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BIOMASS UTILISATION BY SUSTAINABLE HARVEST

# BIOMASS UTILISATION BY SUSTAINABLE HARVEST

**The Role of Scientific Research in Growing African Bio-Economies – *With Reference to Provision of Technical Services, Technologies and Equipment for Sustainable Bush Control, Biomass Utilisation and Community Development in Namibia***

By Chris V Aukongo: Lisha Empowerment & Development  
(Namibia University of Science and Technology, 21 November 2019)



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# 1. The Key Roles of Scientific Research

**Provide scientific frameworks that guide sustainable development of new ventures:**

- ✓ Determination of success factors well in advance  
(Technical, material, financial and human resource requirements)
- ✓ Project planning and implementation
- ✓ Project monitoring and evaluation



# 1. The Key Roles of Scientific Research

**Provide scientific measures to correct shortages that impede technical and financial sustainability in existing development ventures:**

- ✓ Identify and analyse critical impediments to success
- ✓ Determine corrective measures for implementation, including production processes and systems for quality outcomes



## 2. Requirements for Successful Scientific Researches

### Due Recognition and Appreciation:

- ✓ Recognise and appreciate net value of scientific research for sustainable development

### Full Commitment to Funding:

- ✓ Demonstrate support through funding



## 3. Is Africa Prepared for Bio Economies?

How robust and sustainable are the following?

- ✓ Productive processes and systems
- ✓ Technologies and equipment
- ✓ Training for capacity development

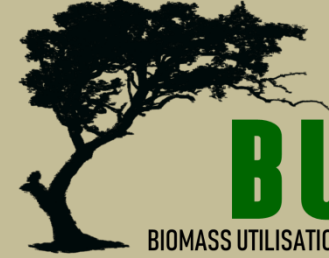


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## 3. Is Africa Prepared for Bio Economies?

**If the answer is not in the affirmative, it being recommended that we take home the proposal below:**

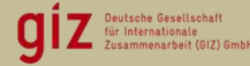
Declare 2020/2021 financial year as the year for achieving African preparedness to grow bio-economies through committed funding and application of scientific research



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## 4. The Bush Control and Biomass Utilisation (BCBU) Project: Namibia in Preparation for a Bio Economy

The BCBU project has gained recognition as being a potentially viable vehicle capable of driving Namibia towards a vibrant bio-economy.

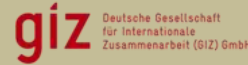
✓ Target BCBU Milestones



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## 4. The Bush Control and Biomass Utilisation (BCBU) Project: Namibia in Preparation for a Bio Economy

**Restoration of natural environment and rangelands to balanced state for improved:**

- ✓ Land and livestock productivity
- ✓ Water and food security
- ✓ Biomass-led industrial development to stimulate economic growth in rural areas
- ✓ Job creation and capacity development
- ✓ Economic and social conditions of rural communities
- ✓ Climate change resilience, etc.





## 4. The Bush Control and Biomass Utilisation (BCBU) Project: Namibia in Preparation for a Bio Economy

### □ Acknowledging Support to BCBU Project

Valuable contributions to BCBU in Namibia to date is recognised and acknowledged as follows:

#### **The Governments of Namibia and Germany:**

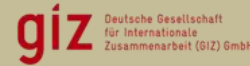
- ✓ Bilateral technical cooperation instruments also provides specific foci on addressing challenges posed by bush encroachment in Namibia



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## 4. The Bush Control and Biomass Utilisation (BCBU) Project: Namibia in Preparation for a Bio Economy

### GIZ Technical Collaboration

GIZ's technical collaboration with MAWF includes funding to finance research programmes aimed at finding sustainable solutions within Namibia's BCBU sector, including development of:

- ✓ Relevant policies and regulations
- ✓ Land/Forest management best practices



## 4. The Bush Control and Biomass Utilisation (BCBU) Project: Namibia in Preparation for a Bio Economy

### De-bushing Advisory Services (DAS)

DAS is supportive of BCBU programs through provision of technical assistance and funding to finance:

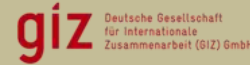
- ✓ Technical research interventions
- ✓ Collection and documentation of information and technical data for public consumption and empowerment
- ✓ Design, development and implementation of training programmes for developing technical and business capacities of SME's in BCBU sector



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## 4. The Bush Control and Biomass Utilisation (BCBU) Project: Namibia in Preparation for a Bio Economy

### Biomass Utilisation through Sustainable Harvest Project (BUSH)

BUSH is supportive of BCBU programs through scientific researches aimed at:

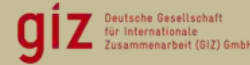
- ✓ Developing robust and affordable bush harvesting methods, technologies and equipment
- ✓ Construction of harvesting equipment prototypes – ready for mass production
- ✓ Training of communities for capacity development



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## 4. The Bush Control and Biomass Utilisation (BCBU) Project: Namibia in Preparation for a Bio Economy

### Namibia Biomass Industry Group (N-BiG)

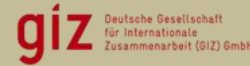
- ✓ N-BiG is providing de-bushing support services, including:
- ✓ Technical advice on suitable de-bushing methods and equipment
- ✓ Mentoring of member SME's



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## 4. The Bush Control and Biomass Utilisation (BCBU) Project: Namibia in Preparation for a Bio Economy

### Namibia Charcoal Association (NCA)

- ✓ NCA is supportive of BCBU program through research and development of:
- ✓ Efficient methods and equipment for producing quality charcoal
- ✓ Market access for members' charcoal products
- ✓ Training for developing member SMEs' capacities



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## 5. Major BCBU Deliverables

**With current technical capacities, the BCBU sector produces:**

- ✓ Charcoal (about 200 000 Mt/annum) mainly for export
- ✓ Charcoal briquettes
- ✓ Wood chips
- ✓ Compressed wood briquettes
- ✓ Bush-based animal feed



## 6.BCBU Impacts on Rural Areas

- ✓ BCBU producer SMEs: (Commercial areas – 650; Communal areas – 0)
- ✓ Job creation in charcoal sector: (Commercial areas – 10 000; Communal areas – 0)
- ✓ Land recovery: (Commercial areas – Ongoing; Communal areas – None)
- ✓ Improvement in livestock productivity: (Commercial areas – Ongoing; Communal areas – None) etc., etc.





## 6.BCBU Impacts on Rural Areas

### What has gone wrong in the equation?

- ✓ No land ownership in communal areas
- ✓ SMEs lack land-based collateral security instruments to access financing
- ✓ BCBU benefits, therefore, remain skewed towards commercial areas
- ✓ Entrepreneurial spirit in communal areas is killed off



## 7. Recommendations

- 1. Organise and hold urgent engagements with Namibia's national leadership to address land ownership in communal areas on the basis of crisis management – if, at all, the BCBU project is to be anything of meaning within the lives of residents of communal communities.**



## 7. Recommendations

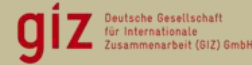
2. **Provide funding to finance the implementation of a ‘Turn Around Strategy’ that would level the playing field and eliminate existing skewed development for an equal, holistic and sustainable development in both commercial and communal areas: In this regard, establish one or more satellite ‘Community Technical Services Centres’ in communal areas with specific foci on:**
  - ✓ Research, design and development of bush harvesting and biomass processing equipment and technologies
  - ✓ Production of developed prototypes for utilisation locally.



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## 7. Recommendations

3. Encourage development finance institutions to be fully well-versed in the BCBU activities and aspirations of BCBU SME's.



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**The End**

**Thank you.**