# Profitable Business Ideas in India for

# **Starting Activated Carbon Business**







# **Introduction**

Activated carbon has an incredibly large surface area per unit volume, and a network of submicroscopic pores where adsorption takes place. Activated carbon is a material that is produced from carbonaceous source materials, such as coal, coconuts, nutshells, peat, wood, and lignite. The primary raw material used for activated carbon is any organic material with a high carbon content. The carbon-based material is converted to activated carbon through physical modification and thermal decomposition in a furnace, under a controlled atmosphere and temperature. The finished product has a large surface area per unit volume and a network of submicroscopic pores where adsorption takes place.













The global activated carbon market was valued at USD 4.74 Billion in 2015 and is projected to reach USD 8.12 Billion by 2021, at a CAGR of 9.4% from 2016 to 2021. The market size in terms of volume was 2,743.4 KT in 2015, and is projected to reach 3857.9 KT by 2021, at a CAGR of 8.4% from 2016 to 2021.

Activated carbon has been extremely successful as a remediation solution for air and water purification through its excellent adsorbent properties which is actively driving its sales in nearly all regions of the world.



Besides this, activated coal industry shows exponential growth in North America and Europe. The global activated carbon market size exceeded USD 3.0 billion in 2015. Increasing awareness for clean water consumption and growing water treatment plants are expected to drive the market over the next eight years. Growing concern among consumers regarding health risks related to drinking contaminated water is expected to remain a key driving factor for the global market.

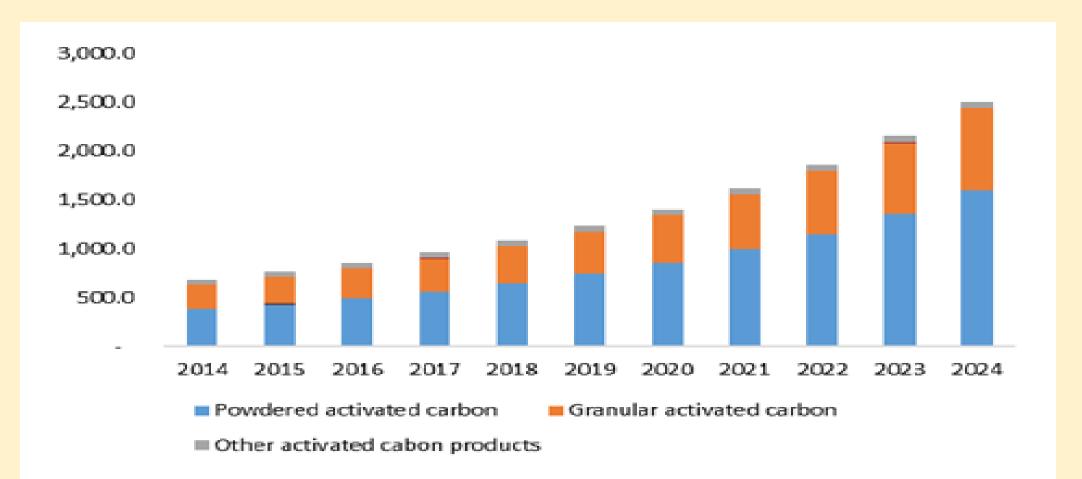


#### **Global Activated Carbon Demand**

Item				% Annual Grow	
	2010	2015	2020	2010- 2015	2015- 2020
Activated Carbon Demand	1080.0	1430.0	<u>1910.0</u>	5.8	6.0
North America	311.5	418.0	522.0	6.1	4.5
Western Europe	189.0	216.5	271.0	2.8	4.6
Asia/Pacific	353.8	504.0	738.0	7.3	7.9
Central & South America	87.8	101.5	127.0	2.9	4.6
Eastern Europe	77.1	105.0	138.0	6.4	5.6
Africa/Mideast	60.8	85.0	114.0	6.9	6.0



#### Activated Carbon Market Revenue by Product, 2014-2024, (USD Million)





In last year, powdered activated carbon segment held the majority share and accounted for over 55% of the total demand. Rising awareness and government support in the recycling of waste water are expected to benefit the growth of this segment over the next eight years. This activated carbon gives the result in lesser cost and hence is preferred over other forms of the product.



Granular activated carbon (GAC) is expected to hold over 30% of the total market consumption in 2024. GAC is widely used in the removal of volatile organic compounds (VOCs) and chlorine. It is also used in the reduction in total organic carbon, color removal and mostly reverse osmosis.

The global pelletized activated carbon market is projected to grow at a significant CAGR as the demand of the pelletized activated carbon is increasing due to rapidly rising industrialization worldwide.



Niir Project Consultancy Services (NPCS) can provide Detailed Project Report on

<u>Activated carbon, Granular Activated Carbon (GAC),</u> <u>Activated Carbon, Activated Carbon Powder, Powdered</u> <u>Activated carbon (PAC), activated charcoal, activated</u> <u>coal, Activated Fuller Earth, Pelleted activated carbon</u> <u>(EAC), Impregnated carbon, Polymers coated</u>



# > Activated Carbon from Coconut Shell

Activated carbon in any form of carbon shows high absorptivity for gases, vapours and colloidal solids in either the gas ion or liquid phase. It is available in many forms such as pellets, granules and in powder form. It is very important chemical has wide application and employed by numerous industries, which require absorption of certain gases and vapours in purification, in catalytic chemical reactions, depolarization of vegetable oil and sugar solutions.....Read more



# > Activated Carbon Powder from Jute Sticks

Activated carbon is a non-graphitic form of carbon, which could be produced by activation of any carbonaceous material such as jute sticks, coconut shells, bamboo, wood chips, sawdust, coal, lignite, paddy husk etc.

Without adding any additives, chemicals or bonding agents, our Charcoal Powder is completely natural and odor-free.....<u>Read more</u>



# > Activated Carbon from Wood

Activated carbon, also called activated charcoal, activated coal, or carbo activatus, is a form of carbon processed to be riddled with small, low-volume pores that increase the surface area available for adsorption or chemical reactions. Activated is sometimes substituted with active. Activated Carbon is a unique material because of the way it is filled with holes (voids, spaces, sites, pores,) whatever the size of molecules.....Read more



# >Activated Carbon from Bamboo

Activated carbon is a non-graphite form of carbon and is micro crystalline in nature. It is extensively used in various industries as a very good adsorbent for odour or colour. There are two varieties of activated carbon viz gas phase or the liquid phase adsorbents. The liquid phase activated carbon is usually powder or granular form whereas the gas phase adsorbent is hard granules like dust free pellets.....<u>Read more</u>



# >Activated Carbon from Rice Husk/Coconut Shell

The term activated carbon, active carbon or active charcoal is usually applied to amorphous carbons possessing higher absorption capacities than wood or animal charcoal. Industrial activated carbon in the forms of pellets, granules or fine powders, and with many other industrial applications is now in the market under different trade names.....<u>Read more</u>



# > Activated Carbon from Saw Dust

Carbon is probably the most widely distributed element in nature. The term activated carbon, active carbon or active charcoal is usually applied to amorphous carbons processing higher absorption capacities that wood or animal charcoal. Industrial activated carbons in the form of pellets, granules or fine powder. And with many industrial application are new in the market under different trade-names.....Read more



# For more details visit at:

- Activated carbon, Granular Activated Carbon (GAC), Activated Carbon, Activated Carbon Powder, Powdered Activated carbon (PAC), activated charcoal, activated coal, Activated Fuller Earth, Pelleted activated carbon (EAC), Impregnated carbon, Polymers coated
- <u>The Complete Book on Biomass Based Products (Biochemicals,</u> <u>Biofuels, Activated Carbon)</u>



# **Major Queries/Questions Answered in our Report?**

- How has the industry performed so far and how will it perform in the coming years?
- 2. What is the Project Feasibility of the Plant?
- 3. What are the requirements of Working Capital for setting up the plant?
- 4. What is the structure of the industry and who are the key/major players?



- **5.** What is the total project cost for setting up the plant?
- 6. What are the operating costs for setting up the plant?
- 7. What are the machinery and equipment requirements for setting up the plant?
- 8. Who are the Suppliers and Manufacturers of Plant & Machinery for setting up the plant?
- 9. What are the requirements of raw material for setting up the plant?



- 10. Who are the Suppliers and Manufacturers of Raw materials for setting up the plant?
- **11.** What is the Manufacturing Process of the plant?
- **12.** What is the total size of land required for setting up the plant?
- **13.** What will be the income and expenditures for the plant?
- 14. What are the Projected Balance Sheets of the plant?



- 15. What are the requirement of utilities and overheads for setting up the plant?
- 16. What is the Built up Area Requirement and cost for setting up the plant?
- 17. What are the Personnel (Manpower) Requirements for setting up the plant?
- **18.** What are Statistics of Import & Export for the Industry?
- **19.** What is the time required to break-even?



- **20.** What is the Break-Even Analysis of the plant?
- **21.** What are the Project financials of the plant?
- 22. What are the Profitability Ratios of the plant?
- 23. What is the Sensitivity Analysis-Price/Volume of the plant?
- 24. What are the Projected Pay-Back Period and IRR of the plant?
- 25. What is the Process Flow Sheet Diagram of the plant?
- **26.** What are the Market Opportunities for setting up the plant?
- **27.** What is the Market Study and Assessment for setting up the plant?
- **28.** What is the Plant Layout for setting up the plant?



# **Reasons for buying our report:**

• The report helps you to identify a profitable project for investing or diversifying into by throwing light to crucial areas like industry size, market potential of the product and reasons for investing in the product

- The report provides vital information on the product like it's characteristics and segmentation
- The report helps you market and place the product correctly by identifying the target customer group of the product



• The report helps you understand the viability of the project by disclosing details like machinery required, project costs and snapshot of other project financials

- The report provides a glimpse of government regulations applicable on the industry
- The report provides forecasts of key parameters which helps to anticipate the industry performance and make sound business decisions



# **Our Approach:**

- Our research reports broadly cover Indian markets, present analysis, outlook and forecast for a period of five years.
- The market forecasts are developed on the basis of secondary research and are cross-validated through interactions with the industry players
- We use reliable sources of information and databases. And information from such sources is processed by us and included in the report





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## **Contact us**

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# NIIR PROJECT CONSULTANCY SERVICES

# An ISO 9001:2015 Company



- One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services
- We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad



#### What do we offer?

- Project Identification
- Detailed Project Reports/Pre-feasibility Reports
- O Business Plan
- Market Research Reports
- Technology Books and Directory
- Industry Trend
- Databases on CD-ROM
- Laboratory Testing Services
- Turnkey Project Consultancy/Solutions
- Entrepreneur India (An Industrial Monthly Journal)



#### How are we different ?

- We have two decades long experience in project consultancy and market research field
- We empower our customers with the prerequisite know-how to take sound business decisions
- We help catalyze business growth by providing distinctive and profound market analysis
- We serve a wide array of customers, from individual entrepreneurs to Corporations and Foreign Investors
- We use authentic & reliable sources to ensure business precision



# **Our Approach**

#### **Requirement collection**

Thorough analysis of the project

#### **Economic feasibility study of the Project**

Market potential survey/research

#### **Report Compilation**



# Who do we serve?

- Public-sector Companies
- Corporates
- Government Undertakings
- Individual Entrepreneurs
- $\circ$  NRI's
- Foreign Investors
- Non-profit Organizations, NBFC's
- Educational Institutions
- Embassies & Consulates
- Consultancies
- Industry / trade associations



# **Sectors We Cover**

- Ayurvedic And Herbal Medicines, Herbal Cosmetics
- Alcoholic And Non Alcoholic Beverages, Drinks
- O Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin
- Activated Carbon & Activated Charcoal
- Aluminium And Aluminium Extrusion Profiles & Sections,
- Bio-fertilizers And Biotechnology
- O Breakfast Snacks And Cereal Food
- O Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling



- Bamboo And Cane Based Projects
- Building Materials And Construction Projects
- Biodegradable & Bioplastic Based Projects
- Chemicals (Organic And Inorganic)
- Confectionery, Bakery/Baking And Other Food
- Cereal Processing
- Coconut And Coconut Based Products
- Cold Storage For Fruits & Vegetables
- Coal & Coal Byproduct



- Copper & Copper Based Projects
- Dairy/Milk Processing
- O Disinfectants, Pesticides, Insecticides, Mosquito Repellents,
- Electrical, Electronic And Computer based Projects
- Essential Oils, Oils & Fats And Allied
- Engineering Goods
- Fibre Glass & Float Glass
- Fast Moving Consumer Goods
- Food, Bakery, Agro Processing



- Fruits & Vegetables Processing
- Ferro Alloys Based Projects
- Fertilizers & Biofertilizers
- Ginger & Ginger Based Projects
- Herbs And Medicinal Cultivation And Jatropha (Biofuel)
- Hotel & Hospitability Projects
- Hospital Based Projects
- Herbal Based Projects
- Inks, Stationery And Export Industries



- Infrastructure Projects
- Jute & Jute Based Products
- Leather And Leather Based Projects
- Leisure & Entertainment Based Projects
- Livestock Farming Of Birds & Animals
- *Minerals And Minerals*
- Maize Processing(Wet Milling) & Maize Based Projects
- Medical Plastics, Disposables Plastic Syringe, Blood Bags
- Organic Farming, Neem Products Etc.



- Paints, Pigments, Varnish & Lacquer
- Paper And Paper Board, Paper Recycling Projects
- Printing Inks
- Packaging Based Projects
- Perfumes, Cosmetics And Flavours
- Power Generation Based Projects & Renewable Energy Based Projects
- Pharmaceuticals And Drugs
- Plantations, Farming And Cultivations
- Plastic Film, Plastic Waste And Plastic Compounds
- Plastic, PVC, PET, HDPE, LDPE Etc.



- Potato And Potato Based Projects
- Printing And Packaging
- *Real Estate, Leisure And Hospitality*
- Rubber And Rubber Products
- Soaps And Detergents
- Stationary Products
- Spices And Snacks Food
- Steel & Steel Products
- Textile Auxiliary And Chemicals



- Township & Residential Complex
- Textiles And Readymade Garments
- Waste Management & Recycling
- Wood & Wood Products
- *Water Industry(Packaged Drinking Water & Mineral Water)*
- Wire & Cable



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