



the federation for a sustainable environment

The Role of the Federation for a Sustainable Environment

Introduction to the Federation for a Sustainable Environment

The FSE's Directors (in alphabetic order)



- Mariette Liefferink (CEO)
- Dr Mbali Mpanza (Non-Executive)
- Dr Koos Pretorius (Executive)
- Prof. Michael Solomon (Non-Executive)
- Prof Johann Tempelhoff (Non-Executive)
- Prof Dijby Thiam (Non-Executive)

The FSE's objectives in terms of its MOI

- Protecting and promoting environmental health and functional ecosystems for future generations;
- Ensuring that development involving the consumptive or destructive use of natural resources specifically benefit local residents and parties directly affected by the development;
- Informing all decision making in development, including planning and monitoring activities, that affect local people and natural and environmental resources;
- Promoting sustainable and just social development as an inseparable consequence of natural resource use development projects;
- Taking action, including legal action, to hold decision makers accountable in situations where development may have negative social, economic or environmental impacts that affect people and the environment;
- Ensuring that the total cost of the use of natural resources including all externalised and long term costs of maintaining ecosystem services to local people are provided for and borne by the project;
- Facilitating the remedying of existing environmental degradation;
- Mobilising collaborative national and local action among like minded entities.

Birth of the FSE

- The National Development Plan 2030 posits that “*active citizenry and social activism are necessary for democracy and development to flourish, to raise the concerns of the voiceless and marginalised and hold government, business and all leaders in society accountable for their actions*”.
- Aligned with the aim of this important policy the **FSE was inaugurated in 2007**.
- The Sunday Independent reported on September 9, 2007: “*The government and mining houses face a major challenge – and the strong likelihood of legal action - from a powerful new conservation alliance about to be formed by an array of environmental bodies that are concerned about the way precious parts of the natural environment are being destroyed... Renowned human rights lawyer George Bizos has pledged his support in his capacity as consultant to the Legal Resources Centre.*”

Birth of the FSE

- *“The formal founding of the Federation for a Sustainable Environment (FSE) for South Africa in October 2007 serves as an example of a **protagonist* progression towards environmental activism** which eventually also included traces of proactive activism actions... **either for immediate relief in over-utilised mined land, or to address conditions of environmental injustice such as acid mine drainage.***
- *“An objective of environmental activists was, and still is, to achieve tactical gains to change outdated mechanisms and ideologies regarding man in relation with environment. Also an **incompetency by governments of the day to respond timeously to scientific warnings and community concerns** as a result of capacity absences; a lack of skill and a conscious amnesia because of poor record keeping...”#*

*(A protagonist is the main character of a story. The protagonist makes key decisions that affect the plot, primarily influencing the story and propelling it forward, and is often the character who faces the most significant obstacles.)

The Extent of the FSE's Advocacy

- The FSE's advocacy included conducting hundreds of workshops; environmental tours and site visits; research in collaboration with national and international academic institutions; litigation; seminars; conferences; participation in governmental and academic task teams; steering and advisory committees, and forums; press releases and interviews with national and international news media; documentaries; protest marches; and extensive engagements with government and mining companies within the Witwatersrand goldfields, the North West Province, Limpopo and Mpumalanga.
- In addition, the FSE regularly conducts, in co-operation with mining companies within the West and Far West Rand, **community social and environmental programmes**
- The FSE, in collaboration with ICMM members, engaged project affected communities on the Global Industry Standard for Tailings Management (GISTM) and to:
 - Inform interested and affected parties of the hazards, risks and impacts of tailings and tailings storage facilities;
 - How to minimise the risks to communities from tailings and tailings storage facilities;
 - Prepare the host communities in the event of a catastrophic failure of a tailings storage facility; Involve interested and affected parties in decisions regarding closure and closure objectives, post-closure and future land use.

The FSE's advocacy contributed to *inter alia*:

- Multiple research projects and the publication of scholarly papers and books e.g.

- International Human Rights Clinic. Harvard Law School, 2016. "The cost of gold. Environmental, health and Human Rights Consequences of Gold Mining in South Africa's West and Central Rand"
- "Acid Mine Drainage in South Africa. Development Actors, Policy Impacts, and Broader Implications." Suvania Naidoo. ISBN 978-3-319-44434-5
- "Uranium from Africa. Mitigation of Uranium mining impacts on society and environment by industry and governments." Fleur Scheele (WISE & SOMO) June 2011 ISBN: 978-90-71284-82-3
- "Some human actions in the destruction and construction of culture and nature – the Merafong region as a case study" (Prof. E. van Eeden. The Journal for Transdisciplinary Research in Southern Africa, Vol. 2, No 2)
- "Protagonist and proactive environmental activism towards addressing acid mine drainage and remediation needs in some Gauteng goldfields". 2011. (Prof. Elize van Eeden)
- "Rights Mobilization in South Africa in the context of acute environmental harm: The case of Acid Mine Drainage on the Witwatersrand basin" - Jackie Dugard, Jennifer Macleod and Anna Alcaro
- "Public Opinion and Interest Group Politics: South Africa's Missing Links." ISBN: 978-0-7983-0292-0. Chapter 10: "Interest groups at work: Environmental activism and the case of acid mine drainage on Johannesburg's West rand" – Nikki Funke, Shanna Nieaber, Christine Gioia. Council for Scientific and Industrial Research.
- "Implications of Environmental Risk in a Divided Society: The Case of Acid Mine Drainage on the West Rand, South Africa, as an Example of a Risk Society". Michael Edmeston. 2010.
- "Environmental Justice and Human Rights on the Mining Wastelands of the Witwatersrand Gold Fields". Tracy-Lynn Humby Associate Professor, School of Law, University of the Witwatersrand, Johannesburg, South Africa. 2012.
- "Study of geo-contamination related to acid mine drainage in the West Rand, as a result of South Africa's gold mining industry". C. Allison, H. Coetzee, M. de Wit. Nelson Mandela Metropolitan University, South Africa. Council of Geoscience, South Africa.
- "Red Water. Acid Mine Drainage, Failin g Sewage and the National Water Act Today. Lexis Nexis: Business Series. Douglas Shaw. 2011.
- "Surfaces and externalities: acid mine drainage on the Witwatersrand, South Africa". New South African Review (2011) (Johannesburg: Witwatersrand University.) David Fig.
- Case study on Extractive Industries prepared for the Lancet Commission on Global Governance - Report from South Africa compiled by Sophia Kisting, Eugene Cairncross, David van Wyk and Mariette Liefferink. Additional authors: Anne Emanuelle Birn, Baijayanta Mukhopadhyay, Lexi Bambas Nolen, Farah M Shroff) (2013).
- The World Health Organisation's International Agency for Research on Cancer: "Environmental Radiation Exposure resulting from the mining industry's activities and risk of radiation-related cancers in South Africa". 2013.
- Prof. Tracy-Lynn Humby, School of Law, University of the Witwatersrand, South Africa. Research Project titled "Facilitating dereliction? How the South African legal regulatory framework enables mining companies to circumvent closure duties" and environmental justice paper on "Land, Water and the Environment. The politics of rights."
- After the Mines. Jason Larkin. ISBN 9790987042934.
- Disrupted Landscapes. Jake Brink. 2018
- Insidious Waters. Louise Kritzinger. 2012.
- Legacy of the Mine. Ilan Godfrey. 2013.
- Tales from the City of Gold. Jason Larkin. 2013.
- Lost and Found in Johannesburg. Mark Gevisser. 2014.

The FSE is/was a member of:

- Interdepartmental Inland Water Ecosystem Liaison Committee (Current)
- South African Human Rights Commission's Section 11 Advisory Committees on Artisanal and Small Scale Mining, Acid Mine Drainage, Underlying Socio-Economic Challenges of Mining Affected Communities in South Africa
- South African Human Rights Commission's appointed Human Rights Monitor and Champion
- Water and Sanitation Sector Leadership Group SDG6 Task Team (Current)
- National Water Monitoring Committee
- Department of Water and Sanitation's Project Steering Committee's "Studies on Cleaner Technology Options for Water Quality in South Africa" (2023)
- Project Steering Committee: Environmental Management Framework for the Bonjanala District Municipality (North West Province, South Africa). (2017)
- Board of the National Nuclear Regulator (Appointment by the Minister of Energy) (2009 – 2012)
- NNR's Board Transformation and Development Committee (2009 – 2012)
- Steering Committee: National Environmental Impact Assessment and Management Framework (Department of Environmental Affairs)
- Regional Steering Committee of the Catchment Management Agency for the Vaal River (Department of Water Affairs.)
- Implementation Task Team: Remediation Action Plan for the Wonderfonteinsspruit Catchment Area (National Nuclear Regulator and Department of Water Affairs)
- Department of Water Affairs' study steering committee on the Feasibility Study for a Long Term Solution to Address the Acid Mine Drainage Associated with the East, Central and West Rand Underground Mining Basins
- Department of Water Affairs' Expert Steering Committee for the Resource Quality Objective Determination Study for the Upper and Lower Vaal Water Management Area/
- GDARD Steering Committee for the Reclamation of Mine Residue (Gauteng Department of Agriculture and Rural Development)
- Department of Water Affairs' Steering Committee for the Classification of Significant Water Resources in the Upper, Middle and Lower Vaal Water Management Areas (Department of Water Affairs)
- Department of Water Affairs' Steering Committee on the Classification of significant water resources in the Mokolo and Matlabas catchments: Limpopo Water Management Area and Crocodile (West) and Marico WMA: WP 10506/
- Strategy Steering Committee on the Department of Water Affairs' Crocodile West Water Supply System Reconciliation Strategy (Directorate: National Water Resource Planning)
- Convener of the Public Involvement and Participation component of the remediation programme for the Wonderfonteinsspruit Catchment Area (National Nuclear Regulator and Department of Water Affairs)
- Human Rights Commission's Section 5 Advisory Committee on Mining and Water (Human Rights Commission)
- Department of Water Affairs' Wonderfonteinsspruit/Loopspruit Forum Management Committee
- Department of Water Affairs' Executive Kromdraai Forum Committee

The FSE's advocacy contributed to *inter alia*:

- Multiple research projects and the publication of scholarly papers and books e.g.
- “Rehabilitation of Mine Contaminated Eco-Systems.” Lambert Academic Publishing. Mariette Liefferink. ISBN 978-3-330-03076-3
- International Mine Water Association. Cape Breton University. Mine Water and Innovative Thinking (2010) “Proactive environmental activism to promote the remediation of mined land and acid mine drainage: a success story from the South African goldfields.” Mariette Liefferink and Elize S van Eeden
- “Current reclamation of historical uranium tailings dams and sand dumps – exacerbating the mess or minimizing the mining footprint? Case studies within the Witwatersrand goldfields.” 2014. Uranium Mining and Hydrogeology 2014 (UMH VII) Technische Universität Bergakademie Freiberg Faculty of Geosciences, Geoengineering and Mining Institute of Geology. Freiberg – Germany. ISBN 978-3-319-11058-5; ISBN 978-3-319-11059-2 (eBook)
- “Lancet Commission on Global Governance: Case study on Extractive Industries” – Report from South Africa compiled by Sophia Kisting, Eugene Cairncross, David van Wyk and Mariette Liefferink. 2013.
- Schonfeldt SJ, Winde F, Albrecht C, Kielkowski D, Liefferink M, Patel M, Stoch L, Whitaker C, Schüz J (2014): Health effects in populations living around the uranium gold mine tailings in South Africa: gaps and opportunities for research. Cancer Epidemiology, 38, 628-632, <https://www.ncbi.nlm.nih.gov/pubmed/25023081>
- “Assessing the past and the present role of the National Nuclear Regulator as public protector against potential health injuries: The Far West Rand as case study.” 2012
- “A historiography on past scientific research and references to environmental health concerns in the Merafong gold mining region of South Africa “. 2010. (Prof. Elize van Eeden, Prof. Eric Nealer, Mariette Liefferink.
- “Proactive environmental activism to promote the remediation of mined land and acid mine drainage: a success story from the South African goldfields” (International Mine Water Association, Canada. 9 September, 2010). Mariette Liefferink.
- “Past and Present Action of Environmental Heritage by NGOs in the Controversial Wonderfontein Catchment, Gauteng – a Critical Assessment” (New Contree, Volume 53. May, 2007);
- “Environmental management complexities and rumours impeding the effective application of scientific research and results to address possible health risks in the West Rand gold mining region of South Africa” (Prof. Elize van Eeden, Prof. Eric Nealer, Mariette Liefferink)
- “An historical assessment of NGO-efficiency in progressing towards a sustainable environment heritage focus, with as case study the Wonderfontein Spruit Catchment, Gauteng.” Prof. Elize S. Van Eeden & Mariette Liefferink
- “Looking at co-operative governance through the lens of acid mine drainage on the West Rand”. ELA Conference (May, 2009. Tracy Humby (Wits Law School, Witwatersrand University) and Mariette Liefferink

The FSE's advocacy contributed to *inter alia*:

- Multiple research projects and the publication of scholarly papers and books e.g.
- “Legal issues concerning mine closure and social responsibility on the West Rand.” E.S. Van Eeden School for Basic Sciences, Vaal Triangle Campus, North West University, University of Johannesburg, M. Liefferink CEO: Federation for a Sustainable Environment, J.F. Durand Department of Zoology
- “Environmental ethics and crime in the water affairs of the Wonderfontein Spruit Catchment, Gauteng South Africa”. Elize S van Eeden (School for Basic Sciences, North-West University), Mariette Liefferink (Environmental Activist, Johannesburg), Elise Tempelhoff (Journalist, Beeld)
- “Rehabilitation of mine contaminated eco-systems: A contribution to a just transition to a low carbon economy to combat unemployment and climate change.” Mariette Liefferink. Commissioned by AIDC. 2017.
- Community Engagement Research in South Africa. Histories, Methods, Theories and Practice. Chapter 14. Engagement with mining-affected communities: lessons learnt – a case study with the West Rand Goldfields. Mariette Liefferink. Van Schaik Publishers. ISBN 978 0 627 03793 1

The FSE's advocacy contributed to *inter alia*:

- Documentaries e.g. the multi award winning “Jozi Gold”



Source: WGFilm

- Governmental Interventions and Actions including amendments to and drafting of regulations, policies, strategies and laws e.g.
 - The feasibility study and publication of the Gauteng Department of Agriculture, and Rural Development's (GDARD) Report, dated July 2011, titled “Feasibility Study on Reclamation of Mine Residue Areas for Development Purposes: Phase II Strategy and Implementation Plan”.
 - The 2015 CSIR's Report on human health risk assessment of exposure to particulate matter and metals in soil at Tudor Shaft Informal Settlement, Mogale City.
 - The relocation of residents from Tudor Shaft Informal Settlement.
 - The SAHRC's National Hearings on the Underlying Socio-Economic Challenges of Mining Affected Communities in South Africa and its subsequent Report.
 - The establishment of a Section 11 Advisory Committee on Mining and the appointment of the FSE as a member of the Committee.
 - The NNR declaration in 2015 that “it is now time to attend to the areas where contamination exists but which are not under active operation, also called existing exposure situations. Some of these areas are currently used for residential dwellings or for farming activities, etc. The National Nuclear Regulator Act, Act 49 of 1999 (NNRA) is undergoing revision to include these historically contaminated sites under its ambit.” Two documents titled: “A Collaborative Framework for Remediation” and a “Proposed Funding Mechanism” were drafted by the NNR.

The FSE's advocacy contributed to:

- **Governmental Interventions and Actions e.g.**
 - The NNR's establishment of a laboratory to analyse samples from sites where radiological contamination is expected. It is also working on improving legislation, processes and procedures for addressing contaminated sites and the establishment of a database of all potentially contaminated sites.
 - The appointment of the Inter-ministerial Committee on AMD and the appointment of a Governmental Task Team on AMD, and the recognition and understanding of the urgency of the AMD issue and the scale of the problem.
 - The appointment of a Section 5 Advisory Committee on AMD by the South African Human Rights Commission (SAHRC) of which the FSE was a member.
 - The construction of neutralization plants within the West-, East and Central Rand and the short term treatment of AMD.
 - The Feasibility Study for a long term solution to address the Acid Mine Drainage associated with the East, Central and West Rand underground mining basins.
 - The DWS' Management of Mine Water Policy.
 - The establishment of the Directorate of Mine Water Management.
 - The drafting by the Department of Mineral Resources and Energy (DMRE) of the National Mine Closure Strategy and the inclusion of the FSE's submission on the existing loopholes.
 - Regulations for the Financial Provisions for Exploration, Prospecting and Mining (2015), which directs mining companies to make financial provision of residual or latent impacts which may only become known in the future, such as the pumping and treatment of extraneous or polluted water.
 - The DMRE's Artisanal and Small Scale Mining Policy.
 - Findings by the Parliamentary Portfolio Committee on Mineral Resources pursuant to the Committee's oversight visit of Mintails operations that the DMR has failed to implement effectively and carry out the intentions of Parliament to ensure that all mines rehabilitate the damage they cause.

Conclusion

- The environmental journey of the FSE can be described as a **marathon**, with challenges but also successes along the way.
- The FSE is grateful for the **awards** it has received, inter alia:
 - 2023: The Mail & Guardian’s Greening the Future Award (Mining Category).
 - 2023: The Department of Water and Sanitation the award for the most committed and influential member of the SDG 6 Water and Sanitation Sector Leadership Group.
 - 2019/2020 NSTF-South 32 Awards: Finalist – “In recognition of an outstanding contribution to science, engineering, technology and innovation”.
 - Gauteng Province (Health) and Rand West City Local Municipality: Certificate of Acknowledgement: Community Development (2019)
 - The Chancellor’s Medal of the North West University on the 9th of October, 2009
 - The SAB Environmentalist of the Year – Merit Winner. Nick Steele Award (2012)
 - Listed in the 2011 Mail and Guardian’s Book of South African Women: “The victories this book celebrates cannot be captured in trite slogans”.
 - Winner of the Enviropaedia Eco-Warrior Award (2011).
 - SAB Environmentalist of the Year – Winner (2013)
 - WESSA Lifetime Achiever Conservation Award (2016)
 - Environmental Award: West Rand District Municipality (2009)
 - The Rotary Foundation of Rotary International: Paul Harris Fellow (2015)
 - Habitat Council Conservation Award (Individual category) (2010)
 - Marie Claire South Africa’s 15 Leading Women (July/August 2012)
 - Exemplary Service Award: The Federation of Southern African Flyfishers (2012)
- The journey was not without opposition from government and the mining industry but in the words of Charles Mackay “...he who has mingled in the fray of duty, must have made foes... if you have none, small is the work that you have done...you’ve never turned the wrong to right, you’ve been a coward in the fight”.
- As the FSE matured over the years it transitioned from **confrontational and oppositional activism to strategic engagement and co-operation** with government, the mining industry, academics and the news media, **albeit still upholding its principles and values.**
- This **synergetic approach** has fostered a mutual understanding of the challenges and enhanced the prospect for the rehabilitation of degraded land to land use which conforms with the concept of sustainable development, and the responsible closure of mining operations.
- The FSE’s achievements cannot be capture in trite slogans. They are hard won.