

# **Global Biochar Market Size study & Forecast, by Production Technology (Pyrolysis, Gasification, and Others), Application (Soil Amendment, Animal Feed, Industrial, and Others) and Regional Analysis, 2022-2029**

<https://marketpublishers.com/r/G71C2CAE936CEN.html>

Date: December 2022

Pages: 200

Price: US\$ 4,950.00 (Single User License)

ID: G71C2CAE936CEN

## **Abstracts**

Global Biochar Market is valued at approximately USD 0.19 billion in 2021 and is anticipated to grow with a healthy growth rate of more than 13.2% over the forecast period 2022-2029. Biochar refers to a charcoal-like material and it is produced from plant materials including grass, agricultural and other forest residues which are degraded at high temperatures, in renewable energy production. During the process, the physical and chemical properties of the plant material change into a highly porous, stable, carbon-rich material known as biochar. It has a wide range of applications across different industries such as it is used to improve soil health and remove toxic metals and organic contaminants in soil and water. The increasing expansion of the water and Wastewater treatment industry and growing adoption of Biochar as an animal feed additive as well as strategic initiatives from leading market players are key factors accelerating the market growth.

The increasing application of Biochar in the treatment of wastewater is contributing to the growth of the Global Biochar Market. For instance, according to Statista – in 2021, the global water and wastewater treatment market was estimated at USD 281.75 billion, and the market is projected to reach a value of approximately USD 490 billion by 2029, witnessing a CAGR of 7.1 per cent during the forecast period of 2022 to 2029 period. Also, the rising expansion of the construction sector and increasing number of R&D activities would create a lucrative growth prospectus for the market over the forecast period. However, the high cost associated with Biochar production impedes the market growth throughout the forecast period of 2022-2029.

The key regions considered for the Global Biochar Market study includes Asia Pacific, North America, Europe, Latin America, and Rest of the World. North America is the leading region in terms of market share owing to the presence of leading market players and the growing expansion of industrial water treatment activities in the region. Whereas the Asia Pacific is expected to grow with the highest CAGR during the forecast period, owing to factors such as the rising number of favorable initiatives from government authorities to treat wastewater and growing demand for animal feed additives in the region.

Major market player included in this report are:

Airex Energy inc.

ArSta Eco Pvt Ltd.

Biochar Supreme

Coaltec Energy USA

Farm2Energy Pvt. Ltd.

Frontline BioEnergy LLC

KARR Group Co. (KGC)

Pacific Biochar Benefit Corporation

Phoenix Energy

ProActive Agriculture

Recent Developments in the Market:

In January 2022, Ag Energy Solutions Inc., a Spokane-based agricultural renewable technology company, has been acquired by Pullman, Washington-based plant, and tree fruit producer NuPhy Inc.

Global Biochar Market Report Scope:

Historical Data 2019-2020-2021

Base Year for Estimation 2021

Forecast period 2022-2029

Report Coverage Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered Production Technology, Application, Region

Regional Scope North America; Europe; Asia Pacific; Latin America; Rest of the World

Customization Scope Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in

recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Production Technology

Pyrolysis

Gasification

Others

By Application

Soil Amendment

Animal Feed

Industrial

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Rest of the World

## Contents

### CHAPTER 1. EXECUTIVE SUMMARY

- 1.1. Market Snapshot
- 1.2. Global & Segmental Market Estimates & Forecasts, 2019-2029 (USD Billion)
  - 1.2.1. Biochar Market, by Region, 2019-2029 (USD Billion)
  - 1.2.2. Biochar Market, by Production Technology, 2019-2029 (USD Billion)
  - 1.2.3. Biochar Market, by Application, 2019-2029 (USD Billion)
- 1.3. Key Trends
- 1.4. Estimation Methodology
- 1.5. Research Assumption

### CHAPTER 2. GLOBAL BIOCHAR MARKET DEFINITION AND SCOPE

- 2.1. Objective of the Study
- 2.2. Market Definition & Scope
  - 2.2.1. Scope of the Study
  - 2.2.2. Industry Evolution
- 2.3. Years Considered for the Study
- 2.4. Currency Conversion Rates

### CHAPTER 3. GLOBAL BIOCHAR MARKET DYNAMICS

- 3.1. Biochar Market Impact Analysis (2019-2029)
  - 3.1.1. Market Drivers
    - 3.1.1.1. Increasing expansion of water and Wastewater treatment industry.
    - 3.1.1.2. Growing adoption of Biochar as animal feed additive.
    - 3.1.1.3. Strategic initiatives from leading market players.
  - 3.1.2. Market Challenges
    - 3.1.2.1. High cost associated with Biochar production.
  - 3.1.3. Market Opportunities
    - 3.1.3.1. Rising expansion of construction sector.
    - 3.1.3.2. Increasing number of R&D activities.

### CHAPTER 4. GLOBAL BIOCHAR MARKET INDUSTRY ANALYSIS

- 4.1. Porter's 5 Force Model
  - 4.1.1. Bargaining Power of Suppliers

- 4.1.2. Bargaining Power of Buyers
- 4.1.3. Threat of New Entrants
- 4.1.4. Threat of Substitutes
- 4.1.5. Competitive Rivalry
- 4.2. Futuristic Approach to Porter's 5 Force Model (2019-2029)
- 4.3. PEST Analysis
  - 4.3.1. Political
  - 4.3.2. Economical
  - 4.3.3. Social
  - 4.3.4. Technological
- 4.4. Investment Adoption Model
- 4.5. Analyst Recommendation & Conclusion
- 4.6. Top investment opportunity
- 4.7. Top winning strategies

## **CHAPTER 5. RISK ASSESSMENT: COVID-19 IMPACT**

- 5.1. Assessment of the overall impact of COVID-19 on the industry
- 5.2. Pre COVID-19 and post COVID-19 Market scenario

## **CHAPTER 6. GLOBAL BIOCHAR MARKET, BY PRODUCTION TECHNOLOGY**

- 6.1. Market Snapshot
- 6.2. Global Biochar Market by Production Technology, Performance - Potential Analysis
- 6.3. Global Biochar Market Estimates & Forecasts by Production Technology 2019-2029 (USD Billion)
- 6.4. Biochar Market, Sub Segment Analysis
  - 6.4.1. Pyrolysis
  - 6.4.2. Gasification
  - 6.4.3. Others

## **CHAPTER 7. GLOBAL BIOCHAR MARKET, BY APPLICATION**

- 7.1. Market Snapshot
- 7.2. Global Biochar Market by Application, Performance - Potential Analysis
- 7.3. Global Biochar Market Estimates & Forecasts by Application 2019-2029 (USD Billion)
- 7.4. Biochar Market, Sub Segment Analysis
  - 7.4.1. Soil Amendment

7.4.2. Animal Feed

7.4.3. Industrial

7.4.4. Others

## **CHAPTER 8. GLOBAL BIOCHAR MARKET, REGIONAL ANALYSIS**

8.1. Biochar Market, Regional Market Snapshot

8.2. North America Biochar Market

8.2.1. U.S. Biochar Market

8.2.1.1. Production Technology breakdown estimates & forecasts, 2019-2029

8.2.1.2. Application breakdown estimates & forecasts, 2019-2029

8.2.2. Canada Biochar Market

8.3. Europe Biochar Market Snapshot

8.3.1. U.K. Biochar Market

8.3.2. Germany Biochar Market

8.3.3. France Biochar Market

8.3.4. Spain Biochar Market

8.3.5. Italy Biochar Market

8.3.6. Rest of Europe Biochar Market

8.4. Asia-Pacific Biochar Market Snapshot

8.4.1. China Biochar Market

8.4.2. India Biochar Market

8.4.3. Japan Biochar Market

8.4.4. Australia Biochar Market

8.4.5. South Korea Biochar Market

8.4.6. Rest of Asia Pacific Biochar Market

8.5. Latin America Biochar Market Snapshot

8.5.1. Brazil Biochar Market

8.5.2. Mexico Biochar Market

8.6. Rest of The World Biochar Market

## **CHAPTER 9. COMPETITIVE INTELLIGENCE**

9.1. Top Market Strategies

9.2. Company Profiles

9.2.1. Airex Energy Inc.

9.2.1.1. Key Information

9.2.1.2. Overview

9.2.1.3. Financial (Subject to Data Availability)

- 9.2.1.4. Product Summary
- 9.2.1.5. Recent Developments
- 9.2.2. ArSta Eco Pvt Ltd.
- 9.2.3. Biochar Supreme
- 9.2.4. Coaltec Energy USA
- 9.2.5. Farm2Energy Pvt. Ltd.
- 9.2.6. Frontline BioEnergy LLC
- 9.2.7. KARR Group Co. (KGC)
- 9.2.8. Pacific Biochar Benefit Corporation
- 9.2.9. Phoenix Energy
- 9.2.10. ProActive Agriculture

## **CHAPTER 10. RESEARCH PROCESS**

- 10.1. Research Process
  - 10.1.1. Data Mining
  - 10.1.2. Analysis
  - 10.1.3. Market Estimation
  - 10.1.4. Validation
  - 10.1.5. Publishing
- 10.2. Research Attributes
- 10.3. Research Assumption



## List Of Tables

### LIST OF TABLES

TABLE 1. Global Biochar Market, report scope

TABLE 2. Global Biochar Market estimates & forecasts by Region 2019-2029 (USD Billion)

TABLE 3. Global Biochar Market estimates & forecasts by Production Technology 2019-2029 (USD Billion)

TABLE 4. Global Biochar Market estimates & forecasts by Application 2019-2029 (USD Billion)

TABLE 5. Global Biochar Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 6. Global Biochar Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 7. Global Biochar Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 8. Global Biochar Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 9. Global Biochar Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 10. Global Biochar Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 11. Global Biochar Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 12. Global Biochar Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 13. Global Biochar Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 14. Global Biochar Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 15. U.S. Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 16. U.S. Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 17. U.S. Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 18. Canada Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 19. Canada Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 20. Canada Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 21. UK Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 22. UK Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 23. UK Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 24. Germany Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 25. Germany Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 26. Germany Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 27. France Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 28. France Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 29. France Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 30. Italy Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 31. Italy Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 32. Italy Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 33. Spain Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 34. Spain Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 35. Spain Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 36. RoE Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 37. RoE Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 38. RoE Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 39. China Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 40. China Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 41. China Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 42. India Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 43. India Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

Billion)

TABLE 44. India Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 45. Japan Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 46. Japan Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 47. Japan Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 48. South Korea Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 49. South Korea Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 50. South Korea Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 51. Australia Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 52. Australia Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 53. Australia Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 54. RoAPAC Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 55. RoAPAC Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 56. RoAPAC Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 57. Brazil Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 58. Brazil Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 59. Brazil Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 60. Mexico Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 61. Mexico Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 62. Mexico Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 63. RoLA Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 64. RoLA Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 65. RoLA Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 66. Row Biochar Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 67. Row Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 68. Row Biochar Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 69. List of secondary sources, used in the study of global Biochar Market

TABLE 70. List of primary sources, used in the study of global Biochar Market

TABLE 71. Years considered for the study

TABLE 72. Exchange rates considered

List of tables and figures and dummy in nature, final lists may vary in the final deliverable

## List Of Figures

### LIST OF FIGURES

- FIG 1. Global Biochar Market, research methodology
  - FIG 2. Global Biochar Market, Market estimation techniques
  - FIG 3. Global Market size estimates & forecast methods
  - FIG 4. Global Biochar Market, key trends 2021
  - FIG 5. Global Biochar Market, growth prospects 2022-2029
  - FIG 6. Global Biochar Market, porters 5 force model
  - FIG 7. Global Biochar Market, pest analysis
  - FIG 8. Global Biochar Market, value chain analysis
  - FIG 9. Global Biochar Market by segment, 2019 & 2029 (USD Billion)
  - FIG 10. Global Biochar Market by segment, 2019 & 2029 (USD Billion)
  - FIG 11. Global Biochar Market by segment, 2019 & 2029 (USD Billion)
  - FIG 12. Global Biochar Market by segment, 2019 & 2029 (USD Billion)
  - FIG 13. Global Biochar Market by segment, 2019 & 2029 (USD Billion)
  - FIG 14. Global Biochar Market, regional snapshot 2019 & 2029
  - FIG 15. North America Biochar Market 2019 & 2029 (USD Billion)
  - FIG 16. Europe Biochar Market 2019 & 2029 (USD Billion)
  - FIG 17. Asia pacific Biochar Market 2019 & 2029 (USD Billion)
  - FIG 18. Latin America Biochar Market 2019 & 2029 (USD Billion)
  - FIG 19. Global Biochar Market, company Market share analysis (2021)
- List of tables and figures and dummy in nature, final lists may vary in the final deliverable

## I would like to order

Product name: Global Biochar Market Size study & Forecast, by Production Technology (Pyrolysis, Gasification, and Others), Application (Soil Amendment, Animal Feed, Industrial, and Others) and Regional Analysis, 2022-2029

Product link: <https://marketpublishers.com/r/G71C2CAE936CEN.html>

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G71C2CAE936CEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970