>South Asia Climate Proofing and Growth Development (Odisha and Chhattisgarh states in the Mahanadi River basin) Oxford Policy and Management Limited – funded by DFID</p> <p><i>External review consultant and advisor</i></p> <p>The project evaluated ways to improve flood warnings and integrated water management (flooding in Odisha State and water resources management in Chhattisgarh State). Activities performed: Reviewing of consultant reports and advising on project directions and approaches</p>
2014 – 2015	<p>Limpopo River basin – strategies for adaptation to climate change, floods, water scarcity and ecosystem loss for the Resilience in the Limpopo River Basin (RESILIM) program USAID / Chemonics/ OneWorld</p> <p><i>Key researcher and strategy developer</i></p> <p>This project develops a strategy increasing basin resilience through a strategy of maximising runoff through biodiversity conservation goals, with additional aims of improving water</p>

	<p>quality in the basin associated with mining, highly industrialised and urbanised areas. The project integrates climate change, biodiversity and water resources management. Activities performed: Research, analysis and strategy development, communication - presentations</p>
2014 -2015	<p>Impacts of climatic variation and change, and agricultural water demand, on future hydropower production – Zambezi River basin Client: CDKN (Climate Development Knowledge Network – DFID) and then World Bank in a two-stage process.</p> <p>Development (socio-economic and population) scenario modelling and reporting</p> <p>Power production from the installed and proposed hydropower facilities in the basin was modelled through the interconnection and use of Water Evaluation and Planning system (WEAP) and Long-range Energy Alternatives Planning System (LEAP) (Stockholm Environmental Institute). Power production is constrained by climate variation and change in the basin, land use (growth in irrigation demand) and urban and industrial/mining demand. A SADC-wide integrated power demand and supply model was built (first of its kind in the region), which also considered power interconnectors between different countries. Activities performed: Scenario modelling of socio-economic change in the basin, which affects water demand – through the use of a large-scale integrated socio-economic model International Futures (based in Denver, Colorado). Preparation of water futures/scenarios for the Zambezi River basin. Integrative writer and quantitative analysis.</p>
2013	<p>Assessment Of Climate Resilient Livelihood Options In Drought Prone Areas (Six districts in Gaza Province, southern Mozambique) National Directorate of Planning, the Ministry of Planning and Development, or the Ministry for the Coordination of Environmental Affairs - República De Moçambique Ministério Da Planificação E Desenvolvimento Ministério Para A Coordenação Da Acção Ambiental</p> <p>Consultant</p> <p>Evaluate the vulnerability of the population and their livelihood strategies using <i>inter alia</i> household economy surveys to assess vulnerability to climate change and recommend adaptation options. Activities performed: Research and integrative writing</p>
2012	<p>Women and Climate Change Department of International Relations and Cooperation (DIRCO), Gov. South Africa.</p> <p>Chief writer and researcher for OneWorld Sustainable Investments</p> <p>Women are uniquely vulnerable, but also resilient and resourceful, to the challenges of climate change and variability. This book tells some stories from around the world and was presented by the Minister of DIRCO when South Africa handed over the Presidency of COP17/CMP7 to the host of COP18. Activities performed: Research and integrative writing</p>
2009 -2011	<p>Regional Climate Change Programme (RCCP) SADC region DFID (UK Government)</p> <p>Project leader on research and senior researcher</p> <p>Adaptation responses required in the SADC region to the impacts of climate change on MDGs, human health, transboundary water resources and southern African cities - exposure to disaster. (Chapman, Midgley et al. 2011; van Hasselt and Chapman, 2012, Young et al, 2010; Pegram et al., 2011; Chapman & Sassman, 2011). Activities performed: Research, integrative writing, consulting, publications development, policy paper preparation and presentations</p>
2009 - 2011	<p>Climate change adaptations in the water resources sector in 10 SADC countries Department for International Development (DFID), UK Government.</p> <p>Project Manager, also performing the research and reporting on two countries – South Africa and the Seychelles</p>

	The project evaluated the key climate change vulnerabilities of the water resources sector in each country - a part of the RCCP outlined above. Activities performed: Project leading and management and report writing
2007 - 2008	Long-term Mitigation Scenarios: Vulnerability to climate change in South Africa Department of Environment Affairs, Government of South Africa Hydrological and health-related research consultant A review of all sectors in the South African environment and economy with regard to vulnerability of climate change and inputs to the first carbon mitigation wedge assessments for emissions reduction planning, Activities performed: Research on impacts in the water and health sectors
2007 – 2008	Impacts of climate change on the water resources of Uganda DANIDA Water resources consultant Evaluate in broad terms the vulnerability of the water resources to climate change and present strategies for adaptation. Activities performed: Research and consultation
2005 - 2006	Developing markets for watershed protection services and improved livelihoods UK Department for International Development (DFID). Hydrologist and water resources consultant Ga-Selati River Catchment, Limpopo Province, South Africa. The project purpose is to increase understanding of the potential role of market mechanisms in promoting the provision of watershed services for improving livelihoods in developing countries. Activities performed: Field work, quantitative analysis and report writing.
2005 – 2006	Western Cape Climate Change Response and Adaptation strategy, South Africa Department for Environmental and Development Planning, Provincial Government of the Western Cape Consultant on water resources Climate change projections were drawn through various socio-economic sectors to evaluate the impacts of climate change and present a baseline evaluation. Activities performed: Research and integrative writing
2000 – 2001	Western Cape Regional Water Resources Strategy, South Africa Department of Water Affairs and Forestry Project leader Project management and research

Publications (selected)

Papers and Chapters in Books (chronological order)

- Spalding-Fecher, R., Senatla, M., Yamba, F., Lukwesa, B., Himunzowa, G., Heaps, C., **Chapman, A.**, Mahumane, G., Tembo, B., Nyambe, I., 2016. Electricity supply and demand scenarios for the Southern African power pool. Energy Policy. doi:10.1016/j.enpol.2016.10.033
- Spalding-Fecher, R., **Chapman, RA.**, Yamba, F., Walimwipi, H., Kling, H., Tembo, B., Nyambe, I., Cuamba, B., 2014. The vulnerability of hydropower production in the Zambezi River Basin to the impacts of climate change and irrigation development. Mitigation and Adaptation Strategies for Global Change. doi:10.1007/s11027-014-9619-7
- Petrie, B., Midgley, S., **Chapman, A.**, Hope, E., 2012. “Thuto ya Batho”: Teachings from the people: Women adapt to climate change. Book prepared for the COP17/CMP7 President and Minister of International Relations and Cooperation of the Republic of South Africa. OneWorld Sustainable Investments, Cape Town, South Africa. Pp 104.

- Le Maitre, D., Richardson, D., **Chapman, R.A.**, 2004. Alien plant invasions in South Africa: Driving forces and the human dimension. *South African Journal of Science* 100, 103–112.
- Le Maitre, D., Van Wilgen, B., Gelderblom, C., Bailey, C., **Chapman, R.**, Nel, J., 2002. Invasive alien trees and water resources in South Africa: case studies of the costs and benefits of management. *Forest Ecology and Management* 160, 143–159.
- Chapman, R., Le Maitre, D., Richardson, D., 2001. The Great Reshuffling: Human Dimensions of Invasive Alien Species, in: McNeely, J. (Ed.), pp. Pp. 195 – 208–Pp. 195 – 208.
- Van Wilgen, B., Little, P., **Chapman, R.**, Görgens, A., Willems, T., Marais, C., 1997. The sustainable development of water resources: History, costs and benefits of alien plant control programmes. *S. Afr. J. Sci.* 93, 404–411.
- Chapman, R., Manders, P., Scholes, R., Bosch, J., 1995. Who should get the water? Decision support for water resource management. *Wat. Sci. Tech.* 32(5-6), 37–43.

Selected Technical Reports

- Chapman, A., Sasman, N., 2012. Cities and Climate Change: Urban vulnerability and resilience in southern Africa: Synthesis Report. For the Regional Climate Change Programme (RCCP), UK Department for International Development. OneWorld Sustainable Investments, Cape Town.
- Chapman, R.A., Whande, W., 2013. Climate change and energy security in Africa. Presented at the New Approaches to Climate Diplomacy in Africa, United Nations Conference Centre, Addis Abbaba, Ethiopia.
- Chapman, A., 2011. Health and Energy: A Southern African Perspective (No. Regional Climate Change Programme: Southern Africa For the Department for International Development CNTR 200607514). OneWorld Sustainable Investments.
- Croxton, S., Petrie, B., **Chapman, R.**, Midgley, S., 2013. Assessment of Climate Resilient Livelihood Options in Drought Prone Areas of Mozambique - Pilot Programme for Climate Resilience (No. P125225). Report prepared by OneWorld Sustainable Investments, Cape Town, South Africa for the Ministry of Planning and Development and Ministry for Coordination of Environmental Affairs, Government of the Republic of Mozambique.
- Midgley, G., **Chapman, R.**, Mukheibir, P., Tadross, M., Hewitson, B., Wand, S., Schulze, R.E., Lumsden, T., Horan, M., Warburton, M., Kgope, B., Mantlana, B., Knowles, A., Abayomi, A., Ziervogel, G., Cullis, R., Theron, A., 2007. Impacts, vulnerability and adaptation in key South African sectors: An input into the Long Term Mitigation Scenarios process, LTMS input Report 5 (Summary report). Energy Research Centre, University of Cape Town, Cape Town.
- Midgley, G.F., **Chapman, R.A.**, Hewitson, B., Johnston, P., de Wit, M., Ziervogel, G., Mukheibir, P., van Niekerk, L., Tadross, M., van Wilgen, B.W., Kgope, B., Morant, P.D., Theron, A., Scholes, R.J., Forsyth, G.G., 2005. A Status Quo, Vulnerability and Adaptation Assessment of the Physical and Socio-economic Effects of Climate Change in the Western Cape. Report to the Western Cape Government, Cape Town, South Africa. CSIR Report No. ENV-S-C 2005-073, Stellenbosch.
- Midgley, S.J.E., **Chapman, R.A.**, Petrie, B., Antzoylatos, A., 2010. Technical report on climate change impacts, risks and vulnerabilities on food security and livelihoods in the lowlands and mountains (No. Project number: TCP/LES/3203 (D)). For the Food and Agriculture Organization of the United Nations (FAO) in partnership with the Lesotho Ministry of Forestry and Land Reclamation.
- Petrie, B., Midgley, S., **Chapman, A.**, Hope, E., 2012. “Thuto ya Batho”: Teachings from the people: Women adapt to climate change. Prepared for the COP17/CMP7 President and Minister of International Relations and Cooperation of the Republic of South Africa. OneWorld Sustainable Investments, Cape Town, South Africa. Pp 104.
- Petrie, B., **Chapman, A.**, Midgley, A., Parker, R., 2014. Risk, Vulnerability and Resilience in the Limpopo River Basin - A Synthesis [WWW Document]. URL <https://www.usaid.gov/documents/1860/risk-vulnerability-and-resilience-limpopo-river-basin-synthesis-0> (accessed 11.19.15).

