# dr. emily tyler

# bringing the lenses of complexity studies, economics, and finance to climate and energy policymaking

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# **PAPERS**

- Tyler, E. and Cohen, B. (2021). A complex systems view of climate and development issues in South African coal power expansion. In *Journal of Energy in Southern Africa*. Vol 32:1. February 2021. DOI: 10.17159/2413-3051/2021/v32i1a9052
- Tyler, E. and Cohen, B. (2020). Approaching climate change mitigation policymaking in South Africa: a view from critical complexity thinking. In *Climate Policy*. Vol 20:10. 1209-1225. DOI 10.1080/14693062.2020.1779019.
- Tyler, E. 2019. A complex transdisciplinary exploration of South African climate mitigation policy. Engineering and the Built Environment, Department of Mechanical Engineering, University of Cape Town. <a href="https://open.uct.ac.za/handle/11427/30133">https://open.uct.ac.za/handle/11427/30133</a>
- Tyler, E. and Torres Gunfaus, M. (2017) Reflecting on the South African Long Term Mitigation Scenario Planning Process a decade on. In *Development*, 59(3), 328-334.
- Tyler, E. and Cohen, B. (2017). A complexity underpinning for domestic climate mitigation policy in South Africa. In *International Journal of Design & Nature and Ecodynamics*. 12 (1) 124-132.
- Cohen, B.; Tyler, E.; Torres Gunfaus, M. (2016). Lessons from co-impacts assessment under the Mitigation Action Plans and Scenarios (MAPS) Programme. In Climate Policy, DOI: 10.1080/14693062.2016.1222258
- Tyler, E. and Cloete, B. (2014). Combining price and quantity instruments: insights from South Africa. Climate Policy. DOI: 10.1080/14693062.2014.937382
- Jooste, M, Tyler, E, Coetzee, K, Boyd, A and Boulle, M. (2014). Internalising
  mitigation activities into the development priorities and approaches of developing
  countries. Proceedings of the Forum on Development and Mitigation, Cape Town
  2014.
- Tyler, E., Boyd, A., Coetzee, K., Torres Gunfaus, M., Winkler, H. (2013): Developing country perspectives on 'mitigation actions', 'NAMAs', and 'LCDS'. In *Climate Policy*, DOI: 10.1080/14693062.2013.823334
- Garibaldi, J. Winkler, H., la Rovere, E., Cadena, A., Palma, R., Sanhueza, J., Tyler, E.

- & Torres Gunfaus, M. (2013). Comparative analysis of five case studies: commonalities and differences in approaches to mitigation actions in five developing countries. In *Climate and Development*, Special Issue: Designing and implementing mitigation actions: emerging lessons from five developing countries. Volume 6, Supplement 1, 2014, pp 59-70.
- Tyler, E., Boyd, A., Coetzee, K. & Winkler, H. (2013), A case study of South African mitigation actions. In *Climate and Development*, Special Issue: Designing and implementing mitigation actions: emerging lessons from five developing countries. Volume 6, Supplement 1, 2014, pp 49-58.
- Tyler, E. (2010). Aligning South African energy and climate change mitigation policy.
   In *Climate Policy* volume 10 Issue 5 2010 pp575-588. Special Issue: Putting a price on carbon in South Africa and other developing countries
- Tyler, E., Du Toit, M., Burchell, Z. (2011). Emissions trading as a policy option for greenhouse gas mitigation in South Africa. In *Journal of Energy in Southern Africa* Vol 22 No.1. February 2011 pp26-41
- Tyler, E., Du Toit, M., Burchell., Z. (2011). White certificates and white certificate trading schemes as greenhouse gas mitigation policy options for South Africa. In *Journal of Energy in Southern Africa*. Vol 22 No. 1 February 2011 pp18-25
- Tyler, E. and Chivaka, R. (2010). The use of Real Options valuation methodology in enhancing the understanding of the impact of climate change on companies, In Business Strategy and the Environment. Vol 10 Issue 1 p55-70
- Tyler, E. (2010). Using real options to value the impacts of climate change. A case study of Sappi, a South African pulp and paper company. ISBN 978-3-8383-0875-3

# **BLOGS**

- www.emilytyler.co.za/blog
- Responding to climate mitigation policymaking as a complex policy problem: the role of approach, Climate Strategies 2020: <a href="https://climatestrategies.wordpress.com/2020/07/27/responding-to-climate-mitigation-policymaking-as-a-complex-policy-problem-the-role-of-approach/">https://climatestrategies.wordpress.com/2020/07/27/responding-to-climate-mitigation-policymaking-as-a-complex-policy-problem-the-role-of-approach/</a>
- Climate mitigation policy in a development context how do we do what we do, MAPS 2015: <a href="http://www.mapsprogramme.org/category/publications/blogs/">http://www.mapsprogramme.org/category/publications/blogs/</a>
- The Long Term Mitigation Scenarios, a decade later. MAPS 2015: <a href="http://www.mapsprogramme.org/category/publications/blogs/">http://www.mapsprogramme.org/category/publications/blogs/</a>
- Development and Mitigation Forum, MAPS 2014: <a href="http://www.mapsprogramme.org/publications/blogs/beyond-development-mitigation/">http://www.mapsprogramme.org/publications/blogs/beyond-development-mitigation/</a>
- Conversations with development practitioners, MAPS 2014:
   <a href="http://www.mapsprogramme.org/publications/blogs/climate-change-mitigation-work-within-multiple-objectives-frame-insights-conversations-south-african-development-practitioners/">http://www.mapsprogramme.org/publications/blogs/climate-change-mitigation-work-within-multiple-objectives-frame-insights-conversations-south-african-development-practitioners/</a>

 Climate mitigation policy instruments, Climate Strategies 2015: <a href="https://climatestrategies.wordpress.com/2015/04/15/insights-from-south-africa-emily-tyler-and-brent-cloete/">https://climatestrategies.wordpress.com/2015/04/15/insights-from-south-africa-emily-tyler-and-brent-cloete/</a>

#### CONFERENCE PAPERS AND PRESENTATIONS

- African Centre for Cities International Urban Conference (2018). Paper presentation: Using a complex systems frame to think through issues of greenhouse gas mitigation and social justice in the South African Coal Expansion programme.
- Science Policy Research Unit (SPRU), University of Sussex, seminar, June 2016
- Wessex Complex Systems conference, United Kingdom, June 2016. Paper presentation
- African Climate and Development Institute student conference, Cape Town, March 2016. Paper presentation.
- Poster presentation of MAPS Programme paper 'Reflecting on climate mitigation in a
  development context, how we do what we do' at Our Common Future Under
  Climate Change conference, Paris, July 2015 (www.commonfuture-paris2015.org)
- Conceptualised and led the 2014 international academic conference 'The DevMit Forum' under the auspices of the MAPS Programme and the Energy Research Centre, UCT.
- Carbon pricing conference, UCT, 2009. Two paper presentations.

#### **REVIEWS**

- Expert reviewer (2017/18) for Intergovernmental Panel on Climate Change Special Report on Global Warming of 1.5°C (SR15)
- Non-blind review of 'Complex System Co-Design: Pathway to becoming an appreciative system' (2017) by Motloch, J., for 7th International Multi-Conference on Complexity, Informatics and Cybernetics.
- Review of chapter 'Building energy efficiency in the City of Cape Town: The role
  of an energy Intermediary" in 'Development and climate change: lessons from
  Cape Town' (forthcoming).
- 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.
- Regular reviewer of Climate Policy journal articles
- Masters thesis examination (2015). The role of industrial policy in pursuing climate change mitigation objectives in South Africa (Energy Research Centre)

### **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).

# **EDUCATION AND AWARDS**

- Doctorate in Development and Energy Studies, University of Cape Town. Thesis entitled: 'A complex transdisciplinary exploration of South African climate mitigation policy', 2019. https://open.uct.ac.za/handle/11427/30133
- 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
- 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.