



## **Annual Report and Accounts (Financial Statements)**

**For the Year ended 28 February 2019**



**THE GOBABEB TRUST**

**Trust Registration Number T53/98 (Namibia)**

## Message from the Chair of the Board of Trustees

It is my pleasure to report on behalf of the Board of Trustees, as to progress at the Institute during the 2018/2019 financial year. In this regard, I am happy to report that another successful year has been concluded – largely embodied by change and opportunity: amendments to the legal and organisational arrangements; and the exploration of new avenues for research cooperation.

On his retirement from Government Service as Permanent Secretary of the Ministry of Environment and Tourism (MET), Dr Malan Lindeque, stepped down as Chairman of the Gobabeb Board of Trustees. We acknowledge, with heartfelt thanks, his significant contribution during two terms of tenure. Not only did he steer the meetings of the Trust with a steady hand, we had the benefit of his wisdom and vast experience in the environmental sector that we could draw on, time and time again. His support to Gobabeb was driven by his quest to ensure a sustainable future for the Institute, while enhancing its global and national reputation as a premier research facility. His visits to Gobabeb were as much driven by his passion for the Namib, as by his personal commitment to see the Institute prosper. We trust that he will continue to champion the Gobabeb cause during the next chapter of his career.

During 2017, in adherence to good practice in organisational governance, the Chair directed that a review be undertaken of the legal and organisational frameworks for Gobabeb. The twenty-year arrangement that allowed for the operationalisation of the Gobabeb Trust expired in May 2018. This Joint Venture Agreement (JVA) was established in 1998 between the Trust, the MET and the Desert Research Foundation of Namibia (DRFN).

Facilitated by the Namibia Chamber of Environment and through extensive consultation with Trustees and stakeholders, the review process allowed for reflection on the achievements and challenges of the

previous arrangement, as well as strategic projection and repositioning to ensure the long-term sustainability of Gobabeb.

Upon completion of the review and endorsement by the Board, and approval by the Minister of MET, an amended and restated Deed of Trust was submitted to the Master of the High Court in December 2018 for registration. In compliance with the *Financial Intelligence Act 13 of 2012*, a Trust Administrator was appointed. We are pleased to welcome Ellis Shilengudwa Inc. to the Gobabeb fold, and greatly appreciate their willingness to provide this service *pro bono*.

An amendment to the governance structure of the Trust, as proposed, will allow for a broader representation of relevant organisations, and for specific skills and expertise to be identified and incorporated in this Body. As a consequence of this change, some longstanding Trustees will be required to step down. Provision has also now been made for the formal appointment of Patrons to serve Gobabeb in an advisory capacity.

A noteworthy consequence of the review is that Gobabeb will henceforth be known as Gobabeb – Namib Research Institute, the latter part of the full moniker clarifying the first. This new combination provides a geographic identifier and emphasises the core business of the organisation, viz. research. Prompted by many who provided input to the review, “Institute” lends much more credence and better encapsulates the longevity, reputation, and aspirations of Gobabeb.

The previous JVA has been replaced by a bilateral collaboration agreement between the Trust and the MET. This new twenty-year renewable agreement, clearly stipulates the roles and responsibilities of both Parties, particularly pertaining to the facilities at the Gobabeb campus in the Namib-Naukluft Park. The draft agreement has received legal scrutiny and is pending signature.

Within this context of some organisational uncertainty and imminent change, and the protracted process in registering the amended instrument by the Master of the High Court, it is pleasing to note that activities at Gobabeb continued unabated and focused.

The Executive Director will highlight some of the most significant operational achievements during 2018/19. What I would like to stress here, however, is that although Gobabeb has a noteworthy record of establishing robust and enduring technical networks, the Institute continues to reach out and engage in new research collaboration. The rate that these partnerships are expanding and diversifying is an exciting trend, and holds huge promise for the future. I have taken note of a broadening of horizons in the West (Aaniiih Nakoda Tribal College, USA) as well as in the East (Chinese Academy of Sciences). In global arenas, we are proud that our Gobabeb is already regarded as a centre of research excellence and a protagonist in science diplomacy.

Education, as an integral element of the research cycle, is another area in which Gobabeb continues to excel. Targeted training at tertiary level is a niche that Gobabeb fills competently. Exploring and adapting alternative methods of instruction for local circumstances, like MOOCs, is strongly encouraged in this digital age.

In appreciating the achievements over the past year, it is even more impressive when considering the limitations of the small staff complement on site. Many incumbents are recent graduates from local universities aspiring to pursue postgraduate studies. They bring an abundance of energy and passion that the Institute does well to nurture and develop. The level of professionalism, the spirit of duty, the dedication to service, connected by caring and camaraderie are clear to everyone dealing with the Gobabeb team. But, in order to remain responsive to an ever-changing context and to specifically

address emerging environmental issues, it is urged that Gobabeb should not neglect to review its needs for internal organisational structures, procedures and capacities. No room for complacency! Improved capacity to finance, plan, manage, implement and monitor research in the immediate and longer term are key to sustaining the Institute. However, underpinning all this effort would be to secure committed funding for infrastructure development and operations, and to devise and implement innovative funding streams to support research, without detracting from Gobabeb's core business.

Unfortunately, the economic contraction continued in 2018. Gobabeb, even with the introduction of austerity measures, will face serious challenges to continue its work. Simultaneously, Gobabeb management has to contend with an aging and deteriorating infrastructure, coupled with the pressure to expand facilities to adequately accommodate staff and science visitors. With no economic turnaround in sight, the Board has an important role to assist the Institute through the difficult times ahead. In this regard, we are grateful for the current support of development partners, corporate sponsors, grant awarding bodies and other funders for their financial contributions and advocacy in support of Gobabeb's vision and mission.

Personally, I have enjoyed a long and multi-faceted association with Gobabeb: firstly, as a student participating in two iterations of the flagship training programme, Summer Drylands Programme, and then for many years as a member of the Board of Trustees. I look forward to working closely with the Trustees and management of the Institute in this new capacity of Board Chairman – to take Gobabeb onward and upward.

I thank you.

**Teofilus Nghitila**  
**Chairman**

## Report of the Executive Director

Gobabeb is a catalyst for gathering, understanding and sharing knowledge of arid environments, with a mandated focus on the Namib Desert. Our vision is to contribute to a realisation of the universal value of the Namib Desert. It is within this context that we would like to share achievements during the 2018/19 financial year.

We continued to work within the limitations of a contracted economy, with no respite predicated for the short-term. This has mostly been felt in the reduced support from MET for infrastructure maintenance, and the lack of funds via the NCRST for our approved Research Capacity Building Grant. However, our workplan for the year took this into consideration when we conducted a zero-budgeting exercise, also introducing austerity measures, but at the same time aware that a parsimonious approach would cripple operations. Business thus continued and detailed information on activities and achievements is elaborated on page 8–15.

These achievements are due to the energy and hard work of our small team (page 18), supported by locally and internationally sourced interns, volunteers and students. The fluidity of staffing may have some challenges but has significant benefits in delivering a torrent of energy, enthusiasm and raw talent. We always hope that these short-term appointees leave Gobabeb (as they invariably do!) having gained science experience, acquired intercultural exposure and embedded the Namib deep in their hearts.

Our Research Coordinator, Dr Theo Wassenaar has taken up a position as Associate Professor in the Faculty of Natural Resources Management at NUST. Fortunately, he will continue his association with Gobabeb and will serve as Principal Investigator for the Namib Ecological Restoration and Monitoring Unit (NERMU). We are thrilled that he will continue to head up this specialist arm of Gobabeb. Theo was here at its creation, he

drove its evolution, and he has been extremely successful in sourcing funding for its operations. We regard his appointment at NUST as an opportunity to strengthen our affiliation with this particular tertiary training institution. So - as much as we should acknowledge his many years of intellectual investment, mentoring and networking at Gobabeb, we know that his new appointment is not a departure, just a different way of working together.

It is always encouraging when previous interns are eager to return to work for Gobabeb. We appointed a project coordinator from this pool; others were recalled to assist with discrete training and research tasks; alumni assisted as mentors for the YES; and two GTRIP interns and an SDP alumnus were identified to be supported for postgraduate studies. Staff are encouraged to pursue further studies during their tenure and five are currently registered candidates (2 Ph.D.; 3 M.Sc.). The number of student associates is also growing, and we are tapping a rich mine of fine young minds in UNAM and NUST for our various training offerings.

As always, our Board of Trustees were supportive and quick to respond to individual requests for assistance from management. Despite heavy workloads and commitments, which made it always challenging to meet, Trustees remained invested and engaged in Gobabeb's affairs. During the review process, Trustees offered candid opinions and helpful insights as to their perspectives on the way forward. In navigating the legal complexities of registering the amended and restated Deed of Trust for Gobabeb, we often had to call for assistance from those with institutional memory as well as the influence to push forward the process. I am personally grateful for the solidarity during a sensitive time. As we move into a new era with a largely different set of Trustees, I hope that the outgoing Trustees will continue to champion the Gobabeb cause and retain links with the

Institute that they served so loyally, for so long.

We were saddened by the untimely passing of Trustee, Chief Seth Kooitjie on 25<sup>th</sup> January 2019. As traditional leader of the #Aonin Nama (Topnaar) for some 39 years, Chief Kooitjie was an influential presence along the Lower Kuiseb. He was a strong and charismatic leader, driven by a steadfast sense of duty to his people. Diverging interests in the area sometimes brought conflict, but he was always open to debate and seeking solutions to improve relations between Gobabeb and the community. He developed a profound appreciation of the value of science as a cornerstone of development. Just before his demise, he had agreed to continue serving Gobabeb as a Patron – we would have truly benefited from his wisdom, political savvy, and local support in this capacity. This esteemed Elder will be sorely missed along the Kuiseb.



The late Chief Seth Kooitjie

The Gobabeb research network continues to strengthen and expand. Service agreements to support instrumentation hosted on site at Gobabeb were finalised for projects with the Leibniz Institute for Tropospheric Research (TROPOS) in Germany and the National Physics Laboratory (NPL) in the UK. Negotiations to formally extend service agreements with the Max Planck Institute (MPI), Germany, and the Karlsruhe Institute of Technology (KIT), Germany, are soon to be

concluded. An existing MoU with the University of Iowa, USA, to collaborate on anthropology and archaeology was renewed. Although these legal instruments may be a measure of enhanced science cooperation, many other new partnerships are being more loosely conceptualised and several other longstanding collaborations continue to evolve. We are excited about exploring partnerships with a multi-disciplinary research group from Germany currently working in the Atacama Desert, as well as linking into the Sino-Africa Joint Research Center, based in Kenya, under the aegis of the Chinese Academy of Sciences. The Aaniiih Nakoda Tribal College, USA, is an addition to the stable of study abroad programmes bringing students to the Institute. Some 35 fact-finding visits were conducted by potential partner institutions to explore collaboration, and seven proposals for funding to realise opportunities have been submitted as a direct result of this personal interaction, and four Fulbright proposals submitted.

Undeterred by the fact that science funding has drastically declined throughout the world, and access to these limited funds is becoming increasingly competitive, eight proposals in total were developed and submitted with local and international partners during the period under review; four of these proposals were approved.

We are proud of the growing number of research products starting to emanate from research conducted on site over the past five years; or from data generated from the various arrays of instruments and maintained by Gobabeb. Some 40 peer-reviewed papers appeared in the 2018 calendar year, and 8 theses, a good output! (page 28) Eleven postgraduate studies are currently being conducted at Gobabeb.

Training is regarded as an integral component of the research process. Environmental education programmes at Gobabeb remain popular, and we received 18 schools (15 Namibian) and 14 university groups (5 Namibian) on site during the past year.



Specific offerings targeted the local primary school at Utuseb, secondary schools in the //Kharas and Hardap Regions (Namib Sand Sea [NSS] outreach), senior secondary schools countrywide (Youth Environmental Summit [YES]), exposing university students to research methodologies (Gobabeb Training and Research Internship Programme [GTRIP]) and training international postgraduates how to investigate specific physiological research questions (Biophysical Field Methods [BPFM]). A project funded by the Embassy of Finland's Fund for Local Cooperation (FLC), started in 2016, was expanded to benefit other NSS stakeholders, including UNAM, MET and MAWF/NBRI. Lectures based on previous and current research were presented at various fora by staff and science partners.

Several of Gobabeb's research projects could be categorised as providing evidence-based advisories to our Topnaar neighbours along the Kuiseb River. Despite a turbulent historical relationship, Gobabeb is striving to improve service delivery to one of our most important stakeholders. A long-term, multidisciplinary research programme to explore the agronomic potential of !nara is ongoing. Two students presented information from livestock and rangeland projects at a farmers' day at Utuseb in March 2018. Using a participatory approach to execute the studies, farmers have availed their animals for collaring trials and receive feedback on the interpreted data. Our partnership with Dartmouth College, USA, has provided the means to support three Topnaar learners to attend high school in Swakopmund.

The lack of suitable staff and intern accommodation continues to brake plans to upscale our research programmes. We eagerly await the support in this regard pledged by the NamParks V project. This definitely remains our most pressing need. Much of the existing infrastructure requires renovation as the extreme desert conditions take their toll over time. With limited resources available for campus maintenance, this mammoth task can only be tackled piecemeal. We are extremely grateful for the

substantial support of one of our most ardent, longstanding development partners, the Deutsche Gesellschaft für Internationale Zusammenarbeit (giz). Their Biodiversity Management and Climate Change (BMCC II) project funded the replacement and expansion of the battery bank to remedy the declining energy storage capacity for our hybrid energy system, thus providing for current but also future energy needs. Their largesse further extended to the donation of three all-terrain quadbikes that will be employed for research activities, predominantly in the dunes.



ATV quad bike donation from giz BMCC II

The assistance of all our sponsors is very much appreciated – Gobabeb would flounder without these financial injections. We hereby acknowledge the generous support of development partners; grant-awarding organisations; government O/M/As; industry, particularly in the mining sector; and tour operators who recommend Gobabeb as a destination. However, it is the abounding goodwill towards this Institute and the conviction in our purpose that are truly humbling.

Under the inimitable leadership of former Director, Dr Mary Seely, Gobabeb was instrumental in the preparation of the nomination dossier for the Namib Sand Sea (NSS) to be recognised as a World Heritage Site (WHS). Upon its inscription in 2013, there was an expectation for an event to officially celebrate this achievement. Gobabeb staff were honoured, thus, to attend the local inauguration of Namibia's second WHS on 06<sup>th</sup>

April 2018 at Sesriem/Sossusvlei. As designated research and monitoring centre to support the management of the property, much of Gobabeb's work has direct relevance for this important role. We take our commitment very seriously and intend that our contribution in this regard will be scientifically robust and impactful.

As Gobabeb moves forward under a revised framework for operation, it will continue to

grow its capacity for research, education and outreach. It will be an innovator, an influencer, and an inspiration! True to our mission.... we shall constantly and consistently aspire to be that catalyst for transdisciplinary and multi-institutional research collaboration and synthesis in the Namib.

**Dr Gillian Maggs-Kölling**  
Executive Director

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## Report of the Board of Trustees

The Gobabeb Board of Trustees has pleasure in presenting their annual report and accounts for the year ended 28 February 2019.

### Organisation and Governance arrangements

Gobabeb is a registered Trust, previously operated as a Joint Venture between the Ministry of Environment and Tourism (MET) and the Desert Research Foundation of Namibia (DRFN). In 2018, the legal and operational frameworks for Gobabeb were evaluated as to their relevance and effectiveness, a process lead by the independent Namibian Chamber of Environment. Following exhaustive consultations, various frameworks for the future were proposed and presented to the Board for consideration and a decision.

The amended and restated Deed of Trust was submitted to the Master of the High Court for registration on 30 January 2019.

Gobabeb – Namib Research Institute will be the new operational moniker for the Trust. It was felt that this name better reflects the geographical location, the mandate and the scientific standing of the institution.

Ellis Shilengudwa Incorporated were appointed as Trust Administrator for the

Gobabeb Trust, a service they provide *pro bono*.

A new cooperation agreement between the Gobabeb Trust and the MET was drafted to replace the expired JVA. This agreement was reviewed by the Office of the Attorney General and endorsed for signature. The cooperation agreement continues to provide access to the facilities in the Namib-Naukluft Park to the Trust under certain terms and conditions, encourages an expansion and diversification of research activities and promotes a closer partnership for the benefit of the management of this protected area.

### Statement of Trustee responsibilities

The Trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and accounting standards, i.e. International Financial Reporting Standards for Small and Medium-Sized Entities (IFRS for SMEs).

The law applicable to Trusts in Namibia requires the Trustees to prepare financial statements for each financial year, which give a true and fair view of the state of affairs of the Trust and of the incoming resources and application of resources of the Trust for that period.

The Board of Trustees is furthermore responsible for setting out the strategic direction of the institute and assisting with defining its priorities. It also approves the terms of reference, appoints, and monitors the work of the Executive Director, to whom all operational matters are delegated. The Board endeavours to meet at least three times a year to carry out its decision-making and strategic responsibilities.

### Gobabeb Governance

The governance structure of the Trust has been amended to broaden participation and acquire specialist skills to enhance the capacity of the Board to provide appropriate guidance to the operations of Gobabeb.

With the registration of the amended and restated Deed of Trust, the Board of Trustees will now consist of no fewer than six and no more than ten Trustees. These Trustees shall include the following: Two representatives from MET; Two representatives from Namibian-based universities; One representative from a national agency responsible for research in Namibia; one representative from an NGO with a research track-record; one representative from a regional or international organisation of repute; one representative from private sector with business, legal and/or financial expertise.

At the time of the submission of the amended Deed of Trust and supporting documentation to the Master to the High Court in December 2018, the Trustees serving on the Board during this financial year were as follows:

Dr Malan Lindeque (Chair, until July 2018)  
Mr Teofilus Nghitila (Chair, from August 2018)  
Dr Anna Matros-Goreses (Vice-Chair)  
Chief Seth Kooitjie  
Dr Mary Seely  
Dr Tjama Tjivikua  
Mr Colgar Sikopo  
Dr Martin Schneider

The Board met twice (44<sup>th</sup> Business meeting and Extraordinary Board Meeting, held back-to-back on 01<sup>st</sup> March 2018) during the year under review. Most Board members were also able to travel to Gobabeb for a special meeting attended by the Honourable Minister of MET, Mr Pohamba Shifeta, and the Honourable Deputy Minister, Ms Bernadette Jagger on 01<sup>st</sup> June 2018.

In anticipation of reconstituting the Board of Trustees in line with the amended and restated Deed of Trust, the relevant institutions were approached to nominate representatives to serve as Gobabeb Trustees.

### Management

The Executive Director at the end of February 2019 was Dr Gillian Maggs-Kölling. The Executive Director is responsible for the day-to-day management of the Centre's affairs and for implementing policies and strategic advice endorsed by the Board of Trustees. She is supported by a small but dynamic management team, which consisted of the Research Manager (Dr Eugene Marais), the Office Manager (Ms Elna Irish), and the Accountant (Ms Ileni Hiwilepo). Technical advice is solicited when required from experts and associates in various sectors, including science, natural resource management, infrastructure development and tourism.





## Activities and Achievements in 2018/2019

### Strategic

A five-year Strategic Plan (2017–2021) continues to provide the necessary operational framework, pending the outcome of the repositioning of Gobabeb. This plan informed the annual operational planning and budgeting for Financial Years 2018/2019 and 2019/20 based on eight strategic objectives in the following four key areas:

- Financial Sustainability;
- Stakeholder Relations;
- Research Excellence; and
- Human Capital.

A short, 10-minute promotional video on Gobabeb and its mandate, research function and legacy was commissioned as part of the strategic plan. This product is showcased, to great acclaim, at relevant platforms like workshops and conferences

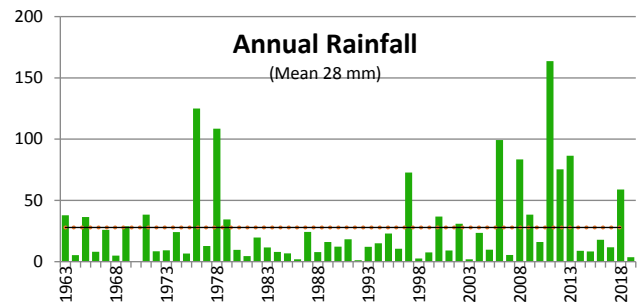
<https://m.youtube.com/watch?v=M0cjhPEY8pA>.

### Research

Gobabeb's core purpose since 1962 has been to pursue, support and facilitate science. This requires a balance between short-term investigations and longer term research initiatives. Consistent results and continuity are based on forward planning, scheduling and prudent application of resources, i.e. trained staff, functional equipment, experimental design and adequate resources to acquire usable data within the context of institutional resources and spatial and temporal constraints. A vibrant and responsive research culture should also have the flexibility and ingenuity to exploit or cope with transient or rapidly developing scenarios.

The 2018 season has been a wet year for the Namib. The 58.9 mm measured at Gobabeb was the first good year since the wet 2011–2013 period. The Kuiseb River flowed only for a brief period of six days. Rainfall was, however, quite localised in the larger central

Namib and Namib Sand Sea, thus biotic response is unlikely to have long-term impacts on the ecology.



Interdune after rain, 2018

The foundation of research is motivated and well-informed individuals. Eight students associated with Gobabeb submitted theses during 2018 (see Bibliography, Annex I), of which two were Namibian (Mr Eric Shiningayamwe [M.Sc.] and Mr Absai Kesenanye [B.Sc. Hons], all at UNAM); a Zimbabwean and Gobabeb alumnus (Kudzai Farai Kaseke [Ph.D.] IUPUI); two South Africans (Johanna von Holdt [Ph.D.] UCT; Janine Baxter [MSc] UP); a Chinese (Xuefei Lu [Ph.D.] IUPUI); and two from the USA (Theodore Marks [Ph.D.] U Iowa; Mr Northrup [M.S.] Brigham Young U). One staff member, Ms Angela Curtis (UNISA) is finalising data analysis towards a Masters degree on the response of bats in the Namib to various wavelengths of light and Mr Eric Shiningayamwe (UNAM). We are proud that seven of our staff and research associates have started formal studies (pages 18–19).

Gobabeb strives to continue, and judiciously expand, various long-term monitoring initiatives. Conducting regular monitoring is the core of recurrent data collecting duties, which also include maintaining research equipment, providing technical support to international partner organisations and carrying out investigations and data collecting for shorter term outcomes. Our student research associates and staff benefit from participating in global initiatives and by supporting international partners as a mechanism for knowledge transfer and experience. Such participation also assists Gobabeb to maintain a global network of collaboration and enhance its national relevance.

Two major new collaborative projects were initiated during the year. The installation of a new PM10 atmospheric dust sampler by the Leibniz Institute for Tropospheric Research (TROPOS), with Gobabeb providing on-site operational support, will complement and expand the existing long-term monitoring of atmospheric particulate matter and aerosols at Gobabeb. This will allow better understanding and modelling of terrestrial-marine-atmosphere processes and complement elements already measured through a NASA sun photometer installation (Global Aerosol Optical Depth network AERONET), weekly atmospheric gas sampling for the NOAA cooperative air sampling network (Global Atmosphere Watch programme), the MPI -BGC installation for continuous atmospheric trace gas analysis, and a global Baseline Surface Radiation Network (BSRN) station sponsored by Basel University. This impressive array of instrumentation was further expanded by the installation of a Multi Axis Differential Optical Absorption Spectroscopy (MAX-DOAS) sun spectrometer, facilitated by our partner KIT, on behalf of the global Pandora network.

The second new collaboration initiated was with researchers from the Chinese Academy of Sciences, operating under the aegis of the Sino-Africa Joint Research Center, based in Kenya. The immediate purpose is to

investigate the genomic structure of *Welwitschia mirabilis*, which may allow Gobabeb to generate deeper interest into the poorly investigated molecular evolution of Namib Desert macrobiota and communities. We acknowledge the role of the Centre for Microbial Ecology and Genomics (CMEG), one of our outstanding research partners, based in Pretoria, South Africa, in facilitating this collaboration. In addition to these, Gobabeb is attempting to re-invigorate archaeological, anthropological and sociological research in the Namib Desert. A visit by Prof. Jim Enloe of the University of Iowa resulted in a renewal of an MoU with that university and a joint project funding proposal. We explored ideas with Prof. Sian Sullivan (Bath Spa University, UK) and Dr Julie Snorek (Dartmouth College, USA) regarding future work to better understand living communities.

Gobabeb was a busy place as research partners from all over the world visited during the year. In addition, lead investigators from several research groups visited Gobabeb to explore interest and opportunities for future collaboration. This included whether Gobabeb would host, support or facilitate specific events. Gobabeb agreed to co-sponsor the International Conference on Aeolian Research (ICAR 2020), and also agreed to host in 2019 the 10-year anniversary symposium for the CMEG Namib Desert Microbial Ecology initiative, and the Hot Birds Research Project (HBRP) symposium that integrates behavioural and physiological research on arid-zone birds. As a facilitator for the 9<sup>th</sup> International Congress of Dipterology (ICD9) in Windhoek, an influx of researchers during October and November examined fly and midge diversity in the Namib.

There were not many relevant calls for research grants during 2018. Gobabeb prepared and submitted seven proposals for research funding to various agencies and foundations. The final outcome of some proposals is still pending, but most of the major proposals were unsuccessful.

Despite the fiscal realities of a zero-budget implementation and ensuring frugal research expenditure, Gobabeb was still able to support considerable research. NERMU continued with its programme of delivering biodiversity research and monitoring services at Swakop Uranium's Husab Mine in the central Namib. The monitoring programmes include assessing the impact of ground water abstraction on tree health in the Swakop and Khan Rivers; assessing the impacts of mine-generated dust on the physiological health of desert shrubs; and ongoing monitoring of *Welwitschia* to determine whether water supply from washes may be obstructed by upstream mine overburden dumps. New research projects on the potential role of gerbils as ecological engineers, ecological niche modelling of the endemic Husab Sand Lizard, and the ecohydrology of *Welwitschia* were approved by Swakop Uranium's management. These research projects are pursued by registered Ph.D. and Masters students at NUST under the Gobabeb-NUST Affiliation Agreement, and hosted by NERMU.

Careful management of power requirements allowed extensive data collecting on how bats respond to different wavelengths of light in order to evaluate the effect of light pollution in the desert. Data collecting was completed by the middle of the year and are being analysed and evaluated. Even though national austerity measures still did not allow the full implementation of a research capacity building initiative agreed with the NCRST during 2017, nine GPS-enabled tracking collars were donated by the Japan Oil, Gas and Metals National Corporation (JOGMEC) via their Nova Joint Venture social corporate responsibility programme. This allowed Eric Shiningayamwe to track cattle grazing activity in response to climatic variables (substrate, vegetation, rain, temperature, wind) and observe their behaviour towards a Masters degree. His study was extended through supplementary studies by Mr Absai Kesenanye on the nutritional value of some of the browsing resources utilised by cattle, and Ms Dorteia Hamukoto on quantifying the availability of pods in that are being browsed

by livestock. Mr Nailly Fudeni, an Honours student at NUST, will use the geospatial data and onboard sensor data from the collars to compare to various satellite remote sensing products. Information on results from these studies were communicated to farmers and the Topnaar traditional authority.



Collars handed over to Gobabeb interns by Reptile Uranium, on behalf of JOGMEC.

The relevancy of this research for Topnaar livestock owners attracted the support of the late Chief Kooitjie. A series of farmers' workshops, facilitated through the local office of the Directorate of Veterinary Services, informed the farmers of national requirements of vaccination and registration of domestic livestock. A component of the annual Dartmouth College study abroad programme concentrated on livestock losses from disease, predation, and other causes through participatory research. A donation of 16 wildlife cameras by Dartmouth will form the basis of a planned project to quantify the incidence of predators in areas frequented by livestock as well as the experience of farmers.

Gobabeb installed and ensured daily monitoring of additional water meters, supplied by SASSCAL, to support a study on the effectiveness of environmental awareness efforts on water management and use by Mr Petrus Ndinoshiho of NUST. It also initiated and supported a study by four engineering students from the Worcester Polytechnic Institute, Massachusetts, USA, to assess the feasibility of various passive cooling solutions for retrofitting to existing structures. A significant amount of energy is used globally for cooling buildings, which is unsustainable at

energy-limited locations such as Gobabeb and in poor rural communities. This study evaluated and experimentally tested various options for sustainable passive cooling in the Namib.

Gobabeb also scoped out various research opportunities during the year, some of which will be pursued further during 2019. A preliminary investigation into the bioacoustics of the three species of barking geckos (*Ptenopus*) occurring around Gobabeb showed unexpected complexities in behaviour and diversity, which led to further morphological and geographical revelations. Mr Francois Becker will continue working on these findings as a Ph.D. study. Another exciting discovery was of a probable new *Namibiana* snake species, which was first found during routine long-term pitfall monitoring. A preliminary study on *Welwitschia* pollination using up-to-date methods was as rewarding. It revealed limitations in the only previous such study, which Mr Greg Golando intends to pursue further as a Masters student at the University of Kwazulu-Natal, South Africa. Ms Saima Shikesho will be pursuing questions that emerged during the regular monitoring of *Inara* plants, particularly predation of jackals and gerbils on ripe melons, as another Masters study.

### Training

Five students participated in the six-month internship programme, GTRIP, supported under a five-year commitment from Langer Heinrich Uranium, and co-funded by the Zoological Society of London and Gobabeb. Interns and projects included:

- Ms Dortea Hamukoto, UNAM: *Pod production of Faidherbia albida and Acacia erioloba at three sites in the Lower Kuiseb River.*
- Mr Zazapamue Hange, UNAM: *Can we use predawn stem water potential to detect changes in plant available moisture? A lower Kuiseb River study.*
- Mr Jonas Lipopila, UNAM: *The effectiveness of environmental education (EE) on the perception of non-charismatic species found around Gobabeb.*
- Ms Esther Nambahu, NUST–WIL: *Assessment of the population size and density, spatial distribution and habitat preference of Lithops gracilidelineata var. waldroniae at Hamilton Mountain Range in Namib-Naukluft National Park, Namibia.*
- Mr Halleluja Shaanika, UNAM: *Soil fertility related to storage period and depth in stockpiles at Langer Heinrich Uranium mine.*

A third iteration of the postgraduate Biophysical Field Methods course was conducted in June/July 2018. This modern approach to skills training combines MOOC/distance learning and site-based field applications. The course is supported by the State University of New York - College of Environmental Sciences and Forestry (USA), Ben Gurion University of the Negev (Israel), funded by the Sillins Family Foundation, and Gobabeb. In 2018, nine students from Namibia and Israel engaged with the on-line academic component to learn about methods to determine physical conditions that may affect ecology or behaviour, followed by a field component where they had to apply the academic principles and cutting edge technology to solve ecological questions. Participants were rotated through four projects to ensure maximum exposure to techniques and expertise available. The participation of six Namibian postgraduate students was supported by Gobabeb and the NCRST, Research Capacity Building Grant.



YES participants consulting the local community



Gobabeb's annual programme for Grade 11 learners, the Youth Environmental Summit (YES), was held 10<sup>th</sup>–19<sup>th</sup> May 2018, under the International Day for Biological Diversity theme “25 Years of Action in Biodiversity”. Conducted in the Twyfelfontein surrounds, 34 participants were drawn from 19 schools across six regions. Two alumni from previous YES events supported Gobabeb staff in executing three research projects. The learners presented their findings at a public event in celebration of International Biodiversity Day in Khorixas attended by national and local dignitaries, officials and local inhabitants. Once again, the giz through the Biodiversity Monitoring and Climate Change (BMCC II) project generously supported YES 2018, while co-funding was provided by MET and Gobabeb.

<https://www.youtube.com/watch?v=BicVHLgkMmE>

The travelling Namib Sand Sea outreach programme reached 118 learners from three schools in the Khomas region; 908 learners from 13 schools in the ||Kharas region and 1072 learners from 14 schools in the Hardap region during August to September 2018. Upon completion, this intensive outreach enhanced understanding of the Namib Desert’s natural history and ecology in a total of 3076 Namibian learners (including 978 learners from 12 schools in the Erongo region in 2017). This initiative was funded through a grant received through the Embassy of Finland’s Funds for Local Cooperation (FLC) for a project entitled “Benefit-sharing in the Namib Sand Sea”.



Namib Sand Sea outreach in the Hardap Region

The FLC further supported the annual week-long educational outing for the Grade 7 class at J.P. Brand Primary School in Utuseb. Some 43 learners and their teacher participated in the programme in September 2018.



Learners from J.P. Brand Primary School

Heeding the call of His Excellency, the President for a national clean-up day, and in collaboration with the Finnish Embassy, Gobabeb arranged to lead a campaign on 25<sup>th</sup> April 2018. Dagbreek School in Windhoek was identified to host the event. Learners, Embassy officials and Gobabeb staff participated in collecting solid waste from streets around the school premises. Staff used the opportunity to educate about recycling and pollution, and also spent a morning working with the learners to craft useful items from waste materials.

FLC continued to support training on the management of the NSS, and preparing authorities for management requirements associated with inscription of future sites, already on Namibia’s tentative World Heritage List. A week-long training workshop was held at Gobabeb in November 2018. The workshop, attended by MET and MAWF/NBRI officials, included various lectures and discussion sessions, and focused on two specific issues, with the respective outcomes:

- *Enhancing current management practices for the Namib Sand Sea WHS*
- *Applying lessons learnt from the NSS for the Succulent Karoo (on Namibia’s tentative list)*



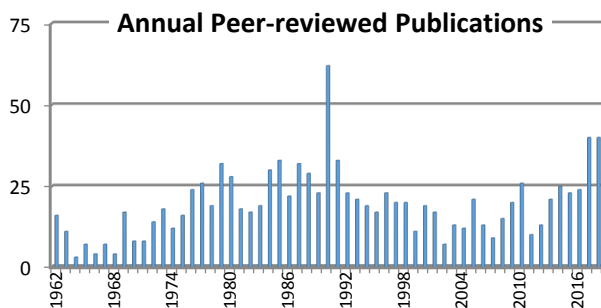
The outcome Gobabeb's activities was communicated to and well received by the Director of the UNESCO World Heritage Centre, Dr Mechtild Rössler, during her site visit to Gobabeb on 31 December 2018.

Gobabeb staff participated as resource persons in a workshop organised by UNAM for lecturers in Early Childhood and Lower Primary Education. Held in Windhoek and funded by our FLC project, 15–17 October 2018, the objective was to revise the curriculum for lower primary courses, specifically regarding the introduction of environmental education modules. Training material was shared with ten lecturers in education from the various UNAM campuses throughout Namibia.

The year ended with a hands-on research field school in movement ecology of reptiles, presented by Doug and Maria Eifler (Erell Institute and Kansas University, respectively). Six student interns, three from Namibia and three from the USA, carried out intensive observations and collected research data for over six weeks that will analysed and written up for publication.

### Publications

Peer-reviewed publications are widely considered to be an objective metric of research output and activity. By that standard, Gobabeb continues to be productive. The number of scientific articles published by



Gobabeb staff, its research partners or based on data collected at Gobabeb equalled the 40 peer-reviewed articles of the previous year. Eight theses were submitted, four of which

were Ph.D. dissertations, based on data collected at Gobabeb.

A number of popular science articles in periodicals and newspapers appeared during the year that reported on Gobabeb's work. A short documentary on the YES programme was produced by the Gobabeb associate, Oliver Halsey, and published through the Gobabeb YouTube account. During the latter part of the year, two documentary film crews visited Gobabeb to record footage.

Gobabeb staff and associates shared their results and knowledge through several oral or poster presentations at scientific or public meetings. These included several presentations to Namibian scientific societies; a research symposium to share knowledge about SASSCAL project results (Lusaka, Zambia); an African bat research symposium (South Africa); and a workshop on conservation projects in Namibia supported by the Rufford Foundation (Windhoek).

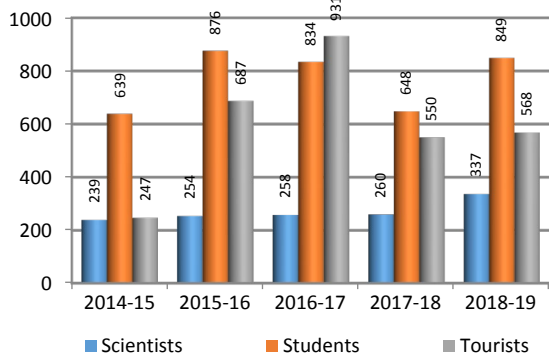
### Visitors

Gobabeb hosted 568 general visitors during the fiscal year, almost the same number as the previous year. However, there was a substantial increase in the number of scientists that visited Gobabeb to carry out research, liaise with staff, or hold meetings. The 337 science visitors represent a 30% increase, which indicates a vibrant interest to work with Gobabeb. This includes a notable increase of scientists from Namibia itself as 73 of our visitors were from local institutions. The number of learners and students visiting Gobabeb was similar to a couple of years ago, with the bulk of the 849 student visitors (86%) from Namibia. These increases kept interns and staff quite busy - they conducted 690 tours explaining the environment and facilities at the centre.

A highlight and culmination of the organisational review process was a presentation of the outcomes and proposed way forward at the Gobabeb facilities, attended by the Honourable Minister of MET,

Pohamba Shifeta and the Honourable Deputy Minister, Bernadette Jagger in June 2018. They were accompanied by senior MET officials and several Trustees. The VIP group optimised their visit by touring the facilities and engaging with the staff on site.

**Gobabeb Visitors**



Gobabeb continued its efforts to market and attract suitable operators and entrepreneurs to activate the tourism concession as an additional means of support and income for Gobabeb. Four potential groups of investors were guided to sites and along potential routes in the concession. Only one group of investors seemed serious and interested, but no bids were offered. As the duration of the Head Concession Agreement should be revisited and an appeal for an extension submitted to MET, Gobabeb engaged in discussions with relevant stakeholders on what would make this concession more attractive to potential investors.

**Infrastructure**

The overall age and poor condition of the infrastructure at Gobabeb continues to be a concern. It remains problematical to allocate or raise sufficient funds for refurbishment of failed infrastructure and upgrading the living quarters of staff and interns. Various attempts were made during 2018/19 to address ongoing infrastructure issues, but the bleak national and international financial climate resulted in limited success. The primary focus during the year was on critical maintenance and urgent repair to ensure a functional and safe environment for staff and visitors.

As previously reported, the condition of the batteries supporting the hybrid energy system have deteriorated to such an extent that they failed to maintain sufficient charge. The extensive use of the 48 kVA diesel generator to provide power to the campus resulted in considerable fuel and maintenance expenses, including costly part replacements. This situation required strict energy management protocols for extended periods to ensure that essential services and environmental monitoring programmes could be maintained. Fortunately, a proposal for replacement and even expansion of the battery storage system was approved by the giz, BMCC II project. The tender was awarded to ConServ and a replacement battery bank was installed in May 2018. Due to the growth in demand for energy from science partners and larger numbers of visitors, giz BMCC II project also agreed to increase the number of batteries from 72 to 96 for an impressive total storage capacity of 166 kWh. The new batteries were formally commissioned and handed over to Gobabeb by Mr Christian Gruen, Embassy of the Federal Republic of Germany in June 2018.



During the evaluation of appropriate technical specifications for battery replacement, it emerged that Gobabeb’s solar PV generator has insufficient capacity to recharge even the previous 123 kWh battery bank. This is based on both deterioration of installed panels as well as new theoretical models and calculations derived from the instrumental arrays at Gobabeb measuring diurnal and seasonal fluxes of radiation and atmospheric particulate matter.

Until 2018 the relatively modest water supply by Namwater to Gobabeb was to the MET account. The stringent austerity measures imposed by government led to that account being transferred to Gobabeb. Gobabeb already had a considerable number of water meters, with additional water meters installed as part of an Honours student research project, as mentioned above. That infrastructure allows Gobabeb to track water use more closely and to consider whether cost recovery for water use is advisable.

Adverse weather conditions caused some damage during the year. Strong winds during the July and August caused some damage to roofs and solar infrastructure. Two solar geysers had to be replaced. A lightning storm during late October caused wide-scale damage to ICT equipment, the reverse osmosis plant, and various other electrical infrastructure. Despite an immediate visit by electricians to assess the damage for insurance purposes, some damaged equipment did not fail immediately and resulted in post-claim replacement and repair costs.

An attempt was made during the year to refurbish the swimming pool. An attempt to

contract local labour to scour the pool for crack repair and repainting failed. The interns and researchers then volunteered and carried out extensive work. Unforeseen, large maintenance expenses on priority systems did not allow the planned pool refurbishment to be completed.

Several outstanding maintenance issues have been carried over from the previous year but could not be addressed due to inadequate funds. Unfortunately, the repairs to Gobabeb's iconic water tower carried out during the previous financial year proved to be inadequate as some leakage on the sides were again observed. Gobabeb needs to consider other options for repair. The petrol tanks that failed have not yet been replaced. It is not clear whether refurbishing the fuel storage infrastructure would be economically viable in the medium term. Gobabeb continues to transport relatively modest amounts of petrol from Walvis Bay for its on-site requirements. Gabion barriers to protect Trickle Filter 2 have been completed, but ongoing operational issues with pumps and poorly planned sewerage pipelines continues to delay its commissioning.



## Plans for the Future

The following outline the key elements within the organisational plans for 2019/2020 and onwards:

### *Research*

- Develop new partnerships to expand Gobabeb's research network and secure funding from additional, novel sources;
  - Explore joint initiatives with UNAM, NUST and other tertiary training institutions in southern Africa for science education and research;
  - Encourage and monitor scientific and societal impacts of research endeavour, i.e. through numbers of scientific publications, public presentations and multimedia tools;
  - Improve functionality of laboratories and field research equipment;
  - Develop research priorities and budgets, under the ambit of the strategic plan.
- Secure multi-year resource streams to sustain flagship training offerings, e.g. SDP, GTRIP, YES;
  - Explore opportunities to develop and implement new MOOC (Massive Open Online Courses) training interventions;
  - Develop information material and implement targeted activities to promote and market the NSS;
  - Redesign and launch Gobabeb's website that adequately reflects our core business;
  - Promote opportunities and develop relationships with UNAM and NUST, together with international partners, to establish Masters and PhD courses.

### *Training*

- Continue to implement the capacity building sustainability strategy through, for example, increased involvement of alumni in training programmes;
  - Continue to integrate research and training functions to optimise human resources;
  - Maintain and expand the customer base for existing training interventions; while developing and promoting innovative tertiary level offerings;
- ### *Organisational development*
- Support the process of finalising the legal and operational framework for Gobabeb's future operations;
  - Explore priority activities to secure adequate funding to implement Gobabeb's five-year Strategic Plan relating to its core business;
  - Continue to improve the financial management system and refine management information reporting systems;
  - Develop a business plan for Gobabeb, including continued efforts to formally operationalise the Tourism Concession;



- Continue marketing activities for accommodation and improve customer service and ecotourism experience to increase bed occupancy;
- Continue to improve the communications plan, with specific reference to social media profile activity and website improvements.
- Cost and seek resources for upgrading and construction of accommodation for postgraduate students;
- Upgrade the solar energy system and evaluate energy use and cost recovery measures;
- Upgrade water management system and evaluate use and cost recovery measures;

### *Infrastructure*

- Develop a site master plan for development, with specific reference to construction of staff accommodation and facilities;
- Develop priorities for the maintenance and upgrading of Gobabeb's infrastructure, with reference to long-term maintenance records and planning;
- Renovate and refurbish swimming pool and recreation area;
- Upgrade ICT system and options to improve access to and functionality of internet facilities;
- Inventory ICT hardware and software towards an equipment replacement plan.



Gobabeb Staff – 2018



## Staff (as of 01 March 2019)

### Staff on the Establishment

Executive Director	Dr Gillian Maggs-Kölling
Office Manager	Ms Elna Irish
Accountant	Ms Ileni Hiwilepo
Research Manager	Dr Eugene Marais
Research Coordinator (part-time)	Dr Theo Wassenaar (until June 2018)
Researcher	Ms Angela Curtis <sup>1</sup>
	Mr Roland Mushi (until March 2018)
	Mr Titus Shuuya
	Ms Elbe Becker <sup>2</sup>
	Mr Francois Becker <sup>3</sup>
Junior Researcher	Ms Saima Shikesho <sup>4</sup>
	Mr Martin Handjaba
	Ms Jessica Roberts <sup>5</sup>
Training Coordinator	Ms Nelly Black (until October 2018)
Site Manager/Research infrastructure Technician	Vacant
Receptionist/Hospitality	Ms Leena Kapulwa
Cleaner	Ms Linda Bees
	Ms Selma Swartbooi
	Ms Rita Swartbooi
Technical Team	Mr Josef Gariseb
	Mr Samuel Gowaseb
	Mr Richard Swartbooi
	Mr Jeffrey Khurisab
On-site caterer (Outsourced Service Provider)	Mr Hendrik Adams

<sup>1</sup>M.Sc. Nature Conservation, UNISA (completion 2019), *The effects of artificial lighting on activity of Namib Desert bats (Mammalia: Chiroptera)*.

<sup>2</sup>Ph.D. Natural Resources Management, NUST (completion 2021), *Human-induced water stress in the riparian trees of the central Namib Desert*.

<sup>3</sup>Ph.D., University of Witwatersrand, RSA (registration 2018). *A taxonomic and phylogenetic revision of the genus Ptenopus (Reptilia: Gekkonidae)*.

<sup>4</sup>M.Sc. Biological Sciences, University of Cape Town (completion December 2020), *INara (Acanthosicyos horridus) seed dispersal by black-backed jackals (Canis mesomelas) and gerbils (Gerbillurus spp.) in the central Namib Desert*.

<sup>5</sup>M.Sc. Zoology, University of Pretoria (completion December 2020), *Thermoregulatory behaviour and microhabitat use by Dune Larks in the Namib Sand Sea*

### NERMU PI / Research Associate

Prof. Theo Wassenaar, NUST – PI, NERMU (Namib Ecological Restoration and Monitoring Unit)

### NERMU field assistants

Ms Doris Kinyaga

Mr Roland Mushi

Ms Elizabeth Shilunga

**GTRIP interns 2018 (March – June)**

Ms Dortea Hamukoto, UNAM  
 Mr Zazapamue Hange, UNAM  
 Mr Jonas Lipopila, UNAM  
 Ms Esther Nambahu, NUST–WIL  
 Mr Halleluja Shaanika, UNAM

**GTRIP interns 2019 (January – February)**

Mr Ruben Angala, NUST–WIL  
 Ms Ailly Nambwandja, UNAM  
 Mr Natanael Ndilenga, UNAM

**Short-term Interns (up to February 2019)**

Mr Gregory Golando, Research Intern, January – November 2018, USA  
 Mr Petrus Amadhila, Research Intern, July – December 2018, Namibia  
 Mr Gustav Krug, Research intern, July – September 2018, Germany  
 Mr Bernardo Peixoto, Research intern and Ph.D. student, August – November 2018, Brazil.  
 Mr Jackson Brandin, Research Intern and WPI student, August – October 2018, USA  
 Mr Neel Dhanaraj, Research Intern and WPI student, August – October 2018, USA  
 Mr Zachary Powers, Research Intern and WPI student, August – October 2018, USA  
 Mr Douglas Theberge, Research Intern and WPI student, August – October 2018, USA  
 Mr Timothy Wells, Research intern, November 2018 – February 2019, South Africa  
 Mr Bernard Smit, Research intern and Honours student from University of Pretoria, December 2018, South Africa  
 Ms Cherish Sakeus, Research intern, December 2018, UNAM/YES alumnus, Namibia  
 Ms Catherine Wallis, Research intern, January – February 2019, South Africa  
 Ms Kaera Utsumi, Research intern, January-February 2019, USA  
 Ms Aline Jacobs, Hospitality intern, December 2018, Namibia  
 Mr Tristan Kölling, Tourism intern, December 2018 – February 2019, Namibia  
 Mr Oliver Halsey, Independent Film Producer, May 2018 – August 2019, UK  
 Mr Jonas Lipopila, Training intern, July – December 2018, Namibia  
 Ms Ericka Kambode, Training intern, August – October 2018, Namibia  
 Ms Helena Moses, Training intern, August – October 2018, Namibia  
 Ms Ndapandula Shihepo, Training intern, August – October 2018, Namibia  
 Ms Ndahafa Shindolo, Training intern, August – October 2018, Namibia

**Student affiliates**

Mr Naily Fudeni, B. Natural Resources Management Hons. (Geoformation Technology Monitoring, NUST (completion 2019). *Monitoring livestock (cattle) behaviour within hyper-arid environments: A case study within the Lower Kuiseb River basin, Erongo Region.*  
 Mr Absai Kesenanye, B.Sc. Hons, (Animal Science), UNAM, (completion 2018). *Nutritional value and soil mineral composition of the rangeland utilised by livestock in the Lower Kuiseb River area of the Namib Desert.*  
 Mr Jonas Lipopela, M. Natural Resources Management, NUST (registration 2019). *Assessing the status of the Husab sand lizard*  
 Mr Robert Logan, Ph.D., Michigan State University, USA (completion 2020). *Photo-degradation in the Central Namib.*  
 Mr Hallelujah Shaanika, M. Natural Resources Management, NUST (registration 2018). *Gerbil burrow distribution in the central Namib.*  
 Mr Eric Shiningayamwe: M.Sc. (Rangeland Resources and Management), UNAM (completion 2019). *Namib Desert rangeland utilisation by cattle in the Lower Kuiseb River area.*

## Financial Overview

The economic outlook is bleak. The overall income has declined by a further 36.2% from the previous year, with project income suffering the largest contraction. Gobabeb now depends on the services it renders as its main source of the income. Income from projects declined by 64.3%. Research projects, however, remain Gobabeb's core business with five on-going projects and six signed service agreements, of which one is new. The two largest projects in terms of income during the present financial year are:

1. NERMU – Swakop Uranium Biodiversity Programme
2. Benefit Sharing in the Namib Sand Sea – FLC, Embassy of Finland

The largest income source for Gobabeb was generated through the provision of accommodation, meals, and technical support, contributing more than 66.7% of total income. The relative increase in contributions from training programmes to ca. 12.2% is due to the overall decline in income. This income derives from funding secured for signature education and capacity development projects such as GTRIP and YES. The primary capacity building projects were:

1. Gobabeb Training and Research Internship Programme (GTRIP) – Langer Heinrich Uranium
2. Youth Environmental Summit (YES) – giz
3. Benefit Sharing in the Namib Sand Sea – FLC, Embassy of Finland
4. Research Capacity Building – NCRST

MET contributed N\$ 150,000 towards the annual expenditure for infrastructure maintenance, representing a slight increase from the previous year. The contribution has been used for:

1. Maintenance of the generator;
2. Passive cooling in the energy room;
3. General maintenance of infrastructure.

Future infrastructure investment will concentrate on further upgrading of the off-grid solar energy system; priority maintenance; repair of the iconic Gobabeb water tower; and improving infrastructure to monitor and manage resource use.

The overall financial situation of Gobabeb is extremely challenging in the short-term due to severe reductions in funding from almost all local sources, the continuation of severe austerity measures in government O/M/As and overall trends of greater competition and lower success rates in competitive opportunities for research and capacity development.

Diversification of income streams will have to be addressed. Gobabeb's tourism concession represents an opportunity in this regard, provided a suitable operator with sufficient capital is interested to invest in this partnership.

The Annual Report for the Gobabeb Trust, set out on the preceding pages, was approved by the Chairman of the Board on 30 June 2020 and is signed on behalf of the Trustees as below.

Report of the Trustees signed by:



Teo Nghitila  
Chairman

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## Annex 2 List of Abbreviations and Acronyms

BMCC	Biodiversity Management and Climate Change
BPFM	Biophysical Field Methods
CMEG	Centre for Microbial Ecology and Genomics
DRFN	Desert Research Foundation of Namibia
FLC	Fund for Local Cooperation of the Finnish Embassy
giz	Deutsche Gesellschaft für Internationale Zusammenarbeit
GTRIP	Gobabeb Training and Research Internship Programme
ICD9	9 <sup>th</sup> International Congress of Dipterology
IUPUI	Indiana University of Purdue University of Indianapolis, USA
JOGMEC	Japan Oil, Gas and Mineral National Corporation
JVA	Joint Venture Agreement
KIT	Karlsruhe Institute of Technology, Germany
MAWF	Ministry of Agriculture Water and Forestry
MET	Ministry of Environment and Tourism
MOOC	Massive Open Online Courses
MPI	Max Planck Institute, Germany

NERMU	Namib Ecological Restoration and Monitoring Unit
NPL	National Physics Laboratory, UK
NSS	Namib Sand Sea
NUST	Namibia University of Science and Technology
NWU	North West University, South Africa
SASSCAL	Southern African Science Service Centre for Climate Change and Adaptive Land Management
SDP	Summer Drylands Programme
TROPOS	Leibniz Institute for Tropospheric Research, Germany
UCT	University of Cape Town, South Africa
UNAM	University of Namibia
UP	University of Pretoria, South Africa
UNISA	University of South Africa
WHS	World Heritage Site
WIL	Work Integrated Learning
WPI	Worcester Polytechnic Institute, USA
YES	Youth Environmental Summit

NBRI	National Botanical Research Institute
NCE	Namibian Chamber of Environment
NCRST	National Commission on Research Science and Technology



## Legal and Administrative Information

### Registered Office

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Fax: + 264 64 694197  
Email: [gobabeb@gobabeb.org](mailto:gobabeb@gobabeb.org)  
Website: [www.gobabeb.org/](http://www.gobabeb.org/)

### Bankers

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138 Sam Nuyoma Avenue  
P.O. Box 1  
Walvis Bay  
Namibia  
Telephone: + 264 64 2018218  
Fax: + 264 64 2018231  
SWIFT code: FIRNNANX  
Website: [www.fnbnamibia.com.na/](http://www.fnbnamibia.com.na/)

### Auditors

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Chartered Accountants  
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50 Olaf Palme Street  
P.O. Box 90001  
Klein Windhoek  
Namibia  
Telephone: + 264 61 264440/264460  
Fax: + 264 61 264490

### Trust Administrators

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