

Ex-post evaluation

Integrated national park management I, Namibia

Title	Integrated national park management I		
Sector and CRS code	41030 Biodiversity		
Project number	2011 66 065		
Commissioned by	Federal Ministry for Economic Cooperation and Development		
Recipient/ Project executing agent	National Planning Commission / Ministry of Environment, Forestry and Tourism		
Project volume/ Financing instrument	EUR 14.7 million / subsidy		
Project duration	2013 - 2022		
Year of report	2024	Year of random sample	2024

Objectives and project outline

The objective at outcome level was to ensure that the supported protected areas are managed effectively together with local communities. At the impact level, the aim was to sustainably protect the wildlife population and biodiversity with direct economic benefits for the local communities. The programme primarily financed infrastructure for park management and the preparation of park management and tourism development plans.

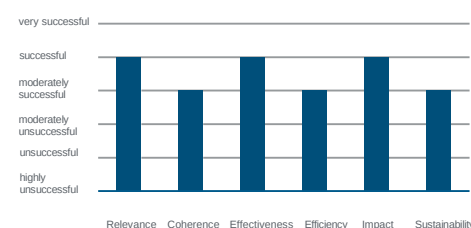
Further training and the creation of strategy papers were also promoted, and a Spatial Monitoring and Reporting Tool was piloted.

Key findings

The programme pursued an integrative approach to nature conservation and plausibly contributed to the growth of wildlife populations. At the time of the evaluation, there were concrete plans to convert a national park in the south of the country into an area for intensive hydrogen production, which poses a considerable risk to the conservation of biodiversity in this region. Nevertheless, the project is rated as "successful" for the following reasons:

- The project was closely orientated towards the needs of the project executing agent. A clear impact chain was pursued that links the economic benefits for local residents with nature conservation (relevance).
- The selected national parks have adequate infrastructures to perform effective management. The management plans were important for the day-to-day work, but the degree of implementation of the updated plans was low (effectiveness).
- The wildlife populations in the project areas have stabilised and increased and are supported by open wildlife corridors. However, the increase in wildlife populations has also led to more human-wildlife conflicts. Following successful piloting, a SMART monitoring system was rolled out on a broad scale in 14 of 20 national parks (Impact).
- Only minor deficiencies in the infrastructure were identified, but there was a lack of resources for comprehensive maintenance. On a positive note, the project executing agent has created good framework conditions for a sustainable operation. An upcoming follow-up project is intended to further institutionalise the sustainable financing mechanism (sustainability).

Overall rating:
Successful



Conclusions

- Concessions are crucial to generate an economic benefit from nature conservation for residents, provided that the framework conditions are already favorable.
- Without mitigation through accompanying measures, human-wildlife conflicts pose a considerable risk to the acceptance of wildlife by residents.
- The introduction of a SMART monitoring system to monitor park management activities can increase employee performance and can be rolled out on a broad scale.

Ex-post evaluation - assessment according to OECD DAC criteria

General conditions and classification of the project

Namibia is characterised by extraordinary natural landscapes that are home to diverse wildlife populations. The country has the largest free-ranging population of black rhinos in Africa, the world's largest cheetah population and a unique elephant population. Furthermore, Namibia was the first African country to anchor environmental protection in its constitution. The government enables the inhabitants of communal areas to manage their natural resources themselves by establishing communal conservancies. Today, 44% of the country's territory, including the entire coastline, is either protected by the central government as national parks or is protected and sustainably used by communities as conservancies. Around 70% of the population depends on the use of natural resources.¹ However, the growing population also increases the risk of overexploitation of individual resources.

The Namibian National Parks Programme (NamParks) was launched in 2006 by the Namibian Ministry of Environment and Tourism (MEFT; previously MET). The programme is funded exclusively by the Federal Republic of Germany through Financial Cooperation (FC). Within the MEFT, the "Directorate for Wildlife and National Parks" is responsible for the management of Namibia's wildlife resources and the administration of state protected areas. Figure 1 provides an overview of the various phases. The evaluated Phase IV of this report is shown in dark blue.

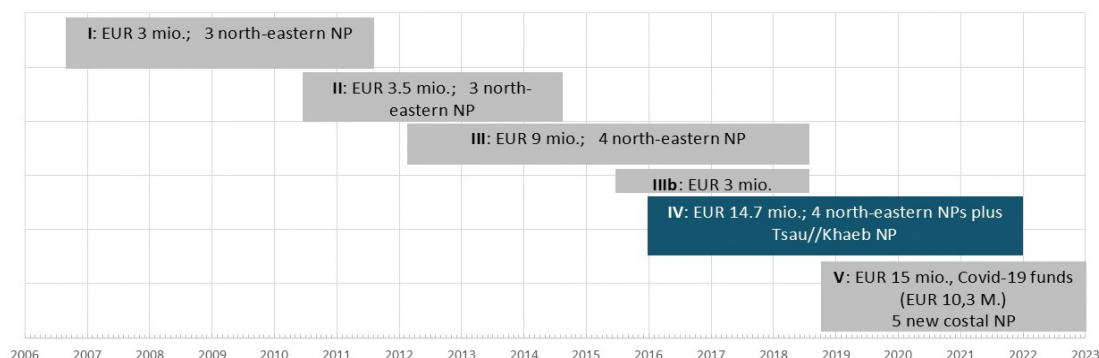


Figure 1: FC-financed NamParks phases I to V; source: own illustration.

Brief description of the project

The project "Integrated National Park Management I", which was launched in 2006 by the Ministry of Environment, Forestry and Tourism (MEFT) with the support of the German government and KfW, has the project objective of ensuring that the supported national parks (NPs) are protected against utilisation pressure, have functioning corridors for wildlife migration, represent a competitive tourist destination and that the park inhabitants and local population benefit economically from the NPs.

The programme focuses on remote national parks in north-eastern Namibia, in particular the national parks Bwabwata, Mudumu and Nkasa Rupara as well as Khaudum (NE-NP henceforth). In the final phase includes the Tsau // Khaeb (Sperrgebiet) National Park (TK(S)NP henceforth) in the south-west of the country. It pursues an integrated approach to park management that supports the development of management guidelines and instruments at both national and local level. The aim is to manage the parks efficiently, strengthen relationships with local residents and promote the economic benefits of conservation, tourism and hunting for local communities.

¹ <https://www.cbd.int/countries/profile?country=na>

Project areas

The national parks of Khaudum, Nkasa Rupara, Mudumu and Bwabwata play an important role in nature conservation and the preservation of biodiversity. Khaudum National Park is known for its untouched wilderness and is home to a variety of wildlife, including elephants and lions. Nkasa Rupara includes wetlands and rivers that provide a rich bird life, as well as habitats for hippos and crocodiles. Mudumu National Park is characterised by its diverse ecosystems and is home to elephants, buffalo and numerous bird species. Finally, the Bwabwata National Park stretches along the Zambezi River and is an important corridor for wildlife, allowing animals to migrate between Namibia and Botswana.

The TK(S)NP in the south of the country is a largely unspoilt wilderness area that has for 110 years and is over four times larger than the entire wilderness areas of the European Union. It is home to almost 25% of Namibia's plant species in just 3% of its area, including 31 plant species found nowhere else the world. In addition, the TK(S)NP comprises 90% of the Namibian portion of the hyper-diverse Succulent Karoo Biome, which is recognised as one of 36 global biodiversity hotspots (NCE, 2024).

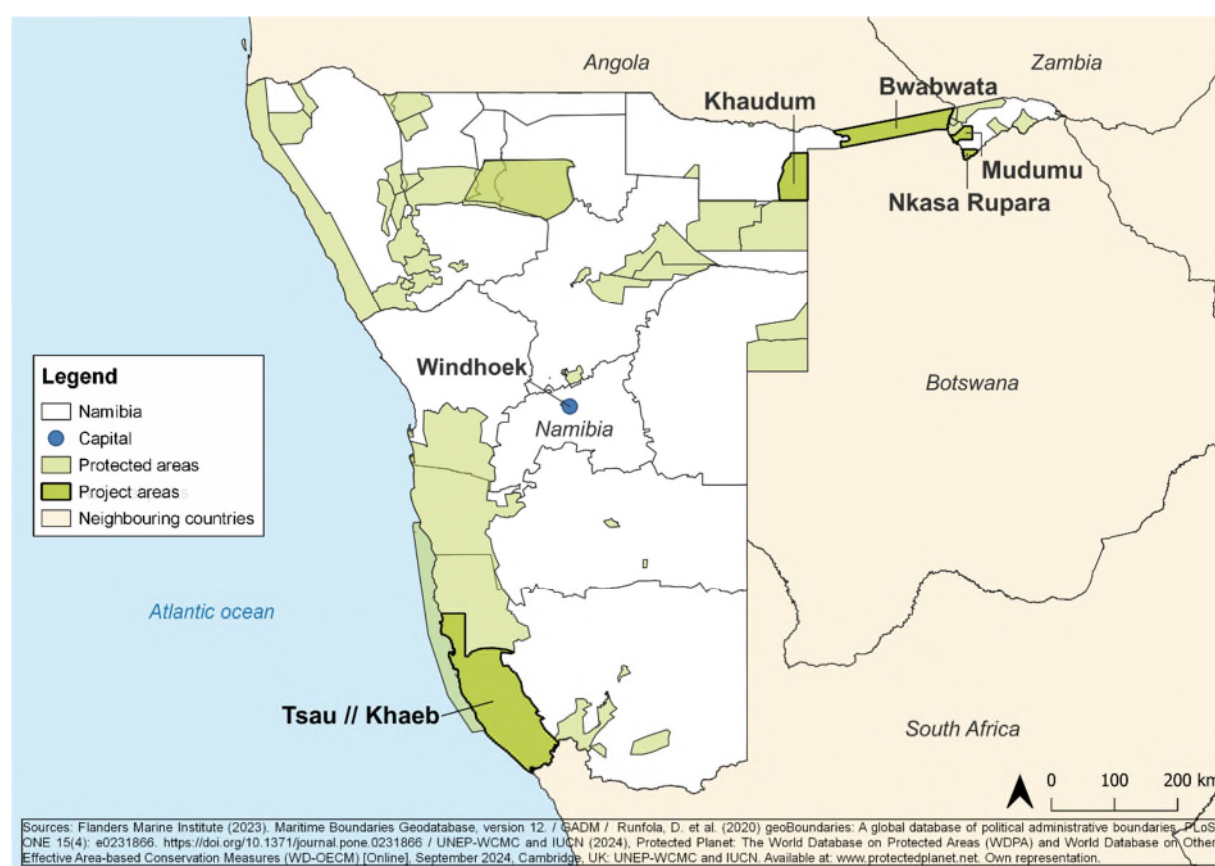


Figure 2: Locations of the protected areas funded as part of the "Integrated National Park Management I" project

Breakdown of total cost

		Inv. (Plan)	Inv. (actual)
Total costs	EUR million	21,0	21,9
Own contribution	EUR million	7,0	7,2
External financing	EUR million	14,0	14,7
<i>of which BMZ funds</i>	<i>EUR million</i>	<i>14,0</i>	<i>14,7</i>

Rating according to OECD DAC criteria

Relevance

Alignment with policies and priorities

The project was aligned with the Namibian government's national priorities, policies and strategies aimed at protecting and managing natural resources, particularly wildlife, through effective park management. Since independence in 1990, the government has included specific provisions for the protection of natural resources in the constitution. Namibia is the first African country to anchor the protection of the environment in its constitution. Hence, the project directly aligns with Article 95 of the Namibian Constitution. Furthermore, as a signatory to CITES (Convention on Trade in Endangered Species of Wild Fauna and Flora), Namibia has adopted international standards for the protection of endangered species.

The project supports national efforts to reduce rural poverty and promote sustainable tourism by contributing to conservation while promoting economic benefits for rural communities. The MEFT's mission to promote biodiversity conservation through sustainable use of natural resources and tourism development is reflected in the project's objectives and activities.

The programme pursues a model of nature and resource conservation based on the principle of "conservation through use". This model is in line with the former and current goals of German development cooperation (BMZ) Vision 2030, BMZ's position paper on biodiversity, and the UN Convention on Biological Diversity. By generating income from tourism, the project is aligned with the BMZ's *quality criteria* of poverty reduction and conflict sensitivity.

Alignment with the needs and capacities of the beneficiaries and stakeholders

The needs of the MEFT, in the context of the project, covered several key aspects: MEFT required support to increase its' capacities. This included i) the construction and maintenance of **park management infrastructure** and adequate equipment for an effective integrated management of the national parks. ii) Given the financial challenges of the Government of Namibia, the MEFT was dependent on external **financial support** to maintain operations in the protected areas. iii) The creation of favourable general conditions for **sustainable funding mechanisms** for the national parks should ensure long-term operations. iv) The MEFT had an interest in the creation of research and training centres to **promote ecological research** and provide training for staff. All these measures should contribute to the improvement of knowledge and skills in the field of nature conservation. v) Another need of the MEFT was the development of **sustainable ecotourism** to improve the economic conditions of the population in and around the parks and at the same time support the parks themselves. This particularly concerned the TK(S)NP, which is historically not open to the public, given presence of diamonds but has a high tourism potential due to its biodiversity.

These needs were aimed at, on the one hand, operating effective protected area management and, on the other hand, combining the protection of resources with economic benefits for the local population. Given the target group's high dependence on the sustainable use of natural resources, the project aimed to improve their living conditions, particularly by increasing incomes, by ensuring that the local population receives a fair share of the income generated from these resources. This was recognised by the government as a core problem and implemented through integrated park management concepts.

The target group of the project also included neighbours of the NE-NP. Local residents are of great importance for nature conservation in parks, as their acceptance and active participation in the management goals of the parks are crucial for their long-term sustainability. If the neighbouring communities recognise and benefit from the advantages of the parks, they are more willing to support the protection of natural resources. Through the community development component, the project should implement various neighbouring measures that should result in the awarding of hunting and tourism concessions. The income from the concessions should make the economic benefits of nature conservation areas tangible for local residents and thus also lead to greater identification with nature conservation.

Appropriateness of design

The project concept is based on the above-mentioned needs of the MEFT, which aim to promote integrated park management in Namibia. The main objective of the project was to effectively and efficiently manage the north-eastern national parks (Bwabwata, Mudumu, Nkasa Rupara) as well as the Tsau // Khaeb (Sperrgebiet) National Park. This should be done in cooperation with the neighbouring communities and other stakeholders to protect the unique flora and fauna and to develop the parks into competitive tourist destinations.

The concept is based on an integrated approach to nature conservation and neighbourhood participation. The project intended to contribute to the improvement of the park infrastructure and the development of park management plans for the effective management of the national parks. This should lead to better protection and an increase in animal populations in and around the parks, which in turn should result in higher hunting quotas and tourism figures, which will generate local income. In addition, tourism development concepts are to be developed and implemented. Close involvement of local communities and stakeholders in the planning and implementation process was planned. This should ensure that the needs and perspectives of local residents are considered and that they benefit from the economic advantages of nature conservation. Overall, the project design aims to ensure sustainable and effective management of the national parks in Namibia that promotes both nature conservation and the economic development of the surrounding communities.

It is important to distinguish between the conservation efforts of national parks and community-managed communal conservancies. The latter are community-based institutions that have ownership rights to wildlife. Irrespective of these rights, however, hunting is subject to authorisation by the Ministry of Environment, Forestry and Tourism (MEFT) based on hunting quotas. The combination of hunting quotas and property rights gives the wild animals a monetary value and thus combines economic and ecological interests. The activities of the evaluated project focused primarily on the promotion of national parks and not on communal conservancies, financed by other donor organisations. Nevertheless, the conservation measures within the programme have both positive and negative impacts on the communal conservancies, as wildlife migrates throughout the country and across national borders.

Continuous support across different phases enables long-term planning by the project executing agent to focus efforts efficiently on individual activities. The project's investments were built on the successes of the previous phases and included maintenance plans and strategies to ensure the sustainability of these efforts.

The concept was clear, sufficiently precise and plausible. Not all activities were fully defined at the start of the project. This enabled the consultants to specify the project executing agent's acute needs more precisely during the course of the project and at the same time to react flexibly to changes. The MEFT's needs were to be precisely defined through consultations and strategy and management documents were to be created. This iterative approach was designed to continuously harmonise the project's products and activities. The concept of the measure was both technically and organisationally appropriate and realistic. Among other things, lay out requirements for infrastructures to be adapted to the specific climatic conditions of the respective locations. The high contribution made by the partner is evidence of a high level of personal ownership. The involvement of neighbouring municipalities in the awarding of tourism concessions shows that the measure was geared towards a holistic approach to sustainable development.

However, no specific gender impact potentials were identified as part of the project.

Adaptability- response to change

During the course of the project, the economic recession and the COVID-19 pandemic, in particular, had a significant impact on implementation.

Namibia experienced an economic recession from the second half of 2016, which led to a decline in gross domestic product (GDP). These economic difficulties led to significant budget cuts for the government, which had a direct impact on the financial resources of the MEFT. Its budget fell by more than a third between the 2015/16 and 2019/20 financial years. The outbreak of the COVID-19 pandemic led to a further decline in GDP of 8% in 2020, further exacerbating the budget situation. In particular, the massive slump in tourist numbers as a result of the pandemic-related travel restrictions had a direct negative impact on the budget of the national parks and the income opportunities of the surrounding municipalities.

To take account of the economic challenges and new circumstances, the original project period was extended from three to four years. This included several contract amendments with the implementation partner to adapt the project activities and ensure implementation.

On a positive note, the programme reacted flexibly to changes. For example, the results matrix was updated to take account of changes in the planned activities and the associated effects on the indicators and objectives. In addition, new activities were added during the course of the programme that were not part of the original plan, such as the development of management plans for national parks and support for community projects. Their financing was made possible by a positive exchange rate development.

Rating summary

The project was closely aligned with Namibia's national priorities. The needs of the MEFT were clearly identified and addressed through close consultations. The project design follows a clear results chain, which also intended to include measures for securing long-term objectives. Linking economic benefits for local residents with nature conservation is essential for effective and long-lasting nature conservation. The objective of generating income by supporting the granting of concessions was therefore logical. The programme has responded flexibly to economic challenges, particularly the COVID-19 pandemic. The project period was extended to take account of the new circumstances and additional activities were implemented to continue to achieve the project's objectives.

Relevance: 2

Coherence

Internal coherence

The project was part of the Development Cooperation (DC) programme "Natural Resources Management". The DC measures within this programme were well coordinated. The programme is complementary to the FC programme "Poverty-oriented support for community-based nature conservation in Namibia" (BMZ No. 2017 68 514). As part of this programme, FC supported and co-financed the Communal Conservation Fund of Namibia (CCFN), a sustainable financing instrument that compensates for damage caused by human-wildlife conflicts and provides conservation services in communal areas. As the nature reserves are directly adjacent to the communal conservancies and the wildlife migrates across park and national borders, these projects have a direct complementary effect on each other. Other complementary FC projects are the Integrated Park Management in Namibia II and III (BMZ No. 201365626, 2017 68 647), the preliminary phases of the "National Park Programme III" and "National Park Programme IIb" projects evaluated in this report (BMZ No. 2009 66 770 and 2015 69 219) and the follow-up project for the sustainable financing of national parks (BMZ No. 202167526).

The project was well coordinated with the German Technical Cooperation (TC) measures in the protected areas, in particular with the "Community-Based Natural Resource Management (CBNRM)" and "Climate Change and Inclusive Use of Natural Resources (CCIU)" projects. The exchange between FC and TC ensured a good flow of information and recognition of the project executing agent's needs. The programme also built on previous TC and FC projects in the Kavango-Zambezi nature reserve (KAZA).

Nevertheless, deeper coordination and alignment with other projects supported by Financial Cooperation, in particular the Programme for Community Development (PCLD) with the Ministry of Lands and Resettlement, could have been achieved. The PCLD supported land use planning and the establishment of small-scale commercial farms in the communal areas west of the Khaidum National Park, which affected the buffer zone and the park itself. For example, cattle grazing has moved further east to the park boundary - and in some cases beyond - indicating that the buffer zone of the park is too small and not fully respected.

External coherence

The FC-financed projects have provided a substantial part of the donor support for the MEFT. The main focus of these projects was to strengthen the programme's own efforts. Furthermore, the projects are coherent with the activities financed by the Game Products Trust Fund (GPTF), a Namibian fund for nature conservation financing (more on this in the sustainability criterion). This support was supplemented by other donors, such as the GEF investments in Bwabwata and USAID support for anti-poaching measures and community projects. In addition, a UNDP project to create wildlife corridors has provided training in law enforcement and established structures to

mitigate human-wildlife conflict (HWC). The Community Conservation Fund of Namibia (CCFN) has also contributed to minimising these conflicts.

The developments in the field of green hydrogen within the TK(S)NP had a negative impact on the coherence towards the project end. Namibia's national hydrogen strategy aims to produce hydrogen and derivative products from renewable energy sources for the export market. Due to the high solar intensity and wind speeds in the TK(S)NP, the long-term plan is to develop almost the entire national park for the production of green hydrogen and renewable energy. The comprehensive plans for green hydrogen have meant that investments in the tourism sector in the TK(S)NP have become partially obsolete. At the time of the evaluation, the plans had not yet been implemented, but their realisation would most likely have a significant negative impact on biodiversity in the TK(S)NP.

The investments in tourism and nature conservation measures in the TK(S)NP therefore appear inconsistent with the national hydrogen strategy, which is supported by foreign donors (including the EU and Germany). This discrepancy between nature conservation goals energy production plans poses a challenge to the coherence and sustainability of the project.

Rating summary

More intensive coordination with other projects would have been necessary, particularly with regard to land use planning, to avoid negative impacts on the buffer zones of the national parks. The national hydrogen strategy, which provides for the development of green hydrogen in the TK(S)NP and is supported by other donors, has a negative impact on coherence. Despite these deficits, the positive aspects dominate, in particular the complementarity of the project with other development cooperation projects and the MEFT's own endeavours.

Coherence: 3

Effectiveness

Achievement of (intended) objectives

The adapted objective as part of the EPE was: "The supported protected areas are managed effectively together with local communities."

The achievement of the objective at outcome level can be summarised as follows:

Indicator	Status at PA	Target value according to PA	Actual value for PCR	Actual value for EPE
(1) Degree of implementation of parks' annual work plans is improved	Initial value: 0	Improvement by at least one category 0 - 20 %= very unsatisfactory, 21 - 40%= un-peaceful 41 - 60 %= partially satisfactory, 61 - 80% = satisfactory, 81 - 100 %= very satisfactory	In the NE parks as a whole satisfactory, with an average Performance between 61 and 80 % despite fuel and staff shortages	Partially achieved. TK(S)NP: 30-35 % NE-NP: ~30 % Fuel and personnel problems persist

(2) Assessment of park management using the Management Effectiveness Tool (METT)	METT values (2017) TK(S)NP: 50.45% Bwabwata West: 56.75 % Bwabwata East: 67.56 % Mudumu (2019): 69,44 % Khaudum: 53.15 %	At the end of the KfW investment phase, the rating for each park has improved by at least 10 % compared to the 2017 baseline.	Partially achieved. METT values (2020): TK(S)NP: +21.55% (achieved) Bwabwata West: +11.2% (achieved) Bwabwata East: +0.44 (not achieved) Mudumu (2019): +1.56% (not achieved) Khaudum: +0% (not reached)	Partially achieved. METT values: TK(S)NP: 76 % (2023) +19.25 percentage points (achieved) Bwabwata West: no values Bwabwata East: 67.68 % (2024) +0.12 percentage points (not achieved) Mudumu NP: 73.74% (2024) + 4.3 percentage points (not achieved) Khaudum: no values
(3) Number of concessionaires operating in the parks	Initial value TK(S)NP: 0 Initial value NE-NP: 4	Target value TK(S)NP: 2 Target value NE-NP: 6	Partially achieved. TK(S)NP: 9 identified - 1 tendering, 5 awarded, 3 no tender sought NE-NP: tender in preparation	Achieved. Unchanged. Some concessions have been awarded, but there are still no tour operators. A concession was not successfully tendered as there were no bids due to uncertainty about the impact of green hydrogen on the tourism sector in TK(S)-NP. NE-EP: 7 Tourism concessions (2 of which are not operational) and 3 hunting concessions

(4) Visitor numbers in NP	Baseline 2015: - Buffalo: 5,690 - Susuwe: 8,226 - Mahango: 22,262 - Mudumu: 2,758 - Nkasa Rupara: 2,664 - Khaudum: 1,623 - Total NE-NP: 43,223 - Total TK(S)NP: 724	Target value: Visitor numbers increase each year by at least 5% per park in line with the defined capacity	Achieved. Cumulative increase 2015-2019 - Buffalo: +89% - Susuwe: +20% - Mahango: +15% - Mudumu: +39% - Nkasa Rupara: +106% - Khaudum: +77% - Total NE-NP: +35% - Total TK(S)NP: +25% In 2020, however, tourism figures (especially international tourism) have fallen sharply from 2019 to date by around 70 % due to the global pandemic and the associated travel restrictions and lockdown measures	Achieved. 2023: - Buffalo: 15,360 (+170%) - Susuwe: 11,398 (+39%) - Mahango: 22,470 (+0,9%) - Mudumu: 3,838 (+40%) - Nkasa Rupara: 5,965 (124%) - Khaudum: 2,176 (+34%) - Total NE-NP: 61,387 (+42%) - Total TK(S)NP: NA
(5) Number of community members employed in nature conservation management and tourism	Baseline 2015: - TK(S)NP: 0 - NE-NP: 1,237	Target value: Number of municipal employees working in nature conservation management and tourism increases by an average of more than 5% per year	Partially achieved. NE-NP: Increase 2015-2019 by 26.4 % (mainly due to informal employment). Formal employment in the hunting industry (164 jobs in 2019) and the tourism industry (190 jobs in 2019) is relatively low and has not changed significantly since 2015. The 2020 figures for informal employment are not interpreted further. The figures for permanent employees have remained stable from 2015 to 2020. TK(S)NP: 0 The concessions were recently awarded, and operations have not yet begun. However, one concession holder employs 7 permanent employees and 3 temporary staff.	No assessment possible.

Contribution to the achievement of objectives

The project has achieved several significant results, which can be summarised in various result areas²:

Infrastructure and park management (indicator 1 and 2)

The selected national parks benefit from appropriate infrastructure and equipment for effective integrated management. This includes ranger housing with climate-adapted design, solar panels, office buildings, ranger station fencing and radio towers. The METT values have largely improved, but the degree of implementation of the updated park management plans remains rather low. These plans were deliberately designed to represent the management activities necessary for idealised nature conservation rather than simply setting financially achievable targets. It would therefore be too ambitious to expect the plans to be fully realised. When determining the level of ambition, it was assumed that the MEFT would acquire additional funds or that NGOs would make further investments. An example is the financing of the construction of a water source for the Namibian wild horses by an NGO, which is regularly maintained by the MEFT.

Despite these efforts, the level of implementation is still considered to be low. Examples of inadequate implementation of management plans include

- Patrol performance only reaches about 40-50% of the target kilometre range, depending on the park.
- The cleaning of the solar panels, which should be carried out monthly, was several months overdue at the time of the evaluation. The layer of dust on the panels impairs the effectiveness of the modules.
- The Mudumu National Park lacks basic infrastructure such as so-called "flying camps", which serve as ranger outposts for anti-poaching operations.
- Fuel shortages are hampering some park management activities, despite the possibility to apply for funding from the GPTF.

Important aspects with regard to the degree of implementation of the management plans and METT are that additional funds were made available for operational costs during the COVID-19 pandemic. This enabled the implementation of more activities in the annual work plans. However, after these funds were fully spent, the implementation rate rebound to an average of 30%.

The formulated park management plans enabled the MEFT to apply for the inclusion of the NE-NP in the IUCN Green List.³ At the time of the evaluation, one of three phases of the application process had been completed, but further funding would be required to finalise the certification process. Although the outcome of the certification process is unclear, it is positive that the MEFT has started this process to validate the successful conservation measures. Throughout the Green Listing process, the implementation rate reaches up to 60 %. The park management plans are used in the day-to-day work of the rangers in the park, as the work plans and performance assessments are based on them. These plans are therefore utilised to a high degree at the strategic and operational level.

Community and tourism development (indicators 4, 5 and 6)

Sustainable nature tourism products have been developed to improve the economic situation of the population in and around the parks. This includes the revision of the tourism development plans for the NE-NP. The revised tourism development plans were integrated into the park management plans and thus into the day-to-day work of the rangers. Tourism and hunting concessions were put out to tender, most of which were operational at the time of the evaluation. Tourism figures have recovered strongly after the COVID-19 pandemic and have reached the target level overall.

The project funded a new and comprehensive 10-year tourism development plan for the TK(S)NP, which serves as a guide for MEFT to promote green tourism in the TK(S)NP. While some concessions were tendered and awarded, others could not be awarded or are not operational due to uncertainties regarding the planned green hydrogen developments. At the time of the evaluation, 4 out of 9 concessions were in operation. Some inactive concessions were also put out to tender, but the infrastructure, such as the entrance gates and parks associated with the concession, remained unused. In contrast, other concessions have been very successful with around

² A complete list of the measures can be found in the appendix Project measures and results

³ The IUCN Green List is a verification system for the successful conservation outcomes of protected areas. The system validates the achievements in protected area management. The voluntary standard consists of four components with 17 guiding criteria

30,000 visitors per year, with one concessionaire noting that the long-term 12-year contract has enabled significant investments to improve tourism attractiveness.

The number of employees cannot be compared across different reporting periods due to the different ways in which employment relationships are measured (formal and informal employment). It is therefore not possible to make a definitive statement on target achievement. Concession operators in the NE-NP employed 89 community members, most likely with different types of contracts. The TK(S)NP employed 24 community members, while the MEFT contracted around 14 members as labourers. Each concessionaire thus makes a significant contribution to the employment of community members. Overall, the investments in tourism have plausibly contributed to the touristic attractiveness of the national parks.

There were two joint venture agreements with communal conservancies. The focus was on diversifying sources of income to reduce dependence on trophy hunting. Among other things, equity capital was provided for concessions. In the southern region, feasibility studies were conducted on community-based tourism enterprises and business plans were written. Conservancies were also advised so that they fulfil the governance criteria of donors and are enabled to fundraise.

SMART (Spatial Monitoring and Reporting Tool)

As part of the conservation measures, a SMART data model was developed that met the requirements of the park management and security plans in the north-eastern national parks of Namibia. The measures implemented include the monitoring of wildlife and infrastructure, the development of standard operating procedures for the implementation of SMART and the training of MEFT staff in the use and maintenance of SMART equipment. The SMART approach has been successfully integrated into all new management plans of the NE-NP.

These measures have made a significant contribution to nature conservation by greatly improving park management and wildlife monitoring. The creation of a national monitoring system for Namibia's national parks has strengthened law enforcement, leading to more effective protection of biodiversity and natural resources in the region. The training of staff and the provision of modern equipment also provides the data required to determine sustainable hunting quotas.

Unutilised investments

Some of the financed investments were no longer used during the course of the project. This includes, among others:

- A strategy to remove cattle within the Bwabwata National Park was funded, but these plans were not pursued at the time of the evaluation. The aim of this strategy was to free the national park from illegal cattle farming in the park and to facilitate the migration wild animals.
- In the TK(S)NP, it was not possible to conclude land use agreements with the neighbouring private farms. These agreements were intended to resolve land use conflicts. At the time of the evaluation, there were no longer any ongoing discussions between the MEFT and the four private farms.
- The Ontanda Environmental Centre (OEC) was used for the environmental education of pupils from the surrounding schools. They were able to stay overnight at the centre and go on excursions about nature and the environment from there. The development of the training programme and exhibition materials was financed by the project. In 2022, the building of the centre was classified as unfit by the Lüderitz City Council and could no longer be used. As a result, the centre was vandalised and the environmental education programme became obsolete. The materials were put into storage. At the time of the evaluation, the MEFT staff visited around two schools per month to conduct environmental education outside the OEC.
- In Mudumu NP, a water pump and solar panels were stolen, which that water could no longer be pumped into the artificial borehole at a tourist viewpoint. As a result, the wild animals have migrated to other water sources and the viewpoint has lost its tourist attraction.

Quality of implementation

Through consultations, the requirements of the MEFT were precisely identified and corresponding strategy and management documents were developed. Repeated consultations enabled continuous adaptation of results and activities of the project to the needs of the project executing agent.

As part of the project, local residents were actively involved in the planning of the *Land Use and Development Plans* (LUDP) for the *Managed Resource Use Zone* (MRUZ) of the Bwabwata National Park. A comprehensive socio-economic survey captured the needs and challenges of local residents to integrate them into the planning processes. The LUDP promotes the sustainable use of natural resources through the creation of a specially zoned multi-purpose area. The aim was also to improve the living conditions of the local population through improved food production, increased income generation and the provision of basic services. In addition, various government agencies were involved in the planning process to ensure a coordinated approach to land use. The LUDP combines management, land use and development planning to consider both the needs of local residents and the goals of nature conservation. Feedback mechanisms allow residents to contribute their opinions and suggestions, leading to better acceptance and support for the conservation measures.

Overall, the quality of management and implementation was high and satisfactory because of the regular dialogue between those involved.

Unintended effects (positive or negative)

The lighting systems in the NE-NP were equipped with special light bulbs. However, the light sources cannot be sourced locally, so a consultant must be called-in if a replacement is required. This arrangement increases the costs, even though the lighting is technically appropriate.

Rating summary

The selected national parks have adequate infrastructure and equipment to support effective integrated management. The management plans are of great importance for the day-to-day work of protected area management. Nevertheless, the degree of implementation of the updated plans remains low, as they depict an ideal type of nature conservation rather than one that is merely financially feasible. In addition, sustainable eco-tourism products have been developed to improve the economic situation of local residents. Although some investments, especially in the TK(S)NP, can no longer be utilised, the use of the outputs is in line with expectations and the parks of the NE-NP have a high number of tourist visitors.

Effectiveness: 2

Efficiency

Production efficiency

The expenditure shares have changed over the course of the programme and the total costs, including the MEFT's own contribution, have risen from EUR 21.0 million to EUR 21.9 million. The total costs have risen despite the fact that more activities were carried out than originally planned due to positive exchange rate developments. A large part of the increase in costs can be explained by higher costs for construction materials, which rose by 10%, in some cases.

Expenditure	Shares during project appraisal	Shares during Final report
Infrastructure	66 %	45 %
Management and development plans	14 %	21 %
Consulting and operational costs	20 %	34 %

The infrastructure costs represent the largest expenditure of the project, particularly the construction of offices and park facilities. The single biggest cost item was renovating the old post office building in Lüderitz from 1908. Being listed as monument, the outer appearance could not be altered, which made the renovation costly. Due to the weather conditions in Lüderitz, additional protective measures were also required. Other infrastructures include parks and residential complexes, which were built with a climate-adaptive design and renewable energy systems. The quality of these facilities is appreciated by local employees.

Expenditure on the development of management and development plans was higher than originally budgeted, at the expense of the infrastructure budget. This reallocation is typical for an "open" project, which allows some degree of flexibility in adjusting the budget to focus on other aspects than originally planned. The project has produced many important documents with a national impact, which justifies the reallocation of funds.

Implementation of the project only began at the end of 2015 and lasted until the end of 2022. The project was originally scheduled to begin in 2013 and end in 2016. The COVID-19 pandemic was the main reason for the three-year delay towards the end of the project, while delays at the beginning of a project are not unusual. However, the delays at the start of the project had no negative financial implications. Consultancy and operating costs have increased significantly due to higher operating costs, which were covered entirely by the Namibian government. The costs for the implementation consultant have remained constant over time and appear high but are justified given the high number of different activities. In addition, the costs are still considered competitive market prices.

Allocation efficiency

A certain degree of under-utilisation of residential complexes was identified. Earlier evaluations showed that, for example, only 50% of the houses built in Khaudum Station were occupied by permanent park employees. This overcapacity was also observed during the evaluation of this project, as only 12 out of 20 units in Buffalo Park Station were occupied. This indicates that the housing capacity was structurally overestimated during the planning phase, resulting in a lower allocation efficiency.

In contrast, the park and tourism infrastructures are heavily utilised. Maintenance contracts for complex components, such as water treatment plants, are functional. The office buildings in particular represent a significant improvement compared to previous facilities. Accordingly, staff morale was reported to have increased. The tourism infrastructure in the NE-NP serves as a contact point for providing important information to tourists and collecting park entrance fees. The infrastructure in the TK(S)NP is also functional, with the exception of some tourist attractions without operational licences.

The outputs have a broad impact and intensive utilisation. The management plans and strategic documents for the NE-NP are used effectively and serve as guidelines for the management of the national park. Strategic documents, such as the guidelines for the creation of guidelines for the preparation of management plans, are not only important for the project area, but also for all other national parks in Namibia.

The introduction of a SMART system has increased efficiency, as the documentation of park management activities is submitted digitally by rangers and automated reports can be generated. SMART piloting was initiated as part of the project and had positive effects beyond the project (see overarching developmental impact). A further increase in efficiency could be achieved by harmonising the SMART reports with the monthly reporting system of the MEFT's national parks.

During the conceptual phase of the project, there were no plans to produce green hydrogen in the national park. The selection of the TK(S)NP as a project area was well justified by its high biodiversity richness. The Namibian government only announced a national green hydrogen strategy at the end of the project timeline. It remains unclear, however, to which degree the efforts to tender concessions were effective and efficient. While some concessions are successful, others are not operational. In view of the uncertainties and the varying success of the concessions, it was right at that time to increase the touristic attractiveness and improve the framework conditions for tourism development. In retrospect, tapping into the tourism potential seems almost futile in view of the large number of development projects (i.e. green hydrogen, city development, etc.) in the TK(S)NP.

Rating summary

The resources were distributed and utilised appropriately, which contributes to the effective use of the infrastructure. However, the renovation of the listed historic building as an office in Lüderitz is associated with higher costs, particularly due to the climatic conditions, which required additional protective measures. In terms of allocation efficiency, underutilisation of residential complexes indicates a structural overestimation of residential capacity during the planning phase. In contrast, the park and tourism infrastructure are heavily utilised. The management plans and strategic documents are effectively utilised and have a broad impact, as they are not only relevant for the project area, but also important for other national parks in Namibia. The introduction of a SMART system has

further increased efficiency by digitising the documentation of park management activities. However, the latest developments in the TK(S)NP limit the allocation efficiency. Despite this, the positive aspects of the project's efficiency still dominate.

Efficiency: 3

Overarching developmental impact

Overarching (intended) developmental changes

The goal adapted as part of the EPE was: "The wildlife population and biodiversity are sustainably protected, with direct economic benefits for the local communities."

The achievement of the objective at impact level can be summarised as follows:

Indicator	Status PA	Target value according to PA	Actual value for AK	Actual value for EPE
(1) Number of elephants in and around the NE-NP.	Initial value: 11,213	Target value: at least a stabilisation of the population size from 2015	Achieved. The forecasts are essentially based on three aerial surveys (2013, 2015 and 2019).	Reached 21,090
(2) Number of antelopes in and around the NE-NP.	Initial value: Roan antelopes: 622 Sable antelopes: 914	Target value: at least a stabilisation of the 2015 population	Partially achieved - Roan antelopes: 622, but compensated by a high increase in roan antelopes in the Susuwe area (on the Kwando River) Sable antelopes: 1930	Achieved: Roan antelopes: 1,256 Sable antelopes: 3,430
(3) Value of total direct economic benefits (in money and goods) to local residents and neighbours from activities associated with the parks.	Initial value 2015 TK(S)NP: 0 NAD NE-NP: 33,421,531 NAD	Target value: Increase in direct total benefit by more than 5% per year on average	Partially achieved. NE-NP: Overall, the values have increased by 8.1% in 4 years (2015-2019) per year, which is above the target value. This increase is mainly due to income from tourism joint ventures and, secondly, income from the devil's claw harvest. TK(S)NP: No revenue for the neighbouring municipalities during the reporting period, as the concessions were only recently awarded, and no income has yet been reported.	Partially achieved: - TK(S)NP: 260,000 NAD pays Namunis Trust - NE-NP: 1,173,840 NAD earned through concessions in 2023

Contribution to overarching (intended) developmental changes

The ecosystem of the TK(S)NP was intact at the time of the evaluation and is one of the 25 most important biodiversity hotspots in the world. The TK(S)NP has been a restricted area since 1908 to prevent illegal diamond mining. Mining activities used to be one of the main causes of the destruction of the desert landscape. At the same time, the access restrictions imposed by mining are the main reason why biodiversity in the region is protected and most areas remain largely untouched. At the time of the evaluation, park management and biodiversity protection were effective, and some tourism concessions generate considerable income for the local population. However, the planned development of green hydrogen infrastructure poses a significant threat to the sustainability of the progress made, which is discussed in the following sustainability criterion.

In terms of wildlife populations in the NE-NP, populations have stabilised and increased overall. A WWF study shows that wildlife corridors are open and utilised, leading to greater migratory movements. The supported parks play a crucial role in wildlife migration throughout the transnational KAZA. The study highlights the effects for elephants: In 2022, there were an estimated 227,900 elephants in the KAZA region, of which around 21,090 elephants are mainly in Namibia (Bussi re and Potgieter, 2023). The wildlife data shows that the population has increased considerably beyond recovery. In addition, a study by Naidoo et.al (2024) makes it clear that elephants in the KAZA area enjoy great freedom of movement across national borders. Figure 3 illustrates the migratory movements of elephants in the KAZA area and their stay in the protected areas supported by the project (e.g. waterholes in Khaudum NP).

This shows that the NPs supported are a crucial habitat for wildlife and that the programme makes a direct contribution to the conservation of these areas.

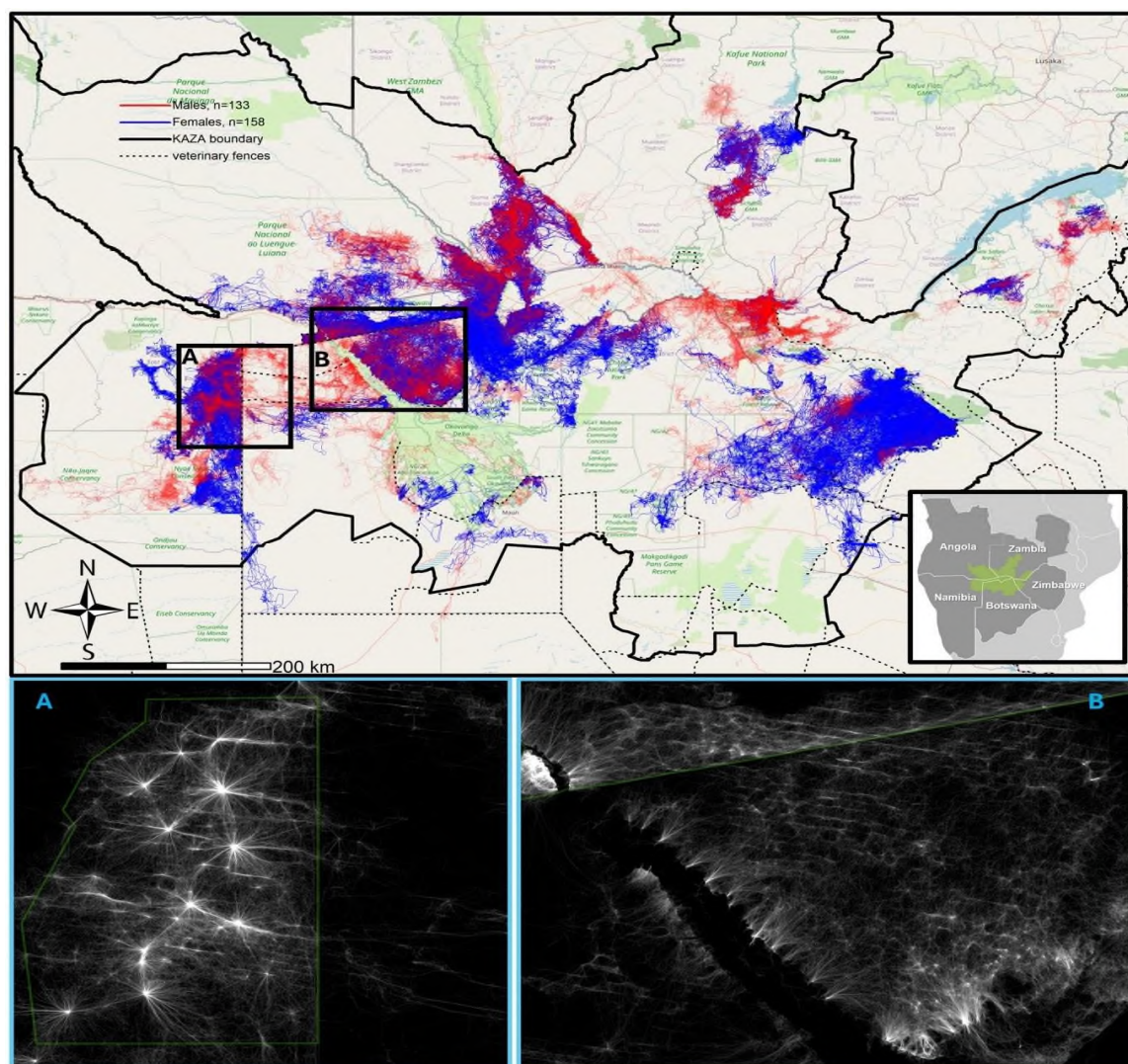


Figure 3: GPS data of elephants in the KAZA area. Upper figure: Location of elephant trajectories (n = 133 males, red lines; n = 158 females, blue lines). Veterinary fences are shown by dashed black lines. Lower figures: Lighter colours indicate a greater degree of overlap in GPS-derived movement trajectories. (A) Utilisation of artificial water points in the Khaudum NP, which is supported by the project. (B) Utilisation of micro-corridors in Botswana and migration across Bwabwata NP (Namibia), which is also part of the project "Integrated National Park Management I". Source: Naidoo et.al (2024).

The strong increase in the wildlife population is also directly attributable to Namibia's wildlife policy and the project. An essential part of Namibia's wildlife conservation strategy is the transfer of usage rights to wildlife to the communities as part of the nationwide CBNRM approach. Through the usage rights, communities can benefit from tourism and hunting or hunting concessions and thus have economic incentives to protect wildlife. The usage rights are allocated to conservancies (see Relevance). The CBNRM approach gives the wildlife a direct economic value for the local community. Thereby overcoming the typical *tragedy of the commons* of shared resources.

Since the events in the communal conservancies have a direct impact on the NP and vice versa, wildlife conservation within the NP contributes to the growth of the wildlife population and, thus, also affects the income for the surrounding communities in the form of revenue from tourism concessions, hunting licences and meat for their own consumption.

Despite the creation of this incentive system, active protection on the part of the MEFT is necessary to guard the system against free riders. Free riders are individuals or groups who profit from a common resource without contributing to its conservation. Illegal hunters not only contribute to *overexploitation* but also undermine the efforts of those who use the resource sustainably. For example, a concessionaire within a conservancy reported that illegal hunting activities were taking place near his lodge on the river. As a result, elephants have left the side of the river opposite the lodge for two years, which reduces the attractiveness of the lodge for guests. Illegal hunting near lodges and water bodies is dangerous, prohibited and unethical. Although this example did not take place in a national park, there is a possibility that unethical hunting practices could also occur there, threatening the wildlife population and reducing the tourist appeal.

For these reasons, the law enforcement of the MEFT is crucial for wildlife conservation and the preservation of the incentive system. The project contributes to wildlife conservation and population growth by providing the MEFT with the necessary resources and infrastructure for effective management of the NP.

The SMART system was piloted in Mudumu NP during the project period. The system was subsequently expanded to 14 of 20 national parks. The MEFT has institutionalised the SMART system in terms of personnel and systems and conducts regular training sessions. The SMART system has led to increased patrol intensity due to greater transparency and provides reliable data for determining sustainable hunting quotas of wild animals.

Trophy hunting is another important pillar for maintaining the incentive system and contributing to the protection of wildlife, even if this is a controversial element of nature conservation. The greatest threat to wildlife is the loss of habitat, particularly through land conversion for agriculture or livestock. The income from trophy hunting makes it possible to conserve land for wildlife and protect it from such conversions. According to MEFT respondents, without this income, wild animals would only have a value to the population through their meat, while the income from trophy hunting is 40 to 80 times higher than their meat value.

If local residents view wildlife as natural capital, they are more willing to contribute to the conservation of these animals instead of killing them uncontrollably. One criticism at trophy hunting is that only privileged individuals benefit from hunting concessions. While privileged concessionaires certainly benefit greatly from the income from game animals, the CBNRM approach aims to ensure that the surrounding communities benefit directly from trophy hunting as well.

The Economist⁴ emphasises that the only two countries with a growing lion population are those where trophy hunting is permitted. In Namibia, for example, there were only 12 southern white rhinos in 1968. It was only when trophy hunting was authorised in 1982 that the population experienced strong growth. Even today, rhinos are released for hunting, although it should be noted that the reproduction rate of black rhino is around 8 % per year, while only 0.01 % are released for hunting each year. The rhinos released for hunting are usually old bulls, which often also kill young rhinos. A similar population dynamic can be observed in the elephant population. They have grown from around 7,000 in 1995 to an estimated 24,000 elephants in Namibia as a whole. However, compliance

⁴ Source: <https://www.wildcru.org/news/amy-dickman-economist/>

with the established quotas is crucial for sustainable wildlife management. It is therefore important that a controlling body has a strong presence and means to conduct law enforcement.

In 2024, Namibia was hit by a severe drought and MEFT announced the culling of 723 animals within national parks and conservancies, including 83 elephants, 30 hippos, 60 buffaloes, 50 impalas, 100 blue wildebeest and 300 zebras. The release of 83 elephants corresponds to a removal of only 0.3 % of the total elephant population, whose reproduction rate is around 3.5-5 %. The drought programme aims to supply the local population with meat and thus counteract the drought-related food shortage.

Given the increased likelihood of droughts in the future due to climate change, it is likely that such programmes will be implemented again. Although this will (temporarily) reduce the wildlife population, its existence is not threatened, at least as long as the removal rates remain only a fraction of the total population and well below the reproduction rate.

Although there may be individual cases of illegal hunting, the evaluation concludes that trophy hunting in Namibia is a sustainable wildlife conservation model that also benefits and involves the local population. The investments made in the project actively contribute to wildlife conservation by strengthening the MEFT in the protected area management and provide reliable data for management purposes.

Contribution to overarching (unintended) developmental changes

Human-Wildlife Conflicts (HWC) are an unintended negative consequence of increasing wildlife populations and pose a threat to the sustainability of wildlife conservation. A high number of such conflicts and damages can reduce the tolerance of local communities towards wildlife, especially in the case of dangerous encounters. The MEFT has put in place preventative measures such as an early warning system for lions near livestock enclosures and crocodile barriers on riverbanks to protect people. In addition, a compensation scheme (HWC Self Reliance Scheme) has been created to partially compensate local communities for costs and losses, although payments are not designed to fully cover losses to prevent abuse.⁵ Cases eligible for compensation include destruction of farmland by elephants, loss of livestock to predators, and injuries and deaths. Such compensation schemes are crucial to maintain tolerance towards wildlife in areas where humans and wildlife share the same habitat. At the same time, the population has criticised the inadequacy of these compensation payments. Officially, this is an offset scheme and not full compensation. This is intended to prevent abuse of the system. However, this argument cannot be applied to deaths caused by wild animals. Nevertheless, in the event of death, only an amount is paid out to cover the funeral costs⁶.

Furthermore, the frequency of illegal hunting incidences indicates that the income from concessions and other income sources may be insufficient to cover the livelihoods of local residents. There is also the possibility that individual neighbours may carry out retaliatory killings or defend themselves against the wild animals and not report the incident to the MEFT for fear of prosecution. HWCs therefore pose a risk of jeopardising the project's do-no-harm approach.

Rating summary

The wildlife populations within and around the NE-NP have stabilised and increased, which is supported by open wildlife corridors. Hunting is an important component of sustainable wildlife conservation in Namibia and the MEFT's drought programme is not having a detrimental effect on wildlife populations. The SMART system introduced during the project has increased patrol intensity and provides reliable data effective wildlife management, which has had a positive impact on wildlife populations. The project also had a broad impact, as the SMART system was successfully introduced in 14 out of 20 other national parks in Namibia after the pilot phase. On the other hand, the increase in wildlife populations has led to more human-wildlife conflicts, which could jeopardise the tolerance of local communities towards wildlife.

⁵ The equalisation system is part of the national efforts and is not related to the project evaluated here

⁶ At the time of the evaluation, an insurance company is working on an insurance product for conservancies, which can also be purchased by farmers to protect against HWC.

The TK(S)NP in Namibia is an important biodiversity hotspot with an intact ecosystem. The park management effectively protects biodiversity, and some tourism concessions generate considerable income for the local population.

Overarching developmental impact: 2

Sustainability

Capacities of the beneficiaries and stakeholders

The MEFT has created a good framework for the protection of natural resources. Nevertheless, it needs additional resources to sustainably secure and further expand the effects achieved. The MEFT is present throughout the country, including remote areas within the national parks. The presence is supported by the deployment of special forces with mobile camps to track illegal hunting.

To support the financial sustainability of park activities, the Namibian government founded the GPTF in 1997. The fund is mainly financed by income from regulated hunting and wildlife tourism in the national parks and neighbouring areas. Since 2021, an additional "Conservation Fee" has been levied together with the park entrance fees, 40% of which flows into the GPTF. These funds are used to improve park management, maintain park infrastructure and for conservation and development projects, including the monitoring of wildlife populations and the development of sustainable management plans. Overall, the GPTF plays a crucial role in supporting the national parks and the surrounding local population. Despite these important measures, the financing instrument is not sufficient in the long term to ensure independent and sustainable financing of the national parks. In an international comparison, the entrance fees for the national parks and the conservation fees are still quite low, especially for international tourists. Here, price increases would presumably meet a rather inelastic demand and be able to generate additional income.

At an international level, Namibia is an active member of the Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The convention regulates international trade in wild plants and animals and is intended to ensure that trade does not jeopardise the survival of the approximately 35,000 listed species. CITES plays an important role for Namibia, as the country is home to a large number of endangered species. It has committed itself to complying with the provisions of CITES and is committed to the sustainable use and protection of its natural resources. At the same time, it is strongly in favour of the continued legal export of hunted trophies so that the revenue from trophy hunting can continue to be used to finance wildlife conservation.

Contribution to supporting sustainable capacities

The capacities of the MEFT were significantly supported by various training and investment measures of the programme. These include counselling, mentoring and training measures, which led to the development of new park management plans. These plans serve as direct management instruments for the park administration and create important prerequisites for effective and sustainable protected area management. The same applies to the creation of new park infrastructure and support for the implementation of park management plans. In addition, investments in infrastructure and the creation of concessions increase the attractiveness for tourists and generate income through the aforementioned "conservation fees". Another important aspect is support for the monitoring of national park management, in particular through the introduction of the SMART monitoring system. This system improves the monitoring of wildlife populations and contributes to the sustainable management of resources (e.g. increase in patrol intensity, provision of reliable data). In addition, the updated tourism development plans enable the local population to participate economically. This promotes sustainable tourism and contributes to improved living conditions for the local communities.

A comprehensive maintenance strategy was developed to ensure the maintenance of the subsidised infrastructure and equipment. For more complex infrastructures (e.g. PV systems and water treatment plants), maintenance contracts were signed with specialised companies to carry out regular and preventive maintenance measures. During the 3-year transition period, which was extended until the first quarter of 2025, MEFT employees were trained so that they can take over the maintenance measures once the maintenance contracts expire.

The maintenance strategy also proposed the creation of special positions in the MEFT for maintenance tasks and a budget line for maintenance. These recommendations were also followed. At the time of the evaluation, staff

positions were created in each of the five administrative zones of the MEFT to ensure the maintenance of the infrastructure. The staff positions provide for several people at four hierarchical levels per region to implement the maintenance plans. The structural realignment towards the maintenance and its staffing should be rated very positively. In practice, however, maintenance is often not carried out (see Durability of impact over time). Nevertheless, the establishment of a budget line for maintenance work represents an important step towards the durability of impacts. At the time of the evaluation, however, not enough resources were allocated for the maintenance of all infrastructures.

Overall, the project has contributed to sustainable park management and created the basic conditions for financial sustainability, which is the focus of a follow-up project.

Durability of impacts over time

Infrastructure and maintenance in the NE-NP and TK(S)-NP

The financed infrastructure is in good condition overall. Despite the comprehensive maintenance strategy implemented as part of NamParks IV, minor to medium defects were identified that do not significantly impair the overall functionality of the investments but could lead to higher costs in the future.

The renovation of the Old Post Office in Lüderitz was well received by employees as they now have more office space. At the time of the evaluation, the 5-year maintenance cycle had expired and despite proper renovation, layers of paint were beginning to peel, exposing the plasterwork underneath. Architects reported that due to the climatic conditions in Lüderitz, repainting was required every five years. It is unlikely that by the end of the project MEFT employees will be able to take over the maintenance of more complex infrastructure (e.g. water treatment plants) independently and thus become independent of external service providers. Outsourcing to an external service provider is efficient in itself, but requires the necessary funds be able to procure this service. The availability of funds for major maintenance was doubtful, at the time of the evaluation.

Minor maintenance work is only carried out to a limited extent. In one particular park, the electric fences around the ranger station have been dysfunctional for two years, as repairs could not be carried out due to a lack of funds. Even minor repairs, such as defective toilets at the park entrances or broken window grilles to protect against snakes, have not been carried out due to a lack of funds for spare parts. Continued neglect of maintenance could turn minor defects into costly problems and affect the tourist experience if the infrastructure continues to deteriorate. In addition, some of the roof battens of the residential buildings in Aus are beginning to disintegrate. The light bulbs for the streetlights at Buffalo Park Station cannot be sourced locally, which prevents MEFT staff from changing them on their own without a consultant. There was a positive example in the TK(S)NP where an employee was trained in manual labour and where minor maintenance work was being carried out at the time of the evaluation.

A major risk to the provision of maintenance would be a high turnover of staff, as new staff would need to be trained, and institutional knowledge could be lost. In Namibia, however, this is less relevant as the turnover rate among the senior staff coordinating the maintenance work is relatively low.

At the time of the evaluation, there was a control inspector in each of the five administrative regions as well as several chief inspectors, inspectors and foremen. Unfortunately, some positions are vacant or cannot be advertised due to a lack of funds in the national budget. Despite this, some repairs could not be carried out despite the availability of a chief building inspector and other skilled labour. However, a lack of funds and capacity or insufficiently trained personnel are insufficient explanations for the low maintenance performance. The fundamental problem seems to lie more in the separation between users and owners of the investments. After the investments of the project, the ownership rights are transferred to the Ministry of Works (MoW). It is also responsible for the maintenance of the investments if the MEFT reports defects. However, the MoW also only has limited resources for major maintenance measures and responds to minor requests with a delay or not at all.

However, the availability of the GPTF has been helpful in the past, for example to finance the maintenance fences and to commission other maintenance work. However, applying to the GPTF for funding for minor repairs is usually not worthwhile due to the administrative burden. Ideally each park will have its own budget for minor and major maintenance work. The follow-up phase of the sustainable financing project aims to further institutionalise the sustainability of the MEFT's work and to secure maintenance funds by strengthening the GPTF and identifying new sources of financing. The evaluation concludes that it is highly likely that the capacities of the project executing agent, the existing financing structures and the follow-up programme will ensure the sustainability

of the impacts of the infrastructure and management plans.

Green hydrogen in the TK(S)-NP

In 2020, the project received information about the planned development of a green hydrogen infrastructure in the TK(S)NP in Namibia. The government has already awarded two concessions for hydrogen projects and is planning additional eight concessions as well as various agricultural and urban development projects, including an international airport near Lüderitz. The first hydrogen concession envisions an annual production volume of 2 million tonnes of ammonia for the regional and global market through renewable energy, which can be converted to hydrogen in the target country. At the time of the evaluation, however, the environmental impact assessment had not yet begun. Following completion of the assessment and approval by the MEFT, construction work on the project is scheduled to begin in 2027.

The projects promise economic benefits but jeopardise the biodiversity of the park. The diversity of succulents, which are predominantly endemic and are also important for many animal species, is particularly affected. The ecological footprint of the planned production facilities is relatively small. However, the construction of wind turbines requires long roads that could lead through highly biodiverse areas. Despite intensive planning and efforts to avoid building within areas with high biodiversity, it cannot be ruled out that such areas will ultimately be converted.

In addition, the energy projects have a negative impact on tourism in the TK(S) NP as early as the planning phase. The prospect of hydrogen infrastructure makes investments in luxury hotels unattractive, and the availability of hotel rooms is restricted by long-term bookings for employees in the energy sector, which makes it more difficult for tourists to find accommodation. This makes it more difficult to exploit the tourism potential, which was the aim of the project in the TK(S)NP.

Rating summary

The existing concrete proposals and plans for land use changes in the TK(S)NP make it appear very likely that large parts of the park will be negatively affected. In addition, parts of the tourism development plan have already become obsolete. Minor infrastructure deficiencies have been identified and there is an overall lack of resources for comprehensive maintenance.

On a positive note, however, it should be emphasised that the MEFT has created a good framework for sustainable operation. An upcoming follow-up project aims to further institutionalise the sustainable funding mechanism to ensure the sustainability of the MEFT's work.

Sustainability: 3

Overall rating: 2

The project was closely aligned with Namibia's national priorities and the needs of the project executing agent. It followed a clear results chain to ensure the long-term achievement of objectives. The combination of economic benefits for local residents and nature conservation was considered in the concept and corresponds to the state of the art for effective and sustainable nature conservation.

The programme was coherent with the project executing agent's own efforts and other donors, but incoherent with regard to the national hydrogen strategy. The financed infrastructure, management plans and tourism development plans are of great importance for daily operations, and a direct contribution of these measures to the growing wildlife populations can be plausibly derived. At the time of the evaluation, the infrastructure was largely in good condition. The favourable framework conditions and an upcoming follow-up project suggest that maintenance work can be carried out in the future. However, the hydrogen developments and other development plans in the TK(S)NP pose a considerable risk to the biodiversity.

Contributions to the 2030 Agenda

Universal scope: The programme has made a significant contribution in achieving the goals of the United Nations 2030 Agenda, in particular SDG 15, which focuses on protection, restoration and sustainable use of terrestrial ecosystems, the sustainable management of forests combating biodiversity loss. The project has made a

significant contribution to preserving biodiversity and stabilising the populations of selected animal species.

Shared responsibility: Goal 19 of the Kunming-Montreal Global Biodiversity Framework states that "the total amount of international financial resources related to biodiversity from developed countries, including official development assistance, and countries that voluntarily undertake commitments from developed countries, to developing countries, in particular least developed countries and small island developing States, and countries with economies in transition, should be increased to at least USD 20 billion per year by 2025 and to at least USD 30 billion per year by 2030." The project is Germany's contribution to fulfilling the formulated responsibility of developed countries.

Interplay between economic, ecological and social development: The programme was in line with SDG 1 "No poverty". It aimed to integrate local residents of the nature conservation parks by enabling them to benefit directly from hunting and tourism concessions. This integration was not always successful. Although local residents benefit from the concessions, they also complain about low income and restrictions on use in the park.

Project-specific strengths/weaknesses and general conclusions/lessons learned

The strengths and weaknesses of the project include in particular

- The active participation of local residents in the preparation of the Land Use and Development Plan (LUDP) for the Managed Resource Use Zone (MRUZ) of the Bwabwata National Park promoted the acceptance and support of the conservation measures.
- The granting of concessions with usufructuary rights to the neighbouring population was a decisive step towards increasing the economic benefits for the local community.
- Regular consultations were held with the project executing agent to closely align the measures with their needs.
- The management plans play a central role in day-to-day work and form the basis for the allocation of tasks and the performance appraisal of individual park employees.
- The project design was appropriate and realistic and followed a clear chain of effects.
- The creation of a SMART strategy and piloting in a park had a broad impact beyond the targeted national parks.
- Even if financial sustainability was not fully achieved, the project contributed to favourable framework conditions to ensure the durability of the impact.
- The community development programme promoted the establishment of small commercial farms, which led to the relocation of cattle grazing to the east up to the park boundary and in some cases even beyond the boundaries. To avoid conflicts of interest, more intensive coordination within the funding co-operation would have been necessary.
- Minor to medium defects in the infrastructure were identified, which could lead to higher costs in the future if these defects are not rectified promptly.
- At the time of the evaluation, there was a lack of funds for maintenance. The fundamental problem of the lack of maintenance lies in the separation between the users and the owners of the investments, who are also responsible for maintenance.
- The increase in wildlife populations has led to more conflicts between humans and wildlife, which can jeopardise local communities' tolerance of wildlife.
- The various development plans in the TK(S)NP (e.g. green hydrogen, international airport) have rendered a large part of the tourism development plans obsolete.

Conclusions and lessons learned:

- Tourism concessions are an important pillar for generating economic benefits from nature conservation for local residents if the general conditions for tourism are already favourable.
- Hunting licences can provide a significant incentive for local residents to participate in wildlife conservation, provided that there is a strong governance system of the nature conservation authority / ministry.
- Without mitigation through accompanying measures, human-wildlife conflicts pose a considerable risk to the acceptance of wildlife by local residents.
- Management plans realise their greatest potential when they are regularly coordinated with the project executing agent right from the start as well as when they are incorporated into the performance appraisal of employees.
- The introduction of a SMART system for monitoring park management activities can increase employee performance and can be rolled out on a broad scale.

Evaluation approach and methods

Methodology of the ex-post evaluation

The ex-post evaluation follows the methodology of a rapid appraisal, i.e. a data-supported, qualitative contribution analysis and represents an expert judgement. This involves attributing impacts to the project through plausibility considerations based on the careful analysis of documents, data, facts and impressions. Where possible, this also includes the use of digital data sources and modern techniques (e.g. satellite data, online surveys, geocoding). Causes of any contradictory information are investigated, attempts are made to eliminate them, and the assessment is based on statements that are - if possible - confirmed by several sources of information (triangulation).

Documents:

- Bussière, E.M.S. and Potgieter, D. (2023) KAZA Elephant Survey 2022, Volume I: Results and Technical Report, KAZA TFCA Secretariat, Kasane, Botswana.
- Ministry of Environment, Forestry and Tourism (2022). Tourist Statistical Report 2022. https://visit-namibia.com.na/wp-content/uploads/2024/09/MEFT-Tourist-Statistical-Report-2022-new-design_21-Aug-2023.pdf
- Naidoo, R., Beytell, P., Brennan, A., Carter, J., Carter, K. D., Chamailé-Jammes, S., Chilambe, B., Hoare, R., Iiyambo, N., Jooste, D., Karidozo, M., Kilian, J. W., Madhlamoto, D., Madiri, T. H., McCulloch, G., Monks, N., Mudimba, I., Ngwenya, N., Nyambe, N., ... Songhurst, A. (2024). Landscape connectivity for African elephants in the world's largest transfrontier conservation area: A collaborative, multi-scalar assessment. *Journal of Applied Ecology*, 61, 2483-2496. <https://doi.org/10.1111/1365-2664.14746>
- NCE - Namibian Chamber of Environment (2024). When Green Hydrogen Turns Red
- - Threatening A Global Biodiversity Hotspot. <https://n-c-e.org/wp-content/uploads/Green-hydrogen-Tsau-Khaeb-National-Park-NCE-Position-Paper.pdf>
- Park management plans and tourism development plans of the project. <https://www.meft.gov.na/policies-legislation/park-management-plans/246/>
- Maintenance plans for the project
- Internal project documents
- Final inspection
- Project appraisal report
- Progress reviews
- Final report of the implementation consultant

Data sources and analysis tools:

World Database of Protected Areas

Interview partner:

Project executing organisation MEFT, tourism concessionaires, GIZ, concession holder for green hydrogen in the TK(S)NP, Namibian Chamber of Environment, KfW Development Bank, biodiversity experts

The analysis of impacts is based on assumed interdependencies, documented in the impact matrix developed during the project appraisal and, if necessary, updated during the ex-post evaluation. The evaluation report presents arguments as to why which influencing factors were identified for the identified results and why the analysed project presumably made which contribution (contribution analysis). The context of the development project is considered with regard to its influence on the results. The conclusions are set in relation to the availability and quality of the data basis. An evaluation design is the reference framework for the evaluation.

For project evaluations, the method offers a - on average - balanced cost-benefit ratio, in which the knowledge gained, and the evaluation effort are in equilibrium, and allows a systematic assessment of the effectiveness of FC projects across all project evaluations. The individual ex-post evaluation can therefore not fulfil the requirements of a scientific assessment in the sense of a clear causal analysis.

The following aspects limited the evaluation:

Not all project sites could be visited during the evaluation (e.g. Khaudum NP, Nkasa Rupara NP, large parts of TK(S)NP). It was also not possible to validate the extent to which neighbouring farmers of Khaudum NP cross the park boundaries. The development of "green" hydrogen in the TK(S)NP are currently only plans that are highly likely to be realised in the years following the evaluation.

Methodology of the performance evaluation

A six-point scale is used to assess the program according to the OECD DAC criteria. The scale values are assigned as follows:

- Level 1** Very successful: result significantly above expectations
- Level 2** Successful: result fully in line with expectations, without significant deficiencies
- Level 3** Moderately successful: below expectations, but positive results dominate
- Level 4** Moderately unsuccessful: is significantly below expectations and negative results dominate despite recognizable positive results
- Level 5** Unsuccessful: despite some positive partial results, the negative results clearly dominate
- Level 6** Highly unsuccessful: the project is useless or the situation has worsened

The overall rating on the six-point scale is based on a project-specific weighting of the six individual criteria. Levels 1-3 of the overall rating indicate a "successful" project, while levels 4-6 indicate an "unsuccessful" project. It should be noted that a project can generally only be considered developmentally "successful" if the achievement of the project objective ("effectiveness") and the impact on the overall objective ("overarching developmental impact") as well as the sustainability are rated as at least "Moderately successful" (rating 3).

The annex to this report is available upon request (German only).

Imprint

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