Namibian Uranium Association

Annual Review

2021

Namibian Uranium Association

Promoting the Namibian Uranium Brand!

Namibian Uranium Association
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Foreword

Contrary to expectations, 2021 did not bring the relief from the COVID-19 Pandemic that everybody had hoped for. Two more waves of infections hit Namibia with devastating effects on the economy due to lockdowns and other restrictions. Nevertheless, the Namibian uranium industry, by now well adapted to COVID-19 protocols and measures, remained once again resilient, applying rigorous safety and security measures, while constantly addressing the efficiency of operations. As a result, uranium exploration and mining continued to produce strong results and additional assets.

Rössing Uranium again had an excellent year, both in terms of safety and production, and celebrated 45 years of production. On the safety front, the company recorded an All Injury Frequency Rate (AIFR) of 0.29, beating the record of 0.31 set in 2020, which was the best performance the mine has recorded since commencing operations in 1976. The company exceeded budgeted production targets by a significant margin, as the 2 882 tonnes of U_3O_8 produced during 2021 represent a 16% increase compared to 2020. Rössing Uranium currently sells a portion of its product into an existing long-term contract portfolio, and the remaining available production is sold to the China National Nuclear Corporation (CNNC) Group. In 2021, 76% sales volume was delivered to Asia, of which 90% was sold to the majority shareholder CNUC/CNNC. The remaining 24% sales volume was delivered under the long-term contract portfolio to North America (16%) and Europe, Middle East and Africa (8%). This sales demographic is testament to the benefits achieved from the vertical integration into the CNNC Group, thereby enhancing Rössing Uranium's marketing footprint into China.

At full production, Swakop Uranium's Husab Mine has a designed annual mining capacity of more than 100 million tonnes. The ore is fed to a processing plant with a nameplate capacity of 15 million tonnes of ore per year and an annual output of 6 000 tonnes U_3O_8. The mine produced 3 902t U_3O_8 in 2021, which is just marginally above the 2020 production of 3 893 t U_3O_8. However, the mining operations recorded the highest production since inception of the mine. More than 102 million total tonnes were mined from the Zone 1 and Zone 2 pits, which represents a 44% increase above the 2020 production, putting Husab on an accelerated path to reach nameplate capacities in due course.

The Langer Heinrich Mine continued to be under Care and Maintenance during 2021. However, the mine's majority shareholder Paladin Energy has developed an accelerated schedule with an optimised project execution plan for the restart of the mine. The plan includes fast-tracking of first production once a decision to restart is made. Such a restart will include investment of about N$ 1.25 billion, and the plan is the result of extensive work that has confirmed the Langer Heinrich Mine as a low risk, robust and long-life operation.

Orano Mining Namibia's Trekkopje Mine remained under Care and Maintenance in 2021. Orano will be able to exploit the Trekkopje deposit once the recovery in the uranium market materializes at the required level, since 80% of the investments to develop the mine have already been made, and the advanced processing knowledge acquired through metallurgical testing has realized further potential for efficiency improvements. The Erongo Desalination Plant, Orano's major infrastructure investment, continued to contribute to water supply security in the Erongo Region. Orano's commitment to Namibia's development is set to continue to manifest itself in new investment opportunities, in addition to the continuation of established corporate social responsibility programmes.

Namibia's uranium exploration companies implemented a variety of projects in 2021. Bannerman Resources' Etango-8 Definitive Feasibility Study (DFS) progressed to plan, with flow sheet design and process plant geotechnical field work being completed. The target for the completion of the DFS is the third quarter of 2022. The environmental clearance certificate for the proposed Etango Uranium Mine was also renewed by the Ministry of Environment, Forestry and Tourism during 2021. The world class deposit is expected to deliver over 3.5 million lbs U_3O_8 per annum over an initial operating life of more than 14 years.

Following the completion of the Pre-Feasibility Study (PFS) for its Tumas project in early 2021, Reptile Mineral Resources & Exploration immediately commenced with a Definitive Feasibility Study (DFS) for the project. At the same time, intensive resource upgrade drilling continued resulting in an ore reserve increase for Tumas, which achieved the targeted increase in the life-of-mine from some 11.5 to 26 years to support the DFS. A Mining Licence has been applied for, and work on the Environmental Impact Assessment is at near final stage. The DFS is expected to be completed in the latter half of 2022. Drilling also continued exploring for basement related uranium targets both on the wholly owned Reptile Mineral Resources & Exploration licences and on those owned in joint venture with JOGMEG of Japan.

Elevate Uranium is also actively exploring in the Erongo Region. Drilling has been ongoing since mid-2021 and will continue through 2022. The company completed an airborne survey in the Namib Area during 2021 and scheduled another airborne survey further north for 2022. These surveys aim at locating palaeochannels potentially containing calcrete hosted uranium deposits, suitable to apply the company's patented ***U-pgrade***™ process. Resource definition drilling completed in 2021 at the Koppies project will be incorporated into a maiden mineral resource estimate, which is underway and expected to be completed in the first quarter of 2022. Elevate Uranium also holds the rights for the Marenica uranium deposit under a Mineral Deposit Retention Licence.

Zhonghe Resources (Namibia) Development's activities focused on the evaluation of their resource by starting an 800 m diamond drilling work contract, and carrying out a series of geological and geophysical surveys on some anomalies. Another drilling program for Zhonghe's mining licence area was designed and approved for implementation in 2022. Forsys' Valencia uranium deposit has a definitive feasibility study and a mining licence in place, and is therefore construction-ready once the uranium price increases. Core drilling of more than 39 000 m was done on the licences of Headspring Investments in the south of the country, where the company is looking for in-situ leaching opportunities. In addition, more than 9 800 samples were taken for analysis, and the Pre-Feasibility Study and Mineral Resources Estimates

reports were submitted to the Ministry of Mines and Energy during the course of 2021.

At the beginning of 2021, the uranium spot price stood at US$ 30.20, and started a steep increase to above US$ 50.00 in September. At the end of the year the price settled for US$ 42.05. This is equivalent to an increase of 39.2%, and it is further noteworthy that since the post-Fukushima low of US$ 18.00 in 2016, this is an increase of 134%.

Today about 10% of the world's electricity is generated by 440 nuclear power reactors, with 50 more reactors under construction, equivalent to approximately 15% of existing capacity. While nuclear power generation rebounded in 2021 and increased output by 2%, this nevertheless reversed only half of the decline in output that took place in 2020 due to the pandemic. So, what drives the price?

In June 2021, leaders of the G7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, the United States) committed to an overwhelmingly decarbonized energy supply system by the 2030s. They pledged to accelerate deployment of so-called zero emissions energy, which includes nuclear energy. The G7 agreement also undertook to fast-track progress on nuclear power in those countries opting to use it as part of a technology-driven transition to Net Zero. In the time leading up to the G7 Summit, Environment and Climate Ministers had reaffirmed that those countries with nuclear in their energy mix can recognize its potential to provide affordable low carbon energy and contribute to the security of energy supply as a baseload energy source.

The G7 Summit was followed by the COP26 conference in November 2021, which proved to be a landmark event for the nuclear industry, with the technology given a higher profile than ever before. A highly visible role was played by the International Atomic Energy Agency, with its Director General leveraging the Agency's position in the UN system by delivering the message that nuclear power is part of the solution to produce low carbon energy, and will also be so in the future. COP26 provided a clear platform to highlight the crucial contribution that nuclear power can make to climate change mitigation, energy security, and a just energy transition in the developing world. Consequently, several important announcements were made in connection with COP26.

China announced a plan to build at least 150 nuclear reactors in the next 15 years. In early 2021, China had already singled out nuclear power as the only energy source with specific targets in its 14th Five Year Plan, indicating the importance of nuclear power to China's goal of carbon neutrality by 2060. The US Congress passed a deal which included more than US$ 6 billion for the "Civilian Nuclear Credit Programme" to prevent premature retirement of existing nuclear power plants and U$ 2.5 billion for advanced nuclear reactors. The UK continued its clean energy transition towards nuclear power, with the Minister for Energy, Clean Growth and Climate Change announcing that the UK Government is on "a mission for fission". In addition to announcing a plan for re-industrialisation which includes a programme to demonstrate Small Modular Reactor technology and mass production of hydrogen from nuclear, the French President also declared that France will build new conventional reactors to aid the nation's goal to meet carbon emission targets. Furthermore, nuclear energy was confirmed as having the lowest lifecycle carbon emissions of any energy source, including renewables, by the United Nations Economic Commission for Europe in a report published in 2021.

On the supply side the World's largest and lowest cost uranium producer, Kazatomprom has produced less than budgeted due to supply chain issues caused by the pandemic. While Canada's Cameco re-started its Cigar Lake mine in northern Saskatchewan, its sister mine McArthur River remained under Care and Maintenance in 2021. Australia's Ranger Mine owned by Rio Tinto was already only processing stockpile material since 2012, but processing also stopped in January 2021, while Orano's Cominak Mine in Niger ceased operations due to the depletion of the ore in March 2021. The 2021 world production of 58 000 t U_3O_8 accounted for only 67% of the market demand of 87 000 t U_3O_8.

At the same time experts of the Organisation for Economic Co-operation and Development, the Nuclear Energy Agency and the International Atomic Energy Agency are predicting that global utility uncovered uranium requirements will rise from 5% in 2022 to 26% in 2025, to 60% in 2030, and to 80% in 2035. The largest uncovered requirements are in the USA (45% by 2025) and in Asia (44% in 2027). These deficits have the potential to drive the price, which at the same time will enable new uranium projects to be developed, taking into consideration that it is otherwise expected that beyond 2029, primary production will decline with the depletion of some ore reserves in Canada, Niger and Kazakhstan.

It is noteworthy, that price increases in 2021 have been supported by the launch of the Sprott Physical Uranium Trust, the world's largest fund investing in physical uranium. This has brought a growing number of new investors into the market, with both institutional and private investors counting on sharp price gains for the fuel as they rely on its projected role in cleaner energy generation. The fund has accumulated over 28 million lbs of U_3O_8, which is about 15% of the total yearly world demand, and currently has no intention of selling any of its holdings.

Uranium has been one of the few commodities to register two consecutive years of gains despite the pandemic, and analysts believe it is set to rise even more in 2022 — but by how much? A conservative forecast is that the spot price will continue to make big moves, two steps forward, one step back, until it hits at least US$60, but probably US$70.

With its advanced uranium exploration projects and ongoing new exploration, Namibia is positioning itself to be able to supply markets within reasonable time frames, as it is often underestimated how quickly past-producing projects can restart, as well as how fast new projects can be developed. Throughout 2021, the Namibian Uranium Association and the Namibian Uranium Institute kept on supporting the industry in its endeavours and in meeting environmental and socio-economic requirements through interaction with all stakeholders, high quality training, risk assessment and continuous development of best practises.

Johan Coetzee

Chairperson: Namibian Uranium Association

Our Members

CNNC Rössing Uranium
Working for Namibia

LANGER HEINRICH URANIUM (PTY) LTD
A Member of the Paladin Energy Ltd Group of Companies

CGN
Swakop Uranium

Epiroc

Reptile Mineral Resources and Exploration (Pty) Ltd

orano

ERONGO
MEDICAL GROUP

Epangelo Mining Company

VALENCIA
URANIUM (PTY) LIMITED

BANNERMAN
RESOURCES

CYMOT

elevate
uranium

Medix
HEALTH @ WORK

Headspring

ZHRND Zhonghe Resources
(Namibia) Development (Pty) Ltd

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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, Ministry of Mines and Energy, 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 Bannerman Resources, Reptile Mineral Resources & Exploration, Elevate Uranium, Headspring Investments, Valencia Uranium and Zhonghe Resources are in advanced stages of exploration and recovery test work. Development of these projects into fully fledged mining operations is subject to a sustained higher 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 feasibility study for re-commissioning has recently confirmed the economic significance of the Langer Heinrich deposit.

The ore at Langer Heinrich Mine

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 in economic concentrations.

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Ion exchange columns at Husab Mine

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Last not least, it is noteworthy, that price increases in 2021 have been supported by the launch of the Sprott Physical Uranium Trust, the world's largest fund investing in physical uranium. This has brought a growing number of new investors into the market, with both institutional and private investors counting on sharp price gains for the fuel as they rely on its projected role in cleaner energy generation. The fund has accumulated over 28 million lbs of U_3O_8, which is about 15% of the total yearly world demand, and currently has no intention of selling any of its holdings.

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Erongo Desalination Plant

Region. Orano's commitment to Namibia's development is set to continue with the established corporate social responsibility programmes.

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Drilling at a license of Reptile Mineral Resources & Exploration

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 2021, the Board was chaired by Johan Coetzee, the Managing Director of Rössing Uranium. The Vice Chair was Irvinne Simataa, Swakop Uranium's Vice President Mining Operations.

NUA Board of Directors

- Johan Coetzee, Chair (Rössing Uranium)
- Irvinne Simataa, Vice Chair (Swakop Uranium)
- Hilifa Mbako (Orano Mining Namibia)
- Johan Roux (Langer Heinrich Uranium)
- Yan Yue (Zhonghe Resources (Namibia) Development)
- Svetlana Bauer (Headspring Investments)
- Jessica Bezuidenhout (Elevate Uranium)
- Werner Ewald (Bannerman Resources)
- Martin Hirsch (Reptile Mineral Resources & Exploration)
- Mike Leech (Honorary Member)
- Dr Gabi Schneider (NUI)

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.

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 projects in Namibia take place in a cluster, 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. Many activities occur 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 therefore includes

- 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 licence to operate

Environmental research at the Husab Mine

- 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
- the commitment to the responsible management of chemicals, ores, ore concentrates, and 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 provide a platform for NUA members to work together to improve safety and health performance through the identification of world-class leading best practices and their implementation; 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 is therefore working closely with the Namibian government and its 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 is the vehicle of choice to accomplish this.

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 the respective 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.

Environmental clean-up campaign supported by Bannerman Resources

On environmental matters, the Director of NUI works in close cooperation with the International Atomic Energy Agency (IAEA), and is a member of a number of working groups of the World Nuclear Association, which also deal with environmental issues such as radiation safety and decommissioning of nuclear facilities. She is also a member of the Environmental and Social Committee of the Chamber of Mines of Namibia, which works towards expanding the industry's contribution to socio-economic development in Namibia, while preserving the natural environment and ecosystems that are impacted by mining operations. In 2021, work continued with UNESCO's Global Geopark Council, and the NUI Director was elected chair of Namibia's Geopark Interim Task Force, providing an opportunity to highlight the environmentally responsible way in which the industry operates within a proposed future Namibian Geopark. NUI provided information to the Ministry of Environment, Forestry and Tourism for the preparation of their management plans for the coastal national parks, in which part of the industry operates. NUA is also a member of the Recycle Forum Namibia.

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)
- Dr Nortin Titus (GSN/MME)
- Prof Christophe von Garnier (Bern University, Namibian Lung Clinic)
- Dr Theo Wassenaar (NUST)

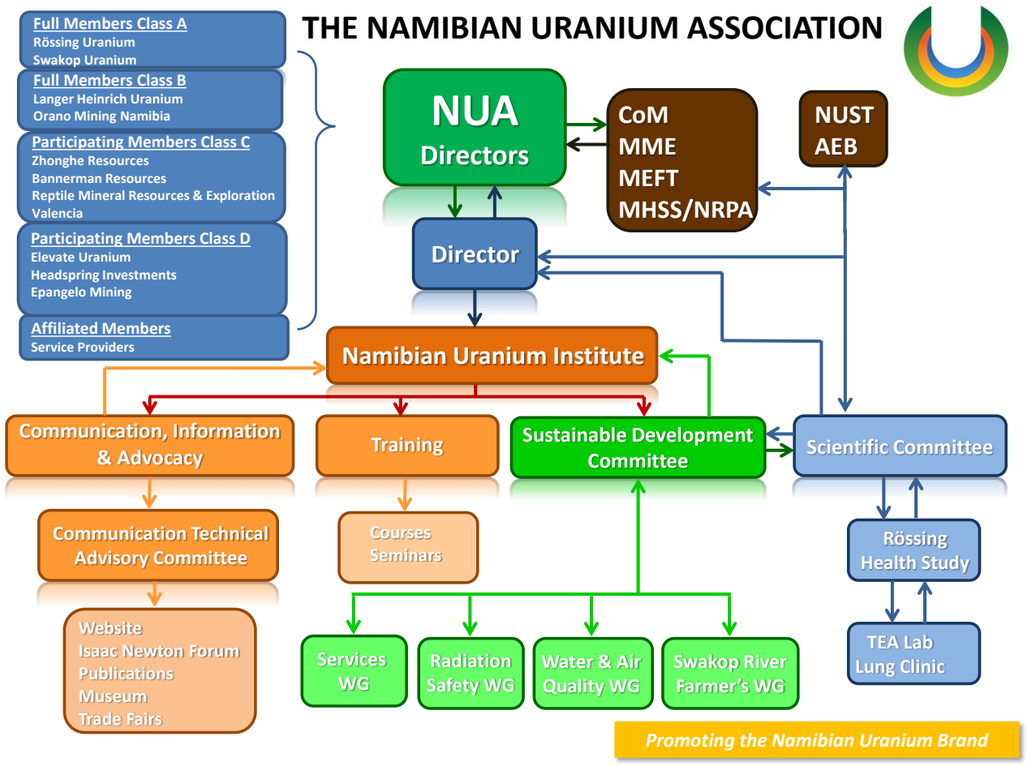
2.3 The Scientific Committee of the NUA

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.

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.

NUA has therefore put a Sustainable Development (SD) Committee in place 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.



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 frequently 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 four talks were given in 2021:

- **The violent impact of quarrying activities on the Namibian archaeological landscape: The case of Spitzkoppe and other Erongo Region sites**
  (Dr Alma Nankela, National Heritage Council of Namibia)
- **Sustainable Development: What is behind this catchword that everybody uses?**
  (Dr Gabi Schneider, Namibian Uranium Institute)
- **COVID-19 and Vaccinations: Current and Future Perspectives**
  (Dr Leonard Kabongo, Ministry of Health and Social Services, Erongo Region)
- **When Nuclear Waste becomes Waste**
  (Dr Nortin Titus, Geological Survey of Namibia)

Unfortunately, the Chamber of Mines 2021 Mining Expo in Windhoek and SWAITEX 2021 in Swakopmund had to be cancelled once again because of the pandemic. However, the Director of NUI co-authored two papers with members of the Radiation Protection Working Group of the World Nuclear Association, and contributed an invited paper to a UNESCO publication on geoscience sustainability entitled 'Mapping Geoscience to the UN SDGs – The Case of the Namibian Uranium Province'. Regular contributions were also made to the Chamber of Mines of Namibia's newsletter.

Presentations on NUA and NUI, as well as uranium mining and exploration in Africa were given to Women in Nuclear Namibia (WiNNa), the Geological Society of Africa, the Woman in Mining Conference, the 57th Meeting of the OECD/NEA-IAEA Uranium Group, the Women in Mining Association Namibia (WiMAN), and at a short course on African Metallogeny with a focus on energy minerals hosted by the Geological Survey of Namibia, the NUI, the Society for Geology Applied to Mineral Deposits (SGA) and UNESCO. Further presentations were given to a number of visitors to the NUI, namely the Finish Embassy, the Deputy Ministers of Finance and Mines and Energy, NUST-DMPE students, and the Australian High Commissioner.

Presentation at the Isaac Newton Forum

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, Forestry and Tourism (MEFT); 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. In response to the pandemic situation, NUA is also represented on the Regional Coordination Committee of the Erongo Region Directorate of the MoHSS. Contact is also maintained with the International Atomic Energy Agency (IAEA), and the NUI director has continued to work on a Namibian case study for 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 IAEA in Vienna

The quality of training and research is addressed through interaction with the Namibian University of Science and Technology (NUST) and Bern University, Switzerland, with three members of NUA's Scientific Committee coming from these institutions. There is of course regular contact 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 holds membership 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. The Director of NUI is furthermore serving on the scientific board of the UNESCO's International Geoscience Programme, and on UNESCO's Global Geopark Council.

Visit of Reptile Mineral Resources & Exploration licenses by the Hon Governor of the Erongo Region

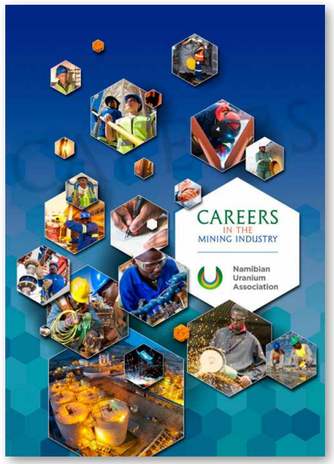
3 Corporate Social Responsibility

Swakop Uranium food donation

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 4 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 still 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 promotes and facilitates programmes that 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 the Erongo Region. The key characteristic of EDF is the nurturing of a caring society by facilitating investments in socio-economic projects with a focus on education, training and enterprise development. NUA has supported EDF for many years and continued to provide secretarial services to EDF, although the activities were severely hampered by the pandemic.

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. The booklet became even more important as the usual career fare could once again not be held due to the pandemic. 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.



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 are the result of 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 that the industry's performance is in the best interest of Namibia and her people.


Visit of the Hon Governor of the Erongo Region to the Rössing Uranium Mine

5 Conclusion

Uranium has been one of the few commodities to register two consecutive years of gains despite the pandemic, and analysts believe it is set to rise even more in 2022. What is the background to that?

China continues with its plans to build at least 150 nuclear reactors in the next 15 years in order to achieve carbon neutrality by 2060. The US Congress allocated more than US$ 8.5 billion to further nuclear power generation. The UK continued its clean energy transition towards nuclear power, and France is planning research on Small Modular Reactor technology, mass production of hydrogen using nuclear energy, and building of new reactors. The United Nations Economic Commission for Europe confirmed nuclear energy as having the lowest lifecycle carbon emissions of any energy source, including renewables. At the same time, the World's largest uranium producer Kazatomprom has curtailed production, Canada's McArthur River remained under Care and Maintenance, and Australia's Ranger Mine and Niger's Cominak Mine ceased operations. The 2021 world production of 58 000 t U_3O_8 accounted for only 67% of the market demand of 87 000 t U_3O_8.

Experts are predicting that global utility uncovered uranium requirements will rise tremendously. The resulting deficit has the potential to drive the price, which will enable new uranium projects to be developed. Namibia's endowment of uranium resources is available to make an important contribution providing fuel for nuclear power generation. Moreover, the Namibian Government is exploring ways and means to perhaps utilise this endowment at home in the future. The Namibian uranium industry already provides some 10% of the World's uranium, and stands ready to provide supply for an increased demand, while making valuable contributions to the uplifting of living standards of the communities in which the industry operates. Moreover, NUA members assure that such supply is explored for, mined, and processed in accordance with international best practice, the sustainable development goals and NUA's own stewardship principles.

Geophysical survey at a license of Elevate Uranium