

# WHEN GREEN HYDROGEN TURNS RED

## – Threatening a global biodiversity hotspot

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Namibian Chamber of Environment  
Position Paper

May 2024





Photos:

Cover: *Namibia cinerea* is one of the many plant species that occurs only in the Tsau lKhaeb National Park.

Page 2 top: Olga Ernst & HP Baumeler.

Page 8–9: Olga Ernst & HP Baumeler.

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All others: contributed.

# 1. Executive Summary

■ The proposed hydrogen development in the Tsauikhaeb National Park (TKNP) poses a severe threat to one of only a few global biodiversity hotspots in an arid area, and one of the largest near-pristine wildernesses on earth. The biological diversity and ecological sensitivity of the TKNP should raise red flags about any large-scale industrial development in this area.

The German Development Bank (KfW) has financially supported the development of the TKNP management plan as part of its larger support programme for Namibian national parks. This investment will be virtually annulled by hydrogen development, which is strongly supported by the German government. The plans unveiled by Hyphen for the Namibian government’s current and future hydrogen development projects show scant regard for the TKNP management supported by KfW.

The world currently faces twin environmental crises: climate change and biodiversity loss. The Namibian Chamber of Environment (NCE) hereby joins the International Union for Conservation of Nature (IUCN) in standing against any plan to mitigate climate change that comes at an unacceptable cost to biodiversity. Any hydrogen produced in the TKNP is correctly labelled as **red hydrogen**, since its production is likely to increase the threats to many species of plants and animals on the IUCN Red List and other endemic and lesser-known species that have yet to be evaluated.

The European Union and a number of its Member States, particularly Germany, should not export the costs of their energy requirements to developing countries such as Namibia, and must take necessary

precautions and due diligence prior to supporting large development projects. The hydrogen energy sector is developing rapidly and new technologies that will reduce production costs for hydrogen threaten the economic viability of Namibia’s future hydrogen exports. These risks have not yet been fully explored or articulated to the Namibian public.

A full Strategic Environmental Assessment (SEA) must be conducted transparently and reviewed by independent experts for the long-term hydrogen development plans prior to Environmental and Social Impact Assessments for the Hyphen project. Alternative sites for producing hydrogen that support the local economy and have the potential to drive national manufacturing industries must be carefully considered within the SEA.

Namibia’s energy and sustainable development needs can be met using a strategic approach that considers the full societal and ecological costs and benefits of each form of energy production. These options must be carefully studied and compared to ensure that Namibia develops a truly sustainable energy sector that minimises costs to its biodiversity and maximises benefits for its people.





# 2. What we have to lose: Tsau ||Khaeb National Park

■ The Tsau||Khaeb National Park (TKNP, formerly the Sperrgebiet) is arguably one of the most important arid protected areas in the world, and Namibia’s most biodiverse protected area. Its biodiversity value is unmatched and irreplaceable at the global level.

## Biodiversity value of Tsau ||Khaeb (Sperrgebiet) National Park

The TKNP hosts 90% of Namibia’s portion of the hyper-diverse Succulent Karoo Biome, which is **one of 36 recognised global biodiversity hotspots**, and one of few in arid areas.

Due to its history as a ‘forbidden zone’ to ensure security around diamond mines, **over 70% of the 21,800 km<sup>2</sup> TKNP is a near pristine wilderness** and therefore an immensely valuable part of the Succulent Karoo Biome.

The TKNP hosts nearly 25% of Namibia’s plant species on only 3% of its surface area, with **31 of its 1,050 plant species occurring nowhere else on earth** (i.e. endemic to this park), many of which are extremely localised even within the park.

The islands and marine ecosystem off the coast of the TKNP are part of the Namibian Islands Marine Protected Area (NIMPA), the only formally declared Marine Protected Area in Namibia. It is a global Ecologically or Biologically Significant Area<sup>1</sup> (EBSA) and hosts **several Endangered and Critically Endangered coastal and marine bird species**.

The TKNP is an Important Bird Area, providing **critical habitat to 251 terrestrial bird species** (including the Orange River mouth)<sup>2</sup>, including one endemic species, 15 terrestrial and coastal Threatened species and 10 Near Threatened species. Nine Threatened and Near Threatened pelagic seabirds occur immediately adjacent to the TKNP.

The TKNP hosts a **minimum of 100 reptile species, 16 amphibian species** and a currently unknown (but likely exceptionally high) diversity of insects and other invertebrates. The area is severely understudied; it is likely that new species of plants and animals will be discovered with more research effort.

The TKNP is part of Namibia’s coastal protected areas, which span the entire length of the national coastline. It is also linked to a Ramsar Wetland of International importance (Orange River mouth) and the /Ai-/Ais Richtersfeld Transfrontier park, both of which are **transboundary conservation landscapes between Namibia and South Africa**.

TKNP’s wilderness area that has been relatively untouched by humans for 110 years is over **four times larger than the combined wilderness areas in the entire European Union** (as audited by the European Wilderness Network<sup>3</sup>).

The TKNP is **larger than the combined area of Germany’s seven largest protected areas and of far more biodiversity value** than these human-modified areas, none of which protect global biodiversity hotspots. If an industrial development project were proposed in Germany that would effectively eliminate their seven largest protected areas, it would not be approved.

<sup>1</sup> [https://chm.cbd.int/database/record?documentID=204072&\\_gl=1\\*1zxp5a\\*\\_ga\\*MzI0Nzc0Njk4LjE3MTYwMzI3ODA.\\*\\_ga\\_7S1TPRE7F5\\*MTcxNjAzMjc3OS4xLjEuMTcxNjAzMjgwMS4zOC4wLjA](https://chm.cbd.int/database/record?documentID=204072&_gl=1*1zxp5a*_ga*MzI0Nzc0Njk4LjE3MTYwMzI3ODA.*_ga_7S1TPRE7F5*MTcxNjAzMjc3OS4xLjEuMTcxNjAzMjgwMS4zOC4wLjA)

<sup>2</sup> <https://datazone.birdlife.org/site/factsheet/sperrgebiet-iba-namibia>

<sup>3</sup> <https://european-wilderness.network/european-wilderness-network>

# 3. Plans for hydrogen production threaten Tsau||Khaeb National Park

■ The German Development Bank (KfW) has invested €4 million in the TKNP infrastructure<sup>4</sup>, including housing, vehicles and other necessary equipment, as part of the NamParks IV programme valued at €14.5 million<sup>5</sup>. Part of this funding was used to develop the TKNP management plan<sup>6</sup> and associated tourism development plans.

According to Lydia von Krosigk, Senior project manager for KfW, “The purpose [of NamParks] was two fold, to support conservation and to develop attractive National Parks which would then attract tourists and tourism would create the need for hotels, for lodges, for supplies, and so create employment and bring economic development. National Parks are the hubs for conservation, they are the safe havens, or special protection zones where the animals can breed.”<sup>7</sup>

If the proposed hydrogen development project goes ahead, this investment would have been wasted, as the park’s biodiversity will be severely impacted and its tourism potential greatly diminished.

The German government is a key supporter of the hydrogen project and will be the main buyer for the hydrogen, ammonia and other products of this development project. It is therefore actively undercutting its own previous investment in the conservation and tourism development of TKNP.

Projects run through KfW, GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) and other German institutions conduct thorough, lengthy due diligence procedures prior to funding approval and implementation. No such due diligence was undertaken prior to the German government entering into a partnership with the Namibian government<sup>8</sup> to publicly support hydrogen development plans in the TKNP. This indecent haste is reflected in the lack of proper planning, strategic assessment, or thought given to environmental impacts and the lack of consideration for alternative hydrogen production options that would optimise socio-economic opportunities and development for Namibia.

The park zonation (Figure 1) outlined in the management plan has been largely ignored in the allocation of concession areas for hydrogen development. Hyphen’s plans currently aim to avoid the areas of highest biodiversity importance for development (Special Value zones) (see Figure 2), but even areas with lower ranking in TKNP far surpass the diversity of plants and animals and level of endemism that characterise most protected areas in the EU. Areas zoned as Minimal Disturbance in the park management plan (described in Table 1), where no new roads should be built and the only compatible land use is guided tourism, are earmarked for extensive wind turbine development and associated infrastructure in Hyphen’s plans.

One of the main purposes of Minimal Disturbance zones is to connect areas of high biodiversity value and provide a buffer around these areas. Each wind turbine will require an access road for maintenance purposes, while the construction phase will cause extensive environmental damage besides the final disturbance footprint.

By ignoring the Minimal Disturbance zones, the Special Value (high biodiversity) zones will become islands in a sea of development (Figure 2) that will be increasingly vulnerable to poaching (especially for succulents and reptiles) and edge effects due to habitat fragmentation. Wildlife migration corridors, bird flyways, and pollination and seed dispersal processes are particularly threatened by linear infrastructure such as pipelines, roads and powerlines that will crisscross the project area.

Restoring disturbed areas in an arid environment is only possible for few habitat types, requires substantial investment and takes several decades to reach acceptable states of restoration. Consequently, even if the project developers follow stringent, expensive restoration procedures, much of the damage done will be irreversible.

Table 1. The management guidelines for areas zoned as Minimal Disturbance in the TKNP management plan funded by KfW. Source: TKNP Management Plan.

| Management zone     | Description of area | Key properties   | Management guidelines  |
|---------------------|---------------------|--|--|
| Minimal Disturbance | 6. Buffer zones     | <ul style="list-style-type: none"> <li>Areas of medium biodiversity<sup>12</sup> that interconnect areas of high or very high biodiversity or provide a buffer zone around such areas</li> </ul> | <ul style="list-style-type: none"> <li>No new roads should be constructed in this area</li> <li>Only guided tourism</li> <li>No harvesting</li> <li>No permanent structures to be developed (except possible rest / picnic points, which must be developed in a way that blend into the environment)</li> <li>No off road driving</li> <li>No mining or prospecting is allowed according to the policy on mining and prospecting in protected areas</li> </ul> |

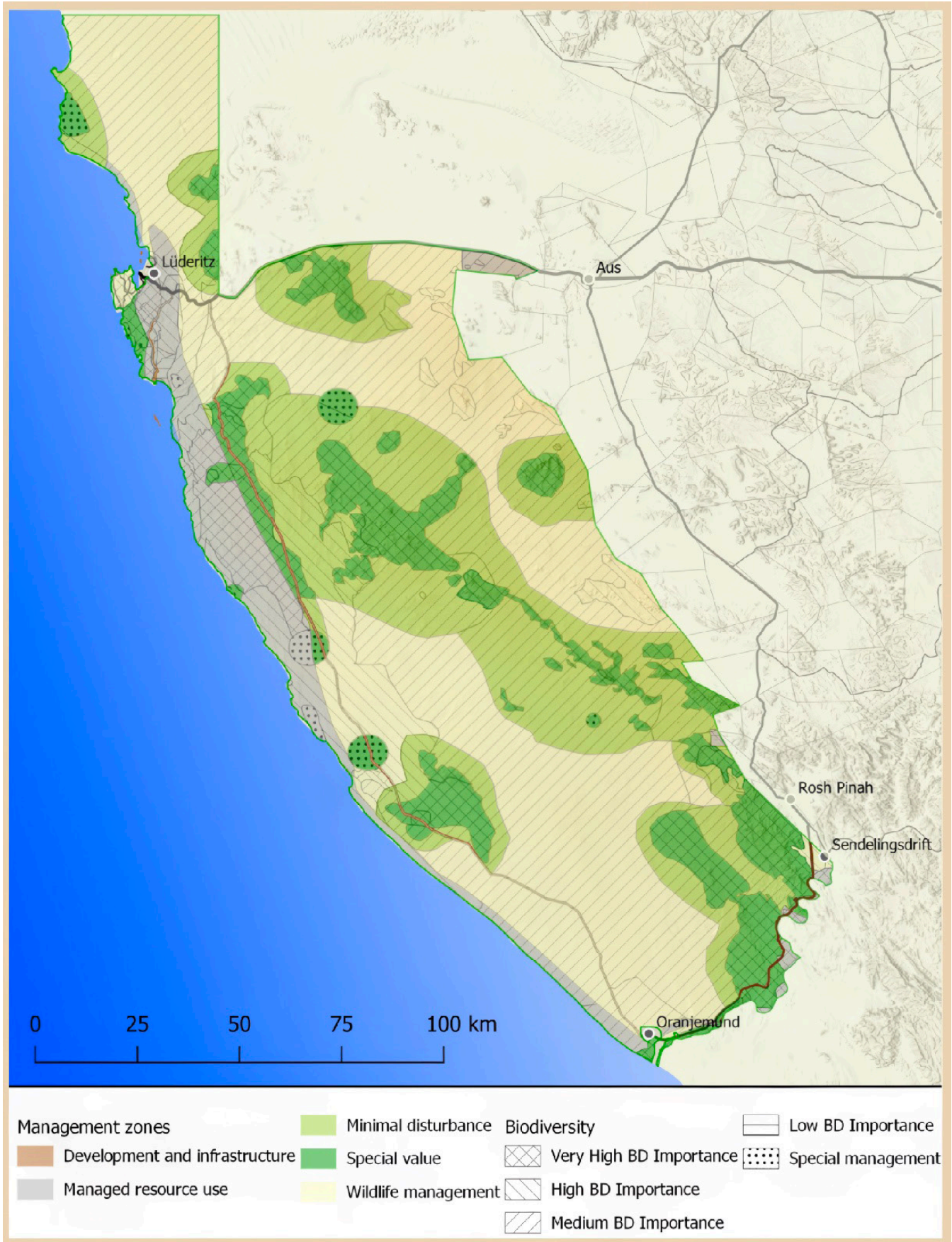


Figure 1. Zonation plan for TKNP. Source: TKNP Management Plan.

<sup>4</sup> <https://www.namibian.com.na/new-infrastructure-for-tsau-khaeb-sperrgebiet-national-park>  
<sup>5</sup> [https://www.namibia-forum.ch/media/kunena/attachments/102/NamParks\\_2006-2021\\_published2022.pdf](https://www.namibia-forum.ch/media/kunena/attachments/102/NamParks_2006-2021_published2022.pdf)  
<sup>6</sup> [https://www.meft.gov.na/files/downloads/bfd\\_Management%20Plan%202%20-%20Tsau%20Khaeb%20\(Sperrgebiet\)%20National%20Park.pdf](https://www.meft.gov.na/files/downloads/bfd_Management%20Plan%202%20-%20Tsau%20Khaeb%20(Sperrgebiet)%20National%20Park.pdf)  
<sup>7</sup> [https://www.namibia-forum.ch/media/kunena/attachments/102/NamParks\\_2006-2021\\_published2022.pdf](https://www.namibia-forum.ch/media/kunena/attachments/102/NamParks_2006-2021_published2022.pdf)  
<sup>8</sup> <https://www.bmbf.de/bmbf/shareddocs/kurzmeldungen/en/Karliczek-Germany-and-Namibia.html>

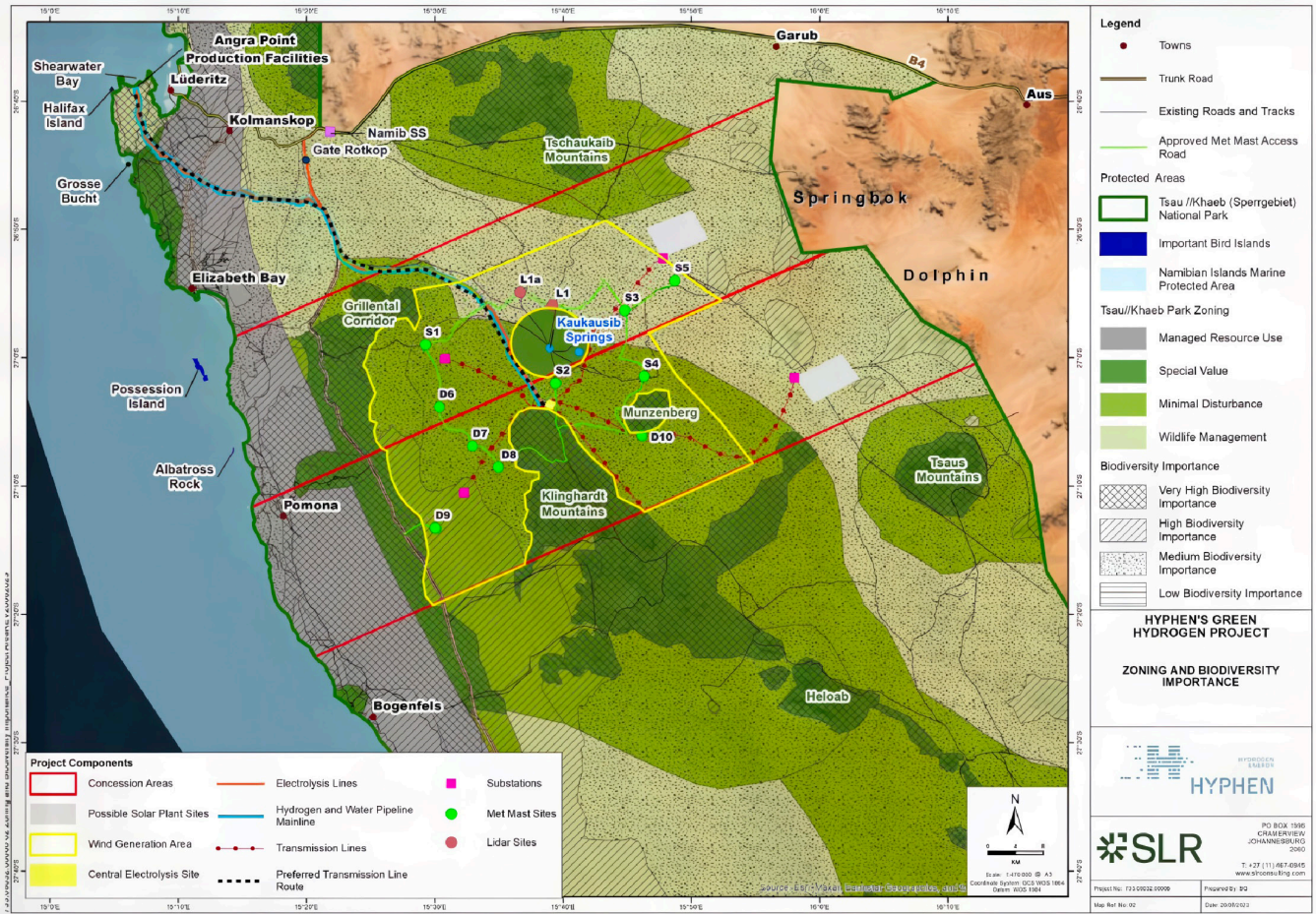


Figure 2. Hyphen’s development plans superimposed on the park zonation. Note the overlap between the pale green Minimal Disturbance zone and the Wind Generation Area (yellow outline) that will involve many roads and turbines. Source: TKNP Management Plan.



In a presentation by Hyphen<sup>9</sup>, the preferred bidder for the first hydrogen development project in this area, TKNP was tellingly referred to as an “area” or “region” rather than a national park. The presenter further explained that Hyphen’s concession area of 4,000 km<sup>2</sup> is the first of many, with others expected to take up concession areas that cover almost the entire TKNP (Figure 3). As part of its agreement with the Namibian government, Hyphen’s infrastructure is designed to facilitate the development of the future hydrogen projects. This plan is known as the Southern Corridor Development Initiative, which has been presented by James Mnyupe, Namibia’s Green Hydrogen Commissioner.

This sensitive desert ecosystem is extremely difficult to rehabilitate, while plant translocation has a high failure rate, making strategies to mitigate development actions expensive and largely ineffective. Consequently, even with stringent Environmental Management Plans in place, the Hyphen project and others that follow it will cause irreversible damage to this ecosystem that cannot be offset by protecting biodiversity elsewhere.

Besides the biodiversity loss caused by these developments, tourism will no longer be an attractive option for investors, as most of the zoned ‘wilderness area’ will be covered by wind turbines, solar panels, powerlines and associated roads. The Hyphen project area overlaps with several Tourism Development Areas (Figure 4), while the long-term hydrogen development plans will clash with all of these areas.

<sup>9</sup> <https://hyphenafrika.com/projects>



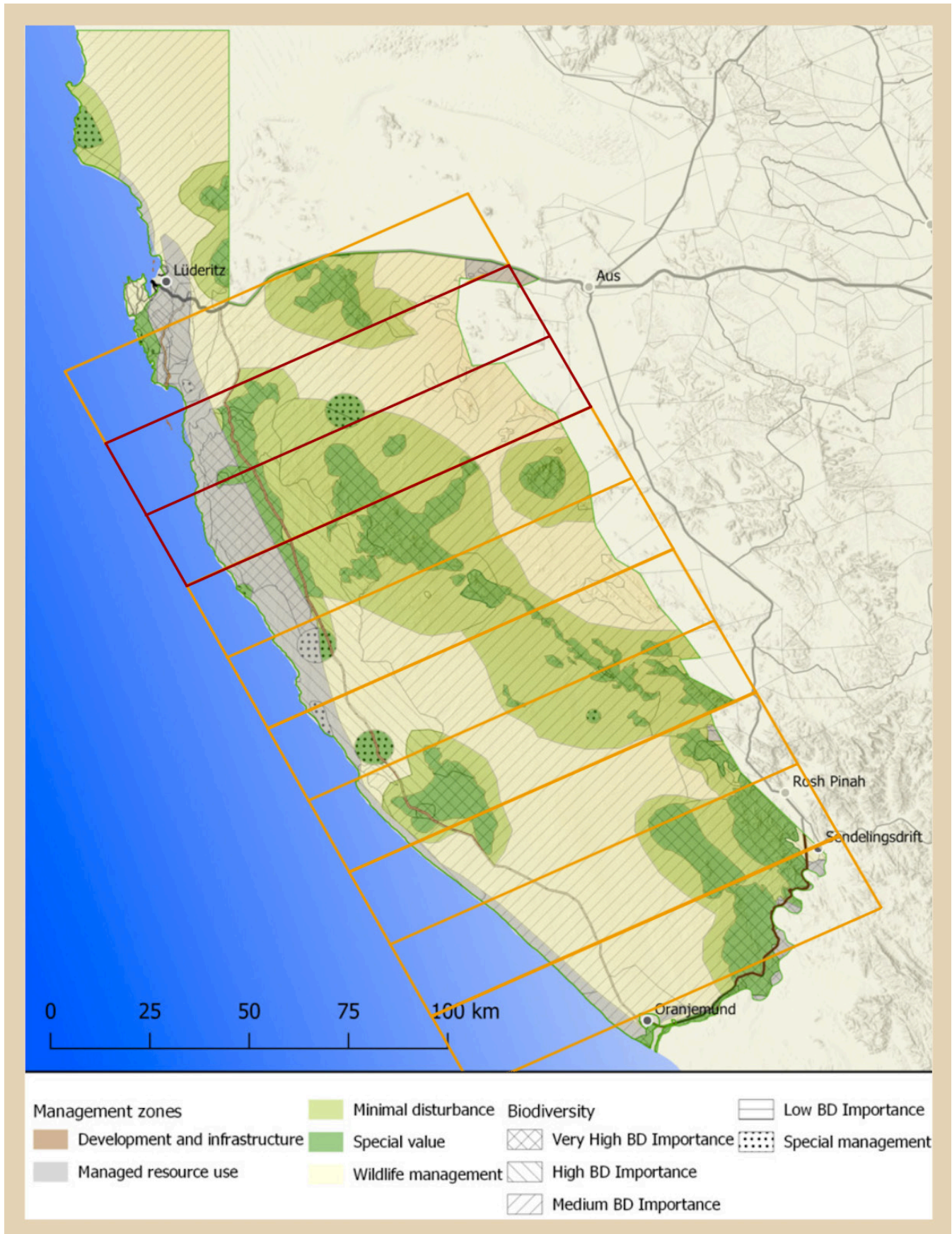


Figure 3. Current (red rectangles) and future (orange rectangles) hydrogen development projects. The future development areas will be facilitated by Hyphen's current infrastructure development plans. Source: Map recreated based on Hyphen presentation, <https://hyphenafrika.com/projects>.

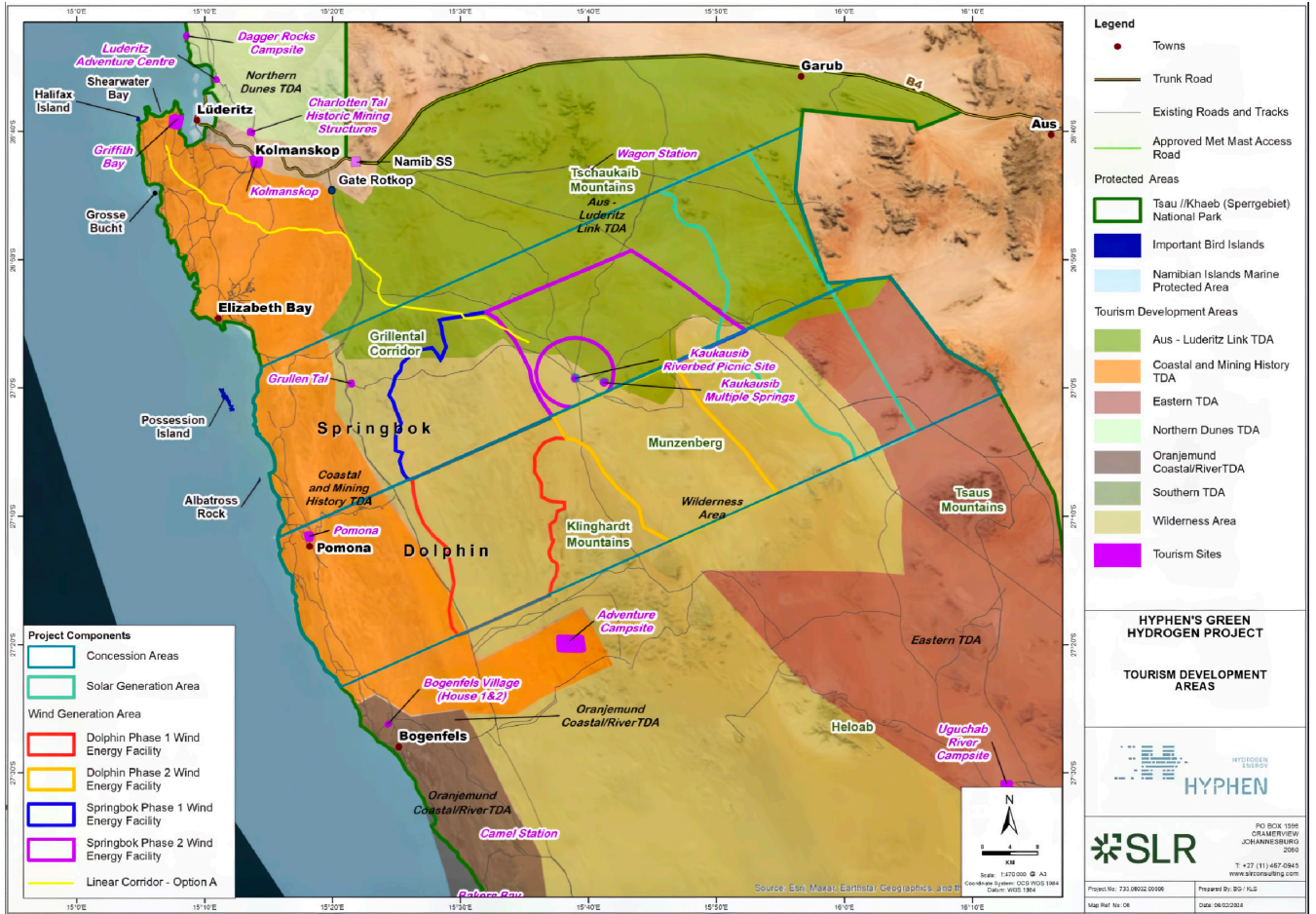


Figure 4. Overlap between the Hyphen project area, Tourism Development Areas and Wilderness Areas (the latter, notably, considered too ecologically sensitive for relatively eco-friendly tourism development, but now earmarked for wind turbines). Source: TKNP Management Plan.

The Hyphen project area includes extensive industrial development on the Lüderitz peninsula, also known as Angra Point. This peninsula and nearby islands are recognised as an Important Bird Area (IBA) and Key Biodiversity Area (KBA), due to its importance for Endangered seabirds, resident and migratory coastal wetland birds, whales, dolphins, Cape fur seals and brown hyaenas, among other species (Figures 5 and 6).

This area is also a key tourist attraction for visitors to Lüderitz. As the only publicly accessible part of the Namibian coastline between Walvis Bay and Oranjemund, numerous tourists include a visit to Dias Point and the coastal viewpoints between there and Lüderitz as part of their itinerary. These areas will either be no longer accessible and/or no longer attractive to tourists if the Hyphen development plans go ahead. Tourism to Lüderitz will likely diminish over time, rather than



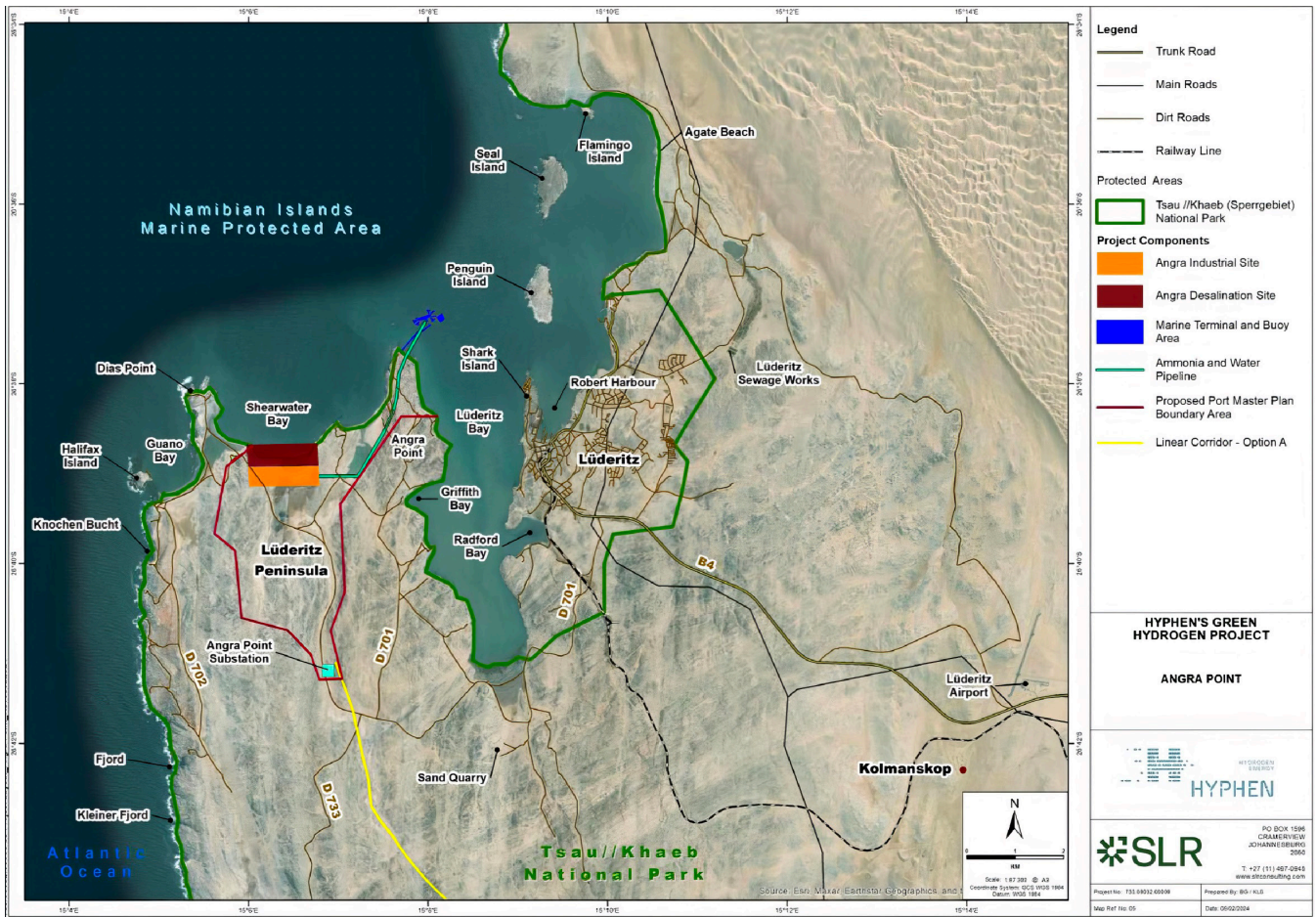


Figure 5. Proposed industrial development for the Hyphen project on Angra Point. These areas will be used for desalination and ammonia production plants, a power substation and other infrastructure. Source: TKNP Management Plan.

the growth that was expected if the TKNP Tourism Development Plan were implemented.

Areas near Elizabeth Bay, south of Angra Point, that have already been severely modified through long-term mining, and are therefore of lower biodiversity value, should be considered as a potential alternative location for the desalination and ammonia production infrastructure,

and the export point. This option has been ignored in order to justify a costly deep-sea port development wanted by Namport at Angra Point, and because of possible legal issues around mining licenses at Elizabeth Bay. The development of one large industrial project in ecologically sensitive areas will therefore set a precedent for development in other such areas.



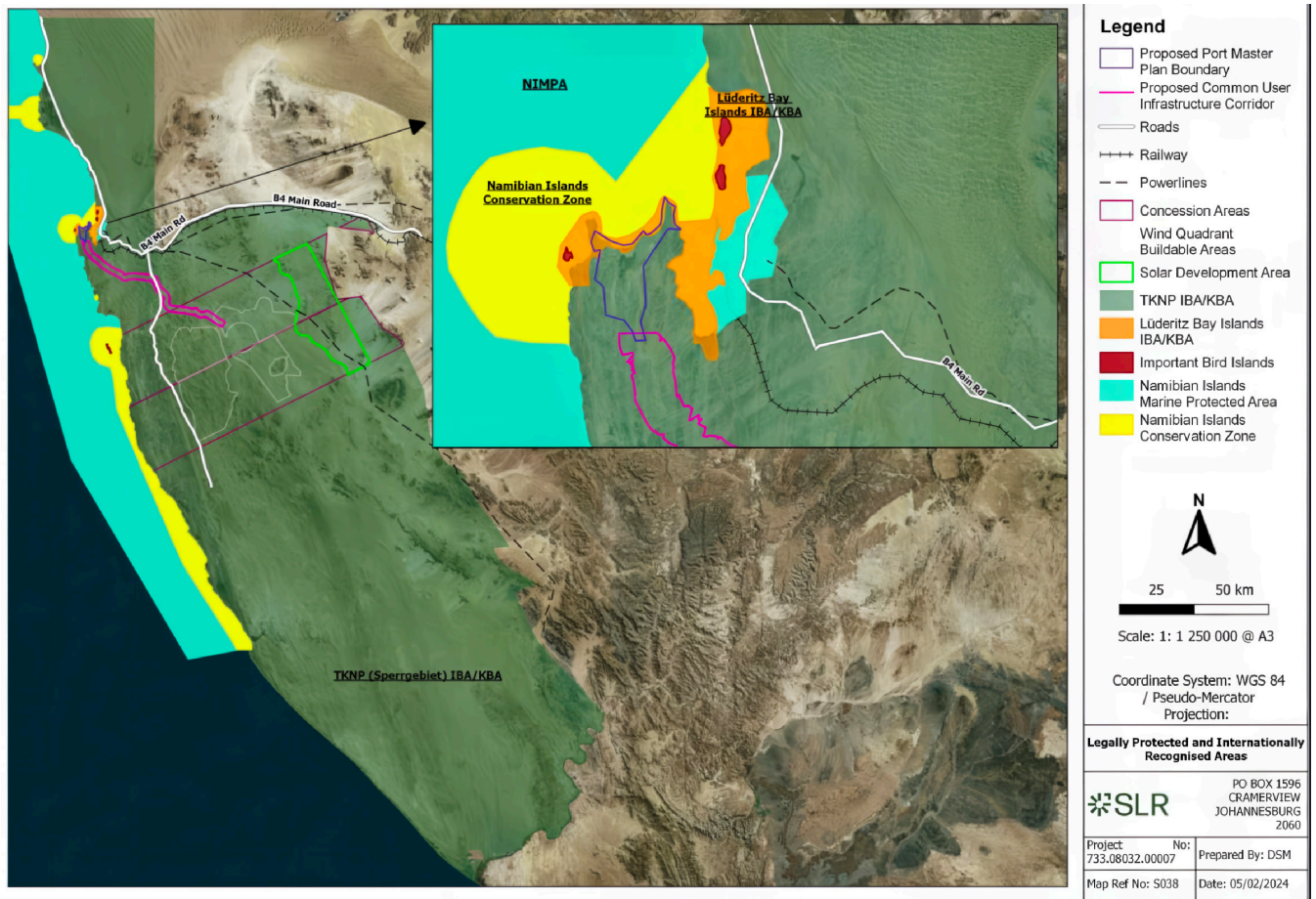
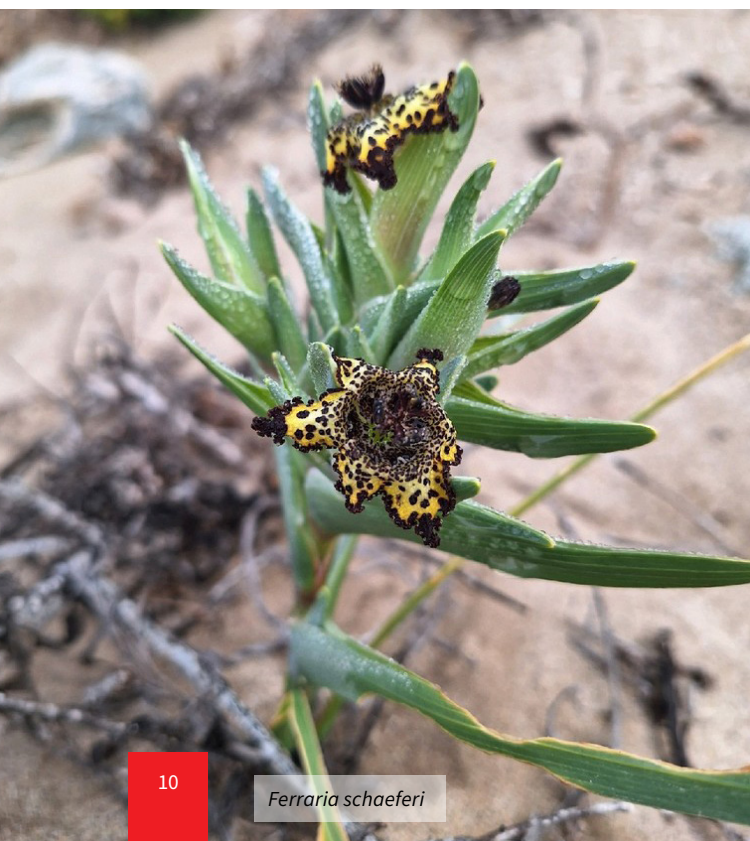


Figure 6. Angra Point (inset) is an Important Bird Area and Key Biodiversity Area, whereas Elizabeth Bay (south of the Namibian Islands Conservation Zone) has not been considered for port development even though it has lower biodiversity value. Source: Presentation by SLR Consulting of the Hyphen Environmental and Social Screening Study.<sup>10</sup>



# 4. Risks for Namibia's sustainable development

■ Hydrogen is extremely expensive, explosive, prone to leakage and difficult to transport or store.<sup>11</sup>

Global interest in using hydrogen as a fuel has therefore waned, turning instead to derivatives of hydrogen and other chemical elements, such as ammonia or kerosene<sup>12</sup>. The main product from the Hyphen project will be ammonia produced from hydrogen before being shipped to Germany, where it will power a large steel plant. Other future hydrogen projects may produce kerosene for the aviation industry, or possibly hydrogen in its raw form (this is more difficult to export).

Both ammonia and kerosene can be produced cheaply using 'dirty' sources of energy and hydrogen (i.e. using fossil fuels and liquid gas). The 'green' versions of these products are more expensive to produce, but the price premium is supposedly justified as part of the global move towards decarbonisation<sup>13</sup>. The project in TKNP is vaunted as a producer of relatively cheap hydrogen<sup>14</sup> (and subsequently ammonia and kerosene), given the level of wind and solar power that can be generated to power production. While this may be cheaper than other sources of 'green' hydrogen, it is considerably more expensive than hydrogen produced from natural gas. Further, the projected price of Namibian hydrogen derivatives to be exported from this area excludes the costs associated with avoiding, mitigating and managing environmental impacts. The opportunity costs for Namibia to develop low-impact tourism will also be irrevocably lost along with associated biodiversity and ecosystem services, but this cost is entirely unaccounted for in the hydrogen price.

The hydrogen developments in TKNP raise other long-term concerns about the legislation, policies and processes relating to environmental management in Namibia. A development of this magnitude should not be considered without first conducting a Strategic Environmental Assessment that takes into account the impacts of the Hyphen project and all future projects that will be facilitated by Hyphen's infrastructure development. Environmental and Social Impact Assessments (ESIA) on parts or all of Hyphen's project will not provide sufficient strategic information to enable sound decisions on the future of this biodiversity hotspot.

The fact that the Government of the Republic of Namibia (GRN) has a stake in the Hyphen project is a further point of concern, as SEAs and ESIA's fall under the auspices of the Ministry of Environment, Forestry and Tourism (MEFT). It is therefore imperative that any SEA be conducted and thoroughly reviewed by independent experts. The whole process, from establishing Terms of Reference for the project through to the final review and public participation process, must be conducted in a transparent and accountable manner without

manipulation and interference.

Developments in TKNP will set a precedent for developments in other national parks in Namibia. While current legislation allows for limited controlled mining in national parks and the sustainable use of natural resources for the benefit of neighbouring communities, these activities are closely managed and their impacts mitigated as much as possible. While mining activities are destructive, they are highly localised and large areas around the mine can be left intact (as was the case for the Sperrgebiet, now the TKNP). By contrast, the proposed hydrogen developments are extensive in nature and will ultimately use most of what is now the TKNP, threatening its integrity as a national park. If a large-scale industrial development is allowed to severely degrade and devalue Namibia's most biodiverse national park, this precedent puts all other national parks at risk.

Given the targets set by the Kunming-Montreal Global Biodiversity Framework (GBF) to strengthen and expand protected areas, developments that lead to the degradation or destruction of current protected areas should be avoided at all costs. If plans such as this one were presented in the EU, whereby a near-pristine protected area the size of Croatia (if such existed) would be degraded to produce 'red' energy, would it gain popular and political support? Namibia and all EU Member States are signatories to the GBF through the UN Convention on Biological Diversity, so the irreversible degradation of a globally important protected area in Namibia caused by the EU and any of its members must be viewed as a serious contravention of this multilateral environmental agreement by all Parties.

The future commercial success of hydrogen production in Namibia relies on a number of assumptions:

**First, it assumes that the hydrogen produced in Namibia can be legitimately labelled as 'green'.** While it will be produced using renewable energy, it will have a severe impact on biodiversity, with irreversible consequences for many endemic and threatened species in TKNP. Since pushing species towards extinction is known as driving them 'into the red', this project is in reality producing 'red hydrogen'. It is unlikely that the global market that is interested in tackling environmental issues such as climate change will have an appetite for 'red hydrogen', which exacerbates the global biodiversity crisis.

An open letter from the International Union for Conservation of Nature<sup>15</sup> (IUCN) prior to COP28 of the UN Framework Convention on

<sup>10</sup> [https://cdn.slrconsulting.com/uploads/2022-05/Hyphen\\_ES%20Screening\\_BID.pdf](https://cdn.slrconsulting.com/uploads/2022-05/Hyphen_ES%20Screening_BID.pdf)

<sup>11</sup> <https://medium.com/the-future-is-electric/hydrogen-will-not-be-the-aviation-fuel-of-the-future-ee8d2f6640a2>

<sup>12</sup> <https://www.hydrogeninsight.com/transport/airlines-are-not-willing-to-pay-a-premium-for-green-hydrogen-based-e-kerosene-report/2-1-1590224>

<sup>13</sup> <https://cleantechnica.com/2022/05/20/new-african-hydrogen-report-shows-hydrogen-can-be-green-but-wont-be-cheap>

<sup>14</sup> <https://www.bmbf.de/bmbf/shareddocs/kurzmeldungen/en/Karliczek-Germany-and-Namibia.html>

<sup>15</sup> <https://www.iucn.org/crossroads-blog/202311/we-must-unite-our-efforts-fight-climate-change-and-biodiversity-loss>

Climate Change (UNFCCC) specifically warned about potential conflicts between climate change mitigation and biodiversity conservation. These authors state: “We cannot solve one problem by creating others. But careful siting of energy projects can greatly reduce the impact on biodiversity and still contribute to the green energy transition.” The Hyphen hydrogen project and others that follow it is a perfect example of the problem that the IUCN warns about. Namibian members of the IUCN intend to bring this project to the attention of the upcoming World Conservation Congress as a matter for urgent action.

**The second assumption is that the German market will continue to have an appetite for expensive hydrogen to address its energy shortfalls in future.** The current energy crisis in Germany is related to its refusal to use relatively clean nuclear energy, replacing it with natural gas from Russia. This was a knee-jerk reaction to the unfortunate impact of a tsunami on a nuclear power station in Japan. Independent data show that nuclear power is the safest and has amongst the lowest environmental impact of all bulk and baseline energy sources globally<sup>16</sup>. The Russia-Ukraine war and subsequent sanctions on Russia have exposed the vulnerability of Germany’s energy sector and need for alternative sources of energy.

If Germany decides to invest in nuclear energy again, or if cheap methods of producing green ammonia<sup>17</sup> and kerosene are developed that do not require initial hydrogen production, or if the current work on fusion energy by the USA<sup>18</sup> results in commercially viable energy

sources, Namibia’s market will shrink and its profitability will collapse. Yet the damage to the TKNP will most certainly remain.

**The third assumption is that hydrogen production geared for export is more beneficial to Namibian citizens than the development of other energy production options.** Hydrogen projects in almost any other part of Namibia would have lower biodiversity costs, while projects that focus on developing Namibian industries that use hydrogen or its derivatives could contribute substantially to local economic development. Hydrogen projects following this local development model are already operational near Walvis Bay<sup>19</sup>, on a part of the Namibian coastline that is far less biologically sensitive than the TKNP. Long-term, local sustainable development such as this should be encouraged and welcomed rather than high-risk, export-focused projects that could fail if global markets shift or new technologies supersede hydrogen as a source of energy.

Further, new development projects in national parks have little potential for broad-based economic development, as all business agreements are directly between the government and private sector. The associated economic opportunities in Namibia will be limited to companies that win tenders for construction and other work, while their activities in TKNP will not be open for public scrutiny. These conditions create multiple opportunities for corruption and elite capture of economic benefits.

## 5. Alternatives worth exploring

■ Development projects in the energy sector should aim to have broad-based economic impacts, with increased access to cheaper energy for households and a share in the profits of these enterprises.

For example, many inland parts of the Ilkharas Region (the same region as the TKNP and Hyphen’s proposed project) are ideal for solar farms, as extended droughts and degraded rangelands have greatly reduced the livestock production potential of this area, which supports some of the poorest and most marginalised communities in Namibia. These communities experience multi-dimensional poverty and would benefit directly from the construction of solar farms on parts of their land in return for a share in the sale of this energy into the national grid and access to electricity for their own households.

If developed prudently, Namibia’s energy sector has great potential for alleviating poverty and reducing the nation’s reliance on imported electricity. Indeed, Namibia would be in an ideal position to export renewable energy to the regional grid and thereby contribute significantly to de-carbonising the energy sector in the SADC region. We therefore recommend a national strategic assessment of Namibia’s current and potential energy sector by recognised, independent experts in this field. This study would take a systems approach to

assessing different energy production options, focusing on the benefit flows relating to each option and forecasting changes in markets and technologies that could present risks or opportunities for different energy sources.

The production of hydrogen and its derivatives from all potential sites in Namibia should be included in the above national study, with full consideration of the biodiversity impacts associated with each site. The site in the TKNP was selected based on abiotic and logistical factors, such as windiness, solar irradiation, accessibility to a harbour, etc., but did not consider the biodiversity value of the area. A holistic evaluation of Namibia’s hydrogen potential that takes into account sustainable development would consider abiotic factors, broad-based socio-economic benefits and negative ecological and biodiversity impacts. This, together with public and expert consultations, would provide a fuller picture for GRN to decide how best to use its natural resources for the benefit of Namibian people without destroying their natural heritage.

<sup>16</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0306261999000690>

<sup>17</sup> <https://e360.yale.edu/features/from-fertilizer-to-fuel-can-green-ammonia-be-a-climate-fix>

<sup>18</sup> <https://usfusionenergy.org/what-fusion>

<sup>19</sup> <https://www.namibian.com.na/namibia-sees-first-green-hydrogen-fuel-trucks>

<sup>20</sup> <https://conservationnamibia.com/articles/cnam2020-treasure-box.php>

# 6. Conclusion

■ The TKNP is a global biodiversity treasure chest and one of the largest remaining areas of near-pristine wilderness in the world. The extensive industrial development planned for one of the world’s few arid biodiversity hotspots could only produce ‘red’ hydrogen, as it would threaten the persistence of many endemic plant and animal species.

Germany’s need for alternative energy sources should not be met at the cost of Namibia’s biodiversity. Namibia’s need for sustainable development, job creation and poverty alleviation can be better met once a national study is completed on the costs and benefits of different energy generation options for the country.

In the immediate future, a full Strategic Environmental Assessment that considers terrestrial and marine impacts of current and future hydrogen projects in Namibia must be conducted prior to any other assessments aimed at particular aspects of the Hyphen project. Given

the political nature of this project, this SEA must be conducted with the highest levels of transparency and integrity to ensure that the impacts of hydrogen development are fully described.

We further recommend a holistic study on Namibia’s entire energy sector that considers the full costs and benefits of each kind of energy production. This must include forecasts and predictions based on the best available knowledge of energy markets, research and latest technologies to guide Namibian decision-makers on the best possible path for truly sustainable development in the energy sector.



Dwarf beaked snake

**SPERRGEBIET**

|   |   |   |  |
|---|---|---|--|
| <b>WARNING</b><br>NO ENTRY<br>WITHOUT PERMIT<br><b>TRESPASSERS<br/>WILL BE<br/>PROSECUTED</b> | <b>WAARSKUWING</b><br>GEEN TOEGANG<br>SONDER PERMIT<br><b>OORTREDERS<br/>SAL VERVOLG<br/>WORD</b> | <b>WARNUNG</b><br>KEIN ZUTRITT<br>OHNE ERLAUBNISSCHEIN<br><b>ÜBERTRETER<br/>WERDEN<br/>VERFOLGT</b> | <b>ELONDWELO</b><br>INO PITAPO OFIMBO<br>U HEMA EEFELO<br><b>OVATAULUK<br/>OTAVA<br/>LANDULWA.</b> |
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# 7. Addendum: About the Namibian Chamber of Environment

The Namibian Chamber of Environment (NCE)<sup>21</sup> is a membership-based and -driven umbrella organisation established as a voluntary association under Namibian Common Law to support and promote the interests of the environmental NGO sector and its work. The Members constitute the Council – the highest decision-making organ of the NCE. The Council elects Members to the Executive Committee at an AGM to oversee and give strategic direction to the work of the NCE Secretariat. The NCE currently has 65 Full Members – Namibian registered NGOs whose main business, or a significant portion of whose business, comprises involvement in and promotion of environmental matters in Namibia; and 12 Associate Members – individuals running environmental programmes and non-Namibian NGOs likewise involved in local to national environmental matters in Namibia.

## THE NCE HAS FOUR ASPIRATIONAL OBJECTIVES AND FIVE OPERATIONAL OBJECTIVES AS FOLLOWS:



### Aspirational Objectives

- Conserve the natural environment
- Protect indigenous biodiversity and endangered species
- Promote best environmental practices
- Support efforts to prevent and reduce environmental degradation and pollution



### Operational Objectives

- Represent the environmental interests of Members
- Act as a consultative forum for Members
- Engage with policy- and lawmakers to improve environmental policy and its implementation
- Build environmental skills in young Namibians
- Support and advise Members on environmental matters and facilitate access to environmental information

### The NCE espouses the following key values:

- To uphold the fundamental rights and freedoms entrenched in Namibia's Constitution and laws, including the principles of sustainable use, protection of biodiversity and inter-generational equity;
- To promote compliance with, uphold and share, environmental best practice, recognising that the Earth's resources are finite, and that human health and wellbeing are inextricably linked to environmental health;
- To recognise that environmental best practice is best promoted by implementing the following seven principles: sustainability, polluter pays, precautionary, equity, effectiveness and efficiency, human rights and participation;
- To develop skills, expertise and passion in young Namibians on environmental issues;
- To ensure political and ideological neutrality, be evidence-based and counter fake information; and
- To promote inclusiveness and to fiercely and fearlessly reject any form of discrimination.

<sup>21</sup> <https://n-c-e.org>



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