News
NACA conference 2023 – Collaborating for clean air: confronting climate change and air quality together

Danitza Klopper [1] **and Roelof Burger** [2]

[1]Chairperson of the NACA Scientific Review Committee, Department of Geography and Environmental Studies, University of Limpopo
[2]NACA President, Unit for Environmental Science and Management, North-West University

The 2023 Annual NACA Conference, held in collaboration with the Department of Forestry, Fisheries, and the Environment's (DFFE) Air Quality Governance Lekgotla, proved to be a resounding success. This in-person gathering took place at the picturesque Protea Hotel: Ranch Resort, just south of Polokwane, drawing 141 attendees. All sessions were also streamed virtually, free of charge to all stakeholders who couldn't join the face-to-face event. The conference not only provided a unique opportunity for vibrant dialogues but also fostered valuable connections among participants. Under the theme *Collaborating for clean air: confronting climate change and air quality together*, the conference emphasised the indispensable role of collective efforts in addressing urgent environmental challenges around air quality. The proceedings commenced with a joint workshop by DFFE and NACA, laying the foundation for insightful technical sessions, expert presentations, and the sharing of the latest developments in the field of air quality management.

The first set of technical sessions was called *Phathu's Armchair*, where dynamic discussions were fostered with government officials tackling difficult yet pertinent questions across themes like *Stakeholder participation and cooperative governance, The state of ambient air quality in low-income urban settlements of South Africa, and Regulating the regulator*. A second set of sessions, hosted by Farina Lindeque, shed light on the need for assessing the value contribution of our research and work, and explored our efforts to optimise our research collaborations to generate value for all stakeholders affiliated with NACA. These sessions shone a spotlight on the complex and interconnected nature of air quality management and climate change mitigation, and emphasised the necessity for collective action

and coordination among stakeholders to address our shared concerns. Current approaches often fall short due to a lack of effective mechanisms for knowledge sharing, learning, and collaboration. The significance of social learning, defined as the process of acquiring new knowledge, skills, and values through social interactions, was underscored as a means to enhance stakeholder capacity for more adaptive and integrated responses to air quality and climate challenges.

Three distinguished keynote speakers, namely Dr Millicent Kekana, Prof Hein Neomagus, and Mr Nicolas Zanetta, illuminated various facets of environmental research and challenges. Topics ranged from collaborative efforts in research to alternative carbon-based fuels and the local ecological implications of metal revolutions and energy transition.

NACA's unwavering commitment to fostering collaboration across academia, industry, government, and society was evident throughout the conference. A diverse array of stakeholders converged, exchanging ideas and cultivating a space for discussing innovative solutions. The carefully curated program acknowledged that addressing clean air challenges requires insights from all sectors of society, catering to the unique interests and concerns of each participant. Throughout the three days, the conference featured the presentation of 14 scientific papers, six engaging 3-minute talks, and 12 informative posters, showcasing the depth and diversity of contributions from the NACA community.

The NACA Golden Award was awarded to Prof Stuart J. Piketh and Grant Ravenscroft for their lifetime contribution to the

science and community. Awards were also presented for the following achievements (presenters are indicted with *):

Best 3-minute talk (3MT)

Characterizing the aerospora and ambient particulate matter over Potchefstroom during the period (13 March- 26 March 2023) (Keneilwe Podile*, Stuart J.Piketh, Frank H. Neumann and Dorra Gharbi)

Best poster

Diurnal variations of PM_{10} concentrations next to paved roads in South African low-income residential areas: a case in Northam (Ntokozo Rakitla*, Ncobile C. Nkosi and Nisa Ayob)

Best student paper (talk)

Estimating yield loss due to surface ozone using AOT40 for maize and soybean across South Africa's Highveld (Authors: Xander Oosthuysen*, Mogesh Naidoo and Rebecca M. Garland)

Best scientific paper winner

Monitoring of biological pollutants during the Comrades Marathon 2023 in South Africa (Authors: Dorra Gharbi, Nikiwe Ndlovu, Frank Harald Neumann, Henno Havenga, Keneilwe Podile*, Jemma Finch, Trevor Hill, Stuart Piketh, Roelof Petrus Burger)

We extend our sincere gratitude to the sponsors whose generous support played a pivotal role in making the 2023 Annual NACA Conference a resounding success. We would like to thank our sponsors, Air Resource Management, Airshed Planning Professionals, Ansyco, Argos Scientific, C&M Consulting Engineers, EnviroServ Waste Management, Eskom, Lakes Environmental Software, Mintek, Mine Dust Network, NMISA, North-West University, SACNASP, Shepstone & Wylie Attorneys, Skyside, SRK Consulting and Testo for their commitment to advancing environmental research and fostering collaboration. Whether participant roles ranged from researcher to policymaker, business leader, or dedicated member of society, the 2023 Annual NACA Conference offered an enriching platform for learning, contributing, and fostering positive change toward a cleaner and healthier environment which remains at the forefront of NACA's ongoing mission.