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About Us

NPCS is a well-known technical consultancy that focuses on Project Reports Compilation, and we have been following a tight system and procedure to assure only top quality in accordance with our clients' expectations in this rapidly increasing and changing market. We've created the list of the top projects to start your own business startups.

The Complete Technology Book on

Bakery Products

Baking Science with Formulation & Production (Biscuit, Bagel, Bread, Gluten-Free Bread, Rusk, Cookie, Cracker, Pie Crusts, Cakes with Production Process, Machinery, Equipment Details and Factory Layout)



₹ 1,875/- US\$ 150
The Complete Technology Book on Baker y

Baker y

Baker y

Baked goods that are typically made using flour as the main ingredient. These delicious treats come in various forms, such as cakes, cupcakes, bread pastries, cookies, and more. They are usually made by combining flour with other ingredients such as sugar, butter eggs, and flavorings, which are ther baked to perfection. Bakery products have a universal appeal and are enjoyed by people of all ages and cultures They are a staple in many households providing a sweet and indulgent treat for

special occasions or everyday enjoyment. The diversity of bakery products is vast, ranging from delicate pastries filled with creamy custard to crusty loaves of bread that make the perfect sandwich.

The global bakery products market size to be valued at USD 251.1 billion, expanding at a compound annual growth rate (CAGR) of 3.2%. Increasing consumption of ready-to-eat foods across the globe owing to hectic lifestyle is expected to fuel the product demand over the coming years. Growing preference for ethnic food along with the success of Thai and Mexican food in restaurants has resulted in increased demand for bakery products in Europe. The bakery industry has been experiencing significant growth and success in recent years. There are several reasons behind this booming industry. There has been a rise in consumer demand for healthier and high-quality baked goods. With the growing focus on wellness and clean eating, bakeries are now offering a variety of options that cater to different dietary needs, including gluten-free

This book consists of in-depth details about Bakery Products, Biscuit, Bagel, Bread, Gluten-Free Bread, Rusk, Cookie, Cracker, Pie Crusts, Cakes, Cupcakes, Doughnuts, Buns, Pizzas, and Icings with Production Process, Equipment Tools Information and also

Profitable and viable business opportunities exist in the Bakery products sector. As a result, creating your own business is a good way to get into it. To learn more about Bakery products industry in depth, read this book. It will assist you in figuring out how to establish your own Bakery Business. Because of the increasing demand for Bakery products in today's market, it's a terrific method to earn

Fashion Technology Handbook

₹ 495/- US\$ 75-FASHION TECHNOLOGY Fashion is an ever-evolving concept that has been adopted by people worldwide for centuries. It encompasses a wide range of styles, colors, fabrics, and silhouettes, which makes it an incredibly versatile and dynamic concept. A career in fashion can be incredibly rewarding and exciting. It offers a world of opportunities for those passionate about style, creativity, and innovation. From fashion designers to stylists,

photographers to buyers, there are countless roles within the industry that cater to different skills and interests. One of the most prominent careers in fashion is that of a fashion designer. As a designer, you have the chance to bring your creative vision to life, designing unique and stunning garments that will be worn by people all over the world. It requires a strong understanding of trends, fabrics, and construction, as well as the ability to think outside the box and push boundaries. So, if you have a passion for fashion, don't hesitate to explore the many exciting opportunities available in this dynamic industry.

This book basically deals with History of Fashion, Sketching, Designing Principles, Theory of Colour, Basic Silhouette, Fashion Illustration, Basic Principles of Fashion Illustrations, Fashion Accessories, Designing Techniques, Sketching Human Body, Fashion Industry Language Guide and Contemporary Western Fashion Style.

Professional students, new entrepreneurs, and designers will discover valuable educational resources and a broader understanding of fashion technology within this book. With a comprehensive scope, the book offers practical solutions that directly relate to the fundamental principles, historical context, design principles, and language of the fashion

Professional students, new entrepreneurs, and designers will discover valuable educational resources and a broader understanding of fashion technology within this book. With a comprehensive scope, the book offers practical solutions that directly relate to the fundamental principles, historical context, design principles, and language of the fashion The Complete Book on

Cement & Concrete Products Manufacturing

(AAC Blocks, Slag & High Alumina Cement, Clinker, Concrete Block, Floor Slab, Roof Tiles, Interlocking Paving Blocks, Fly Ash Bricks, Flooring Tiles, Precast RCC Wall, Prestressed Concrete Beams, Poles, Pipe, Sleeper, RCC Beam, Ready Mix Concrete and Wall Putty with Manufacturing Process, Machinery **Equipment Details and Factory Layouts)**

2,495/- US\$ 250-

cement & Concrete **Products**

calcining lime and clay. When cement is mixed with water, it forms mortar, and when it is mixed with sand, gravel, and water, it makes concrete. Mortar is used as a bonding agent for plastering, masonry work,

Concrete is a mixture of aggregates and paste. The aggregates are sand and gravel or crushed stones; and the paste is made from water and portland cement mixture. Concrete is used for laying floors, roofs and constructing lintels, beams, pillars and other

ement is a powdery substance made by

masonry structures. Concrete products such as pipes, blocks, bricks, and concrete articles are made using concrete.

The global cement and concrete products market was valued at \$333,255.8 million. The market accounted for 0.40% of the global GDP. In terms of per capita consumption, the market accounted for \$43.5. The market was also supported by rapid urbanization, and government initiatives towards infrastructure development. Growth in unter forecast can be attributed to increasing spending on infrastructure, global economic growth, the development of affordable housing, and a rapidly growing urban population.

This book contains in-depth information about Cement & Concrete Products, AAC Blocks, Slag & High Alumina Cement, Clinker, Concrete Block, Floor Slab, Roof Tiles, Interlocking Paving Blocks, Fly Ash Bricks, Flooring Tiles, Precast RCC Wall, Prestressed Concrete Beams, Poles, Pipe, Sleeper, RCC Beam, Ready Mix Concrete and Wall Putty with Manufacturing Process, Machinery Equipment Details and Factory Layouts. This book is also a fantastic resource for people interested in or who have worked in the Cement & Concrete industry.

Profitable and viable business opportunities exist in the Cement & Concrete sector. As a result, creating your own business is a good way to get into it. To learn more about Cement & Concrete industry in depth, read this book. It will assist you in figuring out how to establish your own Cement & Concrete Business. Because of the increasing demand for Cement & Concrete in today's market, it's a terrific method earn money.



Start Investing in Fastest Growing Industries

ardanol is a naturally occurring phenolic compound derived from the cashew nut shell liquid (CNSL). CNSL is a byproduct of the cashew industry. When cashew nuts are processed, the nutshells release this reddish-brown liquid. The primary components of CNSL are anacardic acid, cardanol, cardol, and 2-methylcardol, with cardanol being one of the most prominent constituents.

Manufacturing Process of Cardanol from Cashew Nut Shell Liquid

The first step in the manufacturing process is the separation of the cashew nut shell from the actual nut. Once separated, the shells are dried and undergo a mechanical pressing process to extract CNSL. This liquid is then filtered to remove any impurities, ensuring the production of high-quality Cardanol.

Next, the extracted CNSL undergoes distillation to remove unwanted components and isolate the Cardanol compound. This process helps purify and concentrate the Cardanol, enhancing its properties and making it suitable for various applications. After distillation, the Cardanol can be further refined and customized to meet specific industry requirements. It can undergo various chemical modifications to enhance its stability, compatibility, and performance.

Overall, the manufacturing process of Cardanol from Cashew Nut Shell Liquid involves extracting CNSL from cashew nut shells, purifying it through distillation, and further refining it to produce high-quality Cardanol. This process ensures the utilization of a natural by-product and the production of a versatile and eco-friendly compound that can be utilized in numerous industries.

Market Prospects

The global Cardanol market is projected to grow from US\$ 32 million in 2023 to US\$ 58 million by 2029, at a Compound Annual Growth Rate (CAGR) of 10.3%. The rising demand for phenolic compounds in the pharmaceutical and polymer industries is expected to drive market growth. Asia Pacific is expected to dominate the global market due to the rising cardanol consumption in emerging countries. India holds a share of approximately 36% and is the largest

market in the global market. China and Vietnam contribute 31% and 17% to the growth of the market. The growing number of regional paints and coatings industries is anticipated to surge. Additionally, the increasing number of automotive and construction industries is expected to aid Cardanol Market growth.

Why to Entrepreneurs Venture into the Cardanol Business?

With the increasing demand for sustainable alternatives, entrepreneurs should seriously consider venturing into the Cardanol business. Cardanol, derived from Cashew Nut Shell Liquid (CNSL), presents a unique opportunity for entrepreneurs to

A Business Plan for Cardanol

from Cashew Nut Shell Liquid

tries. From the automotive industry to coatings, adhesives, and polymers, the versatility of Cardanol is remarkable.

capitalize on a

rapidly grow-

Cardanol offers

across various indus-

wide range

applications

industry.

ina

This means entrepreneurs can target multiple markets and diversify their revenue streams, ensuring long-term business stability and growth. Additionally, Cardanol's renewable nature and minimal environmental impact make it a sustainable and future-proof business venture.

PROJECT COST ESTIMATE

CAPACITY

Cardanol : 30 MT Per Day Plant & Machinery : ₹186 Lakhs **Cost of Project** : ₹710 Lakhs Rate of Return 28% 60% **Break Even Point**

Summery

By venturing into the Cardanol business, entrepreneurs have the opportunity to tap into a rapidly growing industry. Cardanol is a renewable and eco-friendly resource, aligning with the increasing

demand for sustainable alterna-

tives. With its wide range of applications, entrepreneurs can target multiple industries and diversify their revenue streams. The profitability and sustainability of the Cardanol business make it an attractive venture for entrepreneurs looking to contribute to a greener future while capitalizing on a profitable,

Start Carbon Composite Bicycle Business entrepreneurs

arbon composite bicycles are cuttingedge bicycles that are constructed using advanced materials such as carbon fiber. Unlike traditional bicycles that are made from steel or aluminum, carbon composite bicycles are incredibly lightweight, strong, and durable. They are built by layering sheets of carbon fiber, which are then bonded together with a resin. This construction method allows for greater flexibility in design, resulting in sleek and aerodynamic frames.

xploring the Profit Potential of a Carbon Composite Bicycle Business The profit potential of a carbon composite bicycle business is undeniably high. These bikes have a strong demand in the market due to their numerous advantages over traditional bicycles. With their lightweight and highperformance features, carbon composite bicycles attract avid cyclists who are willing to invest in top-quality equipment. This presents a great

to tap into a niche market and cater to the needs of cyclists who are seeking an enhanced riding experience. As the popularity of cycling continues to rise, the profit potential of a carbon composite bicycle business is poised to grow along with it. So, if you're looking for a lucrative venture, consider starting a carbon composite bicycle business and pedal your way to profits.

Global Market Outlook

The Carbon Composite Bicycle Frame Market was valued at US\$ 669.4 Million in 2022 and is likely to reach an annual market size of US\$ 859.9 Million by 2030 at a CAGR of 2.7% during the forecast period of 2023-2030. The bicycle frame gives strength and stiffness to the bicycle. There are numerous frames available in the market that are used to make a variety of bicycles, including road bikes and mountain bikes. North America is expected to be the largest market with a share of >55% in 2022 for carbon composite bicycle frames, during the forecast period. This region is home to several bicycle manufacturers such as Trek Bicycle Corporation, Specialized Bicycle Components, Inc., Kona, and SRAM LLC. In addition, over the years, there has been a rise in the export of composite bicycle frames in the Western regions from Asian countries, owing to their good technical capabilities along with the low cost of labor, which is also likely to follow suit in the coming years.

Conclusion

opportunity

Starting a carbon composite bicycle business can be a game-changer for your entrepreneurial journey. With a growing demand, high-profit potential, and the opportunity to make a positive impact on the environment, it's a smart and rewarding venture to consider. So why wait? Start pedaling your way to profits with a carbon composite bicycle business today!

PROJECT COST ESTIMATE

CAPACITY

Carbon Composite Bicycle : 12 Nos Per Day Plant & Machinery : ₹ 413 Lakhs **Cost of Project** : ₹ 594 Lakhs Rate of Return : 27% **Break Even Point** : 60%

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sanitary napkin, known as a menstrual pad or pad, is an absorbent item designed to be worn by women during their menstrual periods. It is made of several layers of absorbent material, including cotton, wood pulp, or synthetic fibers, and is held in place by adhesive strips or wings that wrap around the underwear. Sanitary napkins are designed to absorb menstrual flow and prevent leakage, providing women with a comfortable and hygienic option during their menstrual cvcles.

Benefits of Running a Sanitary Napkin Business

Starting your own sanitary napkin business comes with several benefits that make it a lucrative venture. It provides you with a platform to contribute to women's health and well-being. With the

Start Manufacturing of Sanitary Napkins

increasing demand for feminine hygiene products worldwide, there is ample opportunity for entrepreneurs to establish a successful business in this industry. The potential for growth and profitability is significant, making it a smart investment choice. Additionally, sanitary napkin business gives you the freedom to innovate and differentiate yourself in the market. You can explore various product options, such as organic or biodegradable sanitary napkins, to cater to the preferences of different consumers. This flexibility allows you to create a unique brand identity and stand out from competitors.

Global Market Outlook

The global sanitary napkin market size reached US\$ 25.6 Billion in 2022. And expects the market to reach US\$ 34.0 Billion by 2028, exhibiting a growth rate (CAGR) of

PROJECT COST ESTIMATE

CAPACITY

Sanitary Napkins : 4,800 PKTS Per Day Plant & Machinery : ₹ 26 Lakhs

Cost of Project : ₹ 84 Lakhs
Rate of Return : 27%
Break Even Point : 67%

4.5% during 2023-2028. The rising awareness about menstrual health and hygiene among women globally represents one of the key factors positively influencing the market. Additionally, several organizations and government bodies are conducting awareness campaigns, especially in remote areas, to educate women about the importance of using sanitary napkins to maintain personal hygiene. Furthermore, the rising influence of social media platforms is offering a favorable market outlook.

Conclusion

The global population of women is growing, and as more women enter the reproductive age, the demand for sanitary napkins will continue to rise. This creates a tremendous opportunity for entrepreneurs to meet this demand and establish a successful business in the sanitary napkin industry.

mmonium Nitrate is a chemical compound composed of ammonium and nitrate ions. It is commonly used in various industries due to its explosive and agricultural properties. In simple terms, it is a white crystalline solid that is highly soluble in water and is widely recognized for its ability to generate high levels of oxygen, making it a popular choice in explosive devices.

The Business Potential of Ammonium Nitrate Manufacturing

When it comes to the business potential of Ammonium Nitrate manufacturing, the opportunities are explosive! With the ever-increasing demand for this versatile chemical compound, entrepreneurs in this field can expect significant growth and profitability. One of the key factors driving the business potential of Ammonium Nitrate manufacturing is its wide range of uses. From agriculture to mining to explosives, this compound plays a vital role in multiple industries. As a highnitrogen fertilizer, Ammonium Nitrate is in high demand by farmers who rely on it to promote healthy plant growth. In the mining industry, it serves as an effective blasting agent, further highlighting its significance. By adhering to strict regulations and obtaining the necessary licenses, you can establish yourself as a trustworthy and reliable supplier, gaining a competitive edge in the market.

Uses and Applications of Ammonium Nitrate

- · Oxidizing Agent
- Cold Packs
- Rocket Propulsion
- Pollution Control

Start Production of Ammonium Nitrate

Metalworking

- · Safety Matches
- Pyrotechnics

The Process of Manufacture

The first step is the synthesis of Ammonium Nitrate, which typically involves reacting ammonia gas with nitric acid. This reaction produces a concentrated Ammonium Nitrate solution, which is then concentrated further through the evaporation

process. The resulting concentrated solution is then cooled to allow crystallization, resulting in solid Ammonium Nitrate crystals. After the crystallization process, the next step is to separate the crystals from the mother liquor. This can be achieved through various techniques such as centrifugation

or filtration. The separated crystals are then dried to remove any remaining moisture, ensuring the stability and purity of the final product. Quality control is an essential aspect of the manufacturing process. Regular testing and analysis are conducted to verify

the composition and purity of the Ammonium Nitrate. Finally, the packaged Ammonium Nitrate is ready for distribution and

Market Prospects

Ammonium Nitrate Market Size was valued at USD 17.46 billion in 2021. The Ammonium Nitrate industry is projected to grow from USD 18.10 Billion in 2022 to USD 28.87 billion by 2030, exhibiting a compound annual growth rate (CAGR) of 5.55% during the forecast period (2022–2030). Increasing demand for fertilizers and increasing construction activities rising consumption in explosives are driving market growth. The Ammonium Nitrate market segmentation, based on application, includes Explosives, Fertilizers, and Others. The fertilizers segment held the majority share in 2021 contributing to around ~60%-62% with respect to the Ammonium Nitrate market

PROJECT COST ESTIMATE

CAPACITY

Ammonium Nitrate : 2 MT Per Day
Plant & Machinery : ₹ 53 Lakhs
Cost of Project : ₹ 215 Lakhs
Rate of Return : 26%
Break Even Point : 51%

Conclusion

Starting an Ammonium Nitrate manufacturing business requires a focus on safety, quality control, and environmental sustainability. However, with the right strategies and approaches, you can overcome these

challenges and position yourself for explosive growth and success in the industry. Don't miss out on the opportunity to be a part of the booming Ammonium Nitrate market–start your business today and watch it flourish!

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Start Latex Toy Balloons Business

atex toy balloons are flexible, inflatable objects made primarily from natural rubber latex. They are widely used for decorative purposes, celebrations, and entertainment. When filled with air or helium, they can float or be batted around for fun.

How Latex Toy Balloons Are Made?

Get ready to dive into the exciting world of balloon manufacturing! The process begins with the extraction of latex, a milky sap from rubber trees. The latex is first treated with additives such as sulfur and accelerators to enhance its properties. It is then shaped into small molds, forming the iconic balloon shape. The balloons are then dipped into a coagulant solution to help the latex solidify. Once the latex has solidified, the balloons go through a process called vulcanization, where they are heated to create a strong, elastic material. This process ensures that the balloons are durable and can withstand being filled with air or helium without bursting. The final step in the manufacturing process involves the balloons being inspected for quality control. Each balloon is checked for any defects or imperfections before being packaged and shipped out.

A Bright Future Ahead: Emerging Trends in the Balloon Manufacturing Sector

The balloon manufacturing sector is not just about inflating and tying balloons anymore. As technology and creativity continue to advance, exciting new trends are emerging that promise a bright future for the industry. One emerging trend is the use of LED lights in balloons. These light-up balloons add a magical touch to any event, illuminating the room with vibrant colors. Whether it's a wedding reception or a birthday party, these illuminated balloons create a mesmerizing atmosphere that captivates guests. Another trend is the rise of personalized balloons. With advancements in printing technology, it is now possible to have custom designs and messages printed directly onto balloons. With innovations in technology, personalization, and sustainability, the future of balloons is brighter than ever. So get ready to elevate your party decorations to new heights with these emerging trends!

Global Market Outlook

Toy Balloon Market size was valued at USD 11.71 Billion in 2022 and is projected to reach USD 17.51 Billion by 2030, growing at a CAGR of 5.41% from 2023 to 2030. The Toy Balloon market has noticed a tremendous increase in the previous few

PROJECT COST ESTIMATE

CAPACITY

Latex Toy Balloons : 20,000 PKTS Per Day
Plant & Machinery : ₹ 373 Lakhs
Cost of Project : ₹ 883 Lakhs
Rate of Return : 28%
Break Even Point : 60%

years due to the increasing demand for balloons from households and commercial applications and the rising disposable income of people in developing countries. Global Toy Balloon Market is experiencing growth in the forthcoming years due to the increasing popularity of theme-based parties and events. The rising trend of theme-based parties and events, especially among children, has increased demand for balloons customized to fit the party's theme. This trend is expected to drive the growth of the toy balloon market.

Conclusion

The future of latex toy balloon manufacturing is filled with exciting trends. LED light-up balloons, personalized designs, and eco-friendly options are just a few examples of the innovative directions the industry is taking. So get ready to elevate your party decorations and gift giving to new heights with these fun and festive latex toy balloons!

Start Layer Feed Production

ayer feed is a specially formulated feed given to laying hens to ensure their optimal health and egg production. It contains a balanced combination of nutrients, vitamins, minerals, and protein that meet the specific dietary needs of these hens. To produce high-quality layer feed, need to select the right ingredients, such as corn, sovbean meal, wheat, and minerals, and formulate them in the correct proportions. The feed must be carefully mixed, ensuring uniform distribution of all components. Additionally, proper storage and packaging are essential to maintain the freshness and quality of the

Global Market Outlook

The layer feed category of the global layers feeds held the biggest market share in 2021 and is anticipated to grow at a CAGR of 2.48% during the forecast period. Hens continue to lay eggs for more than a year, therefore after the 20th week, when they start to lay eggs, they are given layer feed. Farmers are using this feed to maximize the output of their free-range hens in a shorter period of time owing to the increasing demand for eggs. Over 120 billion eggs were produced in India during the fiscal year 2021,

a huge rise from the 15 billion eggs produced over the previous two decades. Throughout the anticipated time horizon, these factors will drive the market forward.

Key Benefits of Starting a Layer Feed Business

Starting a layer feed business comes

with a multitude of benefits that make it an eggcellent opportunity

for entrepreneurs. Firstly, the increasing demand for eggs in the market ensures a steady source of income. As more people recognize the nutritional benefits of eggs, the demand for high-quality layer feed also rises. By tapping into this growing market, entrepreneurs can generate substantial profits and achieve financial stability. Secondly, a layer feed business plays a crucial role in meeting the nutritional needs of the population. Laying hens require specific nutrients to maximize egg production and quality. By formulating a balanced feed that fulfills these requirements, entrepreneurs contribute to the availability of nutritious eggs for consumers.

Conclusion

The layer feed production business offers entrepreneurs a profitable opportunity in the agricultural sector. With the right knowledge and dedication, this venture can lead to significant growth and success. So, if you're looking for a business with high potential and a positive impact on the community, starting a layer feed production business is definitely worth considering.

PROJECT COST ESTIMATE

CAPACITY:

CAPACHT:

Chick Feed : 2,700 MT Per Annum

Grower Feed : 4,050 MT Per Annum

Pre Layer Feed : 9,000 MT Per Annum

Layer Feed Phase-1 : 11,250 MT Per Annum

Layer Feed Phase-2nd : 18,000 MT Per Annum

Plant & Machinery : ₹ 234 Lakhs

Cost of Project : ₹ 1655 Lakhs
Rate of Return : 32%

Break Even Point : 51%

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old storage refers to a method of preserving perishable food items, such as

fruits, vegetables, pulses, and spices, by maintaining a low temperature. This technology plays a crucial role in the food industry, as it helps prevent spoilage and extend the shelf life of these items. Proper storage is essential for maintaining the quality, flavor, and nutritional value of fruits, vegetables, pulses, and spices. Cold storage creates an environment that inhibits the growth of microorganisms and slows down the natural ripening process of produce. It helps preserve the natural color, texture, and taste of fruits and vegetables, making them stay fresh for a longer period of time.

Why to Start This Business?

Starting a business of Cold Storage Multipurpose for storing fruits, vegetables, pulses, and spices is an excellent opportunity for several reasons. Your business can cater to both individual consumers and commercial establishments, such as restaurants and grocery stores, who require a consistent supply of fresh ingredients. Investing in a Cold Storage Multipurpose business allows you to contribute to sustainability efforts. By reducing food waste, you are minimizing the environmental impact of the food industry. This not only benefits the planet but also resonates with conscious consumers who prioritize ecofriendly practices. Additionally, a business of this nature offers versatility and scalability. You can start small, serving local customers, and

Setup Business of Cold Storage

expand your operations as demand grows. With the right marketing and customer service, your business has the potential to become a go-to destination for those in need of reliable cold storage

The Essential Tips for Storing Pulses & Spices in **Cold Storage**

- 1. Proper Packaging
- 2. Temperature Control
- 3. Avoid Direct Sunlight
- 4. Avoid Moisture
- 5. Labeling

By following these essential tips, you can maximize the shelf life of your pulses and spices in cold storage and enjoy their fresh and flavorful taste in your culinary creations.

Global Market Outlook

The global cold storage market size was estimated at USD 119.8 bil-

lion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 17.5% from 2023 to 2030. The market has benefitted significantly from the strict regulations governing the supply and pro-

duction of temperature-sensitive products. The industry is expected to grow significantly over the forecast period owing to growing organized retail sectors in developing economies. Moreover, rising automation in refrigerated warehouses is projected to boost demand further. The market is segmented into pharmaceuticals, food & beverages, and others. The food & beverages segment dominated the overall cold storage industry, gaining a revenue share of more than 77% in 2022. It is expected to grow at a CAGR of 17.3% throughout the forecast period. Refrigerated storage solutions remain vital for safeguarding food items, such as milk and dairy products, against spoilage.

Conclusion

PROJECT COST ESTIMATE

Fruits, Vegetables, Pulses : 5000 MT

& Spices Store

Cost of Project

Rate of Return

Break Even Point

Plant & Machinery

CAPACITY

Starting a business of Cold Storage Multipurpose presents a valuable opportunity to address

: ₹ 132 Lakhs

: ₹ 713 Lakhs

: 27%

: 49%

a common problem, meet the growing demand for

fresh produce, contribute to sustainability, and build a scalable venture. So why wait? Take the plunge and explore the possibilities of this innovative business idea.

olar PV Glass, also known as photovoltaic glass, is a type of glass that has been specially designed to be used in solar panels. It contains embedded photovoltaic cells that are capable of

converting sunlight into electricity. These cells are typically made from silicon, a material that is highly efficient in capturing and converting solar energy.

> he Process of Manufacturing Solar PV Glass

The process starts with the selection of high-quality glass sheets, typically made from float glass or tempered glass. These sheets are then cleaned thoroughly to remove any impurities. Next, a transparent conductive oxide (TCO) layer is applied to the surface of the glass. This layer acts as an electrical conductor

and allows the solar cells to collect and transport electricity. Typically, materials like indium tin oxide (ITO) or fluorine-doped tin oxide (FTO) are used for the TCO layer. After applying the TCO layer, the

Start Production of Solar PV (Photovoltaic) Glass

: ₹ 2800 Lakhs

: ₹ 4150 Lakhs

: 28%

: 70 %

PROJECT COST ESTIMATE

CAPACITY

Solar PV (Photovoltaic) Glass: 300 MT Per Day

Plant & Machinery

Cost of Project

Rate of Return

Break Even Point

glass undergoes a process called doping, where the glass is infused with impurities to enhance its electrical properties. This process involves the use of materials like boron or phosphorus to create a P-type or N-type layer, respectively. Once the doping is complete, the glass is ready for the most critical step: the integration of the

> photovoltaic cells. These cells, usually made of silicon, are placed on the TCO layer and interconnected form a complete solar module. The solar PV glass panels are then encapsulated to protect the cells from

environmental factors like moisture and physical damage. This is usually done by sandwiching the cells between layers of EVA (ethylene vinyl acetate) or a similar polymer material. Finally, the panels are

framed and sealed to ensure their longevity and durability. They are then ready for installation and can start generating clean, renewable energy from the sun.

Future Outlook

The future outlook for Solar PV (Photovoltaic) Glass manufacturing is incredibly promising. As the demand for renewable energy continues to rise, the solar industry is experiencing rapid growth and innovation. The advancements and innovations in Solar PV Glass manufacturing are expected to continue, driving the adoption of solar energy worldwide. One of the key areas of focus for the future of Solar PV Glass manufacturing is increasing efficiency. Manufacturers are constantly researching and developing new technologies to enhance the performance of solar panels. This includes improving the light absorption capabilities of the glass, increasing the conversion efficiency of the photovoltaic cells, and reducing energy losses

Conclusion

The Future of Solar PV Glass manufacturing is bright. With ongoing advancements and innovations, we can expect increased efficiency, imsion, proved aesthetics, and greater affordability in the production and implementation of solar panels. Solar PV Glass will continue to play a vital role in the transition to a clean and sustainable energy future.

during the generation and transmission process.

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raft beer is a term used to describe a beer that has been made in a traditional and independent fashion. It is usually made in smaller batches with high quality ingredients, and often has a distinctive flavor profile. Unlike many massproduced beers, craft beer often uses a variety of malted grains, hops, and other ingredients such as spices and fruits, giving it a unique character and taste. Craft brewers also experiment with different styles, including lagers, stouts, porters, sours, IPAs, and many others.

Benefit of Craft Beer Industry

The craft beer industry is a booming business that offers a number of benefits for consumers, breweries, and the economy. Craft brewers are small, independent businesses that produce beers with high-quality ingredients and unique flavor profiles. The craft beer industry is also taking a leadership role in sustainability. Many breweries are using sustainable practices to reduce their carbon footprint. They are focusing on recycling, water conservation, and reducing energy usage. These efforts help create a greener future for everyone and are a great example of the positive effects of craft beer.

Indian Market Outlook

In recent years, craft beer has become increasingly popular among Indians. Many bars and

Setup Plant of Craft Beer

restaurants across the country now offer craft beer on their menus, and there are numerous craft beer festivals taking place each year. In addition, craft beer clubs have sprung up in major cities, providing an opportunity for enthusiasts to sample new beers. The craft beer industry in India is still in its infancy and there is a lot of potential for growth. With the right strategies and investments, craft brewers can tap into this lucrative market and expand their reach to new customers.

PROJECT COST ESTIMATE

CAPACITY:

Craft Beer (Bottles 650 ml Size) : 7,692 Bottles Per Day Craft Beer (Al. Cans 500 ml Size): 10,000 Bottles Per Day

Plant & Machinery : ₹ 1519 Lakhs **Cost of Project** : ₹ 4060 Lakhs

Rate of Return : 30% **Break Even Point** : 42%

Global Market Outlook

Craft Beer Market size was valued at USD 234.34 Billion in 2021 and is projected to reach USD 1132.91 Billion by 2030, growing at a CAGR of 19.13% from 2023 to 2030. Beer has always been the oldest and most widely consumed alcoholic beverage around the world and has several health benefits if consumed moderately; it contains iron, calcium, vitamin B, and fiber. Advancements in beer brewing technologies have resulted in the emergence of wide-ranging products in the market. The aforementioned product is one of the most consumed variants in the spectrum and has gained immense popularity in recent years. The market's overall growth has been tempered by changing consumer lifestyles and preferences. Furthermore. rapid urbanisation and an increasing population are expected to accelerate the market's overall growth.

Conclusion

The craft beer industry is a thriving industry that has brought countless benefits to consumers, breweries, and the local economy. By offering highquality, unique products and focusing on sustainability, craft brewers have created a booming industry that will continue to grow for years to come.

re you curious about what exactly a Truck Trailer, specifically a Flatbed Trailer and Tip Trailer, is? Let's dive

A Truck Trailer is a vehicle without an engine that is towed by a truck or tractor. It is designed to transport goods and materials efficiently and safely. In particular, Flatbed Trailers have a flat platform with no sides or roof, allowing for easy loading and unloading of various cargo. They are versatile and commonly used for transporting construction materials, machinery, and oversized loads. On the other hand, Tip Trailers are specifically designed to transport bulk materials, such as grains, aggregates, or liquids. These trailers have a hydraulic system that allows the container to be tipped, allowing for efficient unloading of the cargo.

Truck Trailer (Flatbed Trailer & Tip Trailer) Manufacturing

The manufacturing process involves sourcing high-quality materials such as steel, aluminum, and other components. These materials are then cut, shaped, welded, and assembled to create the trailer body and chassis. The process also includes installing various components such as axles, suspension systems, brakes, and electrical wiring. To ensure the quality of your Truck Trailers, it is crucial to follow industry standards and regulations. This includes conducting thorough inspections and tests throughout the manufacturing process, as

A Business Plan for Truck Trailer

well (Flatbed Trailer & as ensuring com-Tip Trailer) pliance with safety and performance standards. Starting a Truck Trailer manufacturing business can be a challenging but rewarding venture. It allows you to combine your passion for trucks and the transportation industry with the

opportunity for profit. **Global Market Outlook**

The Global Truck Trailer Market stood at USD350.92 billion in 2020 and is expected to grow at a CAGR of around 6.18% to reach USD504.98 billion in 2026. The rise in the investments

made by leading authorities of developing economies for the development of the transportation sector and infrastructure development, ongoing construction activities, and launch of new models

of the truck trailer are the primary factors driving the growth of the Global Truck Trailer Market in the forecast period. Increasing sales of trucks are accelerating the demand for truck trailers all around the globe. With growing urbanization and industrialization, the market is expected to witness a continuous rise. Truck trailers find applications from several end-user industries such as oil & gas, agriculture, mining, construction, retail, logistics, and others. Players are investing in replacing the existing fleets with advanced

and newer versions of truck trailers which are expected to create lucrative opportunities for the

market growth.

PROJECT COST ESTIMATE

CAPACITY:

Flatbed Trailer : 6 Nos Per Day : 6 Nos Per Day Tipper Trailer Plant & Machinery : ₹313 Lakhs

Cost of Project : ₹ 1172 Lakhs Rate of Return : 31% **Break Even Point** : 55%

Conclusion

The market for Truck Trailers is optimistic, with opportunities for growth and innovation. By staying updated on industry trends, incorporating innovative

features, and maintaining high-quality standards, you can position your business for success in this dvnamic market.

Market Survey Cum Detailed Techno Economic Feasibility Report on all above Businesses are Available. Contact:

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Potato Chips and Extruded Snack Food (Kurkure Type)

otato Chips and Extruded Snack Food (Kurkure Type) are popular, crunchy snacks made from potatoes. Potato chips are thin slices of potatoes that have been fried in oil or baked, while snacks are extruded (Kurkure type) or puffed snacks that are flavoured with spices and sometimes even masalas. Potato chips and Kurkure are loved by many. Extruded Snack Food (Kurkure Type) come in a wide range of flavours such as spicy chili, chat masala, and tomato. These snacks can also be combined with nuts, dried fruits, and other ingredients to create interesting and unique

Benefit of starting Potato Chips and Extruded Snack Food (Kurkure Type) Business

Starting a business in Potato Chips and Extruded Snack Food (Kurkure Type) has several benefits. These snacks are highly popular and sought-after, making them ideal for entrepreneurs looking to capitalize on the market demand.

Indian Market Outlook

The Indian market for potato chips and extruded snacks (Kurkure type) is expanding rapidly. According to the International Trade Administration, India's snack market is currently estimated at US\$ 6.1 billion and is forecast to reach US\$ 11.2 billion by 2021. India Extruded Snacks Market Outlook, 2027-28 the market is anticipated to grow at more than 9% CAGR for 2022-2028. The Indian snacks industry is the most promising and booming segment of the FMCG category. Consumers always prefer healthier and more flavourful options in the food market.

Global Market Outlook

PROJECT COST ESTIMATE

CAPACITY:

Potato Chips : 150,000 Kgs Per Annum Kurkure Type Snacks: 150,000 Kgs Per Annum Plant & Machinery : ₹ 43 Lakhs **Cost of Project** : ₹ 121 Lakhs

Rate of Return : 30 % **Break Even Point** : 71 %

The alobal potato chips market size reached value of USD 33.45 billion in 2022. The market is expected to further grow in the forecast

period of 2023-2028 at a CAGR of 2.90% to reach a value of USD 39.71 billion by 2028. The global extruded snacks market size was valued at USD 50.37 billion in 2021. The market is projected to grow from USD 53.20 billion in 2022 to USD 77.72 billion by 2029, exhibiting a CAGR of 5.57% during the forecast period. Extruded products are becoming very popular among consumers due to their flavourful taste profiles and interesting shapes.

Conclusion

There are many benefits to starting a business in Potato Chips and Extruded Snack Food (Kurkure Type). Not only do these snacks provide convenience and affordability, but they also offer entrepreneurs the chance to create unique flavours and capitalize on the strong growth in these markets.

Setup Plant of Particle Board from Rice Husk

PROJECT COST ESTIMATE

CAPACITY

: ₹ 2 Crores

: ₹ 11 Crores

: 30 %

: 70 %

article board, also known as chipboard, is a wood-based material composed of wood particles and fibers that are bound together with resin and compressed into a sheet. It is a cost-effective building material commonly used for furniture, shelving, flooring, and wall paneling. Particle board from rice husk is a type of particle board made from waste husk from rice production.

Uses and Applications

Particle board from rice husk is eco-friendly product that is used in various industries applications. lt is a composite material made from the bvproducts

processed rice husks, and it has a variety of uses, ranging from furniture and interior decorating to construction and insulation materials.

Particle Board

Cost of Project

Rate of Return

Break Even Point

(Size 4ft x 8ft x 16 inch.)

Plant & Machinery

Benefit of Starting This Business

Particle board made from rice husk is a great option for businesses that are looking to create high-quality and sustainable building materials. The product has several advantages over traditional building materials such as wood or plastic, including being more lightweight and cost-effective.

Indian Market Outlook

This booming industry has opened up a great opportunity for entrepreneurs in India to enter into this business. It is easy to set up and requires minimal capital investment. With growing awareness about the environment, there is a great potential for growth in the coming years.

Global Market Outlook

: 150,000 Nos. Per Annum

Particle board made from rice husk has been rapidly gaining traction around the world due to its many advantages. This market is expected to grow at a CAGR of 8.2% during 2020-2026, driven by factors

such as increasing environmental concerns and the need to replace traditional wood and other forms of particleboard with a more sustainable alternative.

Conclusion

Particle board from rice husk is a versatile material that can be used in a wide range of industries and applications. Its eco-friendly nature makes it even more desirable. With so many potential uses and applications, it's no wonder why this business is booming.

Layer Poultry Farmina

ayer poultry farming means raising egg laying poultry birds for the purpose of commercial egg production. Layer chickens are such a special species of hens, which need to be raised from when they are one day old. They start laying eggs commercially from 18-19 weeks of age. They remain laying eggs continuously till their 72-78 weeks of age. They can produce about one kg of eggs by consuming about 2.25 kg of food during their egg laying period.

India is third largest egg production and fifth in chicken meat producer in the world. India has a population of 1.2 billion and 50% of India's workforce is in agriculture. The total egg production has increased from 27.33 Billion during 2015-17 (Rainy) to 29.09 Billion during 2016-18 (Rainy) registering a growth 6.42%. As against the targeted production of 87.05 Billions of eggs during 2016-18, the total estimated production in two seasons, summer and rainy, is 55.11 Billion showing an achievement of 63.31%. As a whole there is a good scope for new entrepreneur to invest in this business.

PROJECT COST ESTIMATE

CAPACITY:

Egg Production : 25000 Nos./Day

(Packed 30 Eggs per Tray)

Spent Hens : 83 Nos./Day **Plant & Machinery** : ₹ **57** Lakhs **Cost of Project** : ₹ 239 Lakhs Rate of Return : 28% **Break Even Point** : 35%

Market Survey Cum Detailed Techno Economic Feasibility Report on all above Businesses are Available. Contact:

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(npcs)

Highly Profitable Business Ideas for You

remix Tea and Coffee Cappuccino, Vanilla Flavoured Coffee, Mocha Coffee, Masala Chai, Ginger Tea & Green Tea are all products that have been specially developed for both diabetic and non-diabetic consumers. They are available in a range of flavors, each with its own unique characteristics. Green Tea is an ideal choice for those who are looking to reduce their sugar intake or follow a healthier lifestyle. All of these products provide health benefits, including improved digestive health and weight management.

PROJECT COST ESTIMATE

CAPACITY:

Premix Tea (Masala Chai) : 400 Packs Per Day

100 g Pack

Premix Tea (Masala Tea) : 400 Packs Per Day 100 g Pack

Premix Coffee (With Sugar) : 1,818 Packs Per Day 22g Pack

Premix Coffee (Without Sugar) : 2,500 Packs Per Day

Premix Coffee (With Vanilla for Diabetic): 1,818 Packs Per Day 22g Pack : ₹ 13 Lakhs

Plant & Machinery : ₹ 119 Lakhs **Cost of Project** Rate of Return : 35 % **Break Even Point** : 49 %

Setup Plant of Premix Tea and Coffee

Cappuccino, Vanilla Flavoured Coffee, Mocha Coffee, Masala Chai, Ginger Tea & Green Tea (for Diabetic and Non Diabetic)

The health benefits of Premix Tea and Coffee

The health benefits of premix tea and coffee are numerous. For instance, the antioxidant properties

of green tea can help protect the body from free radicals, while ginger tea may help reduce inflammation. The caffeine content of premix tea and coffee can also boost alertness and mental clarity. Furthermore, it can help with digestion, as well as provide a boost to the immune system.

Scope for Startups in the Premix Tea and Coffee Industry

Premix Tea and Coffee is rapidly gaining popularity, particularly with the rise of health-conscious consumers. As the demand for this product increases, the scope for startups in the premix tea and coffee industry is also on the rise. With the right kind of product and

marketing strategies, startups can capitalize on this trend and create a successful business.

Global Market Outlook

The global premix tea and coffee market is estimated to reach USD 2.26 billion by 2027 and is projected to grow at a CAGR of 4.8% over the forecast period. Factors such as increased consumption of organic beverages, rising disposable income, and rapid urbanization in developing countries are driving the growth of the global market.

Conclusion

Premix Tea and Coffee is a booming industry with great potential for startups. It is an easy and convenient way to enjoy a cup of tea or coffee anytime, anywhere. Not only is it cost effective but it also offers a variety of flavors that cater to both diabetics and non-diabetics. With the right business strategies, Premix Tea and Coffee can be very profitable. All in all, it is an exciting industry to enter and explore.

Market Survey Cum Detailed Techno Economic Feasibility Report on all above Businesses are Available. Contact:

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SELECTED BUSINESS IDEAS FOR RIGHT INVESTMENT EACH DETAILED PROJECT REPORT (BUSINESS PLAN) CONTAI



BEGINNING: Project Introduction, Brief History of the Product, Properties, BIS (Bureau of Indian Standard) Specifications & Requirements, Uses & Applications.

MARKET SURVEY: Present Market Position, Expected Future Demand, Statistics of Imports & Exports, Export Prospect, Names and Addresses of Existing Units (Present Manufactures).

PLANT & MACHINERY: List of Plant & Machineries, Miscellaneous Items and Accessories, Instruments, Laboratory Equipments and Accessories, Plant Location, Electrification, Electric Load and Water, Maintenance, Suppliers/Manufacturers of Plant

RAW MATERIAL: List of Raw Materials, Properties of Raw Materials, Availability of Raw Materials, Required Quality of Raw Materials, Cost/Rates of Raw Materials.

MANUFACTURING TECHNIQUES: Formulae DetailedProcess of Manufacture. Flow

PERSONNEL REQUIREMENTS: Requirement of Staff & Labour, Personnel Management, Skilled & Unskilled Labour.

LAND & BUILDING: Requirement of Land Area, Rates of the Land, Built up Area, Construction Schedule, Plant Layout.

FINANCIAL ASPECTS: Cost of Raw Materials, Cost of Land & Building, Cost of Plant & Machineries, Fixed Capital Investment, Working Capital, Project Cost, Capital Formation, Cost of Production, Profitability Analysis, Break Even Point, Cash Flow Statement for 5 to 10 Years, Depreciation Chart, Conclusion, Projected Balance Sheet, Land Man Ratio.

- Prepared by highly qualified and experienced consultants and Market Research and Analyst Supported by a panel of experts and computerised data bank.
- Data provided are reliable and upto date collected from suppliers/ manufacturers, plant already commissioned in India.
- NPCS Reports are very economical and immediately available on demand where as commissioned Feasibility Studies are time consuming and costly.

FOR ASSESSING MARKET POTENTIAL, INVESTMENT **DECISION MAKING CORPORATE DIVERSIFICATION** PLANNING ETC.

NPCS Engineers and Consultants have prepared Market Survey Cum Detailed **Techno Economic Feasibility Report on** the following products which are most viable and profitable.

Business Ideas: 2-2.5 Crore (Plant and Machinery):

Selected Project Profiles for Entrepreneurs, Startups

- » Acrylic Resin (Emulsion Type)
- » Activated Charcoal from Wood
- » Agar Agar
- » Aluminium Extrusion Plant
- » Aluminium Foil
- » Banana Powder
- » Bauxite Calcination (by Rotary Kiln with Fine Grinding Ball Mill)
- » Bio-degradable Plates from Areca Nuts Tree Leaf, Barks and Bamboo
- » Biodegradable Plastic Products (Bags, Plates & Glasses)
- » Camphor (Powder & Tablets)
- » Cashew Nut Processing
- » Chocolate Confectionery Plant (Milk Chocolate, Dark Chocolate, White Chocolate, Orange & Tangy Flavour Toffee, Citric Flavoured Candies & » High Tensile Wire used in Prestressed Chocolate Wafers)
 - » Ciprofloxacin Hydrochloride
 - » Curcumin Extraction Unit
 - » Dairy Farming (500 Cows)
 - » E-rickshaw Assembling
 - » Disposable Nitrile Gloves (Nitrile Examination Hand Gloves)
 - » Disposable Plastic Syringes
 - » Disposable Surgical Gloves
 - » E-waste & Lithium Battery Recycling Plant
 - » Shrimp Processing (EOU)
 - » Ethyl and Butyl Acetate

- » Hand Sanitizer Manufacturing
- » Helmet Manufacturing
- Concrete Poles and Railway Sleepers
- » Curcumin Extraction Business
- » Infusion Set and Blood Transfusion Set
- » Integrated Unit RMC with Stone Crusher
- » Khaini (Chewing Tobacco)
- » Lead Acid Battery (Maintenance Free)
- » Linear Alkyl Benzene (L.A.B)
- » Linear Alkyl Benzene Sulphonic Acid
- » Liquor from Mahua Flowers **Production Business**
- » LT Cable
- » M.S. & H.T. Nuts & Bolts



Market Survey Cum Detailed Techno Economic Feasibility Report on all above Businesses are Available. Contact:

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SELECTED BUSINESS IDEAS FOR RIGHT INVEST

- » Maize and Its By Products (Starch, Oxidized Starch, Liquid Glucose and Dextrose)
- » Copper Tube Fittings (Elbows 45 Deg., 90 Deg., Long Radius Elbows, Couplings, Reducer Couplings, U-bends, End Caps, Copper Equal Tee, Copper Unequal Tee and Y-joint/reducer)
- » Disposable Personal Protective Equipment (PPE) Kit
- » Medical Disposables (Gowns/Drapes)
- » Methyl Methacrylate (MMA)
- » Methyltetrahydrophthalic Anhydride (MTHPA)
- » Milk Processing (Milk, Paneer, Butter and Ghee)
- » Milk Processing and Dairy Products (Ghee, Khoa, Cream, Toned Milk 3% Fat, Thandai, Shrikhand)
- » Silicon Metal

- » Namkeens (Dalmoth, Bhujia, Chana Chur and Khatta Meetha)
- » Nicotine from Tobacco Waste
- » Oleoresin of Spices (Black Pepper, Paprika and Cardamom)
- » Surgical Hand Gloves
- » Organic Yeast from Organic Molasses
- » Peanut Butter
- » Potato Powder (Automatic Plant)
- » Power Transformer
- » Men's Undergarment (EOU)
- » Latex & Nitrile Gloves
- » Medical Disposables (Gowns & Drapes)
- » Recycling of Lithium Ion Battery
- » Residential School

- » Rice Mill, Rice Bran Oil with Captive Power Plant (integrated Unit)
- » Rice Milling Unit
- » Roll Forming with Metal Beam, Highway Guard Crash Barrier and Galvanizing Plant
- » Sanitary Napkins
- » School (Residential)
- » Sesame Seed Hulling
- » Integrated Unit of Soya Nugget,
 - Tea Packaging, Turmeric Grinding & Packaging, • Jam Plant
- Using Solar Charkha & Solar Looms





Highly Profitable Business Ideas for You

Surgical Blade

Surgical Blade is a small and extremely sharp bladed instrument used for surgery, anatomical dissection, and podiatry. Scalpel blades are usually made of hardened and tempered steel, stainless steel, or high

A surgical blade is a small, extremely sharp bladed tool, which is used for a variety of purposes such as surgery and anatomical dissection. Scalpels may be of two types, single-use or disposable blades and reusable scalpel. Reusable scalpels have fixed blades that can be sharpened or may have removable single-use blades that are attached permanently. Disposable scalpels generally have a handle made of plastic with an extensible blade and only once, after which the entire instrument becomes redundant. Surgical blades are generally packed in sterile pouches.

The global surgical blades market is expected to increase growth in the years to come with the increasing number of surgeries. The growing number of geriatric population across the globe is also presumed to be adding to positively benefit the surgical based market in the long run. Medical centers are being built with increasing number of operation rooms in order to accommodate the rising number of patients. Different types of surgeons having multiple specialties are being employed to cater to the needs of these patients. This in turn is presumed to have a positive impact

on the global surgical blades market during the forecast period 2018-2026.

The products used in surgical procedures considered as lowinstruments that do not require

PROJECT COST ESTIMATE

CAPACITY

Surgical Blades : 21,600 Packets/Day

: 69%

(10 Pcs. per Packets) Plant & Machinery : ₹ 99 Lakhs **Cost of Project** : ₹ 365 Lakhs Rate of Return : 30%

a stringent regulatory process for manufacturing or use. Furthermore, an increase in the number of chronic diseases has propelled the development of more hospitals, clinics, and ambulatory surgical centers, which, in turn, has created more job opportunities for surgeons. These factors are augmenting the growth of the surgical blade market. Entrepreneurs who invest in this project will be successful.

Break Even Point

Production of Crumb Rubber Powder from Waste Tyres

rumb rubber is a term usually applied to recycled rubber from automotive and truck scrap tires. There are two major technologies for producing crumb rubber - ambient mechanical grinding and cryogenic grinding. Of the two processes, cryogenic process is more expensive but it produces smoother and smaller crumbs.

Waste tyre recycling technology is very cost effective and performs 100% wastage tyre recycling (No churn left after the process). In this process no chemical ingredients are used, therefore it is environment friendly. Raw material (scrap tyre) is cheap and easily available, Generate economically valuable products out of waste tyres and products have good market value and demand. Also each recycled ton of tyres preserves 10 tons of carbon dioxide (CO2) that is a major greenhouse gas.

Features of Tire Recycling Plant:

- 1. Compact structure, small floor area, easy maintenance.
- 2. Low energy consumption, low operating
- 3. Easy operation, stable performance.
- 4. Large capacity, high working efficiency.
- 5. High automatic control, reducing labor cost.
- 6. Long service life, low rate of breakdown.
- 7. Eco-friendly. No sewage and waste gas

There is a rapid market increase of

rubber powder in India. Demand of rubber powder in India is increased by 5%-8%. There is fair scope of this product. Every year over 1.6 billion new tires are generated and around 1 billion of waste tires are generated. However, the recycling industry processed only 100 million tires every year. The tire is extensively designed with several complex processes which makes it indestructible in nature and creates difficulty in the recycling of tires.

Furthermore, the growing implementation of crumb rubber generated from scrap tires is supporting the growth of the tire recycling market. In 2016, over 30% of crumb rubber used on sports fields and 25% of crumb rubber used as playground surfacing which is expected to create a significant disruption of the tire recycling market. Application of rubberized asphalt for the construction of pavements is also generating a pool of opportunities for tire recyclers and is expected to fuel the growth of the tire recycling market in the near future.

PROJECT COST ESTIMATE

Capacity:

Crumb Rubber Powder: 24 MT Per Day By Product Steel Wire : 4.8 MT Per Day **Plant & Machinery** : ₹ 115 Lakhs **Cost of Project** : ₹ 426 Lakhs Rate of Return : 28% **Break Even Point** : 66%

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solar panel is made up of several solar modules that are wired together in series and parallel to give a certain voltage and current to charge a battery.

Photovoltaic panels make up the solar array of a photovoltaic system, which generates

and distributes solar power in commercial and residential settings. The DC output power of each module is rated under conventional test conditions and typically ranges from 100 to 365 watts.

A single solar module can only provide a certain quantity of energy; therefore, most setups use numerous modules. A photovoltaic system consists of a panel or array of solar modules, a solar inverter, and, in certain cases, a battery and/or solar tracker, as well as interface cable.

A photovoltaic (PV) module is a preassembled, plug-and-play assembly of 6-10 solar cells. Solar photovoltaic panels make up the solar array of a photovoltaic system, which generates and distributes solar power in commercial and residential settings. The DC output power of each module is rated under conventional test conditions and typically ranges from 100 to 365 watts.

A single solar cell will not be able to deliver the necessary usable output. To boost the output power of a PV system, a number of such PV Solar Cells must be connected. A solar module is typically made up of a sufficient number of solar cells that

Solar Panel

(Including both type of the PV Cells): Polycrystalline and Monocrystalline

are connected in series to generate the requisite standard output voltage and power.

Large-scale solar applications, such as commercial and residential solar systems, typically use monocrystalline solar panels. They can also be used for smaller-scale applications, and the panel size is determined by the application.

The most widely utilised PV panels on the planet are polycrystalline solar panels. They come

in a variety of power levels, ranging from 5 W to 250 W or more, and can be used in both home and commercial settings.

In the projected period 2021-2028, the global solar power market is estimated to increase at a CAGR of 6.9%, from \$184.03 billion in 2021 to \$293.18 billion in 2028.

With the unrelenting shift toward renewable

future.

energy, the worldwide solar panel industry is accelerating. China, the world's largest exporter of solar panels, will benefit from strong global demand, while domestic sales may decrease as tariff subsidies are reduced. Because solar cells are becoming more affordable and suburban building is becoming stronger, the United States is seeing a rise in solar power output.

Due to the rapid adoption of solar generation capacity, the EU, Asia-Pacific, Mexico, and Australia are also emerging as the most attractive markets. Distributed solar photovoltaic systems for residential, commercial, and industrial buildings appear to be a growing business segment around the world

PROJECT COST ESTIMATE

CAPACITY:

Solar Panel 140 MW

Mono Crystalline Solar PV Module Capacity : 250 Watt
Mono Crystalline Solar PV Module Capacity : 320 Watt
Poly Crystalline Solar PV Module Capacity : 250 Watt
Poly Crystalline Solar PV Module Capacity : 320 Watt
A66.8 Nos. Per Day
A66.8 Nos. Per Day

 Plant & Machinery
 : ₹ 36.35 Cr

 Cost of Project
 : ₹ 63.46 Cr

 Rate of Return
 : 30%

 Break Even Point
 : 44%

Start a Production of Compressed Biogas

ompressed bio gas (CBG) is a renewable energy source produced from organic material such as agricultural waste, municipal waste, and other organic sources. It is made through anaerobic digestion (AD), a process which breaks down organic material in the absence of oxygen to create biogas and other useful products. Biogas is made up mostly of methane and carbon dioxide, both of which can be used for energy production.

Uses and Applications

Compressed bio gas is a renewable energy source that has a wide range of uses and applications. It is a clean fuel that can be used to power vehicles, generate electricity, and provide heating and cooling. It can also be used in industrial processes, such as the production of

fertilizer, plastics, and chemicals. As demand for renewable energy grows, compressed bio gas is likely to become an even more important part of the energy mix in the

Future prospects for the compressed biogas sector

The future of the compressed bio gas industry is looking very promising. With the world's energy needs constantly increasing, renewable

energy sources such as compressed bio gas are becoming increasingly popular. With more businesses and governments recognizing the potential of this renewable energy source, the industry is likely to experience an even larger boom.

Indian Market Outlook

India is the world's secondlargest biogas consumer in the world. According to the Oil and Natural Resources Minister, India will receive Rs 2 lakh in investment to develop 5000 biogas plants by 2023-24. The installation of renewable energy sources is expected to increase significantly over the next decade, resulting in India biogas market growth. Global Market Outlook

The global biogas market size was valued at USD 60.06 billion in 2021 and is expected to expand at a compound annual growth rate (CAGR) of 4.3% from 2022 to 2030. The growing interest in finding effective means to obtain bio-products and biofuel from industrial food waste coupled with an increasing need for wastewater treatment in the industrial sector is expected to fuel the demand for biogas over the forecast period.

Conclusion

In conclusion, the compressed bio gas industry is booming and the future looks bright. With advancements in technology and more people and businesses recognizing the benefits of using this renewable energy source, this industry is set to become one of the biggest players in the energy sector. With its low emissions, economic efficiency, and environmental friendliness, it

is clear why this fuel is becoming increasingly popular with businesses and governments around the world

PROJECT COST ESTIMATE

Capacity:

Compressed Bio Gas : 6 MT Per Day
Spent Slurry as Manure : 60 MT Per Day
Plant & Machinery : ₹ 172 Lakhs
Cost of Project : ₹ 522 Lakhs
Rate of Return : 27 %
Break Even Point : 46 %

Market Survey Cum Detailed Techno Economic Feasibility Report on all above Businesses are Available. Contact:

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How to Start Surgical Cotton Manufacturing Business

urgical cotton is also termed as "cotton wool" or "absorbent cotton" in some cases. Surgical/absorbent cotton is cleansed, de-oiled, and bleached cotton that is packed in various sizes. Because surgical/absorbent cotton comes into direct contact with the human body, its quality is critical, and it must comply with all pharmaceutical regulations. Virgin cotton or waste cotton can be utilised as a raw material. Comber waste cotton is preferable when it comes to waste cotton. The fibres of surgical/absorbent cotton are particularly elastic. It has a diameter of 16.30 mm and a length of 12-40 mm and is made up of 98 percent cellulose.

Carded cotton fibres are used to create "Surgical Cotton" or "Cotton Wool." It is softened and bleached to achieve a beautiful white colour. It's possible that the sterilised absorbent cotton is a shade of white. The material should be of uniform quality and provide a suitable degree of resistance when pulled. A staple in absorbent cotton is 1.5 cm long on average. Absorbent cotton gets its name from how quickly it absorbs liquids. To provide the best protection against wound irritation, it should be soft.

Surgical cotton is extensively used in hospitals, clinics, health centres, and pharmacies for medical purposes. It's also used for a variety of purposes in beauty salons, businesses, and residences.

Surgical/absorbent cotton is used for sanitary reasons, surgical procedures, and everyday use. It is usually required by women during their menstrual period, which occurs once a month. It's not simply used for dressing; it's also utilised for padding in clothing, comforters, and other items.

Medical absorbent cotton, also known as surgical absorbent cotton or cotton wool, is an absorbent cotton that is commonly used in hospitals, clinics, nursing homes, dispensaries, and even at home (for first-aid purposes). Medical absorbent cotton has been washed, deoiled, and bleached before being hermetically packed in various sizes.

Because medical absorbent cotton comes into direct contact with the human body, its quality is crucial, and it must meet strict standards.

Medical absorbent cotton is used to manufacture traditional forms of sanitary napkins or pads, as well as a number of medical purposes and uses, in addition to cleaning, padding, and packing.

It's also used for a variety of purposes in pharmacies, barbershops, beauty salons, enterprises, and homes. Imports currently account for nearly all absorbent cotton demand.

The requirement for absorbent cotton is strongly linked to the development and expansion of health institutions in the country. The federal and state governments have made expanding health facilities a priority in order to improve coverage. As a result of population increase and the Federal and Regional Governments' high level of attention, demand for absorbent cotton is predicted to grow by 10% every year.

Medical absorbent cotton demand is strongly linked to population growth, as well as the expansion of public health and related healthcare services. In hospitals, clinics, nursing homes, and other facilities, medical absorbent cotton is in high demand, and demand is consistent throughout the year.

An increase in the prevalence of chronic diseases, operations, and treatments, as well as wound dressings, etc. In the future, the global market for medial absorbent cotton is predicted to grow.

North America currently holds the largest revenue share in the worldwide medical absorbent cotton market, followed by Europe and Asia Pacific. Expansion in the healthcare sector, which will be accompanied by an increase in the number of hospitals and clinics, as well as geographic expansion by players in the pharmaceuticals, cosmetics, and sanitary products industries, is expected to remain a major driver of the global medical absorbent cotton market.

PROJECT COST ESTIMATE CAPACITY

Capacity : 1000 Kgs. Per Day Plant & Machinery : ₹ 358 Lakhs Cost of Project : ₹ 568 Lakhs

Start Production of Silica from Rice Husk Ash

n the concrete business, rice husk ash silica is a viable alternative to conventional sand, particularly in areas where sand is scarce. Silica is extracted from rice husk ash using high-temperature calcination and carbonization procedures to produce silicon dioxide, which can be used to concrete mixes to improve qualities like as strength, density, air entrainment, and freeze-thaw resistance.

- 1. Adhesive: Silica is used as a reinforcing and thickening agent, as well as to improve bond strength. When a liquid adhesive comes into touch with a solid surface, the dispersed silica particles within it solidify quickly. Adhesive based on natural and synthetic rubber.
- Chappals: Silica is utilised in shoe soles because of its wear and tear durability, non-scuffing properties, and the ability to create compounds with light colours or even transparent materials.
- 3. Conveyor Belt & Transmission Belt: Due to its small particle size and complex aggregate structure, silica is employed to improve tear strength.
- 4. PVC Sheets: Silica improves pigment dispersion, acts as a separating agent and an absorbent to increase flow, and gives the compound a dry feel.
- 5. Railway Pads: Silica is utilised in railway pads for the following reasons:
- 7. Rubber Products and Rubber Hoses: In industrial rubber, silica gives higher strength and durability, as well as improved heat resistance and tear strength, to industrial Rubber Belts and Rubber Hoses.
- 8. Silicon Tubes: Silicone rubber is utilised in a variety of applications where its distinct qualities are advantageous. Many of these characteristics are heavily influenced by the type and amount of filler used in the compound.

PROJECT COST ESTIMATE

CAPACITY:

Silica : 5.80 MT Per Day
Activated Carbon (by product) : 0.64 MT Per Day
Sodium Carbonate (by product) : 0.96 MT Per Day
Plant & Machinery : ₹ 745 Lakhs
Cost of Project : ₹ 1121 Lakhs
Rate of Return : 27%
Break Even Point : 45%

In 2019-20, the India silica market was worth USD 46.8 million. It is expected to grow at a CAGR of 6.5 percent in the next years. Because of its anti-caking and super absorption qualities, strong product demand in the food industry has helped the market gain traction in recent years.

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