Namibian Uranium Association

Annual Review

2019

Namibian Uranium Association

Promoting the Namibian Uranium Brand!

Namibian Uranium Association
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Foreword

Despite the fact that 2019 did not see any significant improvement in the uranium market, Namibia's uranium industry continued to prepare for increasing existing and starting new production when a recovery of the market will eventually happen. New exploration in particular saw positive results during the year, but the existing mines also had a rather eventful 2019.

Most prominently, Rio Tinto and China National Uranium Corporation Ltd (CNUC) concluded the sale of Rio Tinto's 68.92% stake in Rössing Uranium Ltd (RUL) on 16 July 2019. This sale marked a significant milestone for RUL. The company is now focussing on building on its strong and impressive history with a new owner who is firmly committed to the uranium industry for the long-term. The sale has allowed the business to maintain local employment levels, continue to support local suppliers and SMEs, and paving the way for the future life of mine for Rössing, which will positively impact on the Erongo Region and the country at large. As Rössing has opened a new chapter, it builds on the strong foundations of a world-class Namibian business leading the way on standards of safety and responsible environmental management. Following the sale and the move of Richard Storrie to another Rio Tinto entity, RUL was also able to welcome a new Managing Director, when Johan Coetzee took up office on 14 October 2019. He also took over the responsibility of Vice Chairperson of the Namibian Uranium Association, and will follow me as Chairperson in 2020. From a production point of view, RUL recovered 2449 tonnes of U_3O_8 in 2019.

At full production, Swakop Uranium's Husab Mine, which is partly owned by China General Nuclear & China Africa Development Fund (90%) and the remaining 10% by the Republic of Namibia's Epangelo Mining, has a design mining capacity of 15 million tonnes of ore per year, or 100 million tonnes of total tonnes mined from two separate open pits. The ore is fed to a processing plant with a nameplate design capacity of 6 000 tonnes U_3O_8 per year. The construction of the project commenced in October 2012, followed by mining activities two years later in 2014. The first ore was mined in mid-2015, resulting in the first production of U_3O_8 in December 2016, following the completion of plant construction earlier that year. Since the first U_3O_8 production, Husab Mine has been ramping up its operations from 3 571 tonnes U_3O_8 in 2018 to 4 010 tonnes U_3O_8 in 2019. To achieve the 2019 production, 11.3 million tonnes of ore were mined, and 8 million tonnes of ore processed through the plant. Production is forecasted to ramp up to 5 000 tonnes U_3O_8 by 2020. Currently, most of the product is supplied to the main shareholder's nuclear

power plants in China, an advantage which Husab has over other uranium operations. However, Swakop Uranium is continuing to seek for additional markets internationally for future market supplies when the metal prices recover.

Scheduled production suspension activities with the aim of preserving the Langer Heinrich Mine, equipment and the asset as a whole continued during 2019. Studies as to the feasibility have also been successfully completed during 2019. The studies identified inter alia improved economics and greater potential for capacity expansion. A review of on-site care and maintenance activities has also been completed. This review aimed to incorporate the production suspension experience and care and maintenance learnings in a new business improvement model. The business improvement model will contribute to the preparation for a restart of the mine and at the same time provide for assurance of risk management and to minimise holding costs. However a restart of Langer Heinrich Mine will only be considered when it secures a uranium term-price contract with sufficient tenure and value to secure an appropriate level of return to stakeholders.

Orano Mining Namibia's Trekkopje Mine is still under care and maintenance, with a small core team maintaining the site. Zhonghe Resources' activities were focused on potential resource evaluation and economic re-assessment for mining development. The Valencia uranium deposit has a definitive feasibility study and a mining licence in place, and is therefore construction-ready once the uranium price increases.

Reptile Mineral Resources & Exploration remained the most active explorer with extensive drilling programs carried out on both its Reptile and adjoining Nova JV projects. At Reptile investigations were successful focussed on evaluating the highly prospective Tumas palaeo-channel system. This resulted in a threefold increase in resources since new management took over three years ago with new discoveries and importantly the initiation of a Pre-Feasibility Study after a positive Scoping Study was completed in January 2020. At its NOVA JV project with its partner, JOGMEC exploration concentrated on testing both palaeo-channel and basement targets. Bannerman Resources continued to focus on mine and process optimisation at its flagship Etango Project. The Heap Leach Demonstration Plant was re-commissioned and has commenced operations to prepare pregnant liquor solution to use in follow up test work to advance the successful membrane study test work done. At the adjacent exploration license, reconnaissance drilling at the Ombepo prospect established the down dip extension of uranium mineralisation. Marenica Energy, who own the patented U-pgradeTM process and the Marenica uranium deposit under a Mineral Deposit Retention License, have during 2019 developed into the largest uranium tenement holder in Namibia. Drilling results on one of their licenses have revealed exceptional uranium mineralisation. Uranium One's Headspring Investments undertook an extensive drilling campaign in the south of the country in their search for in-situ leaching opportunities.

Internationally, uranium investors will remember 2019 as a disappointing year, with the sector besieged by continued uncertainty resulting from the Section 232 trade action in the US and tensions in Iran, influencing utility procurement decisions. Section 232 of the US Trade Expansion Act of 1962 gives the President of the United States the authority to enact restrictions on imports, if deemed necessary for national security. Uranium is a crucial resource for the United States. Through its use in nuclear power plants, uranium provides 20% of electricity used in the US every year. Yet US uranium production has decreased since its peak in the 1950s as a result of declines in the price of uranium as well as the ability of other countries to produce higher quality uranium. By 2018, US uranium mining was at its lowest level in 70 years. As a result, about 93% of the uranium used by the US comes from elsewhere, which makes the country vulnerable. In January 2018, two American uranium companies submitted a petition to the Department of Commerce for a quota that would guarantee 25% of uranium sold in the US to come from US uranium mines. However, on 12 July 2019, President Trump decided not to levy a quota on uranium imports, but rather appointed a working group to undertake a fuller analysis of national security considerations.

The report of the working group is still outstanding. Adding to this is the uncertainty concerning US sanctions in respect of Iran's civil nuclear power program. Following escalation of tensions in Iran, nuclear utilities are concerned that this may lead to critical constraints in uranium production, conversion, enrichment and fabrication of nuclear fuel.

The uranium spot price started the year 2019 at US$ 29.09 but sank to its lowest point in October at US$ 23.51. At the end of the year, it stood at US$ 24.88, clearly indicating that the expected recovery of the price did not take place, despite the announcement of Kazakhstan's uranium miner Kazatomprom to continue with its 20% curtailed production in 2019 and 2020. Nevertheless, the nuclear power industry had a good year, with its output exceeding the historically high 2011 levels and a good forward outlook. By the end of 2019, 450 nuclear power reactors were in operation worldwide, totalling 398.9 GW(e) in net installed capacity, an increase of 2.5 GW(e) since the end of 2018. Nuclear power generated around 10% of the world's electricity in 2019, or almost one third of all low carbon electricity, and was set to remain the second largest source of low carbon electricity after hydro power. The Namibian uranium sector is therefore on the right track, and looking forward to making its contribution to a future of clean energy, and Namibia, as a major uranium producer, will reflect decades later on the positive legacy for the country, communities and its people.

As the outgoing chairperson I would like to thank the Board of the Namibian Uranium Association for their support during my tenure, and I welcome the incoming Chairperson, Mr Johan Coetzee, and his Vice Chairperson, Mr Angula Kalili from Swakop Uranium, and wish them all the best!

Percy McCallum

Chairperson: Namibian Uranium Association

Carnotite

Our Members


CNNC
Rössing Uranium
Working for Namibia


LANGER HEINRICH URANIUM (PTY) LTD


CGN
Swakop Uranium


Reptile Mineral Resources
and Exploration (Pty) Ltd


ZHONGHE
RESOURCES


orano
Giving nuclear energy its full value


ERONGO
MEDICAL GROUP


Epangelo
Mining Company


VALENCIA
URANIUM (PTY) LIMITED


BANNERMAN
RESOURCES


Epiroc


CYMOT


MARENICA
ENERGY LIMITED


Medixx
HEALTH @ WORK


Headspring


MANICA
MANICA GROUP NAMIBIA


AAC&i
instrumentation


LOGISTICS
SUPPORT SERVICES (Pty) Ltd


GÜNZEL
DRILLING


RENT-A-DRUM
The Leading Organization in Waste Management Since 1989. (Pty) Ltd.


ADAMAS
Drilling & Exploration


WESBANK
TRANSPORT


iLogistics
(Pty) Ltd


3M


NOSA

1 Uranium mining in Namibia

Uranium minerals were first recognised in the vicinity of today's Rössing Mine in 1928. But it was not until Rio Tinto acquired exploration rights in the 1960s, that a number of low-grade ore bodies were discovered along the north side of the rugged Khan valley. After extensive test work, the Rössing Mine was opened in 1976. Following the establishment of the Rössing Mine and a global increase in the demand for uranium for nuclear energy production during the 1960s and 1970s, several other companies started uranium exploration in the central Namib. More uranium deposits were identified, but the uranium price slowly declined and hence no other mines opened up for a long time. This changed early in the new millennium, when increasing uranium prices allowed the opening of the Langer Heinrich Mine, which started production in 2006. It was also around that time that uranium prices reached an all-time high, and extensive exploration was undertaken once again in the western Erongo Region. In 2007, development of the Trekkopje Mine commenced. Assisted by high-resolution airborne geophysical data provided by the Geological Survey of Namibia, exploration led to the discovery of the Husab ore body, a world-class uranium deposit, now mined at the Husab Mine destined to become one of the World's largest uranium mines. In addition, the projects of Zhonghe Resources, Valencia Uranium, Bannerman Resources, Reptile Mineral Resources and Exploration, Marenica Energy, and Headspring Investments are in advanced stages of exploration and recovery test work.

Development of these projects into fully fledged mining operations is subject to an increase in the uranium price, as is the case with the Trekkopje and Langer Heinrich Mines, which had to be put on care and maintenance in 2013 and 2018 respectively. At Langer Heinich Mine, a pre-feasibility study for re-commissioning has had positive results. The uranium deposits of the central Namib belong to two main types, namely primary uranium mineralisation in light-coloured granite, so-called alaskite (Rössing, Husab), and secondary uranium mineralisation in calcrete (Langer Heinrich, Trekkopje). Secondary mineralisation is the result of weathering of rocks with primary mineralisation. Uranium-bearing alaskites have intruded the metamorphosed sediments of the Khan and Rössing Formations some 450 million years ago. The predominant uranium mineral in alaskite is uraninite [UO_2], but betafite [U(Nb,Ti)(OH)] can be a major mineral phase in some places. Secondary uranium deposits are found in calcrete which formed in palaeo-valleys of ancient rivers that flowed westwards from the Great Escarpment some 88 to 25 million years ago.

The main uranium mineral in calcrete is carnotite [$K_2(UO_2)_2(VO_4)_2 \times 3H_2O$]. It occurs as a thin film in cracks and as a coating on sediment grains in the calcretised fluvial channels. Both mineralisation types are amenable to open cast mining methods. In addition, Karoo sediments in the south of the country have shown potential for uranium concentrations amenable for in situ leaching.

Husab plant

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The Rössing Mine, the longest operating open cast uranium mine in the world, produced 2 449 tonnes of uranium oxide in 2019. The process of selling the majority shareholding of the mine by Rio Tinto to China National Uranium Company (CNUC) was concluded during the cause of the year, and effectively opened up a significant market in China. The first sales contract with China National Nuclear Corporation Limited (CNNC), the holding company of CNUC, was signed for product delivery in early 2020.

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Langer Heinrich Uranium

Drilling for uranium

The established exploration companies carried out a number of activities in 2019. Bannerman Resources continued to focus on mine and process optimisation at its flagship Etango Project. The Heap Leach Demonstration Plant was re-commissioned and has commenced operations to prepare pregnant liquor solution to use in follow up test work to advance the successful membrane study test work done. At the adjacent exploration license, reconnaissance drilling at the Ombepo prospect established the down dip extension of uranium mineralisation. Following extensive drilling, Reptile Mineral Resources & Exploration completed a scoping study at its Tumas Project, the positive outcome prompted the start of the pre-feasibility stage. Marenica Energy, who own the patented U-pgradeTM process and the Marenica uranium deposit under a Mineral Deposit Retention License, have during 2019 developed into the largest uranium tenement holder in Namibia. Drilling results on one of their licenses have revealed exceptional uranium mineralisation. Uranium One's Headspring Investments undertook an extensive drilling campaign in the south of the country in their search for in-situ leaching opportunities.

Bannerman membrane test work

2 The Namibian Uranium Association

The Namibian Uranium Association (NUA) is the representative body of the Namibian uranium industry.

Through research and provision of factual information, the NUA supports policies that let uranium compete as an energy source appropriate for our modern society, taking into consideration the need for a low carbon footprint as provided for in the Paris Agreement. Members of NUA include all Namibian uranium mining operations, most of Namibia's leading uranium exploration companies, and associated contractors.

The affairs of NUA are managed and controlled by a Board of Directors. During 2018, the Board was chaired by Percy McCallum, Swakop Uranium's Vice President for Human Resources and Business Support. The Vice Chair was Richard Storrie, Managing Director of Rössing Uranium, who left Rössing in October 2019 and was replaced by his successor at Rössing, Johan Coetzee. NUA is the leading point of contact for government, media, stakeholders, the general public and anybody interested in the position and policies of the Namibian uranium industry. NUA promotes industry's adherence to strong sustainable development performance, product stewardship and compliance with the Namibian legislative framework.

NUA Board of Trustees

- Percy McCallum, Chair (Swakop Uranium)
- Richard Storrie/Johan Coetzee (Rössing Uranium)
- Hilifa Mbako, (Orano Mining Namibia)
- Johann Roux (Langer Heinrich Uranium)
- Dr Zhao Xigang (Zhonghe Resources)
- Svetlana Bauer (Headspring Investments)
- Jessica Bezuidenhout (Marenica Energy)
- Werner Ewald (Bannerman Resources)
- Martin Hirsch (Reptile Mineral Resources and Exploration)
- Mike Leech (Honorary Member)
- Dr Gabi Schneider (NUI)

Strong Sustainable Development Performance in an Iconic Environment

2.1 Uranium Stewardship

Stewardship is an ethic that represents the careful and responsible management of things entrusted into one's care, and in the case of a mineral resource it means the responsible planning, and sustainable development and utilization of resources, while safeguarding the interests of all stakeholders. NUA members accept the responsibilities of uranium stewardship by building partnerships throughout the life cycle of the product to ensure that production, use and disposal are consistent with the global sustainable development goals. Uranium exploration and mining in Namibia takes place in a fairly concentrated area, and there are therefore cumulative impacts rather than individual impacts of isolated operations. The area is characterized by aridity, vast desert landscapes, scenic beauty, extraordinary biodiversity and endemism, and heritage resources. Large parts of it are in two National Parks, and an integrated approach is required to ensure co-existence of industrial activities and conservation, as well as tourism, hence exploration for and mining of uranium needs to be balanced with environmental protection values. In practice, accepting uranium stewardship is therefore the cooperation of all exploration and mining companies in Namibia, as their cumulative impacts cannot be addressed in isolation; the avoidance of unsustainable practices by individual companies, which could have a negative impact on the entire industry; the development and implementation of best practice guidelines for health, the environment, radiation, safety and security, and community issues; ensuring the sustainability of production, use and disposal as a social license to operate; ensuring that projects are technically appropriate, environmentally sound, and socially responsible; the integration of environmental, economic and social aspects from exploration through construction, operation to mine closure; and commitment to the responsible management of chemicals, ores, ore concentrates, through to the final product.

As part of its stewardship mission, NUA has established the Namibian Uranium Institute (NUI). NUI is guided by respected independent scientists who serve on NUA's Scientific Committee. The main purpose of the NUI is to act as a communication hub for the uranium industry in Namibia, and to promote knowledge and capacity building in specialised skills in the fields of environmental management, radiation safety and health. NUI therefore provides an opportunity for NUA members to work together to improve safety and health performance through the identification of world-class leading best practices and their implementation. As such, NUI is working closely with the Namibian government and state agencies, and also has close ties with the Namibian University of Science and Technology. From the start, exploration and mining companies involved in the Namibian uranium sector have fully recognized that managing environmental issues, radiation, health and safety, and waste is of paramount importance in order to protect staff, the general public and the receiving environment. Responsible management of uranium mining and processing applies at all stages from planning, exploration, development and construction to operations, sale, transport and finally decommissioning. This can best be achieved in a coordinated way with interaction of all players involved, and NUA has become the vehicle of choice to accomplish this.

Drilling at a license of Reptile Mineral Resources and Exploration

2.2 Environmental Responsibility

NUA works towards a balance of environmental protection values and exploration for and mining of uranium. The Association also addresses the social and cultural needs of communities in the area, people employed by the uranium industry, as well as business and economic imperatives of relevant shareholders. NUA promotes the principle of zero harm and universal adherence to the World Nuclear Association's policy document on uranium mining standards. It also ensures adherence to strong sustainable development performance through compliance and indeed active participation in the Strategic Environmental Management Plan implemented by the Namibian Ministry of Mines and Energy. NUA strongly supports a coordinated and joint strategic approach by industry and government to ensure sustainable economic development in the Erongo Region and beyond. NUA is also guided by Namibia's Vision 2030, the UN 2030 Sustainable Development Agenda, the African Consolidated Position on the UN Agenda, and the African Union Agenda 2063.

The Director of NUI is a member of the Environmental and Social Committee of the Chamber of Mines of Namibia, which is tasked, amongst others, to develop an Environmental Action Plan for the Chamber of Mines Strategic Plan. In 2019, the committee launched environmental best practise guides for the various stages of exploration and mining. Furthermore, in order to highlight the environmentally responsible way in which the industry operates, presentations were given on a regular basis, amongst others at the Australasian Institute for Mining and Metallurgy's Uranium Conference in Adelaide, Australia, at an International Atomic Energy Agency's workshop in Nanchang, China, at the South African Society for Occupational Medicine's Congress in Johannesburg, South Africa, to the Finnish Embassy in Namibia, and to the Namibian-French Business Association.

2.3 The Scientific Committee of the NUA

The Scientific Committee of the NUA comprises of members who are distinguished scientific professionals active in Namibia, and are appointed by the Executive Director of the NUI in consultation with the Board of Directors of the NUA for a two-year period. They guide the NUA on scientific and training matters, including, but not limited to the field of radiation protection, the environment and its sustainable management, occupational health and safety, and raising awareness on the afore-mentioned topics. They provide a platform for discussion, planning and reflection on all matters of relevance to the NUI and its management; ensure the scientific integrity of the information and data used by the NUI; and enhance the NUI's capacity for rational decision-making.

Members of the Scientific Committee

- Dr Detlof von Oertzen, Chair (VO Consulting)
- Dr Marius Mutorwa (NUST)
- Dr Gabi Schneider (NUI)
- Dr Herman Strauss (Medixx Namibia)
- Prof Christophe von Garnier (Bern University, Namibian Lung Clinic)
- Dr Theo Wassenaar (Gobabeb/NERMU)

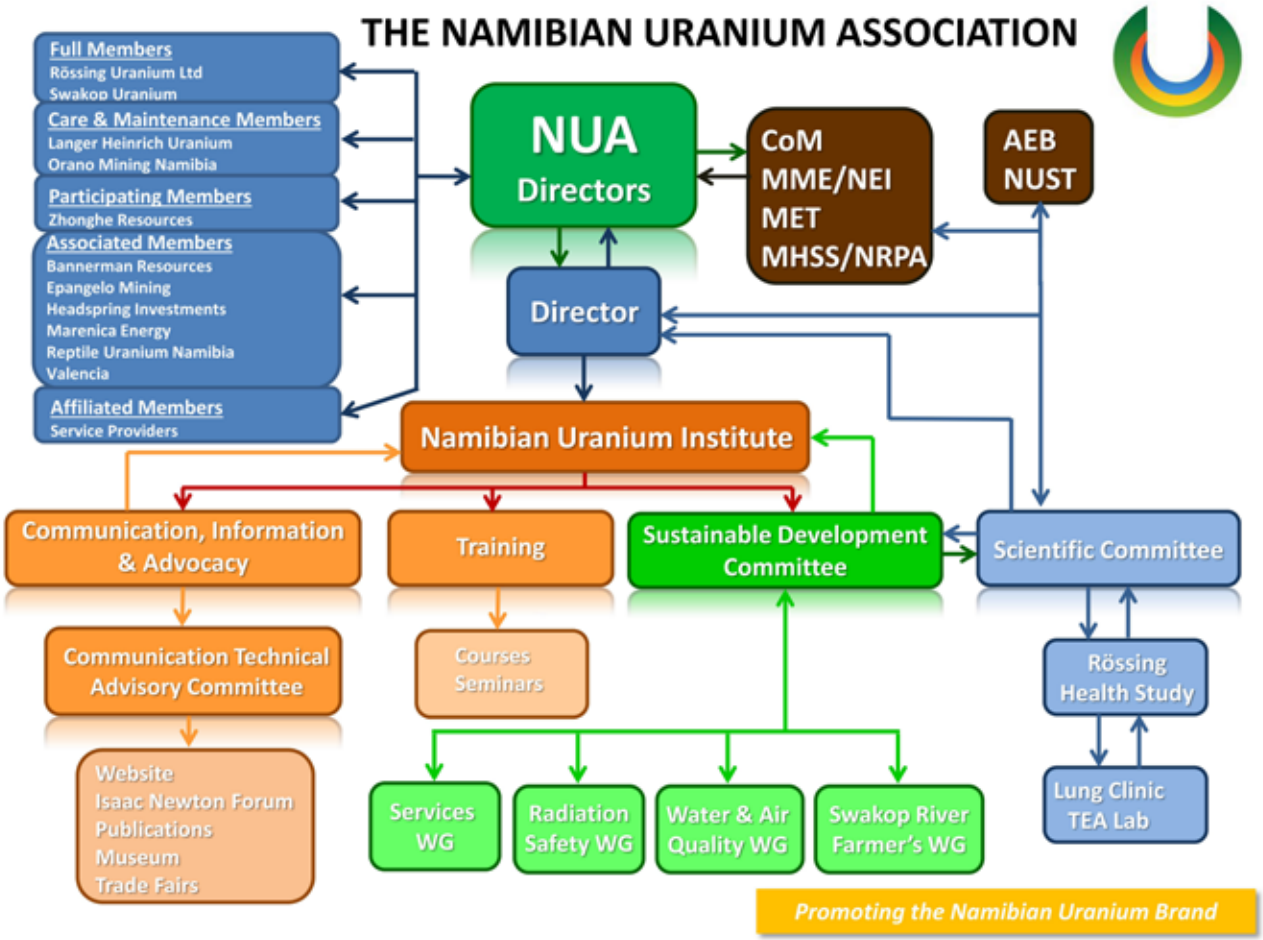
Ambient Air Quality Monitoring

2.4 Commitment to Sustainable Development

The concept of sustainable development is one of the cornerstones on which Namibia's Constitution is built. The United Nations Global Sustainable Development Goals (SDGs) are the basis for Namibia's fifth National Development Plan NDP5. In addition, Namibian uranium mining companies subscribe to the International Council on Mining and Metals' interpretation of sustainable development for the mining and metals sector, namely that investments should be technically appropriate, environmentally sound, financially profitable and socially responsible. It is therefore essential to integrate environmental, economic and social aspects through all phases of mineral production from exploration through construction, operation and mine site closure.

As a result, NUA has established a Sustainable Development (SD) Committee under the auspices of the NUI, in order to assist the organisation in promoting best practices with regard to health, environment, and radiation safety and security; and investigate any issue which could potentially negatively impact on Sustainable Development. The SD Committee's duties also include the assessment and monitoring of all risks associated with the uranium industry, and making recommendations to NUA in relation to risk management. The SD Committee is a standing committee, and has appointed four Working Groups to assist with specific topics.

Wind rows break dust generating air flow at Rössing's tailings facility


THE NAMIBIAN URANIUM ASSOCIATION
Full Members
Rössing Uranium Ltd
Swakop Uranium
Care & Maintenance Members
Langer Heinrich Uranium
Orano Mining Namibia
Participating Members
Zhonghe Resources
Associated Members
Bannerman Resources
Epangelo Mining
Headspring Investments
Marenica Energy
Reptile Uranium Namibia
Valencia
Affiliated Members
Service Providers
NUA
Directors
CoM
MME/NEI
MET
MHSS/NRPA
AEB
NUST
Director
Namibian Uranium Institute
Communication, Information & Advocacy
Training
Sustainable Development Committee
Scientific Committee
Communication Technical Advisory Committee
Courses
Seminars
Rössing Health Study
Website
Isaac Newton Forum
Publications
Museum
Trade Fairs
Services WG
Radiation Safety WG
Water & Air Quality WG
Swakop River Farmer's WG
Lung Clinic TEA Lab
Promoting the Namibian Uranium Brand

2.5 Information, Dialogue and Transparency

Sustained, factual and effective communication is essential in today's world. Given the situation that issues relating to the uranium industry are often evoking strong opinions which are often based on perceptions rather than on facts, NUA has an important role to play in the dissemination of accurate, verifiable and objective information. This is done in a number of ways.

The NUA website contains a wealth of information about the NUA, the NUI, the industry, leading practice, and our stakeholders. Information displays exist in the foyer of the Ministry of Mines and Energy in Windhoek, at the Swakopmund Museum alongside a geology display developed by NUA in cooperation with the Swakopmund Scientific Society, and at the NUI in Swakopmund.

The Isaac Newton Forum serves as a platform for information sharing at the NUI, and the following two talks were given in 2019:

- **Background to Recent Global Volcanic Activities**
  (Karl Hartmann, Hartmann Geoservices)
- **Critical Metals: From REE to Lithium and Cobalt – the last 8 years**
  (Prof Paul Nex, University of the Witwatersrand)
- **From Biotic Weirdness to the Modern World: Namibia 545 Million Years ago**
  (Prof Pat Vickers-Rich, Monash University)
- **Advanced Air Quality Management Study for the Uranium Industry in the Erongo Region**
  (Norwel Mwananawa, Geological Survey of Namibia)

AusIMM Uranium 2019 Conference

NUA participated in the Chamber of Mines 2019 Mining Expo in Windhoek with a combined booth representing all members. Interviews were given to Craemer Media – Mining Weekly and SmithWeekly, and presentations were provided for the Japanese International Cooperation Agency (JICA), the Centre for Global Education, Furman University, USA, students from the Department of Mining and Process Engineering of the Namibian University of Science and Technology, the Embassies of Finland and Germany, and the Namibian-French Business Association. Furthermore, the NUI Director participated by invitation in the Uranium 2019 Conference of the Australasian Institute of Mining and Metallurgy (AusIMM) and presented on "The Namibian Uranium Association, the Environment and Sustainable Development"; in the Congress of the South African Society of Occupational Medicine and gave a paper on "Management of Hazardous Substances for Beneficial Use: The Case of Uranium"; in a workshop of the International Atomic Energy Agency in Nanchang, China, on Deploying Technology and Management of Sustainable Uranium Extraction Projects, where she presented a paper on "Uranium in Namibia, the Namibian Uranium Association and the Namibian Uranium Institute"; and in the Woman in Mining Conference, where she addressed participants on "Working with the Chamber of Mines in Uplifting Woman in Mining".

2.6 Strategic Partnerships

NUA fosters a number of strategic partnerships in order to promote the Namibian uranium brand. Interaction with the Namibian Government is indispensable, and includes regulators such as the Ministry of Mines and Energy (MME); the Ministry of Environment and Tourism (MET); the National Radiation Protection Authority (NRPA) and the Atomic Energy Board (AEB), both within the Ministry of Health and Social Services MoHSS); as well as the Ministry of International Relations and Cooperation (MIRCO), with the Director of NUI serving as a member of the National Technical Working Group on Namibia's Application for membership of the Nuclear Suppliers Group. Contact is also maintained with the International Atomic Energy Agency (IAEA), and the NUI director in cooperation with MME contributed a Namibian case study to a forthcoming IAEA publication on milestones in the nuclear fuel cycle. The Government Mining Company Epangelo Mining is a member of NUA. A close relationship with the relevant municipalities, the Erongo Regional Governor and the Erongo Development Foundation guarantees that NUA keeps abreast with local developments and Corporate Social Responsibility requirements. Interaction with the parastatals NamWater, NamPower, TransNamib and NamPort ensures up-to-date knowledge about the provision of essential services.

The quality of training and research is addressed through interaction with the Namibian University of Science and Technology (NUST) and Bern University, Switzerland, with two members of NUA's Scientific Committee coming from these institutions. There is of course regular interaction with the Namibian Chamber of Mines, and the NUI director is a member of the Chamber's Exploration and Environmental and Social Committees. NUA is also a member of the World Nuclear Association (WNA), where the Director of NUI participates in a number of working groups, namely the Working Groups on Radiological Protection, on Waste Management and Decommissioning, on Transport, and on the Nuclear Fuel Report.

NUA is also a member of the Namibia Scientific Society, the Swakopmund Scientific Society (member of the board), and the Recycle Namibia Forum. Furthermore, the Director of NUI serves as Vice-Chairperson of the National Committee for the Implementation of the World Heritage Convention in Namibia, and as Chairperson of its Technical Subcommittee, which is an important partnership taking into consideration that NUA members are operating on the doorstep of the Namib Sand Sea World Heritage Site.

Ready to haul the ore

3 Corporate Social Responsibility

The Namibian uranium industry accepts Corporate Social Responsibility as a core business interest. It is the NUA's mission to support and expand the growing recognition that mining cannot move forward without embracing social and ecological best practices. Members of the NUA have therefore carried out corporate social responsibility projects for more than 3 decades, as they believe in making positive contributions to the society in which they operate.

The contributions speak for themselves when it comes to the unwavering commitment of the industry to the upliftment and improved living standards for all Namibians, even in these economically so challenging times for the uranium industry. Member companies invest directly in education, training, youth support, and economic upliftment of disadvantaged Namibians in close cooperation with the Erongo Development Foundation (EDF) and in full recognition of the aspirations of Namibia's Harambee Prosperity Plan (HPP).

The EDF in turn promotes and facilitates actions, programmes and objects that will foster equitable and sustainable development in the Erongo Region. The primary goal of the EDF is to advance funding to projects that have quantifiable social, cultural and economic benefits to residents and communities in Erongo Region. The key characteristic of EDF is the nurturing of a caring society (ubuntu) by facilitating investments in socio-economic projects with a focus on education, training and enterprise development.

NUA has supported EDF for many years and provides secretarial services to EDF. Channelling corporate social responsibility projects through the EDF ensures the members of NUA that their funds are well spent in order to address the needs of the local communities.

In support of the HPP pillars of Economic Advancement and Social Progression, NUA is fully recognising the importance of career guidance to effect economic transformation. The NUA therefore continued to distribute the NUA career guidance booklet which informs about careers in the mining industry, and assists learners in making their choice for the most suitable career path. Getting learners interested in a mining career will supply the mining sector with specialised skills in the long term, and contributes to the development of Namibia.

Project GIVE: Orano staff renovating a school science laboratory damaged by fire

4 Compliance and Enforcement

The Namibian uranium industry is subject to the provision of a number of legal instruments, in particular the Minerals Act, 1992 (Act 33 of 1992) the Atomic Energy and Radiation Protection Act, 2005 (Act No 5 of 2005) and its Regulations, the Environmental Management Act, 2007 (Act 7 of 2007), as well as international agreements such as the Convention on the Physical Protection of Nuclear Material, the Treaty on the Non-Proliferation of Nuclear Weapons, and the Comprehensive Nuclear Test Ban Treaty. Other commitments result from Namibia's membership of the International Atomic Energy Agency (IAEA).

NUA members are operating according to international best practice, as enshrined in the NUA's Constitution, the NUA's Charter, and the Chamber of Mines of Namibia Code of Ethics, to which NUA subscribes. They are setting a high standard through their commitment to product stewardship, and have at all times been in compliance with the instruments listed above. In addition, NUA's contribution to the implementation of the Ministry of Mines and Energy's Strategic Environmental Management Plan for the Uranium Province further ensures the industry's performance in the best interest of Namibia and her people.

Geophysical exploration at a license of Marenica Energy

5 Conclusion

2019 was yet another year with depressed uranium prices and uncertainty caused by events such as the Section 232 trade action in the US. The positive trend in the uranium price observed towards the end of 2018 did regrettably not continue, and for most of the year it hovered around US$ 25.00. Nevertheless, many analysts remain confident that the uranium market will make major gains in the not too distant future. They believe that major producers have been running inventories to very low levels, which has kept the uranium price from moving, but this is also causing undersupply in future markets, which should pave the way for a price increase. But until such time that this happens, the Namibian uranium industry will remain faced with economic challenges. However, despite this situation, the industry continued to be a major provider of jobs, with Swakop Uranium's Husab Mine now being the largest employer in the Namibian mining sector. Corporate Social Responsibility projects of NUA members did once again also in 2019 make a valuable contribution to the uplifting of living standards of the communities in which they operate.

A noteworthy development in 2019 was the fact that the International Energy Agency (IEA) in a report on nuclear energy concluded that without an expanded contribution from nuclear energy, the already huge challenge of achieving emissions reductions will become drastically harder and more costly. Not using nuclear power would have negative implications for energy security, and result in higher costs to the consumers. IEA recommended that policy reforms focus on designing electricity markets in a way that values the clean energy and energy security attributes of low-carbon technologies, including nuclear power. In addition, the International Panel on Climate Change (IPCC) had already at the end of 2018 highlighted the proven qualities of nuclear energy as a highly effective method of reducing greenhouse gas emissions, as well as providing secure and reliable electricity supplies. Over the last 60 years, nuclear energy has become a major source of the World's electricity. It now provides over 11% of the World's total, and has the potential to contribute much more, especially if continued priority is given to reducing carbon dioxide emissions. The Namibian uranium industry is positioned well to supply the World's nuclear utilities, and NUA is the perfect instrument to assure that this is done while sustaining global best practice in uranium exploration,

Extracting uranium at Husab