

Memorandum of Understanding

Biomass partnerships with Namibia

between

**Trier University of Applied Sciences,
Environmental Campus Birkenfeld,
Germany the Institute for Applied Material Flow Management (IfaS),**

and

Ministry of Environment and Energy of Hamburg (FH BUE)

and

Wärme Hamburg GmbH

and

Hochschule für Angewandte Wissenschaften Hamburg

on

Set up of working groups

with regard to utilization of Namibian encroacher bush in Hamburg

Parties

This Memorandum of Understanding (MoU) is made between

the Institute for applied Material Flow Management (IfaS), a higher research institute of the Trier University of Applied Sciences having its principal office at Post-box 1380, 55761 Birkenfeld (Germany) [hereinafter IfaS],

and

the Ministry of Environment and Energy of Hamburg, having its principal office at Neuenfelder Str. 19 in 21109 Hamburg (Germany) [hereinafter BUE],

and

the Wärme Hamburg GmbH, Andreas-Meyer-Straße 8 in 22113 Hamburg (Germany) [hereinafter WH],

and

the Hochschule für Angewandte Wissenschaften Hamburg, Berliner Tor 5, 20099 Hamburg (Germany) [hereinafter HAW]

referred to collectively as the "Parties" with a mutual desire to set up working groups with regard to the utilization of Namibian encroacher bush in Hamburg.

Article 1. Background

Namibia is affected by bush encroachment on a massive scale. The phenomenon currently affects more than 45 million hectares of farmland, spreading at a rate of 3 % per annum. Bush encroachment drastically infringes on ground water resources, on biodiversity, and on farming activities, causing estimated economic losses of EUR 100 million per annum. Acknowledging the overall importance of the biomass resource and the potential of a bio-economy for Namibia, the Governments of Namibia and Germany agreed to cooperate within the Bush Control and Biomass Utilisation project, being implemented by GIZ in collaboration with the Namibian Ministry of Agriculture, Water and Forestry. It is a national objective to utilize this biomass within a sustainable manner, under a targeted value-addition approach, to benefit the local economy through value addition, job creation, and advancing export opportunities.

IfaS has been mandated by GIZ to support the development of Biomass Partnerships with Namibia with the overall objective to arrange strategic partnerships with German off-takers. Based on a previous meeting in September 2019 with the BUE, on January 15th 2020, a follow-up meeting participated by WH, BUE, peoples initiative former "Tschüss Kohle"

and an expert group including GIZ, IfaS, Namibia Nature Foundation (NNF) and Namibia Biomass Industry Group (N-BiG) was held. The objective of the meeting was to convey techno-economic and socio-ecologically in-depth knowledge relevant to discuss the idea of having a biomass partnership with Namibia.

Article 2. Scope, Objectives and Agreements

As a result of the meeting it has been proposed to set up three joint working groups between BUE, WH, IfaS and GIZ, which address different topics with regard to Namibian biomass utilisation in Hamburg within the next 12 month. The proposal has been supported by all parties. IfaS has been selected to formulize the set-up process in close cooperation the BUE and WH. The working groups address individual issues, pursue different objectives and are divided in:

a) Communication and Sensitization

This Working will compile Pro's and Con's for the proposed biomass utilization in Germany/ outside of Namibia. The goal is to evaluate the overall sensibility and to analyse the risks from an environmental and developmental policy and from a communication standpoint. All under consideration of different perspectives of varying stakeholders. This working group will then focus on the development of a sound communication strategy/concept for a Biomass Partnership with Namibia. The working group will focus on ecologic and socio-ecologic questions as well as aspects of sustainability (e.g. local working conditions, certification, CO₂ Balancing [LCA], biodiversity, etc.) with regard to bush thinning in Namibia and utilisation of bush biomass in Germany. The group will cover all relevant topics from harvesting to final use. Lastly the group will research the worldwide potential for similar bush biomass and evaluate if further countries could also be a sustainable supplier.

Proposed participants:

BUE (lead), WH, IfaS, GIZ, NNF, participants of local initiatives i.e. [REDACTED] and others to be named later

b) Techno-Economic evaluation

This working group will focus on the in-depth analysis of techno-economic requirements for bush biomass utilisation in Hamburg. The group will analyse the entire value chain from harvesting, via processing, via transport to final use, with special emphasize on reliability, dependable, collaborative and future-oriented special supply purchase agreement with Namibia.

Proposed participants:

WH (lead), BUE, HAW, IfaS, N-BiG

c) BtL/PtL Center Hamburg

Besides the proposed use of biomass combustion for WH for district heating purposes, the idea of establishing a renewable fuel innovation centre was discussed. It could serve as a hub for future-fuel-generation and distribution based on renewable energies. The idea is to also use biomass as a source, whereas current technologies (e.g. BtL) could serve as an additional waste heat source for the Hamburg district heating grid. It has to be examined where or which part of such innovation-centres should ideally be located. If it is not possible or not feasible to establish such centres in Namibia, Hamburg could be a logical solution.

Proposed participants:
HAW, WH, BUE, GIZ, IfaS

Article 3. Overall objective

The overall objective is to evaluate the feasibility of the use of Namibian bush biomass in Hamburg and conflate the results from each individual working group into a holistic strategy that pursues a dependable biomass partnership with Namibia.

Article 4. Timeline

The inception meeting for the setup of the working groups shall complete latest Mai 2020. After constitution of the working groups and the definition of prior tasks and responsibilities, quarterly workshops shall be held. In July 2021, an interdisciplinary final group meeting is envisaged.

Article 5. Responsibility

The BUE leads this process in terms of organisation and political communication and is responsible for the conflation of the results as described in article 3.

Each party works towards meeting the goals of the previous articles 3 and 4.

Article 6. Execution, renewal and termination

This MoU is to be executed by joint signature of four identical copies, written in English with each party retaining one copy.

- I. This MoU shall become effective on the date on which it has been duly signed by all parties, and it shall be in force for TWO (2) years.

- II. The Parties specifically state and acknowledge that this MoU is not intended to effect and does not constitute an obligation of funds by either Party nor does it create any rights to any third party.
- III. The themes of the joint activities and the conditions for utilizing the results achieved, as well as arrangements for specific visits, exchanges, and other forms of cooperation shall be discussed and agreed upon on a case-by-case basis in accordance with mutual requirements.
- IV. Revision and modification of the MoU may be done by mutual agreement of the signatories subject to six month (6) minimum notification period prior to the expiration of the existing MoU. The renewal of this MoU shall be discussed by all parties no less than three (3) months prior to the expiration of this MoU. Nothing in this MoU shall be construed as superseding or interfering in any way with other agreements between the Parties, either prior to or subsequent to the signing of this MoU.
- V. This MoU may be terminated at any time upon agreement of the parties, without prejudice or penalty.

Signature

[REDACTED]
Ministry of Environment and Energy,

[REDACTED]
Wärme Hamburg GmbH

Hamburg, Germany

[REDACTED]
[REDACTED]
Hochschule für Angewandte Wissenschaften Hamburg

[REDACTED]
Hochschule Trier, Umwelt-Campus Birkenfeld,

Institute for Applied Material Flow Management (IfaS),

Birkenfeld, Germany

IfaS Institut für angewandtes
Stoffstrommanagement

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