



Clean Air Journal

Official journal of the National Association for Clean Air

we have tried
Strategies[^] to reach more
readers *What's worked for you?*

REBECCA GARLAND

ON BEHALF OF THE CLEAN AIR JOURNAL EDITORS-IN-CHIEF KRISTY
LANGERMAN AND GREGOR FEIG

AND ASSOCIATE EDITOR BIANCA WERNECKE

Acknowledgements

Thanks to ASSAf and Khulisa Journals team for all their support.



Brief Introduction

Clean Air Journal has been publishing article on **atmospheric science** since 1971. The focus of the journal includes, but is not limited to:

- Impacts of human activities and natural processes on ambient air quality
- Air quality and climate change linkages
- Air pollution mitigation technologies and applications
- Matters of public policy regarding air quality management
- Measurement and analysis of ambient and indoor air pollution
- Atmospheric modelling application and development
- Atmospheric emissions
- Other topics on atmospheric physics or chemistry with particular relevance to Africa

The scope of the journal is broad, but the core theme of the journal is **air quality and atmospheric science in and of relevance for Africa**.



Quick look back

Where did we start?

- Goal: Sharing information to South Africa's air quality community
- Newsletter format
- Archives not readily available

GROWING VEGETATION ON MINE RESIDUE DUMPS

Bill Cook

Manager

Chamber of Mines of South Africa

Vegetation Unit

JOHANNESBURG'S URBAN HEAT ISLAND

Prof. P.D. Tyson, University of the Witwatersrand.

(Some extracts from a talk which was given at a meeting of the National Association for Clean Air in Johannesburg in 1971. Prof. Tyson is Head of the Department of Geography at the University of the Witwatersrand and has an interest in meteorological processes and their effects upon atmospheric pollution.)

A REPORT ON THE STOCKHOLM CONFERENCE

From C.E. BARTHEL JR. Past President and Delegate of
the Air Pollution Control Association of the
United States and Canada

The following is a shortened version of this report prepared for members
of the National Association for Clean Air of South Africa.



The Clean Air Journal

Updating Clean Air Journal to be an academic peer-review journal

- Long support of CAJ from South African community under NACA. Submissions were decreasing.
- Linkages to NACA conference and publishing best papers
- DHET accreditation needed to attract more scientific papers
- 2013 the journal underwent a large overhaul to become more of an academic peer-review journal

HOME / ARCHIVES / Vol. 21 No. 1 (2012): Clean Air Journal

Vol. 21 No. 1 (2012): Clean Air Journal

PUBLISHED: 2012-06-03

MESSAGE

PRESIDENT'S MESSAGE: September 2012

A. Sakhu



RESEARCH ARTICLE

Integrating Air-related Health Surveillance into Air Quality Management: Perceptions and Practicalities

C. Wright, M.A. Oosthuizen, M. Steyn



Determination Of The Mercury Content Of Lichens and Comparison To Atmospheric Mercury Levels In The South African Highveld Region

A. Trübe, N. Panichev, J. Okonkwo, P.B.C. Forbes



Message from the NACA President:

Introducing the Journal's new editors-in-chief, and reflections on NACA's role

2 Let's start with the exciting news. NACA's Clean Air Journal has a new trio at the helm: Dr Caradee Wright, Dr Rebecca Garland and Dr Gregor Feig (they usually list their names in alphabetical order, but I thought I'd list ladies first for a change). The website of the Clean Air Journal is already live (www.cleanairjournal.org.za); the editorial advisory board has been re-constituted; and there are great plans to increase the number of articles published and get the Journal accredited. I hope that you will be reading more about the vision and plans of the new editors-in-chief on this page in future issues. And please submit your article for publication!

3-10



The Clean Air Journal

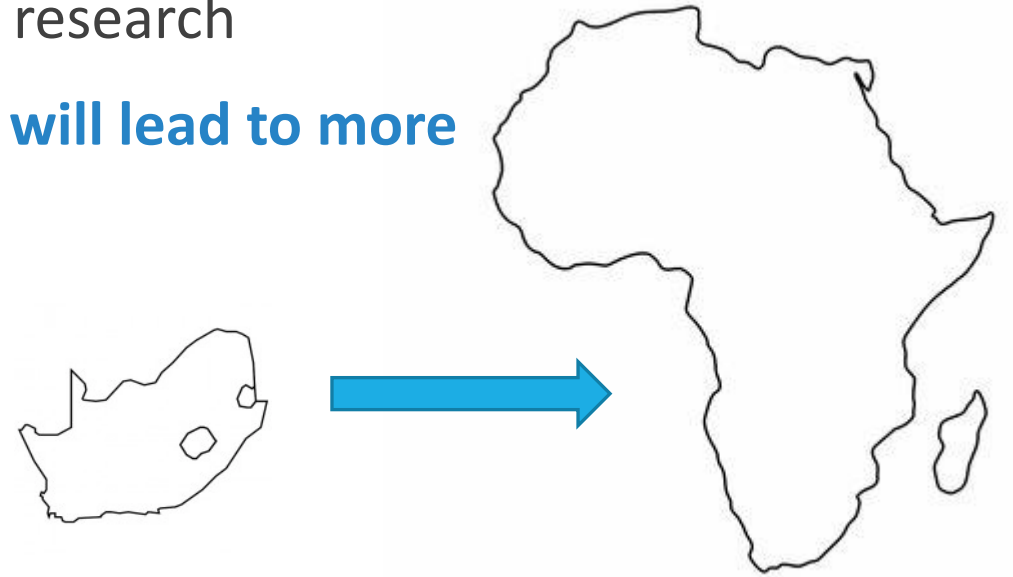
Change focused on academic readers

- Grow stature and visibility of CAJ as an academic journal
 - Peer review process
 - Journal policies
 - Regular issues
 - Etc.
- Create a website
- Indexing
- DHET accreditation process took time
 - Relied on NACA supportive community
- At this stage one of our greatest worries was being seen as a predatory journal since we were so small.
- Twitter account
 - Engage broader audience
 - Throw Back Thursday's going through the archives
 - NACA annual conference
 - Ask Me Anything on H₂S smell with Gauteng Weather @tWeatherSA
- Committed to open access
 - Free to publish and free to read
 - No financial barrier for authors or readers
 - Possible with support of NACA and advertisers

Focus expanded to African Air Quality

Still focusing on academic readers

- Identified gap for places to publish African air quality research
- **Expand scope – but how get readers? More authors will lead to more readers**
 - Expanded our [Editorial Board](#)
 - Approach potential authors for [front material](#)
 - News items
 - Special front sections
 - Research briefs
 - [NACA linkages](#) to other networks
 - Social Media
 - Grew linkages with journalists as well
 - Stock slide on CAJ for Editors and Board to use in presentations to advertise journal



Qualitative non-rigorous comparison highlights trends that we are seeing that we have more authors from outside of just South Africa ★

Long-term quantitative assessment difficult as we changed websites and platforms

Letter from the editors

- 2 New Developments in the Clean Air Journal

News

- 3 Ernst-Günter Brunke
- 4 Laboratory for Atmospheric Studies launched
- 5 Adoption of a Publication Ethics and Malpractice Statement

Feature: Ozone in southern Africa

- 7 **Research brief**
Reduction of India's crop yield due to ozone
- 7 **Research brief**
Threat to future global food security from climate change and ozone air pollution
- 9 **Commentary**
Measurement of surface ozone in South Africa with reference to impacts on human health
- 13 **Commentary**
Modelling of ozone over South Africa: Needs and challenges
- 15 **Commentary**
Impacts of ozone on agricultural crops in southern Africa

Reviews

- 19 Daniel S. Wilks' book *Statistical Methods in the Atmospheric Sciences* (3rd Edition)
- 19 'The State of Green Technologies in South Africa' November 2014 Report

Articles

- 20 Spatial and temporal assessment of organic and black carbon at four sites in the interior of South Africa
- 34 The Richards Bay Clean Air Association: A Case Study for Success in Participatory Air Quality Management
- 40 A Geostationary Air Quality Monitoring Platform for Africa ★
- 46 Measurement of atmospheric black carbon in the Vaal Triangle and Highveld Priority Areas
- 51 Human health risk assessment of airborne metals to a potentially exposed community: a screening exercise

Editorial

- 4 Ambient air pollution on the Highveld: An airshed at a watershed moment?

Commentary

- 8 Are nature-based solutions a missing link in air quality management in South African cities?
- 13 The Minimum Emission Standards (MES) and the sabotage of public health

Research briefs

- 18 Household air pollution and respiratory symptoms a month before and during the stringent COVID-19 lockdown levels 5 and 4 in South Africa
- 21 Source apportionment of fine atmospheric particles using positive matrix factorization in Pretoria, South Africa

Research articles

- 24 A street-level assessment of greenhouse gas emissions associated with traffic congestion in the city of Nairobi, Kenya ★
- 37 Exploring PM_{2.5} variations from calibrated low-cost sensor network in Greater Kampala, during COVID-19 imposed lockdown restrictions: Lessons for Policy ★
- 52 Air pollution abatement by selective nanoparticle deposition on filtration systems ★
- 62 Wet season chemical composition of atmospheric wet deposition at Cape Point

Special issue

Air quality on the South African Highveld

- 72 A case study in the wintertime Vaal Triangle Air-Shed Priority Area on the utility of the nitrogen stable isotopic composition of aerosol nitrate to identify NO_x sources
- 81 The use of dirty fuels by low-income households on the South African Highveld
- 99 Analysis of the first surface nitrogen dioxide concentration observations over the South African Highveld derived from the Pandora-2s instrument

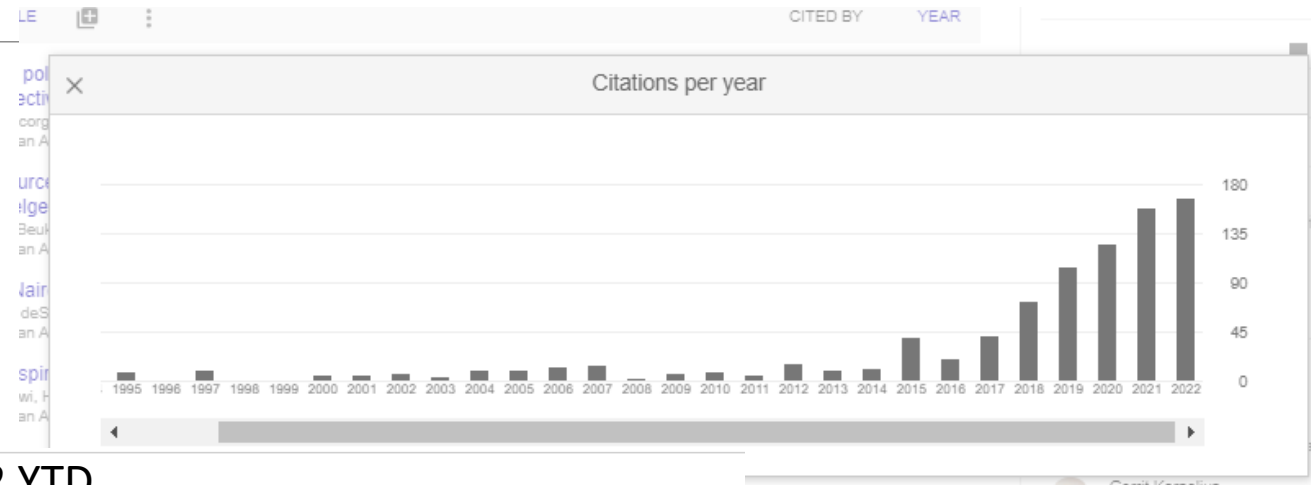
Technical article

- 111 Integrating project-based infrastructures with long-term greenhouse gas observations in Africa ★



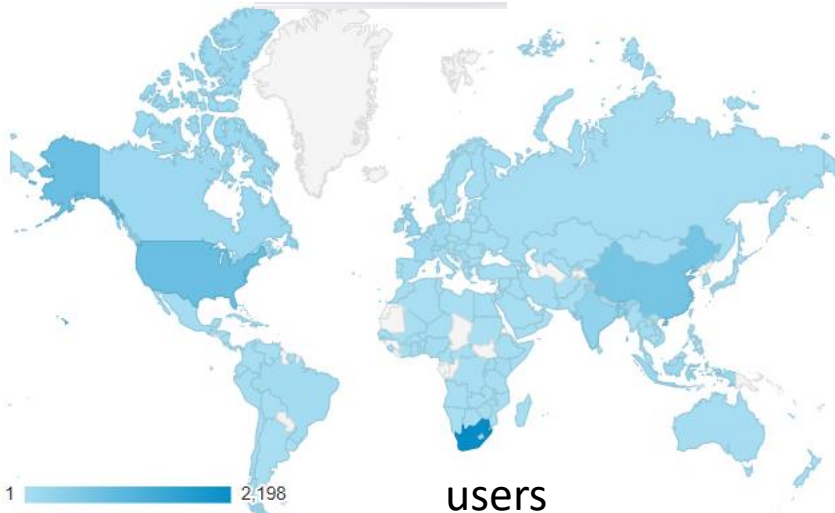
Growing citations

Attracting new users to website



Analytics

Google analytics on website 2022 YTD



Can't we be more creative in reaching new readers?

- We started an Associate Editor Mentorship Programme
 - Emerging researchers join editors for a year
 - Bianca Wernecke was our inaugural and founding associate editor
- Associate Editor Bianca was the creative and energetic shot in the arm we needed to try new strategies to attract new readers!
- Just running the journal tends to keep Editors busy as this isn't our day job
 - Very long wish lists and gaps about how to strategically grow journal
- Our Associate Editor was great at this!



Highlighting activities on World Clean Air Day (2021)

Author Video Series for the [International Day of Clean Air for Blue Skies](#), in partnership with the South African Medical Research Council

Video abstracts of diverse articles in simple terms of what did you do?
What does it mean?

Permanent links that we can continue to use to communicate CAJ to broader readers

News

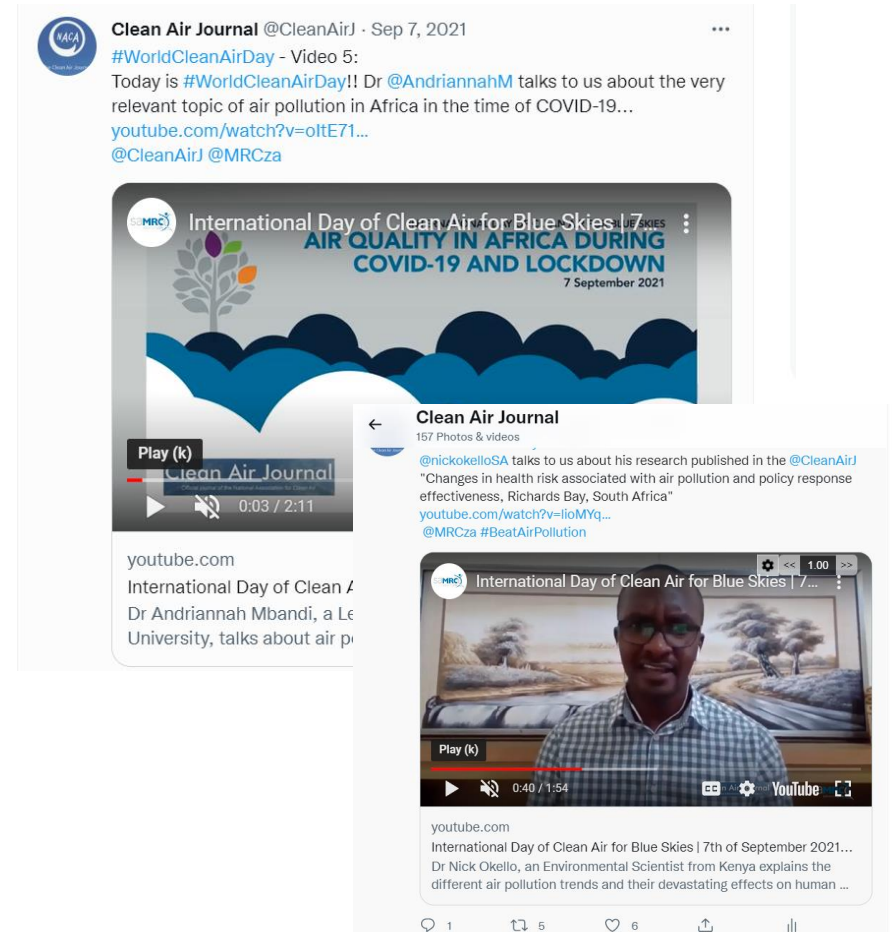
Clean Air Journal celebrated this year's International Day of Clean Air for Blue Skies

Bianca Wernecke¹

¹Environment and Health Research Unit, South African Medical Research Council, Doornfontein, Johannesburg, 2094
<https://doi.org/10.17159/caj/2020/31/2.12811>

Official teaser to the videos: <https://youtu.be/cd7zoUqgTvg>

Full playlist of the videos: https://www.youtube.com/playlist?list=PLFdK7Ly-ce5lptRBVEHvo4XF_G1Y-AfHG




Continuing twitter presence

"Meet the Editors-in-Chief Series"




Official journal of the National Association for Clean Air




DR KRISTY LANGERMAN

Dr Langerman's area of expertise is the environmental aspects of energy. She conducted her PhD in Atmospheric Science through the Climatology Research Group at the University of the Witwatersrand. During that time, she worked on several international field experiments, including SAFARI-2000, UAE2 and ARREX, where she collected airborne measurements of atmospheric chemistry and clouds. She conducted a postdoc at the National Centre for Atmospheric Research in Boulder, Colorado, and was a visiting scientist at the Naval Research Laboratory in Monterey, California. Dr Langerman then worked at Eskom for 12 years, first in the Research Department and then in the Environmental Management Department where she managed the Air Quality Centre of Excellence. She spearheaded Eskom's air quality offsets programme, which aimed to improve air quality in low-income communities by moving households from coal to cleaner energy sources and was instrumental in drafting Eskom's




DR GREGOR FEIG

Gregor Feig is a biogeochemist and atmospheric and environmental change scientist with thirteen years post PhD experience in the fields of atmospheric composition monitoring, air quality management, atmospheric emissions inventory development, biogeochemistry, land-vegetation-atmosphere interactions, atmospheric modelling and climate services and climate change adaptation. He has a PhD in Biogeochemistry from the Max Planck Institute for Chemistry where he focused on quantifying biogenic emission of NO_x from soils in arid and semi-arid regions. Following his PhD, he worked as a specialist air quality consultant, before moving to the South African Weather Service where he was responsible for




Prof Rebecca Garland

Prof Rebecca Garland is an Associate Professor in the Department of Geography, Geoinformatics and Meteorology at the University of Pretoria, South Africa. She has a background in atmospheric chemistry, with a focus on air quality and climate change, and science-policy linkages. Her research focus is on improving the understanding of air quality and atmospheric science in southern Africa using multiple data streams. Before joining the University of Pretoria, Rebecca was a Principal Researcher in the Climate and Air Quality Modelling Group at the Council for Scientific and Industrial Research (CSIR), South Africa. She received her PhD from the University of Colorado, Boulder focusing on atmospheric science (aerosol particles in particular) and was a postdoctoral fellow at the Max Planck Institute for Chemistry in Mainz, Germany. She was a AAAS Science and Technology Policy Fellow in the Office for Energy Efficiency and Renewable Energy at the U.S. Department of Energy.




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NACA Conference Coverage:



Clean Air Journal @CleanAirJ · Oct 8, 2021


#NACA2021 Day 3 has kicked off! Session include: Air Quality Modelling, Air Quality Research, Validation, Uncertainty as well Source Apportionment!





Clean Air Journal @CleanAirJ · Oct 6, 2021

Last talk of day 1. @AndriannahM #SEKU on The role of Institutional Networks in Air Quality Management in Africa. Analysis includes #APINA, @naca2020 #IUAPPA @AirQualityKenya #SAFARI @ANGA_AtmosSci



Rebecca Garland and 2 others

1 10 22



Increasing accessibility while highlighting World Clean Air Day 2022

Verbal abstracts

The use of dirty fuels by low-income households on the South African Highveld

Christiaan Pauw
Nova Institute, South Africa
<https://orcid.org/0000-0002-1546-1024>


H. Montagu Murray
Nova Institute, South Africa

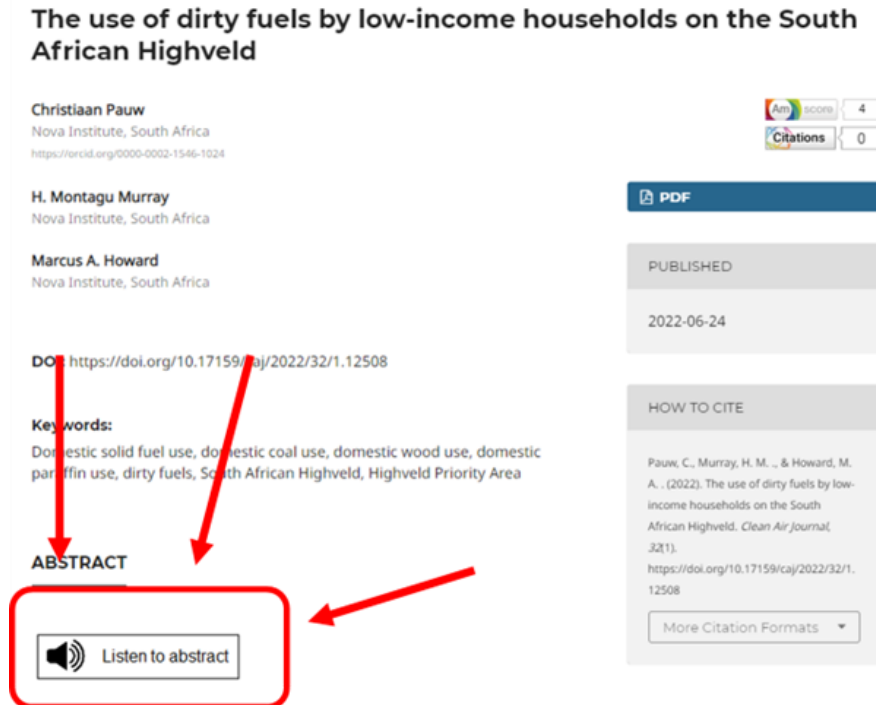
Marcus A. Howard
Nova Institute, South Africa

DOI: <https://doi.org/10.17159/caj/2022/32/1.12508>


Key words:
Domestic solid fuel use, domestic coal use, domestic wood use, domestic paraffin use, dirty fuels, South African Highveld, Highveld Priority Area

ABSTRACT

 Listen to abstract



- Following positive feedback from previous World Clean Air Day activities, we wanted to continue
- Had discussed different medium – potentially podcasts
- Include verbal abstracts in 5 articles and promote over twitter.
- Difficulty in knowing its impact: We had a questionnaire for readers on feedback, and no one completed it

 **Clean Air Journal** @CleanAirJ · Sep 5

7th September is #WorldCleanAirDay ! To clean #theairweshare, we need to effectively communicate research findings and make them accessible in an understandable way! For this reason, the @CleanAirJ is trying something new: "VERBAL ABSTRACTS"! Read more in the posts to follow!





Concluding thoughts on where to from here

Academics who may write and read,

- Expand social media
 - LinkedIn
- Partner with African networks
- Front material → news from across the continent
- Future goal is to apply to Web of Science. Starting with Emerging Sources Citation Index

Continue to improve accessibility

Broader audience interested in learning about air quality

- Continue trying other approaches. Continue with verbal abstracts?

Improve our analysis of success of our strategies

Looking forward to discussion on what other journals are trying!

