



ANNUAL REVIEW

2020



Always learning, always improving the way we work

Namibian Uranium Institute

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FOREWORD



As we look back onto the year 2020, the COVID-19 pandemic comes to mind first and foremost. It has presented us with challenges hitherto unknown and unimaginable, and forced us to be innovative in order to continue with working towards fulfilling our mission. In Namibia, the State of Emergency was declared on 17 March 2020, and the Erongo Region was subsequently placed under an extended period of lockdown because of the initially high incidence of COVID-19 cases in that region. Offices had to close, and the Namibian Uranium Institute (NUI) was no exception. However, the Namibian Government soon declared certain activities to be essential services, and such activities included mining and scientific services. After application, the NUI was issued with an Essential Service Permit on 24 April 2020, and was able to open its doors again.

However, the modus operandi of our committees and working groups had to be changed to provide for social distancing and members who did not wish to attend meetings in person. NUI therefore acquired a Zoom license, and thereafter activities resumed. While virtual meetings can never be as interactive and productive as face-to-face meetings, they have given us the opportunity to involve representatives of members from abroad, which is a positive development. But the lockdown prevented us from doing the usual site visits, which negatively influenced some of our efforts. The work of NUI was also affected by the pandemic in many other ways, as additional duties, such as serving on the COVID-19 Coordination Committee of the Erongo Regional Office of the Ministry of Health and Social Services, and attending the Governor of the Erongo Region's weekly press briefings were added. Moreover, it had the very unfortunate effect that we were unable to carry out our usual training courses.

Stringent measures applied by the Namibian uranium industry resulted in a low incidence of COVID-19 cases, and the sector remained a backbone of the Namibian economy

in difficult times. This meant that NUI's mission to support the Namibian uranium exploration, mining and export industry through the continuous development of health, environmental and radiation safety best practices, accessible research, training and social responsibility also remained very valid. NUI therefore continued facilitating collaboration in environmental management and research between NUA members, supplying factual and scientifically sound information to NUA's stakeholders, identifying leading best practises, and thereby promoting the Namibian uranium brand.

NUI continued to advance an integrated approach to ensure that the development of uranium resources does not interfere with the opportunities provided by other economic activities, such as agriculture and tourism for example. This was achieved by working closely with all stakeholders in government, the private sector and civil society, and the implementation of the Strategic Environmental Management Plan jointly with government institutions is a point in case.

Regrettably, we lost a trusted colleague with the untimely passing of Rössing Uranium's Dr Bertram Schleicher in October 2020. He made countless contributions to the work of the NUI, served on the Sustainable Development Committee, was a valued member of the Radiation Safety Working Group

and taught certain modules of our Radiation Safety Courses. We miss his immense knowledge and profound willingness to share it, and he will not be forgotten. May his soul rest in eternal peace!

In closing, I would like to thank our stakeholders for their continuous support during this rather difficult year 2020, and in particular acknowledge the NUA Board, NUI's committee and working group members, and the NUI staff for their hard work and dedication. Active participation and cooperation of all participants in the Namibian Uranium sector have formed a powerful team that carries the message of responsible uranium exploration and mining inside Namibia and abroad.



Dr Gabi Schneider

Executive Director

Namibian Uranium Institute



The New Normal

1 THE HISTORY OF THE NAMIBIAN URANIUM INSTITUTE

1 The History of the Namibian Uranium Institute

The so-called Uranium Rush some 10 years ago resulted in the establishment of the Namibian Uranium Institute (NUI). Initially, a Uranium Stewardship Committee (USC) was formed in 2008 under the auspices of the Namibian Chamber of Mines, in order to promote the Namibian uranium brand and to identify and propagate appropriate best practices within the Namibian uranium industry. Subsequently, in 2009, the Chamber of Mines' Uranium Institute (UI) was launched with a focus on improving environmental management, radiation safety and health care.

In 2013, the Chamber of Mines identified the pressing need to review the situation following the Fukushima tsunami, in order to establish a sustainable management and service delivery entity that can effectively address the key issues faced by the Namibian uranium industry. As a result, the Namibian Uranium Association (NUA) was established, and the UI became the NUI operating under the auspices of the NUA.

From the beginning, exploration and mining companies involved in the Namibian uranium sector have fully recognised 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 to all stages from planning, exploration, development and construction to operations, sale, transport, export, and finally decommissioning. This can best be achieved in a coordinated way with the interaction of all players involved, and the NUI has become the vehicle of choice to accomplish this.

VISION

To be Namibia's leading source of advocacy, training and research on uranium related issues.

MISSION

To support the Namibian uranium exploration, mining and export industry through the continuous development of health, environmental and radiation safety best practices, accessible research, training and social responsibility.

VALUES

- Integrity: dignity, honesty, fairness
- Transparency: information, trust, clarity
- Accountability: responsibility, teamwork, leadership, engagement
- Compliance: both nationally and internationally



The NUI offices at the Swakopmund Medical Centre

2 COMMITTEES AND WORKING GROUPS OF THE NAMIBIAN URANIUM INSTITUTE

2.1 The Sustainable Development Committee

A so-called Sustainable Development (SD) Committee was launched by NUA in 2013 in order to assist the uranium industry in upholding its reputation as a safe and responsible industry. The committee was also established to assist NUA in promoting best practices with regard to Health, Environment and Radiation Safety and Security and in its oversight responsibilities by reviewing, monitoring, and when appropriate, advising NUA from a uranium industry-wide perspective. The SD Committee reviews procedures and guides NUA members to ensure that principles of sustainable development are incorporated into the policies that drive the performance of the industry. The guiding principle of sustainable development is development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. Sustainable development recognises the interdependence of environmental, social and economic systems and promotes equality and justice through people empowerment and a sense of global citizenship.

The SD Committee's duties include the assessment and monitoring of all risks associated with health, environment and radiation safety and security matters of the uranium industry; assistance with the development and implementation of internal compliance and control systems and procedures to manage risks; coordination of assessment and monitoring of the effectiveness of controls instituted; and the review and making of recommendations to the NUA in relation to risk management. Namibian uranium mining companies subscribe to the International Council on Mining and Metals' (ICMM) interpretation of sustainable development for the mining and metals sector, namely that investments should be technically appropriate, environmentally sound, financially profitable and socially responsible. Best practice, i.e. setting standards of operation and practice that maintain international standing and reputation is applied as it is critical for any mining company to gain and maintain its

“social license to operate” in the community. It is essential to integrate environmental, economic and social aspects through all phases of mineral production from exploration to construction, operation and finally mine closure. The SD Committee plays an important role in ensuring such best practise. In order to achieve its goals, the SD Committee has also appointed four working groups, namely the Services Working Group, the Radiation Safety Working Group, the Water and Air Quality Working Group, and the Swakop River Farmer's Working Group.

During the course of 2020, the SD Committee finalised work on the 2018/2019 SEMP report, and continued with the development of fact sheets. The implementation of the Policy on Exploration and Mining in Protected Areas was discussed with the Ministry of Mines and Energy and the Ministry of Environment, Forestry and Tourism. The potential of establishing calibration services for radiation monitoring equipment in Namibia was investigated, in order to fast-track the complicated procedure of sending such equipment abroad. On a regular basis, the SD Committee and its Working Groups investigated risks and any potential issue which could negatively affect Sustainable Development.

In recognition of the fact that uranium mining operations have special requirements when it comes to mine closure planning, the SD Committee formed a Mine Closure Planning Team comprising of representatives from each of the operating mines and the mines on care & maintenance. This team looked into stakeholder involvement, compliance with the new framework of the Ministry of Mines and Energy, guidelines for closure objectives and criteria, and post-closure institutional control. Unlike other mining operations, uranium mining operations have an additional regulator, namely the National Radiation Protection Authority, and therefore networking and information sharing with this regulator, as well as with the Ministry of Mines and Energy and the Ministry of Environment, Forestry and Tourism was addressed. The various standards and regulations of the International Atomic Energy Agency (IAEA) were also studied.

Members of the Sustainable Development Committee

- Frances Anderson, Chair (Langer Heinrich Uranium)
- Carlene Binnemann (Swakop Uranium)
- Werner Ewald (Bannerman Resources)
- Martin Hirsch (Reptile Mineral Resources and Exploration)
- Dr Katrin Kärner (Reptile Mineral Resources and Exploration)
- Sandra Müller (Orano Mining Namibia)
- Kaarina Nkandi (Orano Mining Namibia)
- Martinus Prinsloo (Bannerman Resources)
- Dr Bertram Schleicher † (Rössing Uranium)
- Rainer Schneeweiss (RS Environmental)
- Dr Gabi Schneider (NUI)
- Ignatius Shaduka (Rössing Uranium)
- Dr Herman Strauss (Medixx Namibia)

The SD Committee and its Working Groups investigate risks and any potential issue which could negatively affect Sustainable Development.



Environmental monitoring

2.1.1 Services Working Group

The Services Working Group was established to address power and water supply issues, as well as infrastructure developments and maintenance, and waste management. Intermediate and long-term power supply security, the sourcing of sufficient quantities of bulk water at viable and cost-effective tariffs, waste management and transport infrastructure are the key issues this Working Group is dealing with. During 2020, the Services Working Group received regular feedback on the planned NamWaste hazardous waste disposal site, and studied the EIA scoping process for a new government desalination plant. The Working Group regularly considered the conditions of the roads in the region with an emphasis on the B2, and gave feedback to the Erongo Region Road Safety Forum. A presentation on the Omdel aquifer was given to the working group by NamWater. Procedures at Namport's new container terminal and their implications for uranium shipments were discussed with

Namport. The Working Group conducted a SWOT analysis, and developed a strategy based on the analysis, which emphasizes the prevention of scarcity of utilities, cooperation without affecting commercial interests, networking with stakeholders, and addressing wrong perceptions about the industry's use of services. Training for emergency response for accidents with hazardous reagent substances, waste management practises, and boosting the capacity of the Omdel wellfield was also considered.

Members of the Services Working Group

- Anca Burger, Chair (Rössing Uranium)
- Werner Ewald, Chair (Bannerman Resources)
- Frances Anderson (Langer Heinrich Uranium)
- Jessica Bezuidenhout (Marenica)
- Martin Hirsch (Reptile Mineral Resources & Exploration)
- John Kandjungu (Reptile Mineral Resources & Exploration)
- Hennie Lacock (Rössing Uranium)
- Sandra Müller (Orano Mining Namibia)
- Martinus Prinsloo (Bannerman Resources)
- Hennie Steyn (Swakop Uranium)
- Dr Gabi Schneider (NUI)



2.1.2 Radiation Safety Working Group

Uranium mining has the potential to contaminate the environment and to affect the health of workers and the public by exposing them to ionising radiation. Radiation safety in the Namibian uranium mining industry is therefore addressed by skilled professionals who competently manage radiation safety in the workplace and in the environment affected by uranium mining. Effective radiation protection guarantees minimal harm from ionising radiation to people and the environment. A structured uranium product stewardship program ensures that public fears about radiation are addressed factually and unemotionally. The Radiation Safety Working Group addresses the challenges associated with building and maintaining capacity in radiation safety in Namibia, and comprises members from exploration companies and the uranium mines in Namibia. The Working Group identifies issues relating to radiation protection that may potentially pose a risk to the industry; develops and promotes best practice guidelines for radiation protection in the uranium mining industry; suggests initiatives to promote awareness about radiation protection; and supports NUA in its initiatives towards building capacity in radiation protection.

The Radiation Safety Working Group started the year with an Emergency Spill Drill at the Namport facilities in Walvis Bay in February 2020. The scenario was that a reach stacker was hoisting a container filled with several drums of uranium concentrate. The container dislodged, resulting in it falling 6m to the ground. The container door broke open on impact and one drum containing uranium concentrate opened, causing a spill of uranium concentrate in the area. The objective of the drill was to demonstrate the emergency response capabilities of the relevant officials of the participating mines, as well as Namport. Affiliated members from the transport sector also participated. Members of the Radiation Safety Working Group and officials from the National Radiation Protection Authority (NRPA) observed the drill, and it was a mutually beneficial exercise which also gave the industry the opportunity to become familiar with the new container terminal at Namport.

Other issues addressed during the course of 2020 were assistance with the accreditation of the Trace Element Analysis Laboratory (TEA Lab); and liaison with the NRPA on uranium in urine testing, the storage of disused sealed sources, and the required period of radiological monitoring after mine closure. The Working Group also compiled a list of instruments that require calibration in order to assist the SD Committee in its efforts to establish calibration services in Namibia. Furthermore, NUI continued to assist the Ministry of Mines and Energy's Geological Survey of Namibia with its radon monitoring programme.

Members of the Radiation Safety Working Group

- Temwani Kayira, Chair (Langer Heinrich Uranium)
- Nelao Endjala, Chair (Rössing Uranium)
- Frances Anderson, (Langer Heinrich Uranium)
- Jessica Bezuidenhout (Marenica)
- Werner Ewald (Bannerman Resources)
- Efraim Ihemba (Swakop Uranium)
- Fulencia Louw (Swakop Uranium)
- Laurencia Mungunda (Reptile Mineral Resources & Exploration)
- Kaarina Nkandi (Orano Mining Namibia)
- Martinus Prinsloo (Bannerman Resources)
- Dr Bertram Schleicher † (Rössing Uranium)
- Dr Gabi Schneider (NUI)
- Hennie Steyn (Swakop Uranium)



Emergency Spill Drill at Walvis Bay harbour

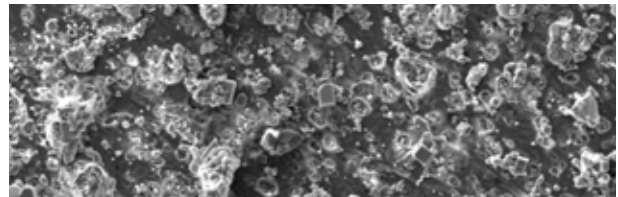
2.1.3 Water and Air Quality Working Group

The Water and Air Quality Working Group was established to address any negative impacts that the uranium operations may have, and the avoidance and monitoring of such, if any. The Working Group assists NUA members in promoting and sharing leading practices and transferring knowledge with regard to water and air quality management. It advises NUA and NUI from an industry-wide perspective, provides an opportunity to discuss and examine water and air quality related risks, and advises the Sustainable Development Committee on the co-ordination and prioritization of water and air quality risk management issues. The Working Group also encourages and fosters greater awareness of water and air quality risk management aspects at all levels in the uranium industry, which calls for the understanding of pressing issues and their effects in the longer term.

During the course of 2020, the Water and Air Quality Working Group submitted a paper on dust monitoring to the International Conference on Aeolian Research, which was accepted. Unfortunately the conference, which will be held in Swakopmund, had to be postponed to 2022. The Working Group also deliberated on the inspection criteria of the Department of Water Affairs (DWA), and addressed the Khan-Swakop River Groundwater Model, the regional water database, and air quality training. PM10 dust samples were collected in Swakopmund and analysed with a Scanning Electron Microscope at the Namibian University of Science and Technology (NUST), showing that no uranium compounds were present in the dust. A SWOT analysis was undertaken, and a Strategy and Action Plan was drawn up from the results of the analysis. The training programme with regular lectures continued, and the Working Group maintains a close working relationship with the Ministry of Mines and Energy's Geological Survey of Namibia.

Members of the Water and Air Quality Working Group

- Sandra Müller, Chair (Orano Mining Namibia)
- Frances Anderson (Langer Heinrich Uranium)
- Jessica Bezuidenhout (Marenica)
- Carlene Binneman (Swakop Uranium)
- Michael Binneman (Swakop Uranium)
- Stefaans Gaeseb (Rössing Uranium)
- Werner Ewald (Bannerman Resources)
- Martin Hirsch (Reptile Mineral Resources & Exploration)
- Julia Kamatoto (Rössing Uranium)
- John Kandjungu (Reptile Mineral Resources & Exploration)
- Vistorina Nangolo (Rössing Uranium)
- Kaarina Nkandi (Orano Mining Namibia)
- Martinus Prinsloo (Bannerman Resources)
- Rainer Schneeweiss (RS Environmental)
- Dr Gabi Schneider (NUI)
- Ilka Schroer (Swakop Uranium)



Scanning electron microscope analysis of dust



Testing of water at a Swakop River valley farm

2.1.4 Swakop River Farmer's Working Group

The Swakop River Farmers' Working Group is a special interest group that deals with NUI's stakeholders farming in the Swakop River valley downstream of the mining operations. Farming in the immediate vicinity of mining operations can potentially lead to conflicting situations, such as competition for water, or concerns about the water quality. Indeed, the Swakop River farmers utilise a source of groundwater for their irrigation schemes, which is also utilised to a certain, albeit small extent by the uranium mines, and a coordinated approach is therefore required. Meetings are held to give information about projects and mining operations to the farmers, as well as availing them an opportunity to raise any concerns they might have.

The work of the Swakop River Farmers' was in 2020 negatively impacted by the COVID-19 pandemic. The communication strategy developed by NUI's Communication Technical Advisory Committee in order to assist the farmers with marketing of their products could not be implemented because of extended lock-down restrictions. However, a stakeholder mapping exercise was carried out in preparation of a post-pandemic marketing event. The joint research with NUST on water infiltration and the soils of the Swakop River valley could only continue when the university re-opened in the second half of the year. Members were also updated on the dust analysis and the groundwater model.

Members of the Swakop River Farmers Working Group

- Werner Ewald, Co-Chair (Bannerman Resources)
- Valereis Geldenhuys-Venter, Co-Chair (Farm Owner)
- Frances Anderson (Langer Heinrich Uranium)
- Elbe Becker (Gobabeb/NERMU)
- Carlene Binneman (Swakop Uranium)
- Christine DeKlerk (Orano Mining Namibia)
- Siegfried Eckleben (Farmer)
- George Ellis (Farmer)
- Hartmut Fahrbach (Farmer)
- Sandra Müller (Orano Mining Namibia)
- Norwal Mwananawa (SEMP)
- Fanie van Niekerk (Farmer)
- Martinus Prinsloo (Bannerman Resources)
- Titus Shuuja (Gobabeb/NERMU)
- Dr Gabi Schneider (NUI)
- Trudi van Rooyen (Farmer)
- Robeam Ujaha (Swakopmund Municipality)
- Dr Theo Wassenaar (Gobabeb/NERMU/NUST)

2.2 The Communication Technical Advisory Committee

The Communication Technical Advisory Committee (C-TAC) was established in order to recommend to NUI the overall strategic direction of the institute's communications. It is an advisory committee tasked to advise and assist NUA through NUI in carrying out its mission and strategic plan by developing and monitoring communication protocols, initiatives and policies, and implementing a stakeholder engagement and communication strategy for the uranium mining industry in Namibia. This strategy can be described as a roadmap that aligns communications in support of NUI's vision, goals, values and priorities, thereby enhancing performance and reputation in a measurable way. It aligns specific groups of stakeholders, internally and externally, to act in support of each of these areas. The overriding objective of the strategy is to gain the public and stakeholders' recognition and respect as an industry that goes about its activities in a safe, environmentally-friendly and responsible manner. Other objectives are to co-ordinate communication by and between the various role players in the uranium industry; to ensure consistent communication and messages to all stakeholders; to develop a base of mutual trust and understanding with core stakeholders and key media personalities; to ensure factually correct information about the uranium industry and the uranium fuel-cycle; to address the many misconceptions about the uranium and nuclear power generation industries; to deal with negative publicity concerning the uranium industry; to highlight the socio-economic benefits of the uranium mining industry for the people of Namibia; and to create a channel of communication that encourages the public to raise any concerns they may have in connection with health, safety and the environment.

During 2020, the C-TAC dealt with a stakeholder mapping exercise for the Swakop River Farmers Working Group;

prepared for the Mining Expo, which unfortunately had to be cancelled; and assisted in the preparation of fact sheets. The main project, however, was the updating of the uranium displays at the NUI Training Centre, the Swakopmund Museum, and the foyer of the Ministry of Mines and Energy, which is expected to be completed in 2021.

Members of the Communications Technical Advisory Committee

- Frieda Abraham, Chair (Swakop Uranium)
- Frances Anderson (Langer Heinrich Uranium)
- Christine De Klerk (Orano Mining Namibia)
- Jessica Bezuidenhout (Marenica)
- Daylight Ekandjo (Rössing Uranium)
- Werner Ewald (Bannerman Resources)
- Martin Hirsch (Reptile Mineral Resources & Exploration)
- Kaino Nghitongo (Rössing Uranium)
- Helena Niimbala (NUI)
- Monika Ruppel (NUI)
- Dr Gabi Schneider (NUI)



The uranium display at the Swakopmund Museum

3 TRAINING

An integral part of NUI's activities is teaching in order to improve knowledge, safety and the implementation of best practises in the field of occupational health, environmental management and radiation safety. As part of its stewardship mission, NUI has developed partnerships with various service providers to develop standards, guidelines and training courses to cater for the needs of the uranium industry. NUI is officially registered with the Ministry of Labour, Industrial Relations and Employment Creation as an Approved Inspection Authority with competencies in the fields of health, environment and radiation safety and security in terms of the Regulations made under Schedule 1(2) of the Labour Act, 2007 (Act 11 of 2007).

Provision of training was severely impacted by the lockdown regulations and restrictions for public gatherings. Nevertheless, the following three courses were presented during 2020:

- Introduction to Radiation and Uranium for Members of the Public
- Radiation Safety for Sealed Sources
- Occupational Hygiene

The restrictions prompted the presenter of our Radiation Safety Courses to develop online training material, so that computer-based learning can be used in future if and when required.



Radiation Safety for Sealed Sources course participants

3.1 Introductory Radiation Safety Course for Persons Working with Naturally Occurring Radioactive Materials (NORM)

In view of the many different exploration and mining activities involving naturally occurring radioactive materials (NORM), including dimension stone (such as granite for example), rare earth minerals and many other mineral ores, and the increasing demand for an introductory radiation safety course, NUI's partner VO Consulting developed a new one-day training course. The course entitled 'Introductory Radiation Safety Course for Persons Working with NORM', presents the concepts of radiation protection, essential radiation safety requirements and how to minimise potential exposure to radiation when working with NORM.

The one-day training course is specifically suited for persons dealing with radioactive minerals other than those dealt

with in the uranium exploration and mining sectors. The course aims at informing potentially affected persons about radiation-related risks, how to monitor, manage and control them, and implement mitigation measures. It starts with an introduction to radiation, discusses the biological effects as a result of exposure to ionising radiation and covers the practical aspects related to applying radiation safety in the workplace. It also provides a short introduction to radiation monitoring equipment and how one can best minimise the risk of exposure to radiation when handling NORM. The course is tailor-made for the non-specialist dealing with NORM in the workplace.

Because of the COVID-19 pandemic, the course could not be offered in 2020, but will now be presented for the first time in 2021.



Participants of the Occupational Hygiene course

4 THE STRATEGIC ENVIRONMENTAL MANAGEMENT PLAN FOR THE NAMIBIAN URANIUM PROVINCE

Fourteen years ago, when prices for fuel for civil nuclear reactors were rising fast, resulting in a worldwide boom in uranium exploration and mining, the Namibian uranium industry recommended to the Namibian Government the undertaking of a Strategic Environmental Assessment (SEA) of the Namibian uranium province, where exploration for uranium was expanding rapidly. Subsequently, such an assessment was carried out by the Ministry of Mines and Energy's Geological Survey of Namibia, and provided vision and generated a culture of cooperation between the uranium mining industry, government and the public. The Strategic Environmental Management Plan (SEMP) was developed as a result of the SEA. It is an overarching framework and roadmap addressing the cumulative impacts of existing and potential developments and the extent to which uranium mining is impacting the central Namib, and it is implemented jointly by government and the industry since 2011. The SEMP has 12 themes, the so-called Environmental Quality Objectives (EQOs), each articulating a specific goal, providing context, setting standards and having a number of key indicators that are monitored. These themes include socio-economic development, employment, infrastructure, water, air quality, health, effect on tourism, ecological integrity, education, governance, heritage and future, and mine closure and future land use. Each EQO has a number of indicators that are assessed and placed into 4 categories, namely "met", "in progress", "not met" and "exceeded". NUI has been actively contributing to the compilation of the annual SEMP reports, and the 2018/19 report was launched in 2020.

The number of indicators met in 2018/2019 was the same as the initial figure in 2011. The lack of improvement was at least partly due to the significant number of indicators that could not be assessed because they are no longer applicable. However, there was a definite increase in the number of indicators that were "not met". The persistently high number

of outstanding issues suggests that more resources will be required if the desired outcome of the SEMP is to be achieved. There were fewer indicators in progress in 2018/2019, because projects were either completed, or it became clear that the indicator should be moved into the not met category, or it was found to be "met". The latest performance ratings can be summarised as follows:

- Four EQOs were 100% "met": Socioeconomic Development (EQO 1), Employment (EQO 2), Air Quality (EQO 5) and Heritage (EQO 11), except for some indicators that were not applicable
- The Water (EQO 4) indicators were mostly "met" with a small percentage "in progress"
- Mixed results ranging from "met" to "not met" were obtained for the following EQOs: Infrastructure (EQO 3), Effect on Tourism (EQO 7), Ecological Integrity (EQO 8), Governance (EQO 10) and Mine Closure (EQO 12).
- The least performing EQOs were Health (EQO 6) and Education (EQO 9) with a high number of indicators "not met".
- EQO 7 had the indicator regarding tourists' expectations of their visual experience in the Central Namib "exceeded" once again.

In view of the cyclical nature of commodity markets it is expected that the demand for uranium will increase in future. The implementation of the EQO targets therefore remains critical to ensure that the region is well positioned for future uranium mining projects. The full report can be downloaded from the NUA webpage.



Balancing exploration and conservation requires careful planning and management

5 STAKEHOLDER INTERACTION AND COOPERATION

Effective and regular communication is essential for every organisation, but this is especially true for the uranium industry, where factual information and transparency are crucial. There is thus a continuous interaction with NUA members, the Namibian government, local communities, the Namibian Chamber of Mines, NGOs, academic institutions and international partners such as the World Nuclear Association (WNA) and the International Atomic Energy Agency (IAEA). In support of local development, the NUI provides secretarial services to the Erongo Development Foundation (EDF) and hosts the EDF board meetings. Regular interaction with the Regional Governor takes place, and water and corporate social responsibility are central points of this interaction. NUI also serves on two bodies under the Erongo Regional Council, namely the Erongo Region Road Safety Forum and the Erongo Regional Disaster Risk Management Committee.

At the beginning of the pandemic, the Erongo Regional Office of the Ministry of Health and Social Services (MoHSS) created a COVID-19 Coordination Committee, and the NUI Director was appointed as a member of this committee in order to have liaison with the uranium mining industry. NUI was also invited to attend the Governor of the Erongo Region's weekly press briefings. NUI also participated and actively contributed to a landscape level study for the coastal parks undertaken by the Ministry of Environment, Forestry and Tourism.

Lectures on "Uranium in Africa – Current Situation, Prospects & Challenges" were presented to the African Commission on Nuclear Energy (Afcone) and Women in Nuclear Africa (WiNAfrica), and a presentation on Namibia's proposed Geopark was given to UNESCO. Articles were provided to four Chamber of Mines of Namibia newsletters, two Mining Weekly issues, and for a special volume on mining published by Namibia Media Holdings.

5.1 World Nuclear Association (WNA)

The WNA is the international organization that represents the global nuclear industry. Its mission is to promote a wider understanding of nuclear energy by producing authoritative information, developing common industry positions, and contributing to the energy debate. The membership of the WNA encompasses virtually all of the world's uranium mining, conversion, enrichment and fuel fabrication companies; all major reactor vendors; nuclear utilities providing 70% of world nuclear generation; major nuclear engineering, construction, and waste management companies, research and development organisations; and companies providing international services in nuclear transport, law, insurance, brokerage, industry analysis and finance. NUA is a member of the WNA, and NUI represents NUA at the different fora of WNA. In particular, NUI is a participating member of the Fuel Report Working Group, the Radiological Protection Working Group, the Transport Working Group, and the Waste Management and Decommissioning Working Group.

5.2 International Atomic Energy Agency (IAEA)

NUI has developed a close working relationship with the IAEA, and a course on stakeholder engagement in the uranium sector was planned by the IAEA in cooperation with the Ministry of Mines and Energy and the NUI to be held in Swakopmund during the course of 2020. Because of the COVID-19 pandemic, this course had to be postponed, and is now planned for the second half of 2021. However, NUI has also been contributing to a major publication of the IAEA, the so-called milestones document, and has assisted with the compilation of the Red Book. The institute is furthermore involved in the development of e-learning materials for the various milestones of the milestones document; and in the IAEA's African Regional Cooperation for Research, Development and Training Related to Nuclear Science and Technology (AFRA).



At the International Atomic Energy Agency in Vienna, Austria

5.3 United Nations Educational, Scientific and Cultural Organisation (UNESCO)

During the course of 2020, the NUI Director was appointed by the Director-General of UNESCO to serve on the Scientific Board of the International Geoscience Programme and on the UNESCO Global Geoparks Council. As the Namibian uranium industry operates on the doorstep of a World Heritage Site and close to Namibia's first proposed Geopark, this gives NUI an excellent opportunity to advance the relevant science and showcase the good cooperation between the industry, and the conservation, education and research sectors. Work with the local UNESCO Office to progress the proclamation of the proposed Geopark was also carried out.



Exploration in protected landscapes adds responsibilities

5.4 Geoscience Council of Namibia

The NUI Director has continued to serve as an elected member of the Geoscience Council of Namibia. During the course of 2020, the Council has embarked upon an outreach campaign to increase the awareness about geosciences.

5.5 Nuclear Suppliers Group (NSG)

The NSG is a group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of guidelines for nuclear and nuclear-related exports. The NSG Guidelines also contain the so-called "Non-Proliferation Principle," adopted in 1994, whereby a supplier, notwithstanding other provisions in the NSG Guidelines, authorises a transfer only when satisfied that the transfer would not contribute to the proliferation of nuclear weapons. Namibia recognizes the Nuclear Suppliers Group as a key role player in mapping the direction of the nuclear industry and guiding policy decisions of major international suppliers within the nuclear fuel cycle. In recognition of its role as a major supplier of uranium, Namibia has decided to apply for membership in order to promote and safeguard the country's interests. The NUI Director represents NUA, as well as the Chamber of Mines of Namibia on a Working Group of the Ministry of International Relations and Cooperation (MIRCO), but unfortunately the work of this group was severely curtailed by the COVID-19 pandemic during the course of 2020, as a planned visit by NSG executive members to Namibia could not materialise. It will only resume in 2021.



Fuel for the nuclear reactors of the World

6 CONCLUSION

The Covid-19 pandemic underlines the importance of electricity for society. Nuclear power has been an important provider of power system flexibility, helping to maintain electricity security by operating in a load-following mode in several countries around the globe. Indeed, nuclear energy has shown its ability to respond to decreased electricity demand during the lockdown as the only source of flexible and low-carbon baseload generation. The industry has demonstrated its flexibility and inherent safety culture during the COVID-19 crisis, and can play a key role in a low-carbon economic recovery.

The Intergovernmental Panel on Climate Change (IPCC) special report on Global Warming examined a large number of different scenarios for limiting global warming to 1.5°C. Scenarios achieving the target need a mean increase in nuclear energy's contribution to electricity generation of 2.5 times compared to today. The scenario in which social, economic, and technological trends require no major changes to our lifestyle needs nuclear

generation to increase by five times by 2050. The International Energy Agency (IEA) concluded that nuclear contribution must be expanded to meet the challenge of achieving emission reductions, and failing to do so will negatively affect energy security, and result in drastically higher costs for the consumers.

The post-COVID-19 economic recovery brings an opportunity to meet strategic goals including reducing carbon emissions and attaining a more sustainable environment. In planning such recovery, governments can take account of the low system costs of nuclear power, and the benefits to consumers and taxpayers. Namibia's endowment of uranium resources already makes an important contribution in providing fuel for nuclear power generation. The Namibian uranium industry today provides 10% of the World's uranium, and is ready to supply an increased demand, supported by NUI promoting knowledge and capacity building in specialised skills in environmental management, radiation safety, and health.



The NUI Team