

dr.emily tyler

low carbon policy, complex systems, economics

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PROJECTS AND ENGAGEMENTS

2020 A Vital Ambition Project with Meridian Economics to determine the cost of additional CO₂ emission mitigation in the South African electricity system

2019 Eskom Climate Finance transaction Member of the Meridian Economics team developing a concessional transaction for the South African power utility in exchange for an accelerated coal decommissioning programme. (Ongoing)

Stakeholder engagement workshop on the South African Low Emissions Development Strategy (LEDS) Facilitated the workshop on behalf of the Department of Environmental Affairs

2018 Case study of the South African Long Term Mitigation Scenario Planning Process (LTMS) Written for the World Resource Institute as part of their Long Term Climate Strategies programme.

Employment implications of the South African power sector transition Lead author of a study assessing the state of the literature for the South African Wind Energy Association (SAWEA)

2016 Aligning the South African Carbon Tax and Carbon Budgets Team member of a project funded by the World Bank Programme for Market Readiness to consider possible alignment options for the two policy instruments.

2015 Mitigation Action Plans and Scenarios (MAPS) Programme Reflective research and project input on approaches to low carbon policy in developing countries (Chile, Colombia, Peru, Brazil and India) (See publications section below for details).

World Bank Market Readiness Programme Team member for the development of the Market Readiness Proposal for South Africa.

2014 MAPS Programme Conversation Series Design and execution of a series of formal Conversations between MAPS researchers and South African development experts.

South African Food Future Scenarios Team member for a Transformative Scenario Planning process conducted by the South African Food Lab.

Forum on Development and Mitigation Design and execution of an international platform for discussion held in Cape Town. Outputs included 12 peer reviewed academic papers, a compendium of reflections by South African development experts

on the discourse at the event, and a process outcome of the discussions during the event. The Forum was convened under MAPS, Energy Research Centre (ERC, South Africa) and the Centre for Policy Research (India).

2013 BASIC+ Workstream of the MAPS programme Managed researcher exchanges, a paper series the conceptualisation and development of the 'Development and Mitigation Forum.

South African Energy Scenario Planning Process Local expert input to developing energy scenarios for South Africa to 2050, a joint project of Shell and the Department of Energy

Author of the South Africa Country Profile for the UNFCCC compiled by ECN, Netherlands.

Analysis of the interface between a carbon budget approach and the carbon tax in South Africa's mitigation policy GIZ funded study undertaken with DNA Economics for the Department of Environment (DEA).

2012

Core technical support to the low carbon economy transition initiative of the South African National Planning Commission (NPC) as part of the Sustainable Energy Africa team, including a programme of research, intergovernmental meetings and roundtables to align policy and planning pertaining to climate mitigation.

Specialist input on Nationally Appropriate Mitigation Actions (NAMAs) to the MAPS programme covering the Latin American countries of Brazil, Peru, Chile, and Colombia.

2011

Review of DFID strategic policy climate change fund for South Africa Technical expertise to a review of the proposed design for the fund, including focus areas, management and operation.

Drafting support to the SA NPC assisted in the writing and conceptualising of the climate change and low carbon transition elements of the NPC's First Development Plan.

Presentations to the South African Corporate Leader's Group on Climate Change, CEO Forum on the South African climate change mitigation policy environment and the carbon tax.

Analysis of climate finance from a South African perspective, part of a Development Bank of South Africa (DBSA) input into the DEA's National Climate Change Response White Paper.

Analysis of the implications of a carbon price in South Africa for Sasol, a large, emissions-intensive South African company operating in the industrial and energy

sectors, as input into their response to a Treasury discussion document on carbon tax.

South African Coal Roadmap Study Coal value chain policy expertise for the study, funded by the Fossil Fuel Foundation

2010

South African NAMA briefing documents, drafting and input for the ERC of the University of Cape Town, as input to the Cancun UNFCCC Conference.

World Wildlife Fund (WWF) South African Low Carbon Action Plan early design phase Developed a design specification for WWF's proposed South African Low Carbon Action Plan.

South African National Sustainable Housing Facility (NSSF) Proposal Developed a successful proposal on behalf of the DBSA, securing funding for a portion of the design phase of the NSSF.

Carbon Pricing Conference Review Panel Member, held by the ERC.

WWF South African Low Carbon Economy Roadmap Scoping Project Leading a team of experts undertaking the scoping work for WWF's proposed South African low carbon economy roadmap, a three year programme.

Research and analysis into the value impact of climate change on the banking sector undertaken by Incite Sustainability for a South African Investment Bank.

NSSF concept paper for UNFCCC Copenhagen Conference Developed a concept paper outlining the NSSF as a NAMA for the South African delegation.

Gold Standard (GS) Point of Contact for South Africa Worked with the GS Local Expert to write a case study of a South African GS project for awareness raising and training purposes

2009

Study to consider the use of economic instruments, and to develop sectoral frameworks to address greenhouse gas mitigation policy in South Africa Project manager of a multi-partner project for the Fund for Research into Industrial Development, Growth and Equity (FRIDGE) to consider appropriate greenhouse gas mitigation policy for the case study sectors: electricity supply, mining, liquid fuels, chemicals and agro processing.

Research study to consider institutional requirements for the NSSF Project lead to conduct interviews across the subsidised housing development sector to identify requirements for a viable institutional home for the proposed carbon programme and NSSF.

Secured South African government endorsement of the NSSF Project lead on Danida funded project to achieve government endorsement of the NSSF concept,

and authorisation of the establishment of an Incubator so undertake pre-implementation activities.

Feasibility, design, business plan development and implementation assistance for a regional carbon hub to pool carbon credits from efficient cookstove programmes in Southern Africa Project lead on a phased project to assist a large donor in designing and establishing a carbon hub to channel carbon finance into cookstove projects and to leverage large corporate investment in bottom of the pyramid energy technologies.

2008

Business briefing paper on carbon regulatory options in South Africa Principle author of the paper for the National Business Initiative, suggesting ways in which business can equip itself to contribute to the policy development process.

Research project to provide an analytical basis for a 'no-regrets' 15% renewable electricity target for South Africa by 2020 Provided a business case and institutional perspective to the University of Cape Town Energy Research Centre's energy modelling outputs, for this WWF commissioned project.

Briefing on carbon regulatory options for the South African Chemicals and Allied Industry Association The brief assessed various forms of carbon regulation applicable to South Africa, and the impact of these on the chemicals sector.

Carbon Disclosure Project (CDP) submissions, Greenhouse Gas (GHG) inventories, Climate Change response scoping and Clean Development Mechanism (CDM) project pre-feasibility in the South African mining sector Project lead for a CDM project pre-feasibility opinion developed for a renewable energy generation project for a platinum junior, and three junior mining companies' CDP submissions (2007 and 2008). Also scoped strategic climate change response options, developed two GHG inventories, and recommended future evolution of the inventories for a number of South African mining companies.

Development of a Business Plan for the NSSF for Danida. The Facility would coordinate access to carbon revenue and Demand Side Management funding for the implementation of energy efficient and renewable energy technologies in low income housing across South Africa.

Pre-feasibility study and Project Idea Note development for biomass to energy project Carbon project pre-feasibility opinion for a biomass to energy project in the Eastern Cape

Pre-feasibility assessment of a portfolio of five renewable energy projects for carbon project viability Assessment of the eligibility and process risk and viability of five early stage carbon projects for a South African renewable energy company.

Climate change corporate strategy and analysis work for De Beers A suite of strategy work undertaken for the international mining company including: a review of De Beers climate change and energy strategy, benchmarking of the company's

climate change process to their mining peers, a climate change risk and opportunity scoping for the group of companies, internal climate change communications tools, aligning the De Beers greenhouse gas reporting system with the GHG Protocol requirements, and an opinion piece on corporate carbon offsetting.

Presentation to Imperial Holdings Board Climate change presentation to board members to convey company implications of climate change.

2007

GS Local Expert Project Appointed as the GS Local Expert in South Africa to assist with the development of a GS project pipeline in the country.

Climate change scoping paper for one of the big four South African banks

South African CDP report Analysis and lead author of the first CDP in South Africa

Project to secure financing for RE/EE projects in Southern Africa through GS CDM for the Renewable Energy and Energy Efficiency Partnership (REEEP). Managed an international project to support the financing and transaction of carbon mitigation projects with high sustainable development characteristics in Tanzania and Mozambique.

International Institute of Sustainable Development taskforce member looking at 'Realising the Development Dividend' of the CDM, which included attending regular international meetings and contributing towards case studies and discussion.

2006

Pre-feasibility for a Southern African biodiesel project Managed the drafting of a CDM pre-feasibility opinion for a biodiesel project in Southern Africa

Offset Protocol Development Developed an offsetting protocol for the Cambridge Programme for Industry in South Africa to enable them to offset their annual conferences in a manner appropriate to Southern Africa

European Investment Bank and Nampower Kudu Project gas fired powerstation CDM project development Lead drafter of a successful proposal by an international consortium to develop and transact a CDM project activity for the Kudu Project, and provided transaction and carbon financing advisory to the project.

REEEP financial model project manager Designed and managed the REEEP project to develop a sustainable financial structure to replicate the Kuyasa Housing Retrofit Clean Development Mechanism Project across low income housing in South Africa

2004/2005

Energy Development Corporation solar water heater financial mechanisms project manager Designed and managed the project investigating financial mechanisms for solar water heaters in South Africa

Transaction Support Marketing and market analysis support for SouthSouthNorth's CDM project portfolio in preparation for transaction; Assessing and advising on various contractual options and financial structures for emission reduction projects; Development of tools for the analysis of emission reduction project risks and potential carbon revenues; Negotiation of emission reduction transactions, including term sheets and purchase contracts.

Lecturing on climate and environmental finance, conference speaking including for the Graduate School of Business Climate Change Executive Short Course, the Stellenbosch Business School Environmental Finance MBA course and Sustainability Institutes executive programme, local and international conferences on the economics and business implications of climate change, the CDM, and carbon finance.

2003

Delivery of a scoping report and presentation on the risks and opportunities the international bank ABN Amro faces from climate change for ABNAmro, Environment and Social Risk Management, Amsterdam

2000/2003

Analysis of barriers to the development of a regional United Kingdom (UK) biomass fuel market

Developed models in the waste and recycling sector, including one determining the GHG emissions associated with projects funded by a UK regional government

Supporting the South African Durban municipality negotiate the terms of sale of the carbon credits associated with a CDM project to the World Bank's Prototype Carbon Fund.

Design of the project based credit protocol for a multinational oil company. The protocol was a key development in their greenhouse gas management strategy, and builds on current thinking in the areas of projects and corporate climate change strategy.

Analysis of carbon management best practise across the UK economy for the UK Carbon Trust.

Assistance in the final preparation and implementation of the UK Emissions Trading Scheme. Secondment to the Environment Protection Economics division of the Department for Environment, Food and Rural Affairs to proof read the scheme rules, project auction outcomes, trial run auction software and preparing presentations and scheme documents for participants.

Emission Trading Scheme service support, including extensive consultation with the private sector regarding the scheme and other UK climate change programmes and assessing verification and brokering service provision for Enviro

Costing strategies for council waste management, research for the UK government's input into the WEEE directive, environmental reporting, cost model derivation for sustainable agriculture.

REVIEWS

World Resources Institute report: **Good Governance for Long-Term Low-Emissions and Development Strategies** (2019)

Intergovernmental Panel on Climate Change **Special Report on Global Warming of 1.5°C (SR15)** (2017/18)

Chapter review '**Building energy efficiency in the City of Cape Town: The role of an energy Intermediary**' in 'Development and climate change: lessons from Cape Town' (2017).

Review of and contribution to '**Stories from the South. Exploring low carbon development pathways**' (2015), Raubenheimer, S. and the MAPS Team. Published by SouthSouthNorth, South Africa.

AFFILIATIONS AND EMPLOYMENT

SouthSouthNorth Projects Africa Advisory board member 2011 – present.

Independent climate mitigation policy consultant, South Africa. Mid 2009 – present.

Programme researcher, Mitigation Actions, Plans and Scenarios (MAPS) Programme, Energy Research Centre, University of Cape Town, South Africa. 2009- 2015.

Founder and manager, Genesis Analytics Climate Change Practice, Cape Town, South Africa. Mid 2007- Mid 2009

Transactions manager, SouthSouthNorth Projects Africa, Cape Town, South Africa. 2004 – 2007.

Consultant, Energy Transformations, Cape Town, South Africa. 2004-2007.

Specialist intern, ABN Amro Bank, The Netherlands, June-September 2003

Analyst, Climate Change Policy and Strategy Group, Enviros Consulting, London, 2000 – 2003.

Guest Lecturing

University of Cape Town: Energy Poverty and Development (Masters level, 2016); Climate Finance (Masters level, 2007), Climate Change and Development MOOC (2016).

Stellenbosch University: Public Policy and Complexity (Honours level, 2016); Development Finance, (Masters level, 2008-12), Renewable Energy (Masters level, 2005).

Seminars: University of Sussex Science Policy Research Unit, Complexity approaches to climate mitigation policy in South Africa (2016).

EDUCATION AND AWARDS

PhD from the University of Cape Town, 2019. Thesis entitled Exploring a transdisciplinary complex systems approach to South African climate mitigation policy.

Participated in the Complexity and Systems Thinking Masters level module at the Sustainability Institute, Stellenbosch University, 2016.

Masters in Advanced Financial Management, University of Cape Town 2007: Thesis on using real options analysis to describe the impact of climate change on shareholder value at Sappi.

Attended the Executive Course in Energy Policy and Management, University of the Witwatersrand, Faculty of Commerce, Law and Management, 2004

First Class (Hons) Economics, University of Cape Town, 1998

B.Comm. in Economics and Psychology, Rhodes University, 1997

Royal College of Music, Teachers licentiate: music theory and practical, 1994.

Royal College of Music, Grade 8 in oboe, 1993. Grade 6 in piano, 1990.

Awarded the national South African Old Mutual Tax Essay competition prize (1998, undergraduate category).

Awarded the University of Cape Town Keswick Prize for Lucidity for economics honours essay on the Economics of Orchestras (1998)

Academic Half Colours (1998) for undergraduate B.Comm studies.

FOR PUBLICATIONS LIST PLEASE SEE SEPARATE DOCUMENT