

# Entrepreneur India



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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.

### EDITOR :

AJAY KUMAR GUPTA  
D.M.S, M.B.A.

Entrepreneurship Management

### ASSOCIATE EDITOR :

P. K. TRIPATHI  
UDANT GUPTA

### NIIR PROJECT CONSULTANCY SERVICES

AN ISO 9001:2015 CERTIFIED COMPANY

106 E, Kamla Nagar,  
Delhi-110 007 (India).

Tel. : 91-11-23843955  
91-11-23845886  
Mob.: +91-9097075054  
+91-8800733955

### E-mail :

info@niir.org  
npcs.india@gmail.com

### Website :

[www.niir.org](http://www.niir.org)  
[www.entrepreneurindia.co](http://www.entrepreneurindia.co)

## Handbook on Biofuel, Ethanol and Bioenergy Based Products

(Ethanol as Biofuel, Methane Gas, Biodiesel, Biogas, Biomass Gasification, Bio-Chemical, Renewable Energy, Clean-Energy, Activated Carbon, Agricultural Residues, Forestry Residues, Animal Waste, Wood Wastes, Industrial Wastes, Municipal Solid Wastes and Sewage with Machinery, Manufacturing Process, Equipment Details and Plant Layout)

**B**ioenergy is biofuel-derived energy. Biofuel is any fuel made from biomass, such as plant or algal matter or animal waste. Biofuel is considered a renewable energy source since the feedstock material can be easily renewed, unlike fossil fuels such as petroleum, coal, and natural gas.

Ethanol is a naturally occurring result of plant fermentation that may also be made by hydrating ethylene. Ethanol is a widely used industrial chemical that is employed as a solvent, in the production of other organic compounds, and as a fuel additive (forming a mixture known as a gasohol). Many alcoholic beverages, such as beer, wine, and distilled spirits, include ethanol as a psychoactive element.

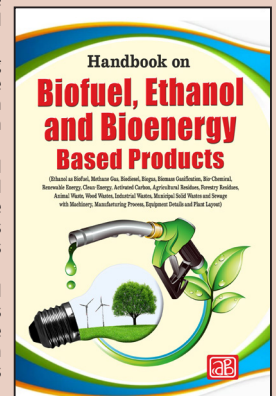
Transportation fuels generated from biomass resources, such as ethanol and biomass-based diesel, are known as biofuels. Using ethanol or biodiesel reduces the use of crude oil-based gasoline and diesel, potentially lowering the amount of crude oil imported from other nations. The global biofuels market is expected to reach growth at 7.3% CAGR. Increasing demand for biofuels as automobile fuel owing to their environment friendly characteristic to mitigate greenhouse gas emission is expected to propel industry growth.

The global ethanol fuel market is expected to reach growing at a CAGR of 6.7%. The demand for the product is driven by growing usage of the product as a biofuel. The bioenergy market is expected to register a CAGR of over 6% during the forecast period. Bioenergy is one of the renewable energy sources globally. Increasing demand for energy, advancements in bioenergy conversion technologies, and increasing investment in bioenergy, and declining electricity generation costs from bioenergy facilities are expected to drive the market during the forecast period.

The book covers a wide range of topics connected to Biofuel, Ethanol and Bioenergy Based Products, as well as their manufacturing processes. It also includes contact information for machinery suppliers, as well as images of equipment and plant layout.

A complete guide on Biofuel, Ethanol and Bioenergy Based Products manufacture and entrepreneurship. This book serves as a one-stop shop for everything you need to know about the Biofuel, Ethanol and Bioenergy Based Products manufacturing industry, which is ripe with opportunity for manufacturers, merchants, and entrepreneurs. This is the only book that covers commercial Biofuel, Ethanol and Bioenergy Based Products in depth. From concept through equipment procurement, it is a veritable feast of how-to information.

₹ 1,875/- US\$ 150 -



## Bioplastics & Biodegradable Products Manufacturing Handbook

(Bioplastic Carry Bags, Bio-PET, Bio Plastic Drinking Straws, Corn and Rice Starch-Based Bio-Plastics, Food Packaging Applications, Cassava Bags, Biodegradable Tableware, Biodegradable Plates, Biodegradable Toilet Paper, Starch Based Biodegradable Plastics, Polylactic Acid (PLA))

**B**ioplastic is simply plastic that is created from a plant or other biological source rather than petroleum. It can be created by extracting sugar from plants like corn and sugarcane and converting it into polylactic acids (PLAs), or it can be made from microorganism-engineered polyhydroxyalkanoates (PHAs). Bioplastics are plastics made from renewable biomass sources such vegetable fats and oils, corn starch, straw, woodchips, sawdust, and recovered food waste, among others. Common plastics, such as fossil-fuel plastics (also known as petro-based polymers), on the other hand, are made from petroleum or natural gas.

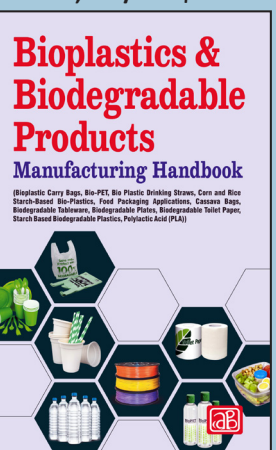
Biodegradable Products Manufacturing (Bio-Products) are all types of natural and artificial products that can be easily decomposed without causing any damage to the environment. The significant examples of Biodegradable Products are Biodegradable Plastic, Biodegradable Airline Meals, Bio-degradable Toilet Paper, Biodegradable Cups etc. It has become the need of the hour to use these products as most of the goods like Plastics take many years to decompose in nature and this affects the environment adversely with time.

The worldwide bioplastics market is predicted to increase at a CAGR of 17.1 percent over the next five years. The packaging industry's rising product demand will propel the market even higher.

The book covers a wide range of topics connected to bioplastics and biodegradable products, as well as their manufacturing processes. It also includes contact information for machinery suppliers, as well as images of equipment and plant layout.

A comprehensive reference to manufacturing and entrepreneurship in the bioplastics and biodegradable products business. This book is a one-stop shop for everything you need to know about the bioplastics and biodegradable products manufacturing industry, which is ripe with potential for manufacturers, merchants, and entrepreneurs. This is the only comprehensive guide to commercial bioplastics and biodegradable products manufacture. It provides a feast of how-to knowledge, from concept through equipment purchase.

₹ 1,875/- US\$ 150 -



The chloromethane industry presents a lucrative opportunity for startups and entrepreneurs looking to venture into the chemical manufacturing sector. Chloromethane and its derivatives, including Methyl Chloride, Methylene Chloride, Carbon Tetrachloride, and Chloroform, are essential in various industrial applications. Their growing demand across diverse sectors makes this business a promising investment opportunity. This overview delves into why startups should consider this venture, providing insights into market trends, export potential, and manufacturing details.

#### Chloromethane and Its Derivatives

Chloromethane (CH<sub>3</sub>Cl) is a colorless, flammable gas primarily used as a chemical intermediate. Its derivatives are indispensable in the pharmaceutical, agrochemical, refrigeration, and industrial cleaning sectors.

##### 1. Methyl Chloride

- Used in the production of silicones, agrochemicals, and pharmaceuticals.
- Acts as a methylating agent in organic synthesis.

##### 2. Methylene Chloride (Dichloromethane)

- Widely used as a solvent in paint removers, adhesives, and cleaning applications.
- Essential in the food industry for caffeine extraction.

##### 3. Carbon Tetrachloride

- Historically used in fire extinguishers and refrigeration.
- Currently utilized in the production of refrigerants and chlorofluorocarbons.

##### 4. Chloroform

- Serves as a precursor in the production of refrigerants.
- Plays a role in organic synthesis and the pharmaceutical industry.

#### Market Overview and Trends

The chloromethane market is experiencing

## Chloromethane and Its Derived Products: A Promising Business Opportunity for Startups and Entrepreneurs

steady growth, driven by increasing applications in key industries. According to recent market analyses:

- **Global Market Size:** The chloromethane market was valued at over \$4 billion in 2023 and is projected to grow at a CAGR of 5% through 2030.
- **Demand Drivers:** Rapid industrialization, technological advancements in chemical synthesis, and expanding pharmaceutical and agrochemical industries.
- **Regional Trends:** Asia-Pacific dominates the market due to significant production and consumption in countries like India and China.

Export opportunities are abundant, especially for Methyl Chloride and Methylene Chloride, which are in high demand in Europe and North America for their applications in pharmaceuticals and refrigerants.

#### Why Entrepreneurs Should Invest in Chloromethane Manufacturing

1. **Diverse Applications:** The versatility of chloromethane derivatives ensures a steady demand across multiple industries, minimizing risks associated with market fluctuations.
2. **Growing Market:** The global push for advanced manufacturing processes and eco-friendly refrigerants increases the relevance of chloromethane-based products.
3. **Export Potential:** High demand in developed markets for quality chemical products creates excellent export opportunities.
4. **Readily Available Raw Materials:** Chloromethane production relies on accessible raw materials like methanol and hydrogen chloride, ensuring cost-effective operations.

**5. Government Support:** Many countries, including India, offer incentives for chemical manufacturing under initiatives like "Make in India."

#### Market Size and Export Potential

- **Methyl Chloride:** High demand in the production of silicones and pharmaceuticals, with significant export potential to the US and Europe.

- **Methylene Chloride:** Dominates the solvent market due to its efficacy and is widely exported for industrial and food-grade applications.
- **Carbon Tetrachloride:** Limited domestic use but high export value as a raw material for fluorocarbon manufacturing.
- **Chloroform:** Steady demand in pharmaceutical synthesis, particularly for anesthetics.

#### Conclusion

The chloromethane industry represents a compelling business opportunity for startups and entrepreneurs, given its diverse applications, growing market demand, and strong export potential. With readily available raw materials and scalable production processes, this venture offers a high return on investment. By entering this industry, entrepreneurs can leverage its robust market dynamics and contribute to the growth of critical sectors like pharmaceuticals, agrochemicals, and refrigeration.

#### PROJECT COST ESTIMATE

##### CAPACITY:

<b>Methyl Chloride</b>	: 2837 MT Per Annum
<b>Methylene Chloride</b>	: 7674 MT Per Annum
<b>Chloroform</b>	: 2619 MT Per Annum
<b>Carbon Tetrachloride</b>	: 290 MT Per Annum
<b>Excess HCl (by Product)</b>	: 154 MT Per Annum
<b>Plant &amp; Machinery</b>	: ₹ 56 Cr.
<b>Cost of Project</b>	: ₹ 77 Cr.
<b>Rate of Return</b>	: 25%
<b>Break Even Point</b>	: 58%

## Set up NPK Complex Organic Fertilizer Plant

able land, Indian farmers are aggressively adopting fertilisers to enhance their production. Furthermore, the Indian government is pursuing measures and offering subsidies through KrishiVigyan Kendra (KVKs) to create high-quality seeds and cluster frontline demonstrations, which is driving up demand for fertilisers. The National Food Security Mission (NFSM), for example, is boosting food productivity through a number of projects.

They also reduce the need for fertiliser imports, making it easier for India to create its own. Furthermore, governments are assisting farmers through a range of schemes and the introduction of new technology to manufacture better fertilisers at reduced prices, which is positively boosting market growth. During the following five years, the market is expected to grow at a CAGR of 4.8 percent (2022-2027).

Fertilizers are soil additions that help plants develop more quickly. Nitrogen, phosphorous, and potassium are the most common nutrients in fertilisers, with other elements being added in smaller amounts. In terms of weight, macronutrients such as nitrogen (N), phosphorus (P), and potassium (K) are the most significant nutrients for plants (i.e. NP-K).

India's principal agricultural products include pulses, wheat, rice, peanuts, potatoes, and onions. As a result of the country's ongoing population growth and rising need for food crops, the demand for fertilisers has increased. As a result of expanding urbanisation and diminishing ar-

#### PROJECT COST ESTIMATE CAPACITY

<b>Capacity</b>	: 12 MT Per Day
<b>Plant &amp; Machinery</b>	: ₹ 114 Lakhs
<b>Cost of Project</b>	: ₹ 417 Lakhs
<b>Rate of Return</b>	: 25%
<b>Break Even Point</b>	: 53%

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**E**poxy resins have emerged as a versatile and high-demand product in various industries, ranging from construction and automotive to electronics and aerospace. For entrepreneurs and startups, venturing into epoxy resin manufacturing presents a lucrative opportunity due to its growing market, diverse applications, and high profitability.

#### Why Choose Epoxy Resin Manufacturing as a Business?

##### 1. High Demand Across Industries:

Epoxy resins are essential in multiple sectors due to their exceptional properties such as strong adhesion, chemical resistance, and durability. Industries like construction use epoxy resins for flooring and coatings, while electronics rely on them for encapsulating components. The automotive and aerospace industries value epoxy for its lightweight, strong bonding ability, and heat resistance.

##### 2. Market Size and Growth Potential:

The global epoxy resin market was valued at approximately \$9 billion in 2023 and is projected to grow at a CAGR of 6% through 2030. The Asia-Pacific region, particularly India and China, is experiencing a surge in demand due to rapid industrialization and infrastructure development, making it an ideal location for setting up manufacturing facilities.

##### 3. Export Potential:

Epoxy resins are extensively exported to markets in North America, Europe, and the Middle East. Entrepreneurs can leverage India's cost-effective production capabilities and strategic geographical location to become competitive players in the global market.

##### 4. Diverse Applications Drive Stability:

Epoxy resins cater to various end-use industries, reducing the risk of dependence on a single market. With applications ranging from wind turbine blades in renewable energy to adhesives in packaging, the demand remains steady even in fluctuating economic conditions.

## Epoxy Resins: A Promising Business Opportunity for Startups and Entrepreneurs

#### Market Trends and Analysis

##### 1. Sustainability and Innovation:

The epoxy resin industry is evolving toward greener and bio-based alternatives, driven by increasing environmental concerns. Entrepreneurs investing in R&D for sustainable products can gain a competitive edge.

##### 2. Infrastructure Boom:

Developing nations are witnessing significant infrastructure growth, with epoxy resin-based products becoming a staple in flooring, coatings, and structural composites.

##### 3. Rising Demand for Lightweight Materials:

Automotive and aerospace industries are focusing on lightweight materials to enhance fuel efficiency and performance, further driving the demand for epoxy resins.

##### 4. Electronics Revolution:

With the advent of IoT, 5G technology, and miniaturized electronics, epoxy resins are increasingly used for potting, encapsulation, and printed circuit boards (PCBs).

#### Reasons to Invest in the Epoxy Resin Industry

##### 1. Profit Margins:

The manufacturing cost of epoxy resin is relatively

low compared to its market price, offering high-profit margins for manufacturers.

##### 2. Scalability:

Entrepreneurs can start small and scale operations as demand grows, making it a flexible investment option.

##### 3. Supportive Policies:

Government incentives for MSMEs (Micro, Small, and Medium Enterprises) in manufacturing, as well as export promotion schemes, make this business viable in India.

##### 4. Low Risk of Obsolescence:

Epoxy resins have been a mainstay in various industries for decades, and their demand is expected to remain stable or grow in the foreseeable future.

#### Market Overview and Export Opportunities

India's epoxy resin industry is poised for growth due to rising construction activities, expanding electronics manufacturing, and increasing investments in renewable energy. Export opportunities to developed markets further enhance its attractiveness as a business.

Governments worldwide are pushing for lightweight materials in automotive and renewable sectors, aligning perfectly with epoxy resin applications. Entrepreneurs can capitalize on these trends by producing high-quality, innovative products to capture a significant market share.

#### Conclusion

Investing in epoxy resin manufacturing offers a combination of high demand, diverse applications, and global market potential. For startups and entrepreneurs, this industry not only promises substantial returns on investment but also provides an opportunity to contribute to essential sectors like infrastructure, electronics, and sustainability. With strategic planning and a focus on innovation, epoxy resin manufacturing can be a cornerstone for entrepreneurial success.

#### PROJECT COST ESTIMATE

##### CAPACITY

Epoxy Resin (Liquid) :	4 MT Per Day
Plant & Machinery :	₹ 181 Lakhs
Cost of Project :	₹ 550 Lakhs
Rate of Return :	29%
Break Even Point :	49%

## Moringa Leaf Powder Production Business

**M**oringa tree is also known as the 'miracle tree'. The leaves, fruit, sap, oil, roots, bark, seeds, pod and flowers of the tree have medicinal properties. The products from the tree have many uses. It is also known as the 'drumstick tree'. It is found mostly in Asia, Africa, and South America.

#### Uses and Applications

Moringa powder is also used for treating various other diseases, from

malaria and typhoid fever to hypertension and diabetes. Its broad variety of compounds are thought responsible for its beneficial effects. The thickened root of the plant has been used as horseradish in the past. They are used as the greens in salads and also as pickles for seasoning.

#### Indian Market

The tree also has agricultural importance due to its drought tolerance and pest-repelling properties. Additionally, the growing demand for organic products, improving knowledge about health and fitness, and increased demand for natural pesticides are anticipated to contribute to the market growth.

#### PROJECT COST ESTIMATE

##### CAPACITY

Moringa Leaf Powder :	1,000 Kg Per Day
Plant & Machinery :	₹ 55 Lakhs
Cost of Project :	₹ 189 Lakhs
Rate of Return :	29%
Break Even Point :	59%

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**D**i-Calcium Phosphate (DCP) is a vital ingredient used extensively in the pharmaceutical, animal feed, and fertilizer industries. It is a calcium supplement in animal nutrition and an essential component in various industrial applications. For startups and entrepreneurs, investing in a DCP manufacturing business can be a lucrative venture, offering sustainable growth and significant market potential.

#### Why Startups Should Consider This Business

- 1. High Demand Across Industries:** The increasing demand for nutritional supplements in the livestock industry, coupled with the growing agricultural sector, makes DCP a sought-after product. Its application as a dietary supplement in food-grade products further amplifies its market appeal.
- 2. Versatile Applications:** DCP is widely used in:
  - **Animal Feed Industry:** As a rich source of calcium and phosphorus, it promotes healthy growth and development in livestock.
  - **Fertilizers:** Enhances soil fertility and supports crop growth.
  - **Pharmaceutical Industry:** Used as an excipient in tablets.
  - **Food Industry:** Acts as a nutritional additive in various food products.
- 3. Export Potential:** With a rising global demand for animal feed and fertilizers, countries such as the United States, China, Brazil, and European nations are major importers of DCP. This provides an excellent opportunity for Indian entrepreneurs to tap into the export market.
- 4. Government Support:** Policies encouraging the agricultural and animal husbandry sectors, as well as subsidies on raw materials, provide a favorable business environment for DCP manufacturing.

## Di-Calcium Phosphate: A Promising Business Opportunity for Startups and Entrepreneurs

#### PROJECT COST ESTIMATE

##### CAPACITY:

*Di-Calcium Phosphate (Powder)* : 25 MT Per Day

*Calcium Chloride (Flakes)* : 34 MT Per Day

*Hydrofluoric Acid (Liquid)* : 2.5 MT Per Day

**Plant & Machinery** : ₹ 15 Cr.

**Cost of Project** : ₹ 28 Cr.

**Rate of Return** : 29%

**Break Even Point** : 38%

#### Market Overview and Trends

The global Di-Calcium Phosphate market is projected to grow at a CAGR of 5-6% over the next decade. The animal feed segment dominates the market, contributing to more than 50% of the total consumption.

In India, the demand for DCP is fueled by the following factors:

- **Growth in Livestock Farming:** India's livestock sector is growing rapidly, with increasing awareness about animal health and nutrition.

- **Agricultural Expansion:** Farmers are adopting advanced fertilizers to improve crop yield.

- **Health-Conscious Population:** Rising awareness about nutritional supplements in human diets further supports the demand for food-grade DCP.

India's strong manufacturing base and cost-effective production capabilities make it a key player in the global market. Startups focusing on quality and compliance with international standards can achieve remarkable success.

#### Reasons to Invest in DCP Manufacturing

- 1. Sustainable Market Growth:** The consistent demand across industries ensures stable revenue streams.
- 2. High Profit Margins:** Low production costs and high market prices result in attractive profit margins.
- 3. Scalability:** The business can easily scale with additional investments in machinery and technology.
- 4. Export Opportunities:** The global shortage of high-quality DCP opens up lucrative export avenues.

#### Conclusion

Investing in a Di-Calcium Phosphate manufacturing business offers startups and entrepreneurs an excellent opportunity to tap into a growing and diversified market. With its widespread applications, increasing global demand, and high-profit margins, DCP is a reliable and sustainable business idea. By leveraging India's competitive manufacturing advantage and adhering to quality standards, entrepreneurs can capture both domestic and international markets, ensuring long-term success and profitability.

## Recycling of Lithium Ion Battery Business

**B**ecause of the popularity of smart phones and tablets, the demand for lithium ion batteries has surged substantially in recent years. Because these devices include hazardous materials that must be properly disposed of to avoid contamination of the environment, recycling these batteries is now more crucial than ever.

Lithium-ion batteries are becoming more prevalent. They're already used in cell phones, laptops, consumer electronics, and some industrial applications. Telecom towers, solar storage systems, and electric vehicles are all using them. Battery specialists and environmentalists agree that lithium-ion batteries should be recycled for a variety of reasons.

According to estimates, India's yearly lithium-ion battery industry would expand at a 37.5 percent compound annual growth rate (CAGR) from now until 2030, when it will reach 132 GWh. The global lithium-ion battery market will have risen from 2.9 gigawatt-hours in 2018 to around 800 gigawatt-hours by 2030.

#### PROJECT COST ESTIMATE

##### CAPACITY :

*Copper* : 1.4 MT Per Day

*Aluminium* : 0.8 MT Per Day

*Graphite* : 1.8 MT Per Day

*Carbon Black* : 0.3 MT Per Day

*Lithium Cobalt Oxide* : 2.5 MT Per Day

*Plastic* : 0.2 MT Per Day

**Plant & Machinery** : ₹ 200 Lakhs

**Cost of Project** : ₹ 422 Lakhs

**Rate of Return** : 27%

**Break Even Point** : 55%

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**S**ulfamic acid, a versatile chemical compound with a wide range of applications, is gaining attention in the industrial sector. For startups and entrepreneurs, investing in the manufacturing of sulfamic acid offers immense potential due to its diverse applications, growing demand, and export opportunities. This detailed exploration highlights why entering this market is a smart decision, outlining the market size, trends, export potential, manufacturing process, and necessary machinery.

#### Why Choose Sulfamic Acid Manufacturing?

##### 1. Broad Applications

Sulfamic acid serves multiple industries, including water treatment, textiles, paper, pharmaceuticals, and food processing. It is commonly used as a descaling agent, cleaner, herbicide, and chemical intermediate, making it indispensable in industrial operations.

##### 2. Growing Market Demand

With increasing awareness of environmental sustainability and the need for efficient cleaning agents, sulfamic acid's demand is on the rise. Its applications in water treatment and descaling align well with industries aiming to optimize resources.

##### 3. Export Potential

Globally, the sulfamic acid market is expanding, particularly in regions like North America, Europe, and Asia-Pacific. Countries such as China and India are significant producers and exporters, but the demand in developed economies offers a chance for new entrants to carve their niche.

##### 4. Favorable ROI

The relatively low initial capital investment and high margin potential make sulfamic acid manufacturing a profitable business. Entrepreneurs can achieve substantial returns with proper planning, market research, and

## Exploring the Sulfamic Acid Manufacturing Business: A Lucrative Opportunity for Startups

quality assurance.

#### Market Overview

##### 1. Market Size and Share

The global sulfamic acid market was valued at approximately USD 400 million in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 4-5% through 2030. This growth is driven by increasing applications in water treatment and the pharmaceutical sector.

##### 2. Trends and Analysis

- Rising environmental concerns are encouraging industries to use eco-friendly descaling agents like sulfamic acid.
- The pharmaceutical industry's growth is boosting the demand for sulfamic acid as a raw material.
- Increasing urbanization and industrialization in developing countries are driving the market further.

##### 3. Competitive Edge

Startups can gain a competitive advantage by offering high-purity sulfamic acid tailored for

specific applications. Building partnerships with industries requiring large-scale chemical supplies ensures consistent revenue streams.

#### Export Potential

The export potential of sulfamic acid lies in countries with stringent

industrial standards and growing industrialization. Markets in Europe and the Americas are prime targets due to their reliance on effective cleaning agents and descalers. With efficient logistics and compliance with international quality standards, entrepreneurs can successfully tap into these markets.

#### Benefits for Startups and Entrepreneurs

##### 1. Sustainability

Sulfamic acid manufacturing aligns with the global focus on sustainability and efficient resource utilization.

##### 2. Scalability

The business can start small and scale up with increasing demand and market penetration.

##### 3. Market Diversity

Catering to multiple industries ensures a steady revenue flow and reduced business risk.

##### 4. Export Opportunities

By adhering to international standards, startups can gain access to lucrative export markets.

#### Conclusion

The sulfamic acid manufacturing industry presents a promising avenue for startups and entrepreneurs. Its growing demand, broad applications, and profitable market dynamics make it an ideal choice for investment. With strategic planning, efficient manufacturing processes, and a focus on quality, entrepreneurs can establish a strong foothold in this expanding market. Investing in sulfamic acid manufacturing is not just a business decision but a step toward capitalizing on a high-growth industrial segment.

#### PROJECT COST ESTIMATE

##### CAPACITY :

<b>Sulphamic Acid Powder</b>	<b>: 20 MT Per Day</b>
<b>Sulphuric Acid (70%)</b>	<b>: 57.8 MT Per Day</b>
<b>-By Product</b>	
<b>CO2 Gas-By Product</b>	<b>: 2.7 MT Per Day</b>
<b>Plant &amp; Machinery</b>	<b>: ₹ 8 Cr.</b>
<b>Cost of Project</b>	<b>: ₹ 16 Cr.</b>
<b>Rate of Return</b>	<b>: 28%</b>
<b>Break Even Point</b>	<b>: 45%</b>

## Set up Mini Steel Plant (Billets and TMT Bar)

bar stock, and to create custom shapes from sheet metal. These products have a wide range of applications including: Construction, Manufacturing, and Automotive.

#### Indian Market

The global steel market size is expected to reach USD 1.01 trillion by 2025, at a registering a CAGR of 2.6% over the forecast period. Growing inclination of contractors towards sustainable, low cost and durable building materials is driving steel demand in upcoming residential projects & industrial infrastructure.

**A** mini steel plant is a smaller version of an integrated steel mill, which produces and processes iron and steel. The mini steel plant is a new concept in the steel industry, and has been gaining popularity in recent years due to its lower investment costs and flexibility.

#### Uses and Applications

Some of the most common uses include: cutting rebar, angle iron, square tubing, pipe, and flat stock; as well as punching holes in steel plate. The mini steel plant can also be used to shear plate and

#### PROJECT COST ESTIMATE

##### CAPACITY :

<b>Steel Billets</b>	<b>: 150 MT Per Day</b>
<b>(Size 100mm x 100mm to 180mm x 180 mm Sections of Max. 6 meter length)</b>	
<b>TMT Steel Bars (Rebar)</b>	<b>: 150 MT Per Day</b>
<b>(Size DB 8 to 40 mm)</b>	
<b>Plant &amp; Machinery</b>	<b>: ₹ 5445 Lakhs</b>
<b>Cost of Project</b>	<b>: ₹ 10417 Lakhs</b>
<b>Rate of Return</b>	<b>: 28%</b>
<b>Break Even Point</b>	<b>: 37%</b>

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**T**he manufacturing of viscose filament yarn (VFY) through the spool process presents a lucrative opportunity for startups and entrepreneurs. This sector has witnessed significant growth owing to its extensive applications in textiles, fashion, and industrial materials. With a focus on sustainability and growing global demand, investing in this manufacturing industry can yield substantial rewards. Here's why this business idea is ideal for startups and entrepreneurs, along with insights into market size, trends, export potential, and the manufacturing process.

#### What is Viscose Filament Yarn?

Viscose filament yarn, also known as rayon filament yarn, is a versatile textile material made from regenerated cellulose. It is highly sought after for its silk-like texture, sheen, and excellent drape properties. It is used in weaving and knitting for producing premium fabrics for fashion wear, home textiles, and industrial applications.

#### Why Startups Should Consider Investing in VFY Manufacturing?

##### 1. Growing Global Demand

The global viscose filament yarn market is expanding rapidly, driven by its extensive application in textiles and industrial sectors. According to industry reports, the market is projected to grow at a CAGR of 6%-7% over the next decade. This growth is fueled by increasing consumer preference for sustainable and eco-friendly materials.

##### 2. Eco-Friendly and Sustainable

Viscose filament yarn is biodegradable and derived from natural cellulose, making it a preferred alternative to synthetic fibers like polyester and nylon. With heightened awareness of sustainability, businesses adopting eco-

## Viscose Filament Yarn Spinning by Spool Process: A Promising Business Opportunity for Startups and Entrepreneurs

friendly production processes can tap into the premium segment of the market.

##### 3. Export Potential

India is a significant player in the global viscose filament yarn market, with growing export opportunities. Major importing countries include the United States, Germany, the UK, and Middle Eastern nations. The global trade flow highlights increasing demand, providing startups with ample opportunity to capitalize on exports.

##### 4. Profit Margins and Value Addition

The viscose filament yarn industry offers substantial profit margins, especially in the premium segment. Additionally, startups can explore vertical integration opportunities, such as producing value-added products like blended yarns or fabrics.

##### 5. Supportive Policies

Government initiatives like "Make in India" and various textile industry subsidies encourage investments in this sector. Startups can also avail themselves of low-interest loans, export incentives, and technical assistance to establish and scale their operations.

#### Market Overview and Trends

The viscose filament yarn market is characterized by the following key trends:

- **Increased Use in Fashion:** Growing demand for high-quality and luxurious textiles is driving the adoption of VFY in fashion and apparel.

- **Rising Industrial Applications:** VFY is gaining traction in industrial applications, including tire cords, hoses, and industrial belts, due to its strength and durability.

#### Shift Towards Bio-Based Alternatives:

Increasing emphasis on sustainability is leading to higher adoption of bio-based viscose yarns.

#### Technological

**Advancements:** Innovations in spinning and dyeing techniques are improving the quality and production efficiency of VFY.

#### Opportunities for Entrepreneurs

Viscose filament yarn manufacturing combines profitability with sustainability, offering startups a chance to enter a growing market. With applications across textiles, fashion, and industrial materials, this business has a broad customer base. Entrepreneurs can benefit from competitive advantages such as India's low production costs, skilled workforce, and strong export networks.

By choosing this sector, entrepreneurs can contribute to sustainable development while building a profitable business. With careful planning and the adoption of advanced manufacturing techniques, startups can position themselves as key players in the viscose filament yarn market.

#### PROJECT COST ESTIMATE

##### CAPACITY :

Viscose Filament Yarn-30D	: 2 MT Per Day
Viscose Filament Yarn-40D	: 2 MT Per Day
Viscose Filament Yarn-50D	: 11 MT Per Day
Viscose Filament Yarn-60D	: 28 MT Per Day
Viscose Filament Yarn-75D	: 6 MT Per Day
Viscose Filament Yarn-100D	: 2 MT Per Day
Viscose Filament Yarn-D120	: 20 MT Per Day
Plant & Machinery	: ₹ 279 Crore
Cost of Project	: ₹ 465 Crore
Rate of Return	: 30%
Break Even Point	: 39%

## Lucrative Business of Steel Containers (Cargo Containers)

**C**ontainerized shipping has changed the way that goods and materials are transported, but it can also take a while to learn how it all works. Cargo containers are the most efficient form of transportation when it comes to moving bulk loads over long distances. These sturdy metal boxes may

look like something out of Star Wars, but they're actually an economical and environment-friendly way to ship goods across the globe, especially when compared to transporting by road or air freight services.

The cargo container industry produces a lot of intermodal containers each and every year. They are used to transport goods all over the world. About 180 million container loads crisscross the oceans each year in about 5000 container ships. International shipping of containerized commodities is indispensable for global trading firms to thrive in the increasingly

competitive economic environment.

The global Shipping Containers Market was accounted for US\$ 10,350.1 Mn in terms of value and 306,324 Thousand Units in 2019 and is expected to grow at CAGR of 5.9% for the period 2020-2027. Increasing speed, reliability, and safety of containerization have compelled companies to opt for containers to ship their goods.

#### PROJECT COST ESTIMATE

##### CAPACITY

Cargo Containers (Size 20 Feet)	: 34 Nos Per Day
Plant & Machinery	: ₹ 3.21 Cr
Cost of Project	: ₹ 18.13 Cr
Rate of Return	: 28%
Break Even Point	: 52%

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

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# Automated Vehicle Scrapping Unit with Recycling of Steel and Aluminium: A Profitable Business Opportunity for Entrepreneurs

**T**he rise of sustainability and environmental consciousness has opened the doors for innovative businesses that promote eco-friendly practices. One such venture is establishing an automated vehicle scrapping unit that also facilitates the recycling of steel and aluminium. This business aligns with global sustainability goals and is poised for significant growth due to increasing demand for recycling and the government-mandated phasing out of old vehicles. For startups and entrepreneurs, investing in this industry offers immense potential in terms of profitability, scalability, and environmental impact.

## Why Startups Should Choose this Business Idea

### 1. Environmental Necessity

With the growing number of outdated and polluting vehicles, governments worldwide are enforcing stricter vehicle scrappage policies. Recycling not only addresses the issue of waste management but also contributes to reducing environmental degradation by minimizing the need for mining virgin raw materials.

### 2. Market Demand

The global automotive recycling market is growing at a compound annual growth rate (CAGR) of 7%. India alone generates millions of end-of-life vehicles (ELVs) annually, creating a steady supply of raw materials for recycling. The demand for recycled steel and aluminium is also increasing due to their extensive use in automotive, construction, and manufacturing industries.

### 3. Government Support

In India, the government has introduced policies to promote vehicle scrappage and recycling. Incentives like tax benefits, subsidies, and reduced GST on recycled products further make this industry lucrative for new entrants.

### 4. Export Potential

Recycled steel and aluminium are in high demand globally. Entrepreneurs can explore export opportunities, as countries like China, the US, and European nations are major importers of recycled metals. This adds a layer of revenue diversification and increases the profitability of the business.

### 5. Circular Economy Alignment

The business aligns with the principles of a circular economy, promoting sustainable development and resource efficiency. Companies adopting these practices gain goodwill, making them more attractive to investors and stakeholders.

### Market Size, Share, and Trends

The global vehicle recycling market is projected to reach USD 100 billion by 2030, driven by stringent environmental regulations and the increasing adoption of electric vehicles (EVs). In India, the vehicle scrappage market is expected to grow significantly with the implementation of the Vehicle Scrappage Policy.

Steel accounts for approximately 75% of a vehicle's weight, while aluminium comprises about 10%. Both materials have high recyclability rates, making them valuable in this industry. Trends such as automation in recycling facilities and the use of artificial intelligence (AI) for sorting materials are reshaping the sector, improving efficiency and output quality.

## Market Overview and Investment Insights

### 1. Growing Automotive Industry

The booming automotive industry ensures a continuous supply of end-of-life vehicles and demand for recycled materials.

### 2. Profit Margins

Recycled steel and aluminium are cost-effective alternatives to virgin materials, offering high profit margins for entrepreneurs.

### 3. Technology-Driven Efficiency

The adoption of advanced technologies like AI and robotics reduces operational costs and maximizes output.

### 4. Sustainability and Branding

Entrepreneurs entering this market can capitalize on the sustainability narrative to attract eco-conscious customers and investors.

## Conclusion

An automated vehicle scrapping unit with steel and aluminium recycling is a forward-thinking business idea that combines profitability with environmental stewardship. Startups and entrepreneurs investing in this industry can leverage its market potential, government incentives, and export opportunities to establish a thriving enterprise. By adopting advanced technology and efficient processes, this business not only ensures long-term profitability but also contributes to a greener future.

## PROJECT COST ESTIMATE

<b>CAPACITY :</b>	
<b>Spare Parts</b>	: 200 Units Per Day
<b>Waste Oil</b>	: 275 Units Per Day
<b>Waste Tyre</b>	: 500 Units Per Day
<b>Engines</b>	: 30 Units Per Day
<b>Rubber Scrap</b>	: 100 Units Per Day
<b>Alloy Wheel</b>	: 200 Units Per Day
<b>Battery</b>	: 50 Units Per Day
<b>Steel Ingot</b>	: 37,000 Units Per Day
<b>Aluminium Ingot</b>	: 6,000 Units Per Day
<b>Plant &amp; Machinery</b>	: ₹ 15.25 Cr.
<b>Cost of Project</b>	: ₹ 81 Cr.
<b>Rate of Return</b>	: 30%
<b>Break Even Point</b>	: 35%

## Sugarcane Juice Preservation and Bottling Plant

**S**ugarcane juice is quite nutritious as it contains natural sugars, minerals like iron, magnesium, phosphorus, calcium and organic acids e.g. malic acid, succinic acid, acotinic acid etc. Preservation is done when Juice or food is kept for longer period without any deteriorated or spoils the juice by the direct contact with atmosphere. Sugarcane juice is excellent in treating urinary related diseases. It keeps the urine

flow clear and aids the kidneys to perform better. Sugarcane juice relieves the burning sensation which arises due to infections of the urinary tract. The sugar cane juice provides the glucose, which is stored, as glycogen to be 'burned' by muscles when required. Sugar Industry contributes about 2500 crore rupees as tax to both central and state governments. The industry size in terms of capital is more than Rs. 40,000 crore. Almost 50 million people depend on sugar industry for their livelihood. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensure a high quality product.

## PROJECT COST ESTIMATE

### CAPACITY

<b>Capacity</b>	: 48, 00,000 Ltrs./Annum
<b>Plant &amp; Machinery</b>	: ₹ 106 Lakhs
<b>Cost of Project</b>	: ₹ 467 Lakhs
<b>Rate of Return</b>	: 28%
<b>Break Even Point</b>	: 54%

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

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**Start Investing in Fastest Growing Industries**

**P**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.

**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,

**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 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.

**PROJECT COST ESTIMATE**

<b>CAPACITY :</b>	
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 : 2,500 Packs Per Day	
(Without Sugar) 16g Pack	
Premix Coffee : 1,818 Packs Per Day	
(With Vanilla for Diabetic) 22g Pack	
Plant & Machinery	: ₹ 13 Lakhs
Cost of Project	: ₹ 119 Lakhs
Rate of Return	: 35 %
Break Even Point	: 49 %

**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

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**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 and Machineries.

**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 Detailed Process of Manufacture, Flow Sheet Diagram.

**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, plants 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.

## Profitable Business Ideas with 3 - 3.5 Crore Machinery Investment: Project Profiles for Entrepreneurs and Startups



- » Activated Carbon from Coconut Shell
- » Lithium Ion Battery (Lifepo4) Production
- » Active Pharma Ingredients (API) (Cephalexin, Ampicillin Trihydrate, Ibuprofen and Paracetamol)
- » Aluminium Extrusion Plant
- » Aluminium Foil
- » Aluminium Rolling Mill
- » Aluminium Wire & Cables
- » Aluminum Ingots from Aluminum Scrap with Dross Processing
- » Artificial Sand from Stones and Waste Metals
- » Beer Plant



- » Bicycle and Cycle Rickshaw Manufacturing
- » Bicycle Manufacturing
- » Automated Vehicle Scrapping and Recycling Unit
- » Caffeine from Tea Waste
- » Calcium Propionate
- » Cement Plant
- » Chocolate, Toffee and Candy Industry
- » Commercial Vehicles Dealership -Sale of Commercial Vehicles -Spares -Servicing
- » Copper Powder By Electrolytic Process
- » Disposable Nitrile Gloves (Nitrile Examination Hand Gloves)



- » Disposable Plastic Syringes
- » Disposable Surgical Face Mask & N95 Masks
- » Ductile Iron Pipe Fittings
- » Extraction of Cashew Nut Shell Oil and Cardanol
- » Functional Food Based Bakery Products (Bread, Cookies and Biscuits)
- » Geotextiles for Road and Construction
- » Geotextiles for Road Construction
- » Good Future Prospects for TMT Bars
- » Green Peas Processing & Preservation
- » Green Peas Processing and Preservation Using IQF Technology



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

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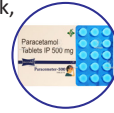
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# SELECTED BUSINESS IDEAS FOR RIGHT INVESTMENT

- » Groundnut Oil
- » Gypsum Plaster Board
- » Hospital 30 Bedded
- » Industrial Park
- » Lithium Ion Battery (Battery Assembly)
- » LPG Cylinders
- » Mahua Oil & Country Liquor
- » Cellulosic Cellophane Film
- » Activated Carbon from Rice Husk, Saw Dust & Coconut Shell
- » Steel Shipping Container (Cargo Container)
- » Monochloro Acetic Acid
- » Oxygen and Nitrogen Gas Plant



- » Packaged Drinking Water with Pet Bottles
- » Paracetamol
- » Paraffin Wax
- » PCC Electric Poles
- » Plain Corn Flakes & Coated Choco Flakes
- » Plastic Injection Mould
- » Auto Piston
- » Paracetamol (Acetaminophen)
- » Ready To Eat Food (Retort Packaging) Vegetable Pulao, Dal Makhani, Palak, Rajma, Potato Peas and Mutter Mushroom)
- » Roller Flour Mill



- » Roller Flour Mill (with Color Sorter)
- » Sanitary Napkins (Ultra Thin & Cotton Core Type)
- » UPVC and CPVC Pipes
- » Stabilized Insoluble Sulfur
- » Surgical & N95 Masks
- » Synthetic Camphor Powder
- » Tempering and Toughening of Flat Glass
- » TMT Bars (Sariya)
- » Toothpaste
- » Toughened Glass
- » Vitamin 'C' from Sorbitol
- » Welding Electrodes



## Most Growing Industries to Start a New Business

In recent years, the demand for packaged drinking water has surged dramatically, making it a highly profitable business opportunity

for startups and entrepreneurs. With increasing awareness about health and hygiene, consumers are becoming more cautious about the quality of water they consume. Packaged drinking water, known for its safety, purity, and convenience, has evolved into a necessity, especially in urban areas and places with uncertain water supply.

### Why Should Entrepreneurs Choose the Packaged Drinking Water Business?

- 1. Growing Demand:** As the global population grows, the need for clean drinking water is ever-increasing. With urbanization, the demand for packaged drinking water has reached unprecedented levels, especially in metro cities, tourist destinations, and areas with contaminated water supplies. Entrepreneurs entering this market can tap into a ready and expanding consumer base.
- 2. Health and Safety Consciousness:** With rising concerns over waterborne diseases, packaged drinking water offers a safe, trusted alternative. Brands that ensure high quality and hygiene standards are gaining consumer trust and loyalty. As people become more health-conscious, they are willing to pay a premium for water that ensures purity and safety.
- 3. Low Entry Barriers:** Setting up a packaged drinking water plant does not require significant investment in technology or infrastructure. Additionally, the raw material (water) is easily available in most regions, and the manufacturing process is straightforward. Entrepreneurs can start small and scale up as their business grows, making it an attractive option for those with limited capital but ambitious goals.
- 4. Export Potential:** Packaged drinking water has a vast potential in international markets, particularly in regions where water quality is a concern.

## Packaged Drinking Water: A Lucrative Business for Startups and Entrepreneurs

of the world, consumers are increasingly turning to bottled water as a reliable source of hydration.

Countries with water scarcity or unreliable water systems are prime markets for exporting packaged drinking water. Entrepreneurs who establish a strong local brand can also expand globally, tapping into lucrative international trade.

### Market Size, Trends, and Analysis

The global bottled water market was valued at around \$200 billion in 2023 and is projected to grow at a CAGR of 6-8% over the next decade. The growth is fueled by factors such as rising disposable incomes, an increasing focus on health, and the convenience of bottled water. Additionally, the growth of the tourism and hospitality industries is driving demand for packaged drinking water in hotels, restaurants, and tourist spots.

In India, the packaged drinking water market is expected to reach a value of ₹25,000 crore by 2025, growing at a significant pace due to urbanization, industrialization, and changing lifestyles. The demand for both premium bottled water and mass-market packaged water is increasing. With the rise of brands that promote eco-friendly packaging and sustainable practices, entrepreneurs are also encouraged to adopt innovative solutions to appeal to environmentally conscious consumers.

The market is expected to witness a shift towards more eco-friendly packaging, including biodegradable bottles and glass packaging, driven by the growing demand for sustainability. Additionally, flavored water and fortified water are emerging as key trends, offering entrepreneurs the opportunity to diversify their product offerings and capture niche markets.

### Why Invest in Packaged Drinking Water?

- 1. Stable Demand:** The demand for drinking water is constant, and packaged drinking water ensures entrepreneurs a steady cash flow. With the increasing scarcity of clean water in many parts

**2. Scalability:** The packaged drinking water business can start small with a local distribution network and gradually expand by increasing production capacity, distribution channels, and reaching larger markets. The scalability of this business model makes it an ideal investment for entrepreneurs.

**3. Brand Loyalty:** Once consumers trust a brand for its water quality, they tend to remain loyal. Brands with excellent quality assurance, packaging, and customer service can build long-term relationships with their customers. As a result, packaged drinking water businesses can enjoy a high level of customer retention and repeat sales.

### Conclusion

The packaged drinking water business offers a highly attractive opportunity for startups and entrepreneurs due to its growing market demand, scalability, and consistent need for clean drinking water. With minimal investment, a strong market base, and promising export potential, entrepreneurs can create a profitable venture in the water bottling industry. By adopting modern machinery and ensuring quality standards, startups can quickly build a loyal customer base and expand their market reach.

### PROJECT COST ESTIMATE

#### CAPACITY

Packaged Drinking Water : 50,000 Bottles Per Day (1 Ltr. Size)

Plant & Machinery	: ₹ 71 Lakhs
Cost of Project	: ₹ 283 Lakhs
Rate of Return	: 30%
Break Even Point	: 63%

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

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Mob.: +91-9097075054 • 8800733955

Website : [www.niir.org](http://www.niir.org) • [www.entrepreneurindia.co](http://www.entrepreneurindia.co) • E-mail : [info@niir.org](mailto:info@niir.org) • [npcs.india@gmail.com](mailto:npcs.india@gmail.com)



**T**he construction and cold storage industries are rapidly evolving, with increasing demand for energy-efficient and cost-effective solutions. One such solution that has gained substantial attention is the use of Polyurethane Rigid Panels (PIR panels) for cold rooms and roofing. This business presents a lucrative opportunity for startups and entrepreneurs looking to enter the manufacturing sector. In this guide, we explore why this industry is a profitable investment and provide an overview of the market, trends, machinery, and the manufacturing process.

#### Why Invest in Polyurethane Rigid Panel Manufacturing?

Polyurethane rigid panels are highly versatile and offer several advantages over traditional insulation materials. These panels are used extensively in the construction of cold storage facilities, warehouses, and for roofing applications. Here are a few reasons why startups should consider investing in this business:

#### 1. Growing Demand for Cold Storage Solutions

The food industry, pharmaceutical companies, and the logistics sector are driving the growth in cold storage demand. With global trade expanding and the need for preserving perishable goods increasing, the construction of cold rooms and cold storage units has surged. PIR panels are ideal for these applications because they provide superior thermal insulation, preventing temperature fluctuations and energy loss. This has made them the preferred choice for building cold rooms, warehouses, and temperature-sensitive storage facilities.

**2. Rising Awareness of Energy Efficiency** As energy costs continue to rise, industries and businesses are looking for energy-efficient solutions. PIR panels offer excellent insulation properties, helping to reduce energy consumption and lower operational costs. This is particularly attractive for commercial properties, industrial facilities, and homes where insulation is key to maintaining a controlled environment. The demand for these panels in roofing applications is also increasing due to their thermal performance and fire resistance.

**3. Eco-Friendly Materials** Entrepreneurs are increasingly investing in sustainable and eco-

## Polyurethane Rigid Panel for Cold Rooms and Roofing: A Lucrative Opportunity for Startups and Entrepreneurs

friendly materials as the world shifts towards greener building practices. Polyurethane panels are not only durable but also have a lower environmental impact compared to other insulating materials. Their energy-efficient nature contributes to lower carbon footprints in construction and storage industries, making them a desirable choice for eco-conscious consumers and businesses.

#### Market Overview, Size, and Trends

The global market for Polyurethane Insulation Panels is expanding at a significant rate. The increasing demand for better energy-efficient solutions, along with rapid industrialization, is driving the market growth. The cold storage segment, especially in the food and pharmaceutical industries, is witnessing the highest demand. According to market research, the polyurethane panel industry is projected to grow at a compound annual growth rate (CAGR) of 7% over the next few years.

**1. Market Size & Share** The global polyurethane panel market size was valued at approximately USD 10 billion in 2023 and is expected to surpass USD 15 billion by 2030. The cold storage segment is expected

to hold the largest market share, followed by applications in roofing and construction.

**2. Export Potential** Emerging markets such as India, Brazil, and Southeast Asian countries are witnessing rapid urbanization and industrialization, leading to a surge in construction projects. These markets present significant export potential for manufacturers of polyurethane rigid panels. As businesses in these regions grow, the demand for quality cold storage solutions and energy-efficient building materials is expected to increase, creating an avenue for exports.

#### 3. Trends

• **Modular Construction:** With the rise of modular construction techniques, PIR panels are increasingly used for quick, efficient, and customizable cold storage and roofing solutions.

• **Insulation Standards:** Governments worldwide are enforcing stricter insulation regulations, which is increasing the demand for high-performance panels such as polyurethane.

• **Sustainability:** Consumers and businesses are looking for sustainable and eco-friendly alternatives, and polyurethane panels are increasingly being recognized for their minimal environmental impact.

#### Conclusion

The polyurethane rigid panel manufacturing business is an excellent opportunity for startups and entrepreneurs looking to tap into the growing demand for energy-efficient and sustainable building materials. With increasing demand from the cold storage industry, construction sector, and a strong export potential, this industry is set for growth. By investing in this sector, entrepreneurs can not only meet the needs of the market but also contribute to environmentally friendly construction practices while achieving significant returns on investment. The combination of low startup costs, high-profit margins, and long-term demand makes this business an attractive proposition for anyone looking to establish a successful manufacturing venture.

#### PROJECT COST ESTIMATE

##### CAPACITY

Project Capacity	: 2,500 Sqm. Per Day
Plant & Machinery	: ₹ 49 Crore
Cost of Project	: ₹ 103 Crore
Rate of Return	: 33%
Break Even Point	: 32%

## Lead Production (Litharge, Refined Lead, Red Lead & Grey Lead)

**L**ead is a relatively soft metal with bluish-white lustre but on exposure to air, it becomes covered by a dull, gray layer of basic carbonate that adheres closely and protects it from further oxidation or corrosion. It is an important component of batteries, and about 75% of the world's lead production is consumed by the battery industry. Lead is also commonly used in glass and enamel.

India Lead Acid Battery Market is projected to grow at a CAGR of over 9% during 2018-24. India lead acid battery market is projected to reach \$ 7.6 billion by 2023. Anticipated growth in the market can be attributed to booming demand for automobiles, in addition to increasing focus of the government towards boosting the penetration of electric vehicles in the country. Entrepreneurs who invest in this project will be successful.

#### PROJECT COST ESTIMATE

##### CAPACITY:

Litharge	: 960 MT/Annum
Refined Lead	: 1800 MT/Annum
Red Lead	: 440 MT/Annum
Grey Lead	: 525 MT/Annum
Plant & Machinery	: ₹ 82 Lakhs
Cost of Project	: ₹ 361 Lakhs
Rate of Return	: 31%
Break Even Point	: 54%

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# Cashew Nut Processing with Flavoured Cashew: A Lucrative Business Opportunity for Entrepreneurs

**C**ashew nuts are a popular snack enjoyed across the globe, known for their rich flavor and high nutritional value. The growing demand for healthy snacks has brought cashew nuts into the spotlight, presenting a lucrative business opportunity for startups and entrepreneurs. One of the most exciting innovations in the cashew industry is the production of flavoured cashew nuts, which adds an exciting twist to the traditional cashew product. This innovative business idea offers ample opportunities for growth, profitability, and market expansion.

## Why Should Entrepreneurs Invest in Cashew Nut Processing with Flavoured Cashews?

Starting a cashew nut processing business, particularly with a focus on flavoured cashews, offers several compelling reasons for entrepreneurs to consider this venture:

**1. Growing Health Consciousness:** Consumers today are becoming increasingly health-conscious, seeking nutritious, yet tasty snack options. Cashews, being rich in protein, vitamins, and minerals, fit perfectly into the health food category, making them a top choice for health-conscious snackers.

**2. Rising Demand for Flavoured Snacks:** Flavoured nuts are gaining significant popularity in the market. With innovative flavours such as barbecue, cheese, spicy, and garlic, flavoured cashews are quickly becoming a preferred snack choice for a wide range of consumers. This creates a highly profitable niche market with

considerable growth potential.

**3. Export Potential:** Cashew nuts are among the leading export products in many countries, particularly in regions like India, Vietnam, and Brazil. The export potential for flavoured cashews is immense, especially as international markets become more receptive to innovative snack products. Entrepreneurs can tap into the global market to expand their business beyond domestic borders.

**4. Scalability and Flexibility:** The cashew nut processing industry is highly scalable. Entrepreneurs can start small and gradually expand operations as demand grows. The flexibility of the business also allows for diversifying into various flavours and packaging options, catering to different market segments and consumer preferences.

## Market Overview

The cashew nut industry is poised for steady growth. According to industry reports, the global cashew market is expected to reach approximately USD 16 billion by 2027, growing at a CAGR of 5% during the forecast period. This growth is driven by the increasing consumption of cashews as a snack and the growing demand for healthy, value-added products like flavoured cashews.

In particular, the demand for flavoured nuts is rising steadily due to changing consumer

preferences. With a focus on product innovation, companies that manufacture flavoured cashews are gaining a competitive edge in the market. Countries like India, Vietnam, and West African nations are the primary producers of cashews, contributing significantly to the global supply.

## Key Market Trends and Analysis

• **Health and Wellness:** There is a strong trend toward healthier snack options. Consumers are increasingly moving away from processed and unhealthy snacks toward natural, high-protein, and low-calorie options like cashews.

• **Innovative Flavours:** The demand for unique, bold, and gourmet flavours in snacks is on the rise. Spicy, tangy, and sweet-flavoured cashews are particularly popular, as consumers seek novelty in their snacking choices.

• **Eco-Friendly Packaging:** With rising awareness about environmental sustainability, consumers are opting for eco-friendly packaging. Entrepreneurs should consider packaging their flavoured cashews in biodegradable or recyclable materials to appeal to environmentally-conscious buyers.

## Conclusion

Cashew nut processing with flavoured cashews offers an exciting and profitable business opportunity for entrepreneurs. With the growing demand for healthy snacks and unique flavours, this industry is set to experience substantial growth. The cashew processing business is not only scalable but also export-friendly, offering opportunities to tap into international markets. By investing in the right machinery and focusing on product innovation, startups can carve out a niche in this thriving market and enjoy long-term success.

## PROJECT COST ESTIMATE

### CAPACITY:

White Cashew Nut	: 200 Kgs Per Day
Roasted Cashew Nut	: 200 Kgs Per Day
Fried Cashew Nut	: 200 Kgs Per Day
Flavoured Cashew Nut	: 200 Kgs Per Day
Coated Cashew Nut	: 200 Kgs Per Day
Broken Cashew (By Product)	: 100 Kgs Per Day
Plant & Machinery	: ₹ 77 Lakhs
Cost of Project	: ₹ 198 Lakhs
Rate of Return	: 30%
Break Even Point	: 70%

## Set Up Ready to Eat Food (Retort Packaging) Vegetable Pulao, Dal Makhani, Palak, Rajma, Potato Peas and Muutter Mushroom)

RTE food market is expected to grow at a 21.8-percent compound annual growth rate (CAGR) between 2018 and 2023. The demand for healthy and convenient ready-to-eat (RTE) food is on the rise.

**R**TE food includes wide range of products viz. vegetarian/non- vegetarian, basic food/delectable desserts, south and north Indian items available from a specialty or multi cuisine restaurant & food joint only.

## Uses and Applications

There are many Uses and Applications for ready to eat food. For example: you could start a catering business, food delivery service, a meal prep service. Ready to eat food is a great way to add variety to your diet and get all the nutrients your body needs.

## Indian Market

The Indian food processing industry accounts for 32 percent of the country's total food market, one of the largest industries in India and is ranked fifth in terms of production, consumption, export and expected growth.

## Global Market

## PROJECT COST ESTIMATE

### CAPACITY :

Vegetable Pulao	: 3,000 Kgs. Per Day
Dal Makhani	: 2,000 Kgs. Per Day
Palak	: 600 Kgs. Per Day
Rajma	: 700 Kgs. Per Day
Potato Peas	: 600 Kgs. Per Day
Matar Mushroom	: 250 Kgs. Per Day
Plant & Machinery	: ₹ 331 Lakhs
Cost of Project	: ₹ 718 Lakhs
Rate of Return	: 27%
Break Even Point	: 63%

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