

GERMAN DEVELOPMENT AND CLIMATE FINANCE PROJECT USED TO CREATE BIOMASS SUPPLY CHAIN FOR GERMAN ENERGY PROVIDERS



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SUMMARY

In 2013, the German Ministry for Economic Cooperation and Development (BMZ) started funding a project in Namibia to help limit bush encroachment, i.e., shrubs and trees spreading across previously open savannah, and to help the country find ways to best use the wood that is removed. However, in 2019, the German Development Corporation (GIZ) which manages the project, started to increasingly focus on creating a large new supply chain of woodchips or pellets to be exported to Europe, especially to Germany. Following a GIZ-funded visit by a Namibian delegation to a German biomass energy conference, a specific proposal for a “Transcontinental Biomass Partnership Namibia-Hamburg” was drawn up. This proposal, led by GIZ and the Institute for Applied Material Flow Management at the University of Trier (IfaS), is currently being assessed under the auspices of the Senate in Hamburg.

In October 2020, 19 mostly German NGOs and campaign groups, together with EarthLife Namibia, issued a public statement against the import of Namibian bushwood for use in power and heat plants in Hamburg.

In February 2021, 40 environmental, development and social justice organisations sent an Open letter to Germany’s Federal Minister for Economic Cooperation and Development (BMZ), Dr Gerd Müller, urging him to set up an in-depth investigation of the project, and to establish to what extent there were contraventions of standards for good practice and of the do-no-harm principle.¹

Separately, the Namibian civil society organisation Economic and Social Justice Trust has issued a statement rejecting the proposal for large-scale biomass exports from Namibia to Germany.

Namibia's bush encroachment, which affects over 30 million hectares of land, is part of a much wider trend that has been described as "global dryland greening", observed in every continent except Antarctica. In some regions, such as South Africa, invasive non-native trees and shrubs, often ones originating in industrial tree plantations, are encroaching upon grasslands. This contributes to the loss of biodiversity, to freshwater depletion and to the loss of communities' livelihoods. However, in Namibia and many other regions, bush encroachment involves native species, and this is the focus of Biofuelwatch's report. Many different factors correlate with bush encroachment, including overgrazing by cattle. Nonetheless, global scientific analysis points towards a common trend: as CO₂ levels rise, woody vegetation gains an advantage over grasses, provided that rainfall is sufficient to support the growth of trees and shrubs. Bush encroachment significantly increases carbon sequestration in vegetation and, in most cases, in soils, i.e., it mitigates climate change.

The Strategic Environmental Impact Assessment for the wider debushing project acknowledges this fact. However, GIZ then commissioned another more recent study from UNIQUE, which purports to show that large-scale removal of bushwood could, if done right, result in greater soil carbon sequestration, to such an extent that it would more than offset the loss of carbon in the woody vegetation that is removed. A separate literature analysis by Biofuelwatch shows that UNIQUE's claims are not backed up by the majority of the literature cited in their own report and that they misrepresent the findings of a number of scientific studies cited. Biofuelwatch considers the study to be so deeply flawed that it should be withdrawn.

Furthermore, the GIZ choice to commission analyses from UNIQUE in the first place is altogether inappropriate given UNIQUE's "management" role in Paraguay-based forestry and tree plantation business operations on behalf of a company which a European Parliament report has linked to human rights violations and environmental harm.

IfaS, another main proponent of the German-Namibian biomass project, recently undertook to prepare a "roadmap" for large-scale debushing in Namibia to supply biomass to energy companies in Germany and potentially elsewhere in Europe. This feasibility study also bears the GIZ logo, suggesting that it may have been at least partly funded through BMZ finance. The IfaS study uncritically accepts UNIQUE GmbH's report and findings, and, furthermore, it emphasises the potential economic benefits of the project to Germany, speaking of a win-win scenario for both countries – a dubious way of assessing the impacts of a project funded through development and climate finance. Of particular concern is a highly insensitive and offensive statement in the report that the project could 'heal' the 'historical harm' caused by Germany – i.e., the impacts of the genocide perpetrated by Germany during its colonial rule over Namibia in the early 20th century.

A question not answered by proponents of the bushwood exports is who in Namibia would benefit from this project. Bush encroachment reduces the number of livestock, mostly cattle, that can be grazed on land, a problem for those involved in extensive cattle ranching which accounts for the majority of the country's agricultural earnings. However, Namibia's land ownership is highly unequal, with 70.1% of commercial farms owned by members of the white minority which accounts for 6% of the population. More than half of the population live on a smaller portion of land classified as 'communal', many of them combining small-scale livestock grazing with growing arable crops and vegetables. There is a serious risk that the project could primarily or solely benefit larger commercial farmers and thus worsen existing inequalities.

Finally, claims about socioeconomic benefits to people in Namibia from the project are highly questionable. The economics of energy production in Germany would require keeping the cost of biomass supply low and competitive with other options. This suggests that the harvest of bush

would be done mechanically in order to minimise labour costs. Wholesale mechanisation of bush removal could displace existing bush harvesting jobs. Furthermore, Namibia has been a net importer of wood and wood products in most recent years and could benefit economically from using bushwood to meet needs within the country.

Given the serious problems identified above, Biofuelwatch believes that the BMZ-funded project Bush Control and Biomass Utilisation in Namibia should be immediately suspended pending a full investigation into the concerns raised and that the reports by UNIQUE GmbH and IfaS must be withdrawn and that BMZ and GIZ should reconsider their use of UNIQUE GmbH as a consultancy. Removal of encroacher bush cannot be regarded or treated as a form of climate change mitigation, because it significantly reduces carbon sequestration if implemented on a large scale. There is a case for the German government to support climate adaptation projects with an element of bush thinning, however, such projects must be developed in close collaboration with local communities, especially marginalised and vulnerable communities.

BACKGROUND

In September 2019, a spokesperson for the German Development Corporation, GIZ announced that a high-level Namibian delegation – including representatives of three ministries as well as businesses – would be paying a visit to the Wood Energy Congress in Würzburg, Bavaria.² Public and private sector stakeholders had been invited to a meeting to “explore options of partnerships”, with “multiple opportunities...for bush-based value chains...especially the use of biomass for energy generation”.

Biomass energy from Namibian bushwood, according to the press release announcing the visit, would address a problem responsible for “massive economic and environmental damage”, namely the encroachment of bush across 30-45 million hectares of land across the country, which they claimed was resulting in “reduced carrying capacity of rangeland as well as reduced groundwater recharge and biodiversity through habitat loss.” The business opportunities arising from this project were developed thanks to a project commissioned by the German Ministry for Economic Cooperation and Development (BMZ): “Bush Control and Biomass Utilisation”.³ The Namibian delegation’s visit was funded through that same project.⁴

Behind the scenes, work on the first such ‘biomass partnership’ was already far

advanced: Five months earlier, GIZ, together with the Institute for Applied Material Flow Management at the University of Trier (IfaS) had produced a document, bearing the Namibian government’s logo, entitled “Transcontinental Biomass Partnership Namibia-Hamburg”, according to which “only around one quarter of Namibia’s annual biomass growth” – 2.5 million tonnes of wood – would be required to replace coal in two heat plants in the city, Tiefstack and Wedel. Only a year later did a local NGO (Hamburger Energietisch) obtain and publish this document.⁵ Then, in June 2020, the municipal environment agency (BUE, now BUKEA) signed a Memorandum of Understanding, together with the publicly owned energy company Wärme Hamburg GmbH and two academic institutes (one of the IfaS) to “set up working groups with regard to utilisation of Namibian encroacher bush in Hamburg.”⁶ Working group members (including GIZ) would be meeting over the course of a year to evaluate the proposal to import Namibian bushwood and burn it in lieu of coal in the city. Alarmed by the implications of this proposal, civil society groups in Germany, together with EarthLife Namibia, published a Joint Statement, arguing that the proposal was not climate-friendly, not socially just, and was being developed without democratic control, contrary to what the majority of citizens had voted for in Hamburg’s energy referendum in 2013.⁷ The

civil society statement was directed at the immediate decision-makers, i.e., at the Senate of Hamburg.

Since then, the Namibian civil society organisation Economic and Social Justice Trust has issued a statement rejecting the proposal for large-scale biomass exports from Namibia to Germany.⁸

Finally, in February 2021, 40 environmental, development and social justice organisations sent an Open letter to Germany's Federal Minister for Economic Cooperation and Development (BMZ), Dr Gerd Müller, urging him to set up an in-depth investigation of the

project, and to establish to what extent there were contraventions of standards for good practice and of the do-no-harm principle.⁹

This article focuses on the role of GIZ and the use of BMZ development and climate finance.¹⁰ How did such funding come to be used to try to create a biomass supply chain for German power and heat plants? How could this be justified as part of a BMZ project meant to help improve the management of natural resources in, and transfer climate-friendly technologies to, Namibia? And what are the implications for climate justice as well as for land use in Namibia? First of all, however, we look at what 'bush encroachment' actually is.

BUSH ENCROACHMENT: GREENING OF THE SAVANNA – OR AN UNFOLDING ENVIRONMENTAL DISASTER?

A Strategic Environmental Impact Assessment for large-scale debushing in Namibia, financed by BMZ via GIZ,¹¹ defines bush encroachment as: "*thickening of woody bush due to human activities, in conjunction with natural events*", and notes that the thickening must have taken place in recent decades. Bush encroached land would previously have been open savannah, much of which is used for cattle ranching.

In Namibia, around 46% of land – much of it rich in wildlife – is extensively grazed by livestock, compared to just 1% being arable cropland.¹² Livestock accounts for the majority of agricultural earnings, although extensive cattle ranching provides less employment than other agricultural activities (especially mixed farming that combines livestock with the cultivation of crops).¹³ A growing percentage of those pasture lands are affected by bush encroachment. As more and larger bushes and trees grow, less and less grass is available for grazing, reducing the number of cattle that can be raised and the incomes of landowners dependent on livestock. The fact that bush encroachment seriously harms cattle farming is beyond dispute. However, the bulk of the scientific literature does not support the claim that bush encroachment worsens climate

change, and it paints much more nuanced picture of its wider environmental impacts.

Viewed from space – or rather on time series of satellite images, complemented by records from the pre-satellite era – Namibia's bush encroachment is part of a global trend described as "global dryland greening".¹⁴ Such 'greening' has been observed in regions including the Sahel, Northern China, South American savanna and parts of Australia.

As one scientific article states: "*The increase in the density and cover of native shrubs, particularly in grasslands and open woodlands (shrub encroachment, also known as woody encroachment or thickening), is a global phenomenon that occurs in ecosystems ranging from the drylands of eastern Australia to the tundra.*"¹⁵ According to a 2018 study, "*non-forest biomes in Africa have undergone a net 8% increase in woody plant cover over the past three decades*".¹⁶ Another study looks at woody encroachment within the context of forest-savanna transitions worldwide and points out that throughout the past 2.6 million years "*the forest-savannah transition has moved back-and-forth in broad synchrony with the ice sheets*"¹⁷ i.e. in response to changes in climate

and CO₂ concentrations. Although woody encroachment correlates with many different factors, including overgrazing and fire suppression, evidence from the Earth's history as well as global models strongly suggest that rising CO₂ levels combined with climatic changes are driving woody encroachment across many dryland ecosystems. The link between higher CO₂ levels and woody encroachment can be explained by differences in the metabolism of trees and tropical grasses and sedges: tropical grasses and sedges carry out photosynthesis more efficiently in a warm, dry climate than trees. However, rising CO₂ levels in recent decades have been cancelling out that advantage, allowing trees to outcompete grasses in many regions. It is uncertain how long this trend will last as temperatures continue to rise and as global rainfall patterns change, and climate scientists are deeply concerned about the dominant trend becoming one of tropical forests – including the Amazon forest – transitioning to open savanna.¹⁸

What seems largely undisputed amongst scientists is that woody encroachment of grasslands increases carbon sequestration, including in soils.¹⁹ It thus constitutes negative climate feedback, i.e., many

dryland ecosystems responding to rising carbon dioxide levels by increasing the amount of CO₂ sequestered. Large-scale removal of encroaching trees and shrubs on the other hand will increase carbon dioxide concentrations in the atmosphere and accelerate climate change.

The climate impacts of large-scale debushing followed by increased livestock grazing – mostly cattle – will be further aggravated by methane emissions from ruminants. Those emissions have been discussed in detail in a report by the NGO Hamburger Energietisch.²⁰

The biodiversity impacts of woody encroachment, on the other hand, are more complex: it is associated with higher populations of species that feed on leaves and lower populations of herbivores that depend on grasses.²¹ Conserving patches of open grassland of 8 hectares or larger could be vital to the survival of bird species with specialist adaptation to this habitat.²² However, there is little or no evidence that large-scale debushing can restore grassland ecosystem to their original state.²³ Furthermore, it is widely recognised that indiscriminate removal of trees and bushes – especially mature trees – poses serious risks to biodiversity.²⁴

WHO WOULD BENEFIT FROM THE PROJECT?

In November 2020, GIZ co-published a “Road Map to a Biomass Industrial Park Biomass Partnership with Namibia” written by the German institute IfaS.²⁹ Such a partnership will address an “*ecological and socio-economic catastrophe*” and create “*regional added value (RAV), climate protection, biodiversity conservation, innovative and sustainable business models, etc.*”

We have seen above and in a separate literature analysis by Biofuelwatch³⁰ that the claim that large-scale debushing mitigates climate change is contradicted by the majority of the scientific literature. We have also seen that large-scale debushing poses serious risks

for biodiversity, even though targeted efforts to preserve and create patches of open grassland habitats can be vital for conserving specialist grassland species.

What then about the claimed socio-economic benefits?

Report author Professor Heck states: “A projected number of 105 bushfeed hubs in Namibia will provide safe jobs for more than 6,000 people.” A previous dossier published by GIZ and IfaS puts the total number of jobs to be created by debushing and bushwood use (primarily, though not exclusively for biomass export) at 17,000.³¹ However, an analysis of the proposal by Hamburger Energietisch³² shows

This article focusses on the encroachment into grasslands of native species, as a natural process. This reflects the realities of bush encroachment across Namibia. However, a significant proportion of what appears from space to be “global dryland ‘greening’, is made up by large and rapidly expanding industrial tree plantations, established on grasslands. Industrial tree plantations – usually consisting of monocultures of non-native trees are associated with numerous adverse environmental and social impacts.²⁵ One of the adverse impacts of industrial plantations is invasiveness. South Africa is one of the countries seriously affected woody encroachment by non-native invasive tree species into open savanna, including into the unique biodiverse and carbon-rich fynbos ecosystem as well as into pastureland. This is a major cause of biodiversity loss and freshwater depletion and in many cases leads to the loss of communities’ livelihoods.²⁶ According to a 2012 report by the South African NGO GeaSphere, there were 1.5 million hectares of pine and eucalyptus plantations in the country, yet a further 1.6 million hectares had been encroached by trees that had spread beyond the plantation boundaries.²⁷ Namibia, on the other hand has no industrial tree plantations to date.²⁸

that the use of Namibian biomass in coal plants in Hamburg and elsewhere in Europe depends on making this feedstock affordable and competitive, which would be achieved in part by keeping labour costs as low as possible. Keeping labour costs low relies on mechanised debushing. ***If such a Biomass Partnership were to lead to the wholesale mechanisation of debushing, it could destroy a large number of existing jobs***, including in the country’s charcoal industry which employs up to 10,000 people,³³ albeit often in poor working conditions.³⁴

Another concern is that production of woodchips or wood pellets for export creates far fewer jobs and generates far less economic benefits to Namibia and its population than alternative uses of bushwood. A 2015 brochure co-published by GIZ explored different potential bushwood uses.³⁵ It pointed out: “*employment creation by the production of chips and pellets is fairly limited*”. Different more labour-intensive uses were identified. Furthermore, despite its charcoal exports, Namibia has been a net importer of wood and wood products every year since 2008 with the exception of 2019.³⁶ ***Using bushwood to produce wood products such as furniture which Namibia currently has to import could bring economic benefits far greater than the export of low-value woodchips or pellets.***

The final question is: who would benefit from having their land cleared of the majority of trees

and bushes? This is a question not answered by any of the reports related to the project. Namibian land ownership is highly unequal following more than a century of foreign colonial rule ending with the Independence of Namibia in 1990.

White people account for around 6% of Namibia’s population but, according to the latest (2018) figures by the Namibia Statistical Authority, own 70.1% of the country’s 12,380 commercial ‘freehold’ farms. Such farms cover forty-eight percent of Namibia’s total land³⁷ and account for around 6%³⁸ of the country’s population.³⁹

According to a 2019 study, there are around 2,500 commercial cattle farmers, whose land holdings range from 200 to over 42,000 hectares in size.⁴⁰ Altogether, they cover around 14.5 million hectares of land.⁴¹

Thirty-five percent of land is designated as communal land and is home to more than half the population. According to a 2013 study, most communal lands in the north-east and central northern part of the country are mostly used for agro-pastoralism, combining arable farming of cereals and vegetables with grazing. More arid communal lands elsewhere in Namibia are mostly used for small-scale pastoralism.⁴² Given this extremely unequal land ownership, the question of who will benefit financially from a debushing and biomass export project is of utmost importance. Entering into biomass



sourcing contracts with large commercial landowners is likely to be the safest and easiest option for woodchip and wood pellet production, once large biomass export contracts have been signed. If this was to happen, it would likely worsen economic

inequality in rural Namibia. ***The fact that the question of who would benefit financially has not been addressed by GIZ, or any other stakeholders in the project, is highly concerning.***

WHO ARE THE MAIN PROPONENTS OF THIS PROJECT?

As indicated above, the two main proponents of the project are GIZ and the academic institute IfaS. Both rely heavily on a report by UNIQUE forestry and land use GmbH, who produced a report purporting to show that the project would reduce Namibia's greenhouse gas emissions.

In Namibia, the main project partner is the Namibian Biomass Industry Group (N-Big), working closely with the De-Bushing Advisory Service (DAS). Both N-Big and DAS were set up by GIZ. The only Namibian NGO participating in the working groups set up in Hamburg under the Memorandum of Understanding is Namibia Nature Foundation. This NGO is itself funded by GIZ, not only for the current project but also in the past for work related to the BMZ-funded debushing project.⁴³

Below we look more closely at the role played by UNIQUE GmbH, as well as at the *Road Map to a Biomass Industrial Park* report written by IfaS.⁴⁴

UNIQUE forestry and land use GmbH

BMZ has been supporting the Bush Control and Biomass Utilisation project in Namibia since

2013,⁴⁵ although this support was not specifically focussed on woodchip or pellet exports up until 2019. However, since the 2015 Paris Climate Agreement, BMZ has strengthened its commitments to ensuring that development finance should contribute to climate protection.⁴⁶ Large-scale debushing would contradict this principle. As the Strategic Environmental Impact Assessment (SEIA) for the project, commissioned by GIZ confirmed in 2015: *“Large-scale wood harvesting to reduce bush encroachment will release a lot of wood-bound carbon back into the atmosphere, affecting Namibia’s status as a global carbon sink.”* The SEIA further warned: *“If industrial-scale systematic harvesting takes off, carbon sequestration will be reduced, and soil emissions will likely increase”*. Financing a project that will significantly worsen Namibia's greenhouse gas balance is clearly not compatible with BMZ's climate commitments.

Then, in 2018, GIZ commissioned the German consultancy UNIQUE to undertake a full greenhouse gas assessment of the debushing project.⁴⁷ Their report, published at the end of 2019,⁴⁸ turns previous findings of the SEIA on

their head: according to UNIQUE, far from depleting Namibia's carbon sink, large-scale debushing, including for wood pellet production, would increase Namibia's carbon sequestration, provided landowners followed the author's guidelines for 'rangeland restoration'. Those guidelines involve removing, on average, 78% of bush and tree cover, leaving residues on the soil, chemically suppressing the regrowth of bushes and trees where they have been removed, and increasing livestock numbers. This, the report authors claim, would sequester so much additional carbon in soils that it would more than offset the losses of carbon that had been stored in trees and bushes that were removed.

An in-depth analysis by Biofuelwatch⁴⁹ reveals major flaws in UNIQUE's report: the author's repeatedly mis-quote scientific literature. In fact, their key conclusions are contradicted by the large majority of the literature in their reference list. They even list a protected species as an encroacher bush and thus target for debushing. GIZ has since commissioned UNIQUE to carry out an "Analysis and Update of Namibia's AFOLU sector NDC targets",⁵⁰ which raises concerns that the same authors could similarly misinform the Namibian government about the carbon impacts of bush encroachment and bush removal.

There is another serious concern about UNIQUE GmbH: as well as writing consultancy reports, UNIQUE – via its subsidiary UNIQUE Wood Paraguay - directly manages monoculture eucalyptus plantations in that South American country.⁵¹ Most of those are managed on behalf of a company called PAYCO S.A., the remainder by Forestal Azul and Forestal Apepu. PAYCO S.A., whose forestry and tree plantation business is entirely managed by UNIQUE, featured in a 2016 European Parliament study: *Land grabbing and human rights: The involvement of European corporate and financial entities in land grabbing outside the European Union*.⁵² As well as highlighting the broader context in which PAYCO operates (high concentration of landownership, high level of rural poverty and hunger), the report states that "*parts of the land*

controlled by PAYCO are claimed by indigenous and peasant communities", that local people have complained about health problems from unselective pesticide spraying, and that some of PAYCO's activities are in the Chaco, where deforestation is rampant. The report authors' conclusion from this case study was that "*Germany is not living up to its obligation" with regards to "creating an enabling international environment for human rights"*. That report's case study focussed on the state-owned German Investment Corporation (DEG) as a PAYCO shareholder. What is relevant here, however, is that a European Parliament report has strongly criticised the German government over its involvement with PAYCO S.A, concluding that this demonstrates a failure to live up international human rights obligations. In our view, this puts the use of UNIQUE GmbH – as the managers of large PAYCO holdings - as a consultancy in a BMZ-funded project, into serious question.

IfaS and their report "Road Map to a Biomass Industrial Park in Namibia"⁵³

As shown above, IfaS has been one of the main proponents of 'biomass partnerships' involving export of Namibian biomass to Europe in general, and of the Hamburg-Namibia biomass project in particular. The IfaS Road Map report draws heavily on the flawed conclusions of UNIQUE's report discussed above. However, IfaS's report – and the fact that it has been endorsed by GIZ – raises additional concerns. There is a feasibility study for large-scale biomass exports to Germany. The author states: "*Namibia needs to partner with larger international markets with high sustainability standards, such as Germany, which in order to meet their UNFCCC climate targets, consider to switch [sic] their fossil fuel power generation capacity to renewable energy sources (German coal phase-out). In here, a unique win-win opportunity for both countries exists to help each other and create a long-term mutual beneficial cooperation... Cities such as Hamburg, Flensburg, Berlin or Rostock are leaving fossil coal and urgently need a new energy source.*" This is of concern because the GIZ logo suggests strongly that this IfaS report was at least partly funded from German

development finance, and the purpose of development finance should never be to finance “wins” for Germany, nor should the needs of German energy providers be a consideration at all in this context.

Even more concerning is the following sentence in the IfaS report: *“From the time of the colonialism of Germany in Africa, a chance arises for Germany to be able to heal the*

damages related to historical events”. Those ‘historical events’, of course, include the German Empire’s genocide against the Herero and Nama during the early 20th century. We believe such wording in an IfaS report co-published by GIZ is offensive. It betrays ignorance actual demands for justice by the descendants of those who survived the genocide, demands which continue to be largely ignored by German governments.



RECOMMENDATIONS

- Given the serious problems identified above, we believe that the BMZ-funded project; Bush Control and Biomass Utilisation in Namibia should be immediately suspended pending a full and unbiased investigation into the concerns raised;
- We believe that the reports by UNIQUE and IfaS discussed above must be withdrawn and that BMZ/GIZ should review their use of UNIQUE GmbH as a consultancy, given the very serious concerns raised above;
- Bush encroachment leads to greater storage of carbon in soils and vegetation, as shown by a large number of scientific studies. Debushing will thus reduce Namibia’s carbon sink. Large-scale debushing is therefore not compatible with climate change mitigation goals and should never be financed as a climate change mitigation project;
- Bush encroachment, although beneficial for the climate, does pose a genuine and serious problem for agriculture, especially livestock farming and pastoralism. We therefore believe that there is a case for the German government supporting climate adaptation projects that may include elements of bush thinning. However, such projects should be developed in close collaboration with local communities, especially marginalised and vulnerable communities, although commercial farmers must also be consulted. In a country that is highly vulnerable to severe food insecurity, like Namibia,⁵⁴ it seems particularly inappropriate for a BMZ funded project to primarily aid large-scale commercial farmers rearing livestock for export. There is a high risk that the Bush Control and Biomass Utilisation Project, as currently implemented, could result in such a perverse outcome, and could deepen existing inequalities.

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