



# Press Statement by the Namibia Nature Foundation

## For Immediate Release

### Namibian NGO clarifies factual context of local bush biomass

In October 2020, more than a dozen civil society organisations and scientists issued a statement opposing a "Transcontinental Biomass Partnership Namibia - Hamburg", which investigates the feasibility of using Namibian bush biomass to power biomass plants in Hamburg as part of Hamburg's coal exit strategy. This was followed up by an open letter of opposition towards the bush biomass project addressed to the Federal Minister for Economic Cooperation and Development, Dr Gerd Müller.

Based on these statements, we would like to provide further information and insight into the Namibian environmental context - which is vastly different from European ecosystems by highlighting the problem of bush encroachment and underlining the complexity of global concerns. Our statement will discuss the issue of bush encroachment from a Namibian perspective instead of the perspective of the Global North.

What is evident from the opposition letter is the lack of understanding of Namibia's semi-arid ecosystems and the issue of bush encroachment, which substantially differs from known impacts of biomass resources use in European countries. Between 45 and 60 million hectares of land in Namibia is considered bush encroached with densities of up to 6000 bushes per hectare<sup>1</sup>. A mosaic of bush thickets within an open grassland savanna can have positive impacts by providing habitat for wildlife, improving soil fertility and infiltration and sequestering carbon<sup>2</sup>. However, the extent of bush thickening in Namibia has considerable adverse impacts on biodiversity, soils, the livelihoods of people and quite critically for an arid country, water availability<sup>3</sup>.

These negative impacts of bush encroachment largely outweigh potential environmental and economic benefits. As a result, bush encroachment has become an indicator of land degradation in Namibia's Land Degradation Neutrality Target Setting. A key target of the Namibian government is the reduction of bush encroachment on 18 880km<sup>2</sup> (1.9 million hectares) by 2040<sup>4</sup>, to contribute to enhanced

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<sup>1</sup> Rothauge, A. (2014). Baseline Assessment for the De-Bushing Programme in Namibia. Commissioned by DAS through the Ministry of Agriculture, Water and Forestry; SAIEA 2015: *Strategic Environmental Assessment of Large-Scale Bush Thinning and Value-Addition Activities in Namibia*, Commissioned by GIZ de-bushing project; MET (2018). National GHG Inventory Report NIR3 1994 – 2014.

<sup>2</sup> Archer S.R., Andersen E.M., Predick K.I., Schwinning S., Steidl R.J., Woods S.R. (2017) Woody Plant Encroachment: Causes and Consequences. In: Briske D. (eds) Rangeland Systems. Springer Series on Environmental Management. Springer, Cham. [https://doi.org/10.1007/978-3-319-46709-2\\_2](https://doi.org/10.1007/978-3-319-46709-2_2); Eldridge, D. J., Wang, L. and Ruiz-Colmenero, M. (2015), Shrub encroachment alters the spatial patterns of infiltration, *Ecohydrol.*, 8, pages 83– 93, doi: 10.1002/eco.1490; Smit, G.N. (2004) An approach to tree thinning to structure southern African savannas for long-term restoration from bush encroachment, *Journal of Environmental Management*, Volume 71, Issue 2, Pages 179-191, ISSN 0301-4797, <https://doi.org/10.1016/j.jenvman.2004.02.005>; Smit, G.N. (2005). Tree thinning as an option to increase herbaceous yield of an encroached semi-arid savanna in South Africa. *BMC ecology*. 5. 4. 10.1186/1472-6785-5-4.

<sup>3</sup> Blaum, N., Seymour, C., Rossmanith, E. et al. Changes in arthropod diversity along a land use driven gradient of shrub cover in savanna rangelands: identification of suitable indicators. *Biodivers Conserv* 18, 1187–1199 (2009). <https://doi.org/10.1007/s10531-008-9498-x>; De Klerk, J.N. (2004): Bush Encroachment in Namibia, Report on Phase 1 of the Bush Encroachment Research, Monitoring and Management Project, Ministry of Environment and Tourism; Schwarz, K, Finckh, M, Stolter, C. Influence of differently managed bush-encroached sites on the large herbivore distribution in the Namibian Savannah. *Afr J Ecol.* 2018; 56: 290–300. <https://doi.org/10.1111/aje.12451>; Hoffman, M.T., Schmiedel, U., Jürgens, N. (eds.) (2010): Biodiversity in southern Africa 3: Implications for landuse and management. Göttingen & Windhoek: Klaus Hess Publishers.; Lesoli, M.S., Gxasheka, M., Solomon, T.B. & Moyo, B. (2013) Integrated Plant Invasion and Bush Encroachment Management on Southern African Rangelands, *Herbicides - Current Research and Case Studies in Use*, DOI: 10.5772/56182; Meik, J., Jeo, R., Mendelson, J.R. III & Jenks, K. (2002). Effects of bush encroachment on an assemblage of diurnal lizard species in central Namibia. *Biological Conservation*. 106. 29-36. 10.1016/S0006-3207(01)00226-9.; Scholes, R.J., van der Merwe, M.R., Landmann, T., Venter, G., Basson, J., de Klerk, N., du Plessis, P. & Burke, A. (2005) Review of Greenhouse Gas Emissions Factors in Namibia, Report to the Ministry of Environment and Tourism; Sirami, C., Seymour, C., Midgley, G. and Barnard, P. (2009), The impact of shrub encroachment on savanna bird diversity from local to regional scale. *Diversity and Distributions*, 15: 948-957. doi:10.1111/j.1472-4642.2009.00612.x; Soliveres S, Maestre FT, Eldridge DJ, et al. (2014) Plant diversity and ecosystem multifunctionality peak at intermediate levels of woody cover in global drylands. *Glob Ecol Biogeogr*23:1408–16

<sup>4</sup> Hengari, S. (2018) Final report: Land Degradation Neutrality Pilot Project, A project of the Ministry of Environment and Tourism supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ)

biodiversity and landscape rehabilitation. Bush thinning (not bush clearing) is an effort to bring back a sustainable balance between grass and woody plants and is key for the achievement of Namibia's Land Degradation Neutrality targets<sup>5</sup>. It is also expected to substantially contribute to increasing resilience to climate change particularly in rural areas, and therefore achieving key adaptation goals<sup>6</sup> which developed countries tend to significantly underfinance.

The sustainable use of resources is entrenched in the Namibian Constitution and the government of Namibia is committed to ensure that appropriate, sustainable bush harvesting practices are implemented to maximize the environmental benefits of bush harvesting. For this purpose, the Namibian government is currently revising its main forestry legislation and developing a strategy on the sustainable management of bush resources, which includes suitable harvesting technologies and appropriate post-harvest treatments to minimise environmental damage and maximise socio-economic benefits. In addition, the three Namibian Agricultural Farmers' Unions together with the Ministry of Agriculture, Water and Land Reform developed a National Strategy to Revive the Namibian Livestock Industry that includes improved rangeland management practices, bush thinning as well as landscape rehydration. Addressing the balance between bush and grass is vital to combat and mitigate the impacts of climate change whilst increasing the production, profitability and building the resilience of the livestock and wildlife value chains in Namibia<sup>7</sup>.

Thinning the bush is an important means to reduce biodiversity loss, adapt to the impacts of climate change and ensure food security in a country, where most of the population rely on natural resources and agriculture<sup>8</sup>. The densification of bush was encouraged by the mismanagement of land in the past<sup>9</sup>, which includes partitioning by fences and Eurocentric farming practices. In large areas, land that had a 15% woody vegetation cover in the early 1900s now has 90% woody vegetation cover – specifically as a result of inappropriate farming and rangeland management practices<sup>10</sup>. Farmers have physically removed or chemically controlled the bush on their land for decades to restore their rangeland and improve the productivity of the land<sup>11</sup>. In Germany and much of Europe, meadows (which are often manmade landscapes) have also been maintained for decades<sup>12</sup> preventing natural reforestation. Although bush thinning has not always been done in a sustainable way in the past, the key aim is to rehabilitate the landscape to a natural savanna ecosystem with both woody species and grasses. The focus is on re-establishing balanced, natural habitats and biodiversity and not reducing natural woodlands. Bush value chains emerged as a solution for an otherwise discarded side product of rehabilitation efforts.

The Namibian biomass sector is still in its infancy and domestic demand at this stage is far from sufficient to absorb the amount of bush that would need to be removed to restore the land to a savanna with thickets of bush and grass to achieve land degradation and biodiversity targets<sup>13</sup>. The development of bush-based industries in Namibia is vital to drive rehabilitation efforts, as the only way to sustainably finance bush thinning for restoration. Currently, harvested biomass is mainly used for charcoal

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5 Ministry of Environment and Tourism (2015b). Land Degradation Neutrality National Report 2015; De Klerk, J.N. (2004): Bush Encroachment in Namibia, Report on Phase 1 of the Bush Encroachment Research, Monitoring and Management Project, Ministry of Environment and Tourism, Windhoek; Ministry of Environment and Tourism (2014). Third National Action Programme for Namibia to Implement the United Nations Convention to Combat Desertification 2014 – 2024.

6 Ministry of Environment and Tourism (2015a). Intended Nationally Determined Contributions (INDC) of The Republic of Namibia to the United Nations Framework Convention on Climate Change; Nott, C., Boys, J.M. & Nzehengwa, J. (2019). Reviving Namibia's Livestock Industry - Regenerative Livestock Production – Trends, Key Profit Drivers, Case Studies & Recommendations. Based on Namibia Rangeland Management Policy (NRMP): A 2019 Edition; Seebauer, M., Pinkwart, A., Schwarz, B. & Hartz, C. (2019): Greenhouse Gas Assessment of Bush Control and Biomass Utilization in Namibia, for Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH

7 National Strategy to Revive the Namibian Livestock Industry see <http://www.agrinamibia.com.na/wp-content/uploads/2019/10/NRMPS-Revised-Strategy-2019-Rangeland-Best-Practices-final.pdf>

8 Reid, Hannah & Sahlén, Linda & Stage, Jesper & Macgregor, James. (2008). Climate change impacts on Namibia's natural resources and economy. *Climate Policy*. 8. 452-466. 10.3763/cpol.2008.0521.

9 Hoffmann et al. 2010; Archer et al. 2017; O'Connor, T.G., Puttick, J.R. & Hoffman, M.T. (2014) Bush encroachment in southern Africa: changes and causes, *African Journal of Range & Forage Science*, 31:2, 67-88.

10 Brown CJ, Jones SJA 1989. A supplementary feeding scheme in the conservation of the Cape Vulture at the Waterberg, South West Africa/Namibia. *Madoqua* 16 (2) 111-119; Schultz, P. (2007). Does bush encroachment impact foraging success of the critically endangered Namibian population of the Cape Vulture *Gyps coprotheres*?

11 De Klerk 2004

12 Naturpark Lüneburger Heide ([www.naturpark-lueneburger-heide.de/natur-und-kultur/heide/heidepflege](http://www.naturpark-lueneburger-heide.de/natur-und-kultur/heide/heidepflege)); Wahnheide Königsforst ([www.wahnheide-koenigsforst.de/pflege-entwicklung-wahnheide.php](http://www.wahnheide-koenigsforst.de/pflege-entwicklung-wahnheide.php))

13 UNIDO (2019) Strategic Action Plan for Sustainable Bush Value Chains in Namibia. [https://www.unido.org/sites/default/files/files/2020-02/Namibia\\_v\\_2.20-spreads%20%281%29.pdf](https://www.unido.org/sites/default/files/files/2020-02/Namibia_v_2.20-spreads%20%281%29.pdf); Trede, R. Patt, R. (2015). Value Added End-Use Opportunities for Namibian Encroacher Bush, Development Consultants for Southern Africa (DECOSA) CC., DAS Brochure Adding Value to Namibian Encroacher Bush.

production. The development of new value chains with strong safeguards and sustainability standards - as required by European markets - is an invaluable opportunity to lead the sector towards positive environmental outcomes. Notwithstanding the amount of jobs it could create in a country where the national unemployment rate was recorded at 33.4% in 2018<sup>14</sup>. NamPower, Namibia's main energy supplier, is planning to construct a biomass power plant in the next 5 years<sup>15</sup>. However, their bush offtake is only a tiny fraction of the bush that should be thinned to achieve other environmental targets. Partnerships and markets for bush products are required to grow the biomass energy sector in Namibia through knowledge and technology transfer and establishing infrastructure that can be used to drive future Namibian biomass businesses and activities. A partnership with the City of Hamburg would drive the development of Namibia's own biomass sector and is in no way perceived as a form of neo-colonialism. Namibia has a sought-after resource in abundance that is a side product of environmental rehabilitation efforts and is thus driving the partnership and research agenda for the sustainable use of bush resources in the country.

We understand that within the international context the removal of biomass is often associated with the negative impacts of land-use change and its considerable adverse impacts on global emissions budgets. Greenhouse Gas (GHG) studies have been conducted in Namibia indicating that the fast regrowth of bush minimises the impact of bush harvesting on emissions budgets and that Namibia remains a net carbon sink even with a considerable expansion of bush thinning activities<sup>16</sup>. National and international studies also suggest that the restored savanna ecosystem could have the same or even a slightly higher carbon sequestration potential, due to the higher soil organic carbon content in areas with rainfall >600mm, although further research is required<sup>17</sup>.

Climate mitigation is an obligation of the developed nations, whilst climate adaptation is a necessity in developing nations, such as Namibia. Although Namibia is committed to meeting global targets for its own emissions, climate adaptation is critically important for this and other developing countries that are most vulnerable to the effects of climate change. We should therefore be sensitive about eco-imperialism and pushing the mitigation targets of developed countries onto developing countries, who are often the most affected by climate change and need to adapt to the consequences to ensure basic human wellbeing and food security. Bush encroached land in Namibia is less productive for livestock farming (a key agricultural industry), as it reduces the availability of palatable grasses for cattle. It also reduces biodiversity, as dense bush thickets are unsuitable for grazing herbivores and other savanna-adapted wildlife.

We appreciate the intention with which the statements were written and trust that these good intentions can be channelled towards making this a productive partnership and herewith invite critical organisations to share and discuss their reservations with us.

We do not suggest that bush thinning, and the potential use and export of biomass is a panacea. There are issues and challenges (especially around sustainable land management) that must be addressed, and we would hope that a citizen led process would be a means to stand in solidarity and address these in a well-structured process. These issues are already being openly discussed as part of the feasibility process towards establishing the partnership between Hamburg and Namibia, which includes discussions in various working groups including public, private and civil society organisations in both Germany and Namibia as well as exchange visits and public discussions. We encourage all interested parties to join the discussions, listen to affected parties in Namibia and work towards constructive solutions.

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14 Namibia Statistics Agency (2018) The Namibia Labour Force Survey 2018 Report

15 NamPower (2021) Project Fact Sheet – Otjikoto Biomass Power Station, [https://www.nampower.com.na/public/docs/projects/otjikoto/Biomass%20Project%20Fact%20Sheet\\_18Feb21\\_v3.0.pdf](https://www.nampower.com.na/public/docs/projects/otjikoto/Biomass%20Project%20Fact%20Sheet_18Feb21_v3.0.pdf)

16 Seebauer et al. 2019

17 UC Davis (2018) Grasslands More Reliable Carbon Sinks Than Trees, <https://climatechange.ucdavis.edu/news/grasslands-more-reliable-carbon-sink-than-trees/>; Seebauer et al. 2019; Yun-Hua Liu, Jun-Hui Cheng, Bernhard Schmid, Li-Song Tang, Jian-Dong Sheng, Woody plant encroachment may decrease plant carbon storage in grasslands under future drier conditions, *Journal of Plant Ecology*, Volume 13, Issue 2, April 2020, Pages 213–223, <https://doi.org/10.1093/jpe/rtaa003>; Asner GP, Archer S, Hughes RF, et al. (2003) Net changes in regional woody vegetation cover and carbon storage in Texas drylands, 1937–1999. *Glob Change Biol*9:316–35; Goodale CL, Davidson EA (2002) Carbon cycle: uncertain sinks in the shrubs. *Nature*418:593–4

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