



FACET
POWER

Powering African Climate Prosperity

COMPLETE CLIMATE SOLUTIONS ENERGY ECOSYSTEMS

BIOMASS FAIR 2023: GROWING BIOCHAR MARKETS

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SEPTEMBER 2023

FACET KALULU

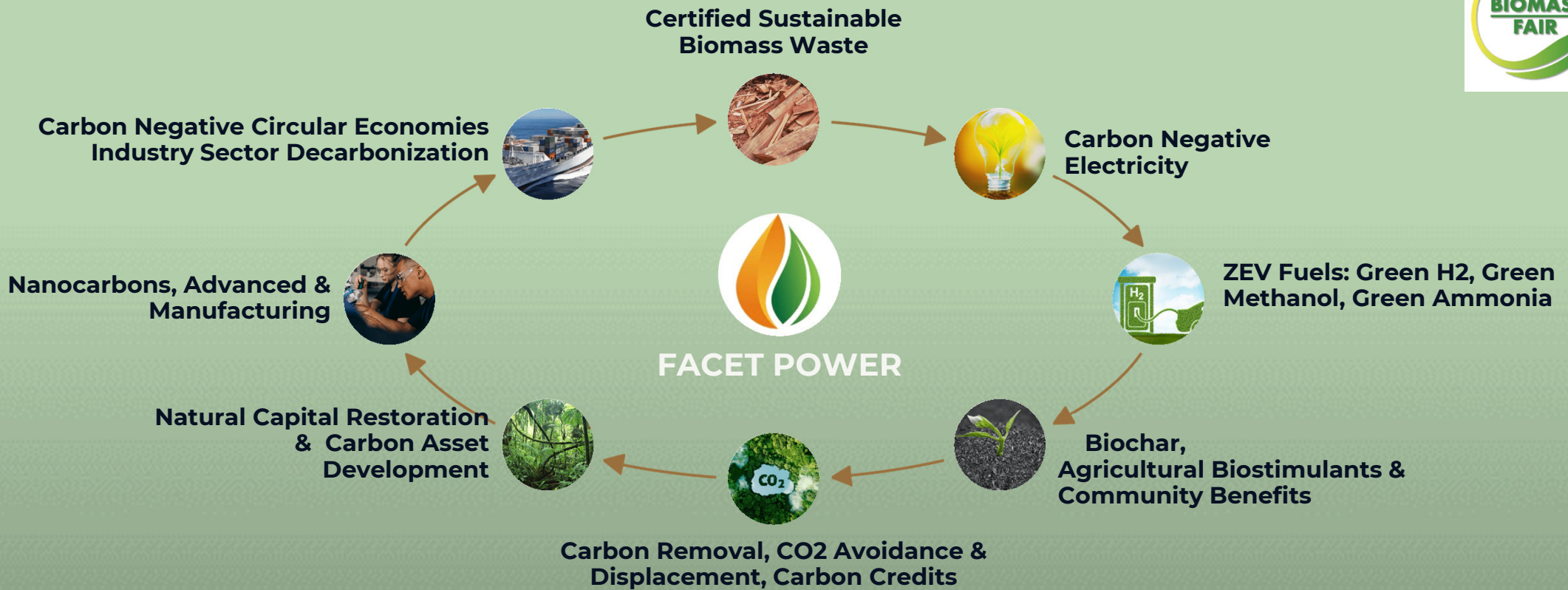
U.S. & NAMIBIAN
PARTNERSHIP for
AFRICAN CLIMATE
PROSPERITY



FACET KALULU ENCROACHMENT BUSH ENERGY ECOSYSTEMS
FROM ECONOMIC & ENVIRONMENTAL CRISIS TO ENGINE OF ECONOMIC DEVELOPMENT



KALULU RESOURCES



CLIMATE IS A SYSTEM: SOLVE IT LIKE ONE™

FACET POWER COMPLETE CLIMATE SOLUTIONS ENERGY ECOSYSTEMS

OPTIMIZING ENVIRONMENTAL, ECONOMIC & SOCIAL IMPACT of BIOMASS WASTE AT EVERY OPPORTUNITY



FACET COMPLETE CLIMATE SOLUTION ENERGY ECOSYSTEMS: THE FASTEST PATH TO 1.5 C & A JUST TRANSITION

REIMAGINING BIOMASS & RENEWABLE ENERGY IN SYSTEMS TO CREATE TRUE CLIMATE PROSPERITY



ENERGY

- ZERO EMISSIONS FUELS:
 - Green Methanol, Bio-Hydrogen, Green Ammonia
- CARBON NEGATIVE ELECTRICITY
 - Distributed Generation, Continuous Baseload
- NEXT GENERATION SUPER CRITICAL STATE STORAGE & DISTRIBUTION



CARBON

- NANOCARBONS
- BIOCHAR
- CARBON CAPTURE & REMOVAL
- NATURAL ASSET RESTORATION
- CARBON ASSET DEVELOPMENT
- CLIMATE RESILIENT AGRICULTURE



ECONOMY

- LOCAL & REGIONAL BIO-BASED CIRCULAR ECONOMIES
- INDUSTRY SECTOR DECARBONIZATION
- ADVANCED MATERIALS MANUFACTURING
- DE-RISKING TRADE
- BUSINESS DIVERSIFICATION



COMMUNITY

- FOOD, WATER & ENERGY SECURITY
- THRIVING SUSTAINABLE FOREST & AGRICULTURAL ECONOMIES
- JOBS: RURAL & HIGH TECH JOBS
- ECOSYSTEM SERVICES
- COMMUNITY BENEFITS
- CLIMATE RESILIENCE

FACET ENERGY TRANSITION PLANS

STRATEGIC TRANSITION OF BUSINESS ECOSYSTEMS, VERTICALS & COMMUNITIES TO CLIMATE RESILIENCE



FUELS

- **BIO H2: Heavy Duty Transport (Class 8)**
- **Carbon Negative Electricity: EVs (Light Duty & Box Truck)**
- **Green Methanol: Maritime**
- **SAF: Aviation**



AGRICULTURE

- **Stay Competitive: Reduce Scope 1-3 CO2 Emissions**
- **Cost Control & Risk Mitigation: Soil Health, Drought Resilience, Flood Protection, Fertilizer Cost Reduction, Water Quality**
- **Diversify & Increase Revenue: Improved Yields, Increased Income, Carbon Removal & Other Credits**



COMMUNITY

- **Microgrids: Energy Independence, Continuity of Essential Services**
- **Turnkey Transition Solutions: Aligning Funding & Delivery**
- **Climate Adaption & Resilience Education**
- **Community Benefit Programs**



THINK DIFFERENTLY: SECTOR SOLUTIONS

TURNKEY MARITIME DECARBONIZATION SOLUTIONS

POWERING CARBON NEGATIVE TRADE & PORT OPERATIONS



SHIPPING FUELS

- Green Methanol
- Green Ammonia



PORT OPERATIONS

- Bio-Hydrogen for Cargo Handling Equipment
- Carbon Negative Electricity for Lighter Duty BEVs



LOGISTICS

- Carbon Negative Baseload Electricity for Warehouse, Distribution Centers, Fleets
- Bio-Hydrogen for Heavy Duty Transport



CARBON CREDITS

- Carbon Removal Credits
- Carbon Offset Credits
- Biodiversity, Ecosystem, SDG, etc., Credits

STRATEGIC PLANNING & BUSINESS DIVERSIFICATION FOR CLIMATE PROSPERITY

High Growth Fuels, Energy & Biochemical Sectors



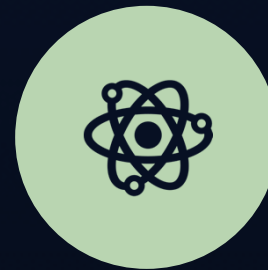
SAF

- Production Currently At 0.1% Of Demand
- CO2 Reduction Mandates Assure Robust Market Growth



Electricity

- Exponential Increase In Demand as Fossil & Aging Infrastructure Phases Out, EVs Come Online



Green Chemicals

- 200+ High Value Green Chemicals In Bio Oil



BioHydrogen

- Heavy Duty ZEV Transport Fuel Of Choice



MARKET CONTEXT



THE FASTEST PATH TO 1.5C

CRITICAL ROLE of BIO-ENERGY WITH CARBON REMOVAL

"Converting biomass into fuels with simultaneous capture of the process CO₂ emissions holds the greatest potential for negative emissions"

Getting to Neutral

Bioenergy must grow 14% a year for the world to meet Net Zero by 2050

IRENA

"Carbon Dioxide Removal (CDR) must grow by a factor of 1 Million to the size of the oil & gas industry" by 2050

Swiss Re

ANNUAL DOUBLE DIGIT GIGATON CARBON DIOXIDE REMOVAL "CDR" IS NOW ESSENTIAL

—
NO PRECEDENT FOR THE SCALE OR SPEED OF NECESSARY TRANSITION

*"At no time in history has
an industry this size been
built in 3 decades.
Growth on this timeline is
"a necessity, not an
option."*

-SWISS RE

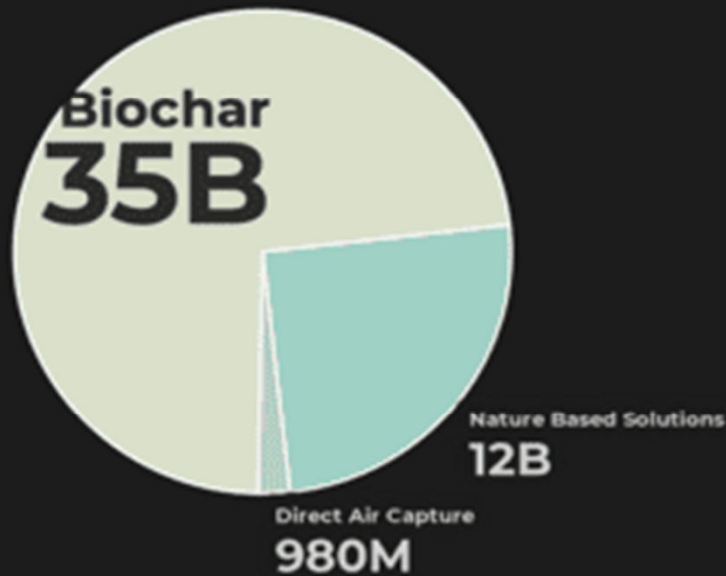
10 GIGATONS CDR/YEAR REQUIRED TO 2050
20 GIGATONS CDR/YEAR REQUIRED 2050

- CDR MUST REACH THE SIZE OF OIL & GAS INDUSTRY BY 2050 TO ACHIEVE REMOVAL TARGETS
- GROWTH BY A FACTOR OF ONE MILLION
- WILL REQUIRE \$200 BILLION/YEAR OF INVESTMENT
- CDR IS CURRENTLY AT 0.026% OF REQUIRED LEVELS

BIOCHAR DOMINATES ALL OTHER CDR

BIOCHAR SCALED POTENTIAL: 477 GIGATONS PERMANENT CDR CO2 BY 2100

Metric Tons of CO2 Removed Annually By 2050 By CDR Method



SOURCE: IEA

GLOBAL DRIVERS: FINANCIAL SYSTEMS & BANKING

"DOING NOTHING IS NOT AN OPTION"- DELOITTE

"Climate poses the biggest long-term risk to the global economy. By 2050, the world stands to lose 10% of total economic value" precipitating catastrophic societal fractures

- SWISS RE

"The financial cost of failure to act on climate is \$178 Trillion". The human & environmental cost is immeasurable -

- DELOITTE

Majority of world's banks have not accurately priced carbon & cannot pass climate related financial stress tests

- BANK OF ENGLAND

"If we act decisively, \$43 Trillion could be added to economy"-

- DELOITTE

GLOBAL DRIVERS: INSURANCE

“FAILURE IS NOT AN OPTION”- MCKINSEY

**MAJOR OIL AND GAS
INSURERS ADOPTING A
POLICIES EXCLUDING
NEW OIL AND GAS
PROJECTS STARTING
2023**

- **ALL OIL & GAS CLIENTS MUST HAVE CREDIBLE NET ZERO PLANS**

MUNICH RE: 2025; SWISS RE: 2030 HANOVER RE:

- **NO NEW INVESTMENTS IN OIL & GAS**

MUNICH RE: 2023 SWISS RE: 2023; HANOVER RE,

- **UN NET ZERO INSURANCE ALLIANCE; UN PRINCIPLES FOR SUSTAINABLE INSURANCE**

- **INSURERS PULLING OUT OF AGRICULTURE, HOME, BUSINESS & DISASTER INSURANCE IN MAJOR MARKETS**

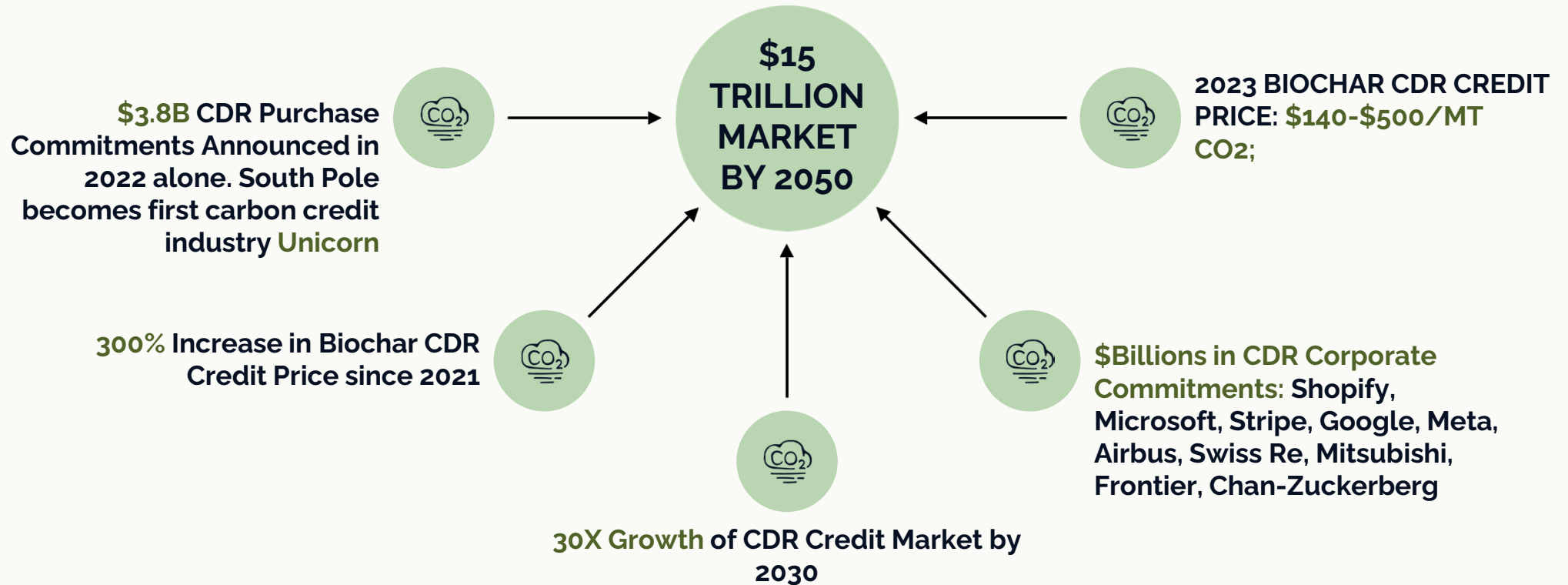
GLOBAL DRIVERS: BIODIVERSITY & NATURAL CAPITAL MARKETS

INVESTMENT TO GROW 2000%

\$8 TRILLION MARKET WILL BE BETTER CAPITALIZED THAN OIL & GAS INDUSTRY IS TODAY

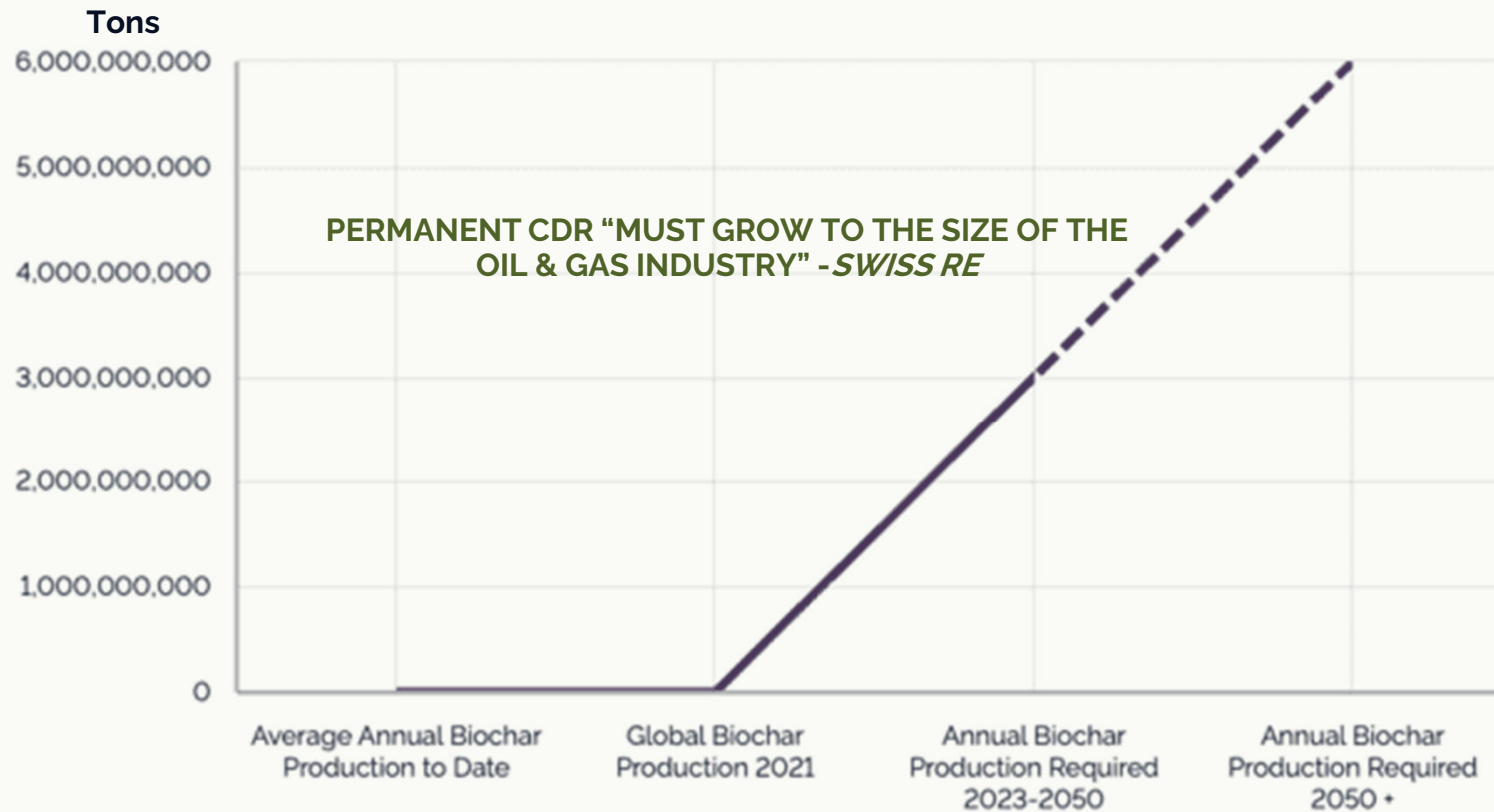
HEALTHY SOILS	REGENERATIVE AGRICULTURE	LANDSCAPE RESTORATION	BIODIVERSITY
<p><i>"Good Soil Is Gold for Businesses" & will require \$700B capital expenditure over next 30 years generating \$10 Trillion in net financial return - Forbes</i></p>	<p><i>"The world is now waking up to the urgent threat to biodiversity and natural capital. Biodiversity investment solutions are emerging as the largest investment megatrend in our generation. The theme is at an inflection point, and belatedly transforming from a neglected risk into a top priority." - Fidelity</i></p>	<p><i>"Nature-based solutions could generate \$800B in annual revenues by 2050, worth \$1.2 trillion today in NPV terms, surpassing the current market capitalization of the oil & gas majors" - UN's Principles for Responsible Investment (\$86 Trillion under management)</i></p>	<p><i>Biodiversity represents \$44 Trillion of economy activity - Half of Global GDP Equal to \$150 Trillion in annual economic value - Double Global GDP Biodiversity includes Healthy Soils, Restored Landscapes, & Regenerative Agriculture required to protect & preserve it</i></p>
<p>DRIVERS</p>	<p>Corporates & their supply chains in industrial agriculture, industrial food manufacturing, clothing manufacturing and other nature-based industries seeking to: Reduce supply chain risk price volatility scope 3 emission carbon border tax liability climate risk -preserve access to capital & insurance tap into \$ billions in spending controlled by Gen Z</p>		

CARBON REMOVAL MARKET DEMAND



CDR TARGETS REQUIRE EXPONENTIAL SCALE UP & MARKET GROWTH

CDR INDUSTRY TRAJECTORY



Annual multi-billion ton demand for permanent CDR will outpace supply for decades to come

ROBUST MARKET GROWTH ASSURED THROUGH 2100

● Production requirements sourced from IPCC & IRENA

ADVANTAGES OF BIOCHAR CDR

CDR METHOD	BIOCHAR	NATURE BASED	DIRECT AIR CAPTURE
COST	\$	\$\$\$	\$\$\$\$\$
DURABILITY	PERMANENT	TEMPORARY	VARIABLE
SCALE UP POTENTIAL	IMMEDIATE	DECADES	DECADES
INVESTMENT TO REMOVAL	12-18 MONTHS	5-20 YEARS	13 YEARS +
VOLUME	HIGH CAPACITY	HIGH CAPACITY	LOW CAPACITY
CO-BENEFITS	MANY	MULTIPLE	FEW IF ANY
ADDITIONAL PRODUCTS & REVENUE	CARBON NEGATIVE ENERGY, SEQUESTRATION MARKETS, CARBON & OTHER CREDITS	OTHER CREDITS	NONE
ENERGY INTENSITY	SELF POWERED	LOW	HIGH
2050 REMOVAL POTENTIAL	35 GT CO2/Y	30% 2020 GLOBAL CO2 EMISSIONS/Y	980M T CO2/Y



OPPORTUNITIES FOR BIOCHAR

THE BUSINESS OF BIOCHAR: THE MOST POWERFUL NEGATIVE EMISSIONS TECHNOLOGY AVAILABLE



- ❖ **“One Of Only A Few Permanent Carbon Removal Technologies, And The One At Highest Technology Readiness Level” To Meet The “Massive Incoming Demand For Carbon Removal.”**
- ❖ **THE WORLD’S MOST VALUABLE CARBON REMOVAL TOOL:** Combine Biochar’ s Technological Readiness, Scalability, Low Cost per Ton CO₂ Removed, Combined With It’s Unparalleled Climate, Social, Environmental, & Financial Co-benefits.
- ❖ **PERFECT CONDITIONS FOR AN DISRUPTION SUCCESS STORY:** In The Same Turn, It Is Also The Most Underfunded, Undervalued, Underutilized & Unseen.
- ❖ **BIOCHAR MAXIMIZES:** the Carbon & Social Impact of Every Dollar Spent, Action Taken, & Product Made Creating A Tremendous Opportunity For Farmers, The Biomass Industry, Rural Communities, And Namibia To Prosper

THE BUSINESS OF BIOCHAR: FOUNDATION OF 21ST CENTURY BIOECONOMY

BIOCHAR WITH BIOENERGY: CLIMATE HERO WAITING FOR ITS CALL TO ACTION

- ❖ Integrating Carbon Negative Bioenergy Production With Biochar CDR Creates A Pathway To Removing And Avoiding Billions Of Tons Of CO₂, & Creating Billions Of Dollars In Economic Opportunity For Rural Communities.
- ❖ A Mere 3% Of African Energy, Bioenergy Will Provide 28% Renewable Energy And 40% Of. Transportation Fuels Globally By 2050, Presenting An Opportunity For Vibrant Growth Of Biochar Systems.

PAYING CLIMATE & FINANCIAL DIVIDENDS

- ❖ When applied to soil, biochar supports climate smart agriculture, improves soil health, & pays climate dividends long after the initial biochar application.
- ❖ Soils made healthier by biochar could generate \$50 billion in social and environmental impacts annually and \$37 million in on-farm economic value.
- ❖ "Good soil is gold for businesses" and will require \$700 billion capital expenditure over next 30 years generating \$10 Trillion in net financial return." - Forbes

STIMULATING INNOVATION & GROWTH OF THE BIOECONOMY

- ❖ In addition to its CDR and agronomic benefits, biochar reduces the carbon intensity and enhances the performance of hard to abate products like construction materials, cement, and plastics, among others.
- ❖ Leveraging the multiple benefits of biochar to achieve climate and economic development goals

BARRIERS TO GROWTH of BIOCHAR INDUSTRY

1

• MARKETS

2

• BUSINESS MODELS

3

• TECHNOLOGY

4

• QUANTIFICATION OF BENEFITS

5

• FUNDING

THE BUSINESS OF BIOCHAR: FOUNDATION OF 21ST CENTURY BIOECONOMY



**BIOCHAR:
\$2 TRILLION
MARKET
BY 2050**



THE BUSINESS OF BIOCHAR: MINE RECLAMATION

BIOCHAR: AN IDEAL FULL SPECTRUM MINE REMEDIATION SOLUTION



- ❖ **CONTROL CONTAMINATION:** Water Bodies, Run-off, Dust, Soils
- ❖ **PREVENT SUBSIDENCE**
- ❖ **CAPTURE & AVOID FUGITIVE METHANE EMISSIONS**
- ❖ **CLEAN GROUNDWATER**
- ❖ **SOIL REMEDIATION:** Clean & Build Healthy Soil Base for Revegetation, Afforestation & Return to Productive Use
- ❖ **TURNING LIABILITY INTO AN ASSET:** CDR, Methane, & Other Credit Revenue; Renewable Energy Siting; Carbon Sink Creation; Biodiversity Restoration; Strategic Plantings; Jobs



FACET SECTOR SOLUTIONS: MINING



DECARBONIZING OPERATIONS & TURNING LIABILITY INTO CASH FLOWING ASSETS



- **H2 FUELING FOR FCEV MINING VEHICLES:**

- ❖ **BEHIND THE FENCE AND ON TRAVEL CORRIDORS**

- **CARBON NEGATIVE BASELOAD RENEWABLE ELECTRICITY:**

- ❖ **CONTINUITY OF OPERATIONS**
- ❖ **SCOPE 2 REDUCTIONS**

- **NANOCARBONS:**
 - ❖ **PROCESSING NAMIBIA'S MINED RESOURCES IN COUNTRY**

- **DEGRADED MINE LAND RESTORATION:**
 - ❖ **NATURAL ASSET DEVELOPMENT**
 - ❖ **LONG TERM ACCESS TO CARBON CREDITS**

THE BUSINESS OF BIOCHAR: ORPHAN OIL & GAS WELL PLUGGING & RESTORATION



- ❖ **LIABILITY BECOMES AN ASSET:** Financial & Human Health Liability Restored to Become a Cash Flowing Asset Leveraging Biochar CDR & Carbon Credit Stacking.
- ❖ **RE-ENTRY INTO ECONOMY:** Speeds Return of Contaminated Lands Back to Productive Use.
- ❖ **JOB CREATION:** 4x as Many Jobs as Conventional Plugging.
- ❖ **SKILLS TRANSITION:** Creates Technical & Workforce Capacity Needed to Close, Remediate, & Optimize Economic Value of End of Life Oil & Gas Wells.
- ❖ **CARBON REMOVAL & METHANE AVOIDANCE:** Biochar sequestration, Soil Remediation, Stopping Methane Leaks
- ❖ **COMMUNITY HEALTH:** Water & Air Quality; Improvements to Human Health



THE BUSINESS OF BIOCHAR: ECOLOGICAL INFRASTRUCTURE



- ❖ **RESTORATION & IRRIGATION “INSURANCE”:** Holds Water & Critical Nutrients to Support Restoration Investments; Amplifies Reach, Impact & Duration of Water Delivered Through Irrigation
- ❖ **FLOOD RESILIENCE:** Improves Flood Resilience & Climate Resilient Green Infrastructure For Urban And Riparian Communities
- ❖ **WATER TABLE RECHARGE:** Improves Soil’s Structure, Infiltration Rates, And Ability To Retain Water, Thereby Reducing The Occurrence, Impacts, And Losses From Flooding.
- ❖ **IMPROVES SOIL HEALTH AND STABILITY:** Creating Beneficial Conditions For Water Quality And Flood Control Plantings Such As Wetlands To Take Hold And Function Optimally.
- ❖ **WATER FILTRATION & QC:** Controls Urban And Agricultural Runoff, Protects Water Quality, & Controls Algal Blooms.



UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030

THE BUSINESS OF BIOCHAR: ENERGY INDEPENDENCE, SECURITY & ENERGY TRANSITION FUELS



- ❖ **GRID PROOFING THE FUTURE:** Giving Communities & Businesses The Power To Control The Cost, Carbon Intensity, And Continuity Of Electricity Supply.
- ❖ **LOCALLY PRODUCED BASELOAD POWER:** Flexible Use of Low-Value Biomass Wastes; Energy Delivery Via Microgrid or As VPP To Support Grid.
- ❖ **SCOPE 2 EMISSIONS REDUCTION:** for Businesses on Microgrid.
- ❖ **ENERGY PRODUCT FUNGIBILITY:** Electricity, Greener than Green Bio-Hydrogen, Green Methanol, Green Ammonia.
- ❖ **COST CONTROL:** 1/4th the capital expenditure of wind or solar green H₂; high value biochar & biochar CDR co-products allow for lower electricity prices; insulated from price volatility of fossil fuels & grid instability.
- ❖ **RIGHT SIZING:** modular, scalable distributed generation to serve community needs, management waste shed sustainably, reduce exposures to climate related damage, create more jobs & economic value across regions



THE BUSINESS OF BIOCHAR: BIOMASS INDUSTRY GROWTH



- ❖ **NEW PATHWAYS:** Economic Growth, Revenue Diversification, & Resilience for the Biomass Industry & Rural Communities.
- ❖ **NEW MARKET CREATION:** For Low Value Small Diameter Landscape Management Wastes, Charcoal Processing Wastes, & Wildfire Fuels.
- ❖ **DISTRIBUTED ENERGY GENERATION:** Baseload Carbon Negative Electricity, Green Hydrogen, And Green Methanol For Rural Community Energy Security, Independence, And Leadership In Zev Fuels Production.
- ❖ **FIRE PREVENTION & MANAGEMENT:** Speed Revegetation, & Develop Innovative Advanced Biomaterials Manufacturing Economies.
- ❖ **LANDSCAPE RESTORATION & NATURAL CAPITAL ASSET DEVELOPMENT**
- ❖ **ROBUST BUSINESS MODELS:** Multiple Revenue Streams Create Business Resilience



THE BUSINESS OF BIOCHAR: AGRICULTURE

- ❖ **ESSENTIAL ROLE:** Improving Economics, Yields, & Future-proofing Farm Operations.
- ❖ **DIVERSIFYING FARM REVENUE:** Carbon Credits, Energy, Increased Crop Yields, New Products.
- ❖ **CREATING VALUE:** Increasing the economic & agronomic value of Waste; turning it into a saleable product; enhancing ability to displace on farm fertilizer use.
- ❖ **METHANE REDUCTION:** Increase Anaerobic Digestion Biogas Production, Reduce Enteric Methane Emissions, And Improve Livestock Health.
- ❖ **WATER QUALITY & CONSERVATION:** Control Agricultural Runoff, Enhance Nutrient Management, Reduce Water Consumption.
- ❖ **REDUCE SCOPE 1-3 EMISSIONS:** keeping access to agricultural product value chains open & enhancing competitiveness.

“Bringing carbon back to soils through biochar and regenerative agriculture is one of the greatest opportunities to address human and climate health, along with the financial well-being of farmers.” –

Project Drawdown



No fertilizer (UC) Biochar (UC+BC) Fertilizer (FC) Fertilizer+Biochar (FC+BC)

Photo 2. Maize growth under biochar and fertilizer application. UC: no biochar and no fertilizer application; UC+BC: application of biochar without fertilizer; FC: fertilizer application without biochar; FC+BC: biochar and fertilizer application.

Photo © IITA

THE BUSINESS OF BIOCHAR: AGRICULTURE



- ❖ **FISCAL RESPONSIBILITY:** 2022, the U.S. spent \$12B on Farm Bill Disaster Assistance payouts but took in only \$8B in Crop Insurance premiums. Biochar is a low cost, high impact tool to close that fiscal responsibility gap.
- ❖ **DROUGHT RESILIENCE:** Biochar improves soil's ability to retain water and deliver it to roots under drought conditions, reducing irrigation costs, plant stress, & crop losses.
- ❖ **INCREASING FARMER INCOME:** Biochar improves soil health across a range of agronomic factors, boosting plant productivity up to 200% and farmer income up to 120%.
- ❖ **REDUCING FARM OP EX:** Displacing the need for continued cycles of high cost synthetic fertilizer applications, reduces 60–80% of farm operational expenditure costs.
- ❖ **LOCAL ECONOMY STIMULATION:** Using Biochar creates 4x the jobs of status quo, hundreds of millions of dollars in local economic value, & stems the tide of financial losses related to drought & agriculture.

THE BUSINESS OF BIOCHAR: GROWING THE INDUSTRY



- ❖ **POLICY:** Claiming Seat at Table
- ❖ **OPENING SEQUESTRATION MARKETS:** More than just Agriculture
- ❖ **BREAKING DOWN SILOS:** Adjacent Industries, Regulatory Agencies, Financial Community
- ❖ **INDUSTRY STANDARDS:** Technology, Operations, QC, Lab Testing, Application, After Care
- ❖ **SPECIFICATION:** Inclusion in Contracting Requirements for Insurance, Government, Building Codes, Agricultural Programs, *etc.*
- ❖ **ECONOMIC DATA COVERAGE**
- ❖ **KEY STAKEHOLDER OUTREACH & EDUCATION**
- ❖ **UNIFIED CORE MESSAGING:** Fiscal Responsibility & Ultimate Carbon Management Tool

THE BUSINESS OF BIOCHAR: POWER OF INDUSTRY ASSOCIATIONS



The U.S. Biochar Coalition industry trade association unifies the voice of biochar, agriculture, forestry, climate tech, and carbon removal industry stakeholders in advocacy for and development of market, policy, and economic conditions to catalyze biochar industry growth.

CREATING A UNIFIED VOICE

The Coalition's platform is specifically designed and uniquely suited to elevate awareness among policy makers, public, and end markets of the biochar industry's capacity to achieve U.S. economic development, climate resilience, and energy independence goals. Long overlooked and lacking a unified industry voice and lobbying presence, the biochar industry currently produces a mere 1% of its projected production capacity in the U.S.

MISSION

- ❖ Advocate for legislative, policy, & regulatory action to build and open markets for the production and use of biochar in the U.S.
- ❖ Raise federal policy, legislative & regulatory awareness of the benefits of biochar systems and products to break down barriers to growth
- ❖ Deconstruct silos between the biochar business community & end use market sectors to cross pollinate opportunities for growth
- ❖ Unite biochar industry leaders, create opportunities for collaboration, build a platform for action

THE BUSINESS OF BIOCHAR: INDUSTRY ASSOCIATIONS, USBC POLICY WORK



USE BIOCHAR AS FISCAL RESPONSIBILITY TOOL IN DISASTER ASSISTANCE, INSURANCE & CONSERVATION PROGRAMS



- ❖ Reduce Insurance Premiums For Producers That Incorporate Biochar Into Soils To Mitigate Drought, Flood, Soil Health, Disease, & Prevented Planting Risks.
- ❖ Include Degraded Soil Health As An Eligible Natural Disaster & Implement A Soil Health Monitoring Program.
- ❖ Include Biochar Amendment In Covered Drought Resilience Measures And All Terrestrial Conservation & Restoration Practices

UNLOCK ECONOMIC VALUE & CREATE OPPORTUNITIES FOR MULTI-SECTOR GROWTH THROUGH CARBON MANAGEMENT PROGRAM ENHANCEMENTS

- ❖ Increase Funding For The Existing Wood Innovations Bioenergy, Biofuels & Bioproducts Program To Pilot And Implement Incentive Programs For Forest Waste Removal To Catalyze Flow Of Fire Hazard & GHG Emitting Wastes Out of Forests & Into Value As A Biochar Feedstock.
- ❖ Increase Funding For Timber & Forest Waste Innovation, State & Private Forest Landscape-scale Restoration, And Collaborative Restoration Programs



BIOCHAR INDUSTRY ASSOCIATION COOPERATION

OPPORTUNITIES FOR NAMIBIAN, U.S., & INTERNATIONAL COLLABORATION

1. UNFCCC ARTICLE 6 IMPLEMENTATION
2. STANDARDS & BEST PRACTICES
3. DRAFT LEGISLATIVE & REGULATORY LANGUAGE
4. AFRICAN UNION ENGAGEMENT
5. YOUTH ENGAGEMENT
6. CROSS INDUSTRY PARTNERSHIPS
7. NETWORKING
8. SHARING OUTREACH & EDUCATION MATERIAL



APPENDIX

FACET CAMEROON FOREST WASTE FACILITY ANNUAL IMPACT



- **60,000 Tonnes of Forest Waste Recycled**
- **9,250 Tonnes of Biochar Used for Degraded Landscape Restoration**
- **28,000 Tonnes of CO2 Permanently Removed**
- **26,000 MWh Renewable Baseload Electricity**
- **424,000 Tonnes of CO2 Emissions Avoided**
- **40 Direct Jobs**
- **Carbon Credit Community Income**
- **Small Holder Regenerative Agriculture**

WWF & FACET CAMEROON BIOCHAR LANDSCAPE RESTORATION

FACET-WWF Partnership to Restore Soil & Forest Health in the Congo Rainforest Basin, Cameroon

Project Goals: Food & Water Security, Climate Adaptation, Sustainable Development

Planned Adoption in All 9 WWF AFR 100 Countries



NGAOUNDERE

7999 Hectares of degraded soils



WANGAI

1,125.53 Hectares of degraded soils



WAFANGO

2245 Hectares of degraded soils



TCHOLLIRE

522 Hectares of degraded soils



BERTUOA

2,300 Hectares of degraded soils

Decimated by Deforestation, Extractive Agricultural & Climate Change

FACET'S INNOVATIVE USE OF FOREST WASTE

RECYCLING LOW VALUE FOREST BIOMASS WASTES INTO CARBON NEGATIVE RENEWABLE ELECTRICITY GREEN BIO-HYDROGEN, BIOCHAR, NANOCARBONS, PERMANENT CO2 REMOVALS & NATURAL CARBON ASSETS

60% OF TIMBER IS LEFT BEHIND AS WASTE

EACH TON OF WOOD WASTE:

- EMITS 6.7 MT CO₂E
- CREATES \$5,000 OR MORE OF CLIMATE RELATED ECONOMIC DAMAGE

FACET TURNS A TON OF WOOD WASTE INTO

- 1 MW RENEWABLE ELECTRICITY
- 80 KG GREEN H₂
- 250 KG BIOCHAR
- 0.75 MT CO₂ REMOVED
- 25 HA SOIL RESTORATION
- \$6,000 REGIONAL ECONOMIC VALUE





FACET
POWER

Powering Namibian Climate Prosperity



KALULU RESOURCES

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