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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.

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)

Bioenergy 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.

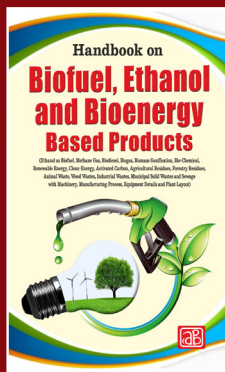
Transportation fuels generated from biomass resources, such as ethanol and biomass-based diesel, are known as biofuels. Using ethanol or biodiesel reduces the use of crude oil-based gasoline and diesel, potentially lowering the amount of crude oil imported from other nations. The global biofuels market 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.

₹1875/- \$150-



The Complete Book on

Cold Storage, Cold Chain & Warehouse

(with Controlled Atmosphere Storage & Rural Godowns) 5th Revised Edition

A cold storage facility preserves fruits and vegetables for a longer period of time. Entrepreneurs and MSMEs in the food and beverage industry are the most likely to choose this business. Cold Storage is a one-time investment industry with a significant initial outlay. In comparison to other small firms, however, the returns are higher and on a long-term basis.

The overall average capacity utilisation in cold storage is 75%, indicating the cold chain business in India's long-term viability. Private companies own and run 92 percent of cold storage facilities in India. A cold storage warehouse can maintain your goods at the proper temperature for long periods of time. The term "cold chain" refers to the process of controlling the temperature of perishable goods from point of origin to final consumer in order to ensure quality and safety.

The global Cold Storage Market is expected to grow at a CAGR of 14.10 percent. The global demand for processed foods, perishable foods, and medical equipment is increasing. Increased technical innovation is another influence in the cold storage sector. Cold storage is being promoted by government legislation around the world about the safety precautions for storing temperature-sensitive food and medical products.

The book covers a wide range of subjects relating to start Cold Storage Business. It also offers information on machinery suppliers, as well as photographs of the equipment and plant layout.

A detailed guide to the Cold Storage industry and entrepreneurship. This book serves as a one-stop shop for everything you need to know about the Cold Storage Business, which is ripe for manufacturers, merchants, and entrepreneurs. This is the only book on the market that covers all aspects of commercial cold storage start-up. It's a veritable feast of how-to information, from concept through equipment procurement.

₹1650/- \$150-

The Complete Book on
**Cold Storage,
Cold Chain &
Warehouse**
(with Controlled Atmosphere Storage
& Rural Godowns)



Solar Panel *Including both type of the PV Cells: Polycrystalline and Monocrystalline*

A solar panel is made up of many solar modules connected in series and parallel to provide a specific voltage and current for charging a battery. The solar array of a photovoltaic system, which generates and distributes solar power in commercial and residential settings, is made up of photovoltaic panels. Each module's DC output power is rated under standard test conditions and normally ranges from 100 to 365 watts.

A photovoltaic (PV) module is a plug-and-play assembly of 6-10 solar cells that has been pre-assembled. The solar array of a photovoltaic system, which generates and distributes solar power in commercial and residential settings, is made up of solar photovoltaic panels.

The global solar power market is expected to grow at a CAGR of 6.9% between 2021 and 2028, rising from \$184.03 billion in 2021 to \$293.18 billion in 2028. The global solar panel business is accelerating as a result of the unwavering shift toward renewable energy.

Strong worldwide demand will favour China, the world's largest exporter of solar panels, while domestic sales may decline as tariff subsidies are eliminated.

PROJECT COST ESTIMATE	
Capacity:	
<i>Solar Panel 100 MW</i>	
<i>Mono Crystalline Solar PV Module Capacity: 250 Watt</i>	: 333.4 Nos. Per Day
<i>Mono Crystalline Solar PV Module Capacity: 320 Watt</i>	: 260.4 Nos. Per Day
<i>Poly Crystalline Solar PV Module Capacity: 250 Watt</i>	: 333.4 Nos. Per Day
<i>Poly Crystalline Solar PV Module Capacity: 320 Watt</i>	: 260.4 Nos. Per Day
Plant & Machinery	: ₹ 1298 Lakhs
Cost of Project	: ₹ 3350 Lakhs
Rate of Return	: 30%
Break Even Point	: 49%

Solar power generation is increasing in the United States as solar cells become more affordable and suburban construction becomes more durable.

Set up your own Maize Processing Plant with Cogeneration Plant

Maize is the third most important cereal/crop after wheat and rice, and it has a lot of processing possibilities due to its high nutritional value and economic use. Maize (sometimes called corn) is a cereal grass that is widely grown for food and animal feed. Maize is one of the most widely consumed foods in India. In India, annual maize production is at 21 million tonnes, with Karnataka, Andhra Pradesh, and Rajasthan producing the most. India is one of the world's leading maize producers, and it's a crop that can be cultivated all year in almost any agro-climatic zone inside its borders.

From 2019 to 2024, the Indian corn starch market is predicted to grow at a CAGR of 3.9 percent, reaching \$1.37 billion in 2018. The easy availability of corn, as well as its wide range of applications in industries such as food and beverage, pharmaceuticals, animal feed, textiles, and paper, are propelling the India Corn Starch market forward. Starches are primarily consumed by the textile, paper, and construction industries, as well as the pharmaceutical business.

PROJECT COST ESTIMATE	
Capacity:	
<i>Maize Starch</i>	: 150 MT Per Day
<i>Liquid Glucose</i>	: 20 MT Per Day
<i>Maltodextrin</i>	: 18 MT Per Day
<i>Gluten as by Product</i>	: 33 MT Per Day
<i>Germ as by Product</i>	: 21 MT Per Day
<i>Fiber as by Product</i>	: 36 MT Per Day
Plant & Machinery	: ₹ 136 Cr
Cost of Project	: ₹ 171 Cr
Rate of Return	: 21%
Break Even Point	: 32%

Active Pharma Ingredients Metformin and Ciprofloxacin Manufacturing Business

Metformin (also known as Glucophage) is an oral diabetes drug that aids in the efficient utilisation of insulin and the reduction of blood sugar levels. Metformin is a diabetes drug that can be used alone or in conjunction with other diabetes medications. It does not cause hypoglycemia or weight gain, which are frequent adverse effects of other diabetes medications.

PROJECT COST ESTIMATE	
Capacity:	
<i>Metformin</i>	: 2,000 Kgs. Per Day
<i>Ciprofloxacin</i>	: 1,000 Kgs. Per Day
Plant & Machinery	: ₹ 104 Lakhs
Cost of Project	: ₹ 584 Lakhs
Rate of Return	: 31%
Break Even Point	: 58%

Ciprofloxacin is an antibiotic whose active ingredient is Ciprofloxacin. It works by preventing bacteria from replicating their DNA. Because of its broad spectrum of activity against Gram-positive and Gram-negative bacteria, as well as its ability to penetrate bacterial biofilms and stationary phase cells in both aerobic and anaerobic environments, it's primarily used to treat infections of the urinary tract, respiratory tract, prostate gland, skin and soft tissue infections, and anthrax.

During the projected period, the Indian ciprofloxacin market is expected to rise at a rapid pace. The rising frequency of renal problems and eye infections, among other things, is driving the ciprofloxacin market in India.

Opportunities in Manufacturing Business of Plastic Optical Lenses

Plastic optical lenses can be used in place of traditional glass lenses. They're made of an inert, malleable polymer that allows you to create frames that don't distort your vision or break the natural curvature of your eye socket. You won't even notice you're wearing these because they're so light! Light-focusing or diverging optical components are referred to as optical lenses. Optical lenses are employed in a wide range of applications, including life sciences, photography, industry, and defence. The way light passes through a lens is influenced by its profile or substrate.

A lens is a refractory transmissive optical device that changes the focus of a beam of light. A single piece of material makes up a simple lens, but a compound lens is made up of multiple simple lenses (elements) joined by a common axis.

PROJECT COST ESTIMATE	
Capacity	
Capacity	: 20,000 Pairs Per Day
Plant & Machinery	: ₹ 10.27 Cr
Cost of Project	: ₹ 14.73 Cr
Rate of Return	: 25%
Break Even Point	: 44%

The ubiquity of the Internet has sped up the adoption of mobile phones and televisions. As a result, a growing number of people are developing vision problems, necessitating the use of plastic lenses. These lenses have a wide range of practical characteristics, including negligible distortion, shatter resistance, and excellent breaking resistance, which has substantially enhanced their popularity and demand.

Start Production Business of AAC Blocks from Silica Sand & Lime Stone Powder

In construction, the innovative building material autoclaved aerated concrete (AAC) is used. It offers excellent insulation while also being environmentally friendly. Autoclaved aerated concrete (AAC), also known as autoclaved cellular concrete (ACC) or simply autoclaved concrete, is a high-strength material with excellent insulating properties that is made by pumping steam into wet, raw concrete mixes.

PROJECT COST ESTIMATE

Capacity

Capacity	: 300 Cu.Mtres Per Day
Plant & Machinery	: ₹ 600 Lakhs
Cost of Project	: ₹ 1070 Lakhs
Rate of Return	: 25%
Break Even Point	: 51%

The global autoclaved aerated concrete (AAC) market is estimated to grow at a CAGR of 6.0 percent between 2020 and 2025, rising from USD 18.8 billion in 2020 to USD 25.2 billion in 2025. Expanding urbanisation and industrialization, infrastructure growth, increased need for lightweight construction materials, rising preferences for low-cost housing, and a growing focus on green and soundproof buildings are all driving the market.

Micronutrient Fortified Energy Dense Food Production Business

Micronutrient Fortified Energy Dense Food ensures that you get all of the essential micronutrients you require to stay healthy and eat well. Micronutrient Fortified Energy Dense Food adds vitamin A, vitamin C, vitamin B12, zinc, and iron to food products and meals to provide consumers with the most nutritional options at every meal of the day.

Food fortification has become increasingly popular in LMICs over the last two decades for a variety of reasons, including increased urbanisation and rising household spending power, which has resulted in a bigger proportion of the population relying on processed foods.

PROJECT COST ESTIMATE

Capacity

Capacity	: 1600 Kgs Per Day
Plant & Machinery	: ₹ 23 Lakhs
Cost of Project	: ₹ 56 Lakhs
Rate of Return	: 28%
Break Even Point	: 65%

From 2021 to 2026, the market for micronutrient fortified foods is predicted to increase at a CAGR of 6.1 percent, reaching \$172.4 million in 2026. Fortified foods are foods that have been supplemented with nutrients that are not naturally present in them.

Recycling of Lithium Ion Battery Business

Because 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%

Start Printed Circuit Board (PCBs) Manufacturing Business

PROJECT COST ESTIMATE

Capacity:

Multilayer High Density Interconnect PCBs	: 40 Sq Mtrs. Per Day
Multilayer Flex PCBs	: 40 Sq Mtrs. Per Day
Multilayer High Power PCBs	: 40 Sq Mtrs. Per Day
Plant & Machinery	: ₹ 260 Lakhs
Cost of Project	: ₹ 594 Lakhs
Rate of Return	: 27%
Break Even Point	: 58%

Modern electronic products, such as computers, telephones, televisions, and even smaller electronic devices like smart watches and fitness trackers, rely heavily on PCBs. Printed wiring boards (PWBs) are crucial components that consist of a base board that supports all of the other parts and circuitry, as well as a patterned layer of electrical tracks printed on top of it.

PCBs are found in almost every electronic product, ranging from consumer electronics such as PCs, tablets, smartphones, and gaming consoles to industrial and even high-tech goods in the strategic and medical electronics fields. Given

the importance of the PCB industry in the electronics manufacturing ecosystem, an article titled 'How will the Indian PCB industry grow?' published in the April 2016 issue of Electronics Bazaar, which featured the opinions of major industry stakeholders.

PCB demand in the home market is expected to grow at a CAGR of 20.56 percent from 2015 to 2020, reaching over US\$ 6 billion by 2020, up from US\$ 2.38 billion presently, according to an ELCINA report.

Manufacturing Business of Glass Vials for Medicine (for Cosmetic & Other Injectable)

Glass vials are a typical packing choice for liquid medicines, elixirs, and other goods that need to be supplied in small quantities. Glass vial packaging is easier to use than plastic bottles or cardboard boxes, and it provides safety, portability, and other benefits.

Vials are small glass containers used to keep refrigerated medicine, but they can also be used to store chemicals and food. Liquids, dry powders, and lyophilized substances in vials must be reconstituted before administration to be effective. These vials are exposed to a wide range of temperatures throughout their lifespan since they are the most common type of packaging for injectable medicines and vaccines.

The Global Vials Market was valued at USD 3,200.2 million in 2021, and it is expected to increase at a CAGR of 6.8% over the next five years. Vials have been the standard packaging for drugs for many years and are expected to continue to be so in the future.

PROJECT COST ESTIMATE

Capacity

Capacity	: 2,00,000 Pcs Per Day
Plant & Machinery	: ₹ 24 Cr
Cost of Project	: ₹ 34 Cr
Rate of Return	: 23%
Break Even Point	: 53%

**Start
Bamboo Fiber & Yarn
Manufacturing
Business**

Bamboo fibre and yarn are made from bamboo plants, which are grasses that grow in warm climates all over the world. Bamboo fibre and yarn are becoming increasingly popular due to their environmental friendliness, durability, softness, and washability, as well as their antibacterial properties. Bamboo fibre and yarn, on the other hand, require a

**PROJECT COST ESTIMATE
Capacity**

Capacity	: 6,666 Kgs Per Day
Plant & Machinery	: ₹ 273 Lakhs
Cost of Project	: ₹ 725 Lakhs
Rate of Return	: 26%
Break Even Point	: 57%

large amount of processing before they can be used.

Bamboo fibre and yarn are made from bamboo plants, which are grasses that grow in warm climates all over the world. Bamboo fibre and yarn are becoming increasingly popular due to their environmental friendliness, durability, softness, and washability, as well as their antibacterial properties.

In the short term, greater use of innovative processes for the manufacturing of eco-fibers, such as enzyme technology, foam technology, and plasma technology, is likely to open up new opportunities. The global Bamboo Fibers market was worth million US dollars in 2018 and is expected to reach million US dollars by the end of 2025, at a CAGR of between 2019 and 2025.

**Manufacturing Business of
IV Fluids
(BFS Technology)**

Intravenous fluids are fluids that are given to a patient intravenously (via the veins) or directly through the circulatory system. To prevent patients from damage, these fluids must be sterile, and there are various options. Many companies manufacture pre-packaged intravenous fluids and other things that can be added with sterile water to form an intravenous solution.

Two types of intravenous fluids are available. Crystalloids contain a solution of water-soluble molecules, such as saline solutions. Colloids are formed composed of particles that aren't soluble in water and produce a high osmotic pressure, which draws fluid into blood vessels.

**PROJECT COST ESTIMATE
Capacity**

IV Fluids (500 ml Size Pack)	: 78,000 Packs Per Day
Plant & Machinery	: ₹ 576 Lakhs
Cost of Project	: ₹ 1190 Lakhs
Rate of Return	: 27%
Break Even Point	: 50%

In 2015, the global intravenous (IV) solutions market was worth USD 6.9 billion, and it is expected to increase at a CAGR of 7.8% over the next five years. The rise of this market can be ascribed to the rapidly rising geriatric population as well as the high frequency of malnutrition among the elderly and children.

**Manufacturing Business of
Steel Shipping
Containers
(Cargo Container)**

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.

Containers are either made of steel (the most common for maritime containers) or aluminum (particularly for domestic) and their structure confers flexibility and hardness.

1. Refactor Existing Applications For Containers: Although refactoring is much more intensive than lift-and-shift migration, it enables the full benefits of a container environment.

2. Develop New Container-Native Applications: Much like refactoring, this approach unlocks the full benefits of containers.

3. Provide Better Support for Micro services Architectures: Distributed applications and micro services can be more easily isolated, deployed, and scaled using individual container building blocks.

4. Provide Easier Deployment of Repetitive Jobs and Tasks: Containers are being deployed to support one or more similar processes, which often run in the background, such as ETL functions or batch jobs.

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. Decreasing the cost of long-distance containerized transportation combined with globalization of trade further boosts containerization.

PROJECT COST ESTIMATE

Capacity:	
Cargo Containers (Size 20 Feet)	: 4.0 Nos Per Day
Cargo Containers (Size 40 Feet)	: 4.0 Nos Per Day
Cargo Containers (Size 40 Feet High Cube)	: 2.0 Nos Per Day
Plant & Machinery	: ₹ 295 Lakhs
Cost of Project	: ₹ 1364 Lakhs
Rate of Return	: 26%
Break Even Point	: 45%

IV Fluids (BFS Technology)

Intravenous fluids are fluids which are intended to be administered to a patient intravenously, directly through the circulatory system. Fluids are given when someone's body fluid volume falls. There are a number of things which can cause a drop in fluid volume. Intravenous fluids can be broken into two broad groups. Crystalloids such as saline solutions contain a solution of molecules which can dissolve in water.

- Treatment of discarded water and electrolyte metabolism, especially in severe cases.
- Therapy of acid base in balances.
- The volume substitution and volume replacement in surgery of accident victim suffering blood loss.
- Paratral nutrition for severally ill and post-operative patients.
- Dextrose solution is used during postoperative period when sodium extraction is reduced.

The global intravenous solutions market size is expected to reach USD 18.9 billion by 2028, the market is expected to expand at a CAGR of 7.9% from 2021 to 2028. The growing incidence rate of chronic

diseases such as cancer, increase in the number of premature births, and shortage of I.V. solutions in the U.S. are some of the key factors expected to drive the market. One of the prime areas wherein intravenous (IV) fluids find usage is severe dehydration. Severe dehydration is seen in diseases such as diarrhea,

**PROJECT COST ESTIMATE
Capacity**

IV Fluids (500 ml Size Bottle)	: 100,000.00 Bottles Per Day
Plant & Machinery	: ₹ 751 Lakhs
Cost of Project	: ₹ 1277 Lakhs
Rate of Return	: 26.48%
Break Even Point	: 54.19%

resulting in the depletion of fluids from the body. The ongoing COVID-19 pandemic is expected to have a positive impact on the market. Intensive Care Units (ICU) worldwide are either operating at full capacity or are overcrowded due to the high influx of patients infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

Methyl isobutyl Ketone (MIBK) from Acetone

Methyl isobutyl ketone (MIBK) is a colorless liquid with an odor similar to mothballs. MIBK is also known as 4-methyl-2-pentanone, hexane and isopropylacetone. While it is usually in liquid form, MIBK can change into a gas. MIBK will dissolve in water, alcohols, benzenes and ethers.

PROJECT COST ESTIMATE Capacity

Methyl Isobutyl Ketone : 166 MT/ Day (MIBK)	
Plant & Machinery	: ₹ 3216 Lakhs
Cost of Project	: ₹ 5881 Lakhs
Rate of Return	: 27%
Break Even Point	: 54%

Methyl isobutyl ketone (MIBK) [CAS registry number: 108-10-1] is an organic compound with the formula (CH₃)₂CHCH₂C(O)CH₃. This colorless liquid, a ketone, is widely used as a solvent. MIBK is a colorless liquid with a characteristic ketone odor. It is highly flammable and vapors may travel to the source of ignition and flashback. It is soluble in water and miscible with most organic solvents and evaporates in air. It irritates the skin, eyes and respiratory tract and in high concentrations leads to nausea, headaches, dizziness and unconsciousness. MIBK is a clear liquid with a sweet odor; the odor threshold is 1.64-mg/m³ (0.4 ppm). It is moderately soluble in water. MIBK can react violently with oxidizing and reducing agents. When heated, peroxides may form by auto-oxidation and may explode spontaneously.

Methyl isobutyl ketone is used in a number of industrial applications. The primary use of methyl isobutyl ketone, accounting for approximately 62 percent of all use, is as a solvent in protective coatings. It is also used as a solvent in specialty adhesives; in ink formulations; in dewaxing mineral oil; and in textile coatings and leather finishing. As a process solvent methyl isobutyl ketone is used in the separation and purification of certain metal ions, such as zirconium from hafnium; in the extraction and purification of antibiotics and other pharmaceuticals; and in the manufacture of insecticides and other pesticides. It is also used in purifying stearic acid; refining tall oil; and extracting rosin from softwood, especially pine.

Linear Alkyl Benzene Sulphonic Acid

Linear Alkyl Benzene Sulphonic Acid is a largest volume synthetic surfactant because of its relatively low cost, good performance, the fact that it can be dried to a stable powder and the biodegradable environmental friendliness. LAB Sulphonic Acid is an anionic surfactant widely used in formulation of all ranges of Domestic Detergents Powder, Cake & Dish wash cleaners. Due to its high active matter, miscibility with water and low salt content, it is also

PROJECT COST ESTIMATE Capacity

Linear Alkyl Benzene Sulphonic Acid : 20 MT / Day	
Plant & Machinery	: ₹ 384 Lakhs
Cost of Project	: ₹ 757 Lakhs
Rate of Return	: 26%
Break Even Point	: 50%

used in formulation of Industrial & Household liquid cleaners as well as in numerous industrial applications like as a coupling agent and as an emulsifier for agricultural herbicides and in emulsion polymerization. Linear Alkyl Benzene Sulphonic Acid is an anionic surface active agent with superior detergency and compatibility with a broad range of other anionic, nonionic and amphoteric surfactants.

The global Linear Alkyl Benzene Sulphonic Acid

market size is expected to gain market growth in the forecast period of 2020 to 2025, with a CAGR of 3.3% in the forecast period of 2020 to 2025 and will expected to reach USD 4234.1 million by 2025, from USD 3711.3 million in 2019. Rise in demand for industrial cleaners to maintain industrial hygiene is also boosting the linear alkyl benzene sulfonic acid market in the region. The U.S. is a leading consumer of linear alkyl benzene

sulfonic acid in North America. Rise in demand for biodegradable surfactants in the country is expected to hamper the linear alkyl benzene sulfonic acid market in North America. Latin America and Middle East & Africa are projected to provide lucrative opportunities to manufacturers in the near future due to the rapid urbanization and industrialization. As a whole any entrepreneur can venture in this project without risk and earn profit.

Plastic Waste Pyrolysis (Plastic to Oil Conversion)

Pyrolysis is the chemical decomposition of organic substances by heating the word is originally coined from the Greek-derived elements pyro "fire" and lysis "decomposition". Pyrolysis is usually the first chemical reaction that occurs in the burning of many solid organic fuels, cloth, like wood, and paper, and also of some kinds of plastic. Anhydrous Pyrolysis process can also be used to produce liquid fuel similar to diesel from plastic waste.

Increasing industrialization and motorization has lead to a significant rise in demand of petroleum products. As these are the nonrenewable resources it is difficult to predict availability of these resources in future, resulting uncertainty in its supply and price and is impacting growing economies like India. Many alternate fuels like Alcohols, Biodiesel, LPG, CNG etc have been already commercialized in the transport sector. Recent developments in recycled plastic and plastic waste to oil market indicate that policymakers and energy industry players in various regions, particularly in North America and Europe, are focusing on the commercialization of the technology. As a whole entrepreneur can venture in this field will be successful.

PROJECT COST ESTIMATE

Capacity:	
Pyrolysis Oil	: 10 MT/Day
Carbon (by product)	: 3.33 MT/Day
Gas (by product)	: 2 MT/Day
Plant & Machinery	: ₹ 197 Lakhs
Cost of Project	: ₹ 512 Lakhs
Rate of Return	: 26%
Break Even Point	: 58%

Hybrid Electric Scooter Assembling

A plug-in hybrid electric vehicle (PHEV) is an HEV that can be plugged-in or recharged from wall electricity. PHEVs are distinguished by much larger battery packs when compared to other HEVs. The size of the battery defines the vehicle's All Electric Range (AER), which is generally in the range of 30 to 50 miles. PHEVs can be of any hybrid configuration. PHEVs start in 'all electric' mode, runs on electricity and when the batteries are low in charge.

PROJECT COST ESTIMATE Capacity

Hybrid Electric Scooter : 50 Nos./Day	
Plant & Machinery	: ₹ 95 Lakhs
Cost of Project	: ₹ 279 Lakhs
Rate of Return	: 34%
Break Even Point	: 74%

India electric scooters and motorcycles market size valued at \$24.6 million in 2016, it is expected to grow at a CAGR of 45.4% during 2017- 2025. Some 4,50,000 electric two-wheelers were sold in India in the past eight years. The potential of electric vehicles in this segment is massive, say industry executives, given that more than 17 million two-wheelers are sold annually in the country. This facilitates the development of new technologies and ensures a high quality product.

Ready to Eat Food (RTE)

Ready to Eat Foods (RTE) are convenience foods, enclosed in aluminium container or pouches that only need to be cut and heated before being served. Instant vegetables in retort pouches fall under this category and find application not only as home meal replacement in working class households but also in fast-food restaurants and multi cuisine food joints. These are handy meals for armed forces and paramilitary forces deployed in remote places. RTE 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.

Ready To Eat, Shelf Stable, Retort Sterilized Foods are completely cooked foods packed in airtight containers, which could be preserved at room temperature for a long period of time without the necessity of freezing, cooling and drying. The thermally-processed retort pouch foods are waterproof, weatherproof and bug proof. The Shelf Life of Ready To Eat Foods is from 1 year to 5 years, depending on the type of packing materials and processing procedures.

India's Food Processing industry is one of the largest industries in the country—it is ranked fifth in terms of production, consumption, export and expected growth. The industry employs 1.6 million workers directly. Now the time is to provide better food processing & marketing infrastructure for Indian industries to serve good quality & safest processed food like READY TO EAT (RTE) food, keeping in mind the changing tastes and lifestyle of the Indian demography.

PROJECT COST ESTIMATE

Capacity:

Vegetable Pulao	: 3000 Kgs. Per Day
Dal Makhani	: 2000: Kgs. Per Day
Palak	: 600: Kgs. Per Day
Rajmah	: 700 Kgs. Per Day
Potato Peas	: 600 Kgs. Per Day
Mutter Mushroom	: 250 Kgs. Per Day
Plant & Machinery	: ₹ 580 Lakhs
Cost of Project	: ₹ 954 Lakhs
Rate of Return	: 30%
Break Even Point	: 58%

The Indian food processing market was worth INR 24,665 Billion in 2018. Looking forward, the market is projected to reach INR 50,571 Billion by 2024, exhibiting a CAGR of 12.4% during 2019-2024. Rising household incomes, urbanization and the growth of organized retail are currently some of the major drivers of this market. Food processing is a large sector that covers activities such as agriculture, horticulture, plantation, animal husbandry and fisheries.

Business Plan for Abrasive Grinding Wheels Business

Abrasive grinding wheels are used in the metalworking and machining industries to grind, shape, and polish metal products. These metalworking tools come in a wide range of shapes, sizes, and materials, each of which has an impact on their function and performance.

Grinding wheels are made up of natural or synthetic abrasive elements that are bonded together in a matrix. While some home workshop owners may be familiar with these tools, the vast majority were developed and used by the manufacturing industry. For more than 150 years, grinding wheels have played an important part in this industry.

PROJECT COST ESTIMATE

Capacity:

Resin Bonded Grinding Wheel Size (180x6)	: 500 Pcs Per Day
Resin Bonded Grinding Wheel Size (230x3)	: 740 Pcs Per Day
Vitrified Grinding Wheel Size (180x30)	: 235 Pcs Per Day
Vitrified Grinding Wheel Size (230x20)	: 253 Pcs Per Day
Plant & Machinery	: ₹ 150 Lakhs
Cost of Project	: ₹ 343 Lakhs
Rate of Return	: 28%
Break Even Point	: 56%

In 2021, the India Abrasive Market was valued at USD362.26 million, with a CAGR of 6.61 percent predicted over the coming five years. The India abrasive industry is being propelled forward by initiatives such as the "Smart Cities Mission" and "Housing for All," as well as increased demand for electronic gadgets and autos.

Rice Husk Based Biodegradable Cutlery

The global biodegradable cutlery market size was accounted for USD 33.9 million, in 2018 and is projected to grow at a significant rate of CAGR of 5.9% during the forecast period, 2019 to 2025. The growing awareness about hazardous impacts of non-biodegradable waste is expected to positively affect the market growth. The government has formed strict regulations for banning non-biodegradable plastic. Supportive government initiatives along with growing consumer awareness about side effects of non-biodegradables are projected to boost the market growth. Entrepreneurs who invest in this project will be successful.

PROJECT COST ESTIMATE

Capacity

Biodegradable Cutlery (Per Set 9 Pcs. Flatware)	: 1,852 Sets / Day
Plant & Machinery	: ₹ 28 Lakhs
Cost of Project	: ₹ 142 Lakhs
Rate of Return	: 28%
Break Even Point	: 63%

Recovery of Lead from Scrap Batteries

The recovery of metals from metal scrap has the advantage that it is easier and far less energy dependent than the production of primary lead from ores. Lead is a chalcophile metallic element forming several important minerals including galena PbS, angle site PbSO₄, crosstie PbCO₃ and minimum Pb₃O₄. Recycling lead is relatively simple and in most of the applications where lead is used, such as lead-acid batteries, it is possible to recover it for use over and over again.

The production of lead in India from primary sources accounts for nearly two thirds of the total lead production in the country whereas, the world over, the production from secondary smelters accounts for nearly 60% of the total production of lead. This facilitates the development of new technologies and ensures a high quality product.

PROJECT COST ESTIMATE

Capacity

Lead Ingot	: 8 MT/Day
Plant & Machinery	: ₹ 96 Lakhs
Cost of Project	: ₹ 370 Lakhs
Rate of Return	: 29%
Break Even Point	: 54%

Profitable Business of Cocoa Processing Unit

**Cocoa Butter, Cocoa Couverture and Cocoa Powder
(Further Processed Products: Spreads and Chocolate Syrups)**

Cocoa processing is the process of turning cocoa beans into chocolate, cocoa powder, and other related goods like cocoa butter, cocoa liquor, and so on. The Cocoa Processing Unit is one of the three main components of the cocoa processing industry (CPU). Cocoa Butter & Powder, which account for the majority of the entire CPU market, and Cocoa Liquor and Others, which are developing segments, have also been classified into the Cocoa Processing Unit (CPU) market.

The cocoa tree has massive, long leaves with pale-colored blooms that produce big pods. The tree bears fruit in its third year and continues to give fruit until it is twenty years old.

Increased manufacturing of confectionery syrup and chocolates will drive the worldwide cocoa products market. Increasing disposable income, improved retail distribution channels, increased availability of foreign brands, and the use of cocoa in snack food categories such as sweet biscuits and others are all likely to contribute considerably to market expansion. The demand for cocoa in scrubs, ointments, creams, facial masks, toners, and lotions is expected to remain strong.

PROJECT COST ESTIMATE

Capacity:	
Cocoa Liquor	: 2,000 Kgs Per Day
Cocoa Butter	: 974.4 Kgs Per Day
Cocoa Powder	: 512.8 Kgs Per Day
Chocolate Spread	: 530.2 Kgs Per Day
Chocolate Syrup	: 2,263.9 Kgs Per Day
Plant & Machinery	: ₹ 1582 Lakhs
Cost of Project	: ₹ 2422 Lakhs
Rate of Return	: 26%
Break Even Point	: 39%

Transparent LPG Cylinder from Fiber Glass

A gas cylinder is a pressure vessel for storage and containment of gases at above atmospheric pressure. High-pressure gas cylinders are also called bottles. Inside the cylinder the stored contents may be in a state of compressed gas, vapor over liquid, supercritical fluid, or dissolved in a substrate material, depending on the physical characteristics of the contents.

Global composite cylinders market stood at \$ 601 million in 2018 and is projected to reach \$ 921 million by 2024, exhibiting a CAGR of over 7% during 2019-2024, owing to increasing demand for explosion proof, non-corrosive and lightweight LPG cylinders. Composite cylinder is a high-pressure vessel that is made of a composite-polymer material and placed in a plastic body. The technology of manufacturing a modern composite cylinder is a very complex and high-tech process, thus its cost is much higher than the cost of a metal analogue. Increasing consumption of LPG in the developing countries is expected to boost the demand.

PROJECT COST ESTIMATE

Capacity	
Transparent LPG Cylinder	: 2,243.6 Nos. / Day
Plant & Machinery	: ₹ 28274 Lakhs
Cost of Project	: ₹ 32012 Lakhs
Rate of Return	: 25 %
Break Even Point	: 27%

Indian LPG imports have been registering some remarkable trends in the last 10 years. The growth trends over the last 10 years, 5 years and 1 year are: 17% CAGR (FY07 to FY17), 14% CAGR (FY12 to FY17) and 23%. At nearly 11 million tonnes in FY17, India surpassed Japan's imports at 10.6 million tonnes. Increasing demand for lightweight, explosion proof and non-corrosive LPG cylinders and government push towards the usage of composite cylinders are some of the major drivers of the market. Increase in the consumption of LPG in the developing economies further elevate the demand for composite LPG cylinders over the next five years. As a whole any entrepreneur can venture in this project without risk and earn profit.

E-Waste & Lithium Battery Recycling Plant

Electronic Waste – or e-waste – is the term used to describe old, end-of-life electronic appliances such as computers, laptops, TVs, DVD players, mobile phones, mp3 players etc. Technically, electronic "waste" is the component which is dumped or disposed or discarded rather than recycled, including residue from reuse and recycling operations.

Recycling of used lithium batteries has primarily focused on extracting active metal cobalt (Co) and lithium (Li).

According to E-Waste Market in India 2015-2019 research, the need to prevent biological hazards is one of the major trends upcoming in this market. Indians become richer and spend more on electronic items and appliances, computer equipment accounts for almost 70% of e-waste material, followed by telecommunication equipment (12%), electrical equipment (8%) and medical equipment (7%). Other equipment, including household account for the remaining 4%. As a whole any entrepreneur can venture in this project without risk and earn profit.

PROJECT COST ESTIMATE

Capacity	
E-Waste & Lithium Battery Recycling Plant	: 20 MT/Day
Plant & Machinery	: ₹ 225 Lakhs
Cost of Project	: ₹ 540 Lakhs
Rate of Return	: 26%
Break Even Point	: 59%

WPC Profile for Building Materials Like Door and Window Frame and Shutters

WPCs are composites containing a wood component in particle form (wood particles/wood flour) and a polymer matrix. They are used in a variety of structural and non-structural applications ranging from component and product prototyping to outdoor decking. Wood plastic composites (WPCs) are roughly 50:50 mixtures of thermoplastic polymers and small wood particles. The wood and thermoplastics are usually compounded above the melting temperature of the thermoplastic polymers and then further processed to make various WPC products.

PROJECT COST ESTIMATE

Capacity	
WPC Profile for Building Materials	: 9600 Kgs/Day
Plant & Machinery	: ₹ 155 Lakhs
Cost of Project	: ₹ 737 Lakhs
Rate of Return	: 28%
Break Even Point	: 64%

The wood-plastic composites market is projected to reach US\$ 2.6 bn in 2012. Analysts anticipate the market to expand at a CAGR of 10.80% during the period from 2013 to 2019 and attain a value USD 5.84 Billion by 2021, at a CAGR of 12.4% from 2016 to 2021. Market is poised to grow at a CAGR of around 13.2% over the next decade to reach approximately \$9.7 billion by 2025. This facilitates the development of new technologies and ensures a high quality product.

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- Petroleum & Petroleum Products Technology Handbook (Thermal Cracking of Pure Saturated Hydrocarbons, Petroleum Asphalts, Refinery Products, Blending and Compounding, Oil Refining and Residual Fuel Oils)..... 1875/- 150

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- Handbook on Organic Waste for Biological Treatment, Liquid Manure into a Solid, Tomato Waste Water Treatment, Oxalic Acid from Jute Stick, Cotton Processing Waste, Fish Waste, Agro-Industrial Wastes, Bioconversion of Pretreated Wheat Straw and Sunflower Stalks to Ethanol, Agricultural Waste Treatment, Waste of Dehydrated Onion, Beef-Cattle Manure Slurry, Meat Meal and Algae for Calves, Wastes from Large Piggeries, Pig Waste, Oxytetracycline, Methane from Cattle Waste 1275/- 125
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NIIR PROJECT CONSULTANCY SERVICES

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SELECTED BUSINESS IDEAS FOR RIGHT INVESTMENT

EACH DETAILED PROJECT REPORT (BUSINESS PLAN) CONTAINS



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 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, plant already commissioned in India.
- NPCS Reports are very economical and immediabely 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.



Wood and Wood Products, Plywood, Board, Particle Board, Wooden Furniture, Bamboo, Engineered Wood, Forest product, Lumber, Tree, Wood drying, Wood Plastic Composite, Door, Window, Modular Furniture, Timber, Woodworking, Decorative Laminated Sheets

- » Activated Carbon from Bamboo
- » Bamboo Furniture
- » Bamboo Sticks
- » Black Lead Pencil
- » Broom Stick Processing Plant
- » Chip Block (Compressed Wood)
- » Chipboard Industry
- » Compressed Wood Pallets
- » Deck Wood
- » Deck Wood (Wood and Plastic Composite)
- » Decorative Laminated Sheets (Sunmica)
- » Flush Door, Chip Board, Hard Board, Insulating Board
- » Fully Automatic Match Box with Match Sticks (Wooden Match Sticks & Waxed Strips)
- » Handicraft (Cane & Bamboo)
- » Hard Board from Bagasse



- » Laminated Particle Board
- » Match Box (Automatic Plant)
- » Matchbox
- » Medium Density Fiberboard (MDF)
- » Particle Board
- » Particle Board (Wood Base)
- » Particle Board from Bagasse
- » Particle Board from Rice Husk
- » Particle Board from Wheat/Rice Straw
- » Ply Board from Bamboo
- » Ply Board from Poplar & Eucalyptus Wooden Logs
- » Plywood and Ply board
- » Pre Laminated Particle Board
- » Pre-Compressed Pressboard
- » Rubber wood Processing Plant
- » Shisham (Indian Rosewood) Plantation
- » Solid Wood Finger Jointed Boards from Pine Wood



- » Teak Wood & Meranti Doors-Solid and Semi Solid Doors
- » The English Willow Cricket Bats
- » Tripod Stands, Tables & Chairs (100% EOU)
- » Wood Chips
- » Wood Fibers (Used in MDF).
- » Wood Pellets from Saw Dust
- » Wood Plastic Composite (WPC)
- » Wood Pulp
- » Wooden Doors and Frames
- » Wooden Furniture
- » Wooden Furniture (with Mediocre Automation)
- » Wooden Laboratory Furniture
- » Wooden Pencil
- » Wooden Toothpick
- » WPC Board-Best Alternate of Wood and Plywood



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

Wire and Wire Products



- » Aluminium Wire & Cables
- » Armoured Cable
- » Catenary Wires and Conductors Used in Railway Electrification
- » Copper Flats and Copper Tubes
- » Copper Wire Drawing (From Higher Size to Very Thin Size Used in Electrical Cables)
- » Copper Wire Manufacturing (Wire Drawing & Enameling)
- » Enameled Copper Wire
- » Fiber Optic Cable Production
- » Galvanized Iron Wire
- » High Tensile Wire Used in Prestressed



- Concrete Poles and Railway Sleepers
- » HT (High Tensile Wire)
- » Instrument Cable
- » Low Tension Cables
- » LT Power Cables
- » MIG Welding Wire
- » MS Binding Wires
- » Nylon Coating on Zinc Wire (Wire "O" Wire)
- » Optical Fiber Cable (OFC)
- » Power Cable
- » PVC Electric Wires & Cables
- » PVC Insulated Winding Wires for Submersible Motors



- » PVC Wires and Cables
- » Resin Cored Soldering Wire
- » R-F Coaxial Cable
- » Rosin Cored Soft Soldering Wire
- » Solder Wire & Flux
- » Steel Wire Rope
- » Wire Drawing Lubricants
- » Wire Drawing with Wire Galvanizing Plant
- » Wire Mesh (Hexagonal Square)
- » Wire Nail
- » Wire Nail & Wire Drawing Plant
- » Wires and Conductors Used in Railway Electrification



Transformer, Distribution Transformer, Electrical Transformer, Current Transformers, Voltage Stabilizers, Servo Controlled Stabilizer, UPS, Inverter, Power Inverters, Transformer Oil and Repair of Distribution, Power Transformer

- » Distribution Transformers
- » Distribution Transformers and Repairs
- » Electrical Power Transformers (Repair & Refurbishment)
- » Epoxy Resin Cast Current Transformers (CT/PT Transformer)
- » Inverters 50 Hz 100 to 1000 KVA
- » Liquid Glucose from Broken Rice



- » PCC Electric Poles
- » Power Transformer
- » Power Transformer Upto 40 MVA
- » Repair & Refurbishment of Power Transformers
- » Transformer Oil



Wire & Cable



- » ABC (Aerial Bundled Cable) Conductors
- » Aluminium Wire & Cables
- » Aluminium Wire Drawing Wire Mesh Plant
- » Armoured Cable
- » Catenary Wires and Conductors Used in Railway Electrification
- » Copper Flats and Copper Tubes
- » Copper Wire (Wire Drawing & Enameling)
- » Copper Wire Drawing (from higher size to very thin size used in electrical cables)
- » Fiber Optical Cables (OFC)
- » House Wire



- » HT (High Tensile Wire)
- » Instrument Cable
- » Jelly Filled Cables
- » Low Tension Cables, Lt Power Cables
- » Manufacturing Industry
- » LT Cable
- » LV Control & Power Cables, MV Cables
- » MS Binding Wires
- » Optical Fiber Cables
- » Power Cable
- » PVC & XLPE Cables



- » PVC Electric Wires & Cables
- » PVC Insulated Winding Wires for Submersible Motors
- » PVC Wires and Cables
- » Resin Cored Soldering Wire
- » R-F Coaxial Cable
- » Solder Wire & Flux
- » Steel Wire Rope
- » Stitching Wire
- » Wire Drawing Lubricants
- » Wire Drawing with Galvanizing Plant



Township, Residential Complex, Shopping Arcade, Cinema Hall, Multiplex, Villa, Holiday Resort, Real Estate Development

- » Bungalow Construction
- » Construction of Bungalow
- » High Rise Apartments, Villas, Shopping Mall with Multiplex, International School and Convention Centre
- » Holiday Resort
- » Holiday Resort & Entertainment Centre



- » Industrial Township
- » Multiplex Cinema Hall with Shopping, Arcade and Food Plaza
- » Real Estate, Home Building & Construction Industry
- » Residential Apartment
- » Resort
- » Township



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

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Aluminium Cans for Beer and Beverages

Growing health concerns associated with the use of plastics containers is also a key factor influencing market growth. Many beverages are packaged in plastic containers in the U.S. (Plastic Industry Association, U.S.). However, pressure from environmental lobby groups and Government agencies is being felt by many can manufacturers, who are being bounded to reduce the consumption of plastics. Water and carbonated drinks are usually bottled in Polyethylene Terephthalate (PET) bottles. As bans on plastic packaging gains momentum across the U.S., manufacturers, and sellers are turning towards other available options.

PROJECT COST ESTIMATE

Capacity

Aluminium Beverage Cans : 13.3 Lakh Pcs. / Day each 330 ml Size	
Plant & Machinery	: ₹ 343 Cr
Cost of Project	: ₹ 399 Cr
Rate of Return	: 23%
Break Even Point	: 36%

Profitable Opportunities in Business of 7-Aminocephalosporanic Acid (7-ACA)

7-aminocephalosporanic acid is abbreviated as 7-ACA, white or almost white crystalline powder, 7-ACA is an important nucleus in synthesis of cephalosporin antibiotics, in the nucleus 7 and 3 chemical transformation can be used to prepare many cephalosporins: cefazolin sodium, cefotaxime sodium, ceftriaxone sodium, cefoperazone sodium, sodium ceftazidime, cefuroxime sodium.

7-Aminocephalosporanic Acid [chemically, 3-(Acetyloxy-methyl)-7-amino- 8-oxo-5-thia-1- azabicyclo (4.2.0) oct-2-ene-2-carboxylic acid] is the active nucleus for the synthesis of cephalosporins and intermediates. India has the world's third largest active pharmaceutical ingredients (API) for the industry valued at a little less than USD 2 bn. Top 5 API producers account for approximately 6.5 %. The leading APIs are anti-infectives, gastrointestinal, cardiovascular and respiratory drugs. The Chemical Pharmaceutical Generic Association (CPA) projects that India's share of the world API market will grow by 10.5% by 2010 as patented blockbuster drugs lose their patent protection. The CPA also expects that the domestic Indian market for APIs, both generic and branded, will rise from USD 755 mn in 2005 to USD 1.9 bn in 2010. The API market in India to grow at a CAGR of 10.76 percent.

PROJECT COST ESTIMATE

Capacity

7-Aminocephalosporanic Acid	: 0.5 MT Per Day
Plant & Machinery	: ₹ 593 Lakhs
Cost of Project	: ₹ 1937 Lakhs
Rate of Return	: 28.20%
Break Even Point	: 45.58%

Oxygen and Nitrogen Gas Plant (Medical and Industrial Grade)

Lime light used oxygen derived from sources such as the barium Oxide Brin process. This process was based on the production of barium peroxide by roasting barium oxide in air at 590°C, then raising the temperature to 870°C. At 870°C the peroxide formed decomposes back into oxide, releasing more or less pure oxygen which can then be cooled and compressed into steel gas cylinders. Although crude, the process was ingenious in that it required no continuous input of raw materials other than air and energy. Oxygen is non corrosive and can be contained in any common metals. However care must be taken to remove all oil, grease and other combustible material from piping and containers before putting them into oxygen service.

Nitrogen gas is a compound that forms from elemental nitrogen, which is found abundantly throughout the planet's atmosphere and in most biochemical reactions. One of nitrogen's unique properties is its ability to form multiple bonds with various other elements and compounds. India industrial gases market was valued at \$ 2.1 billion in 2017 and is forecast to grow at a CAGR of over 11% to surpass \$ 3.9 billion in 2023 on account of growing demand from metal industry, particularly steel. As a whole any entrepreneur can venture in this project without risk and earn profit.

PROJECT COST ESTIMATE

Capacity

Capacity	: 200 Cumtrs/hr
Plant & Machinery	: ₹ 183 Lakhs
Cost of Project	: ₹ 675 Lakhs
Rate of Return	: 26%
Break Even Point	: 50%

Biodegradable Plastic Pellets

- Corn Starch Thermoplastic & Polyvinyl Alcohol
- PBAT & Corn Starch Thermoplastic
- PLA + PBAT + Corn Starch Thermoplastic
- PLA + PBAT + CaCO₃

Among the biodegradable polymers made from renewable resources, starch is probably the most renewable naturally biodegradable polymer source because it is versatile, cheap, and abundant. It shows compatibility with extrusion processes used in the manufacture of conventional films and in the presence of a plasticizer it produces a material with thermoplastic characteristics, known as thermoplastic starch (TPS). As a result, TPS is often blended with other polymers, such as poly (butylene adipate-co-terephthalate) (PBAT) and biodegradable aliphatic-aromatic copolyester, which combines biodegradability with other desirable physical properties.

The massive use of synthetic plastics, in particular in the food packaging area, has a great environmental impact, and alternative more ecologic materials are being required.

Poly(lactic) acid (PLA) and starch have been extensively studied as potential replacements for non-degradable petrochemical polymers on the basis of their availability, adequate food contact properties and competitive cost. Indeed, plastics represent the second most widely used material for food packaging applications, after paper and cardboard.

PROJECT COST ESTIMATE

Capacity

Biodegradable Plastic Pellets	: 1,200,000 Kgs Per Annum
Plant & Machinery	: ₹ 128 Lakhs
Cost of Project	: ₹ 407 Lakhs
Rate of Return	: 29%
Break Even Point	: 48%

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

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Synthetic Camphor

Camphor is a waxy, flammable, white or transparent solid with a strong aroma. It is a terpenoid with the chemical formula C₁₀H₁₆O. It is found in the wood of the camphor laurel (Cinnamomum camphora), a large evergreen tree found in Asia and also of the unrelated kapur tree, a tall timber tree from the same region. This port traded in camphor extracted from laurel trees (Cinnamomum camphora) that were abundant in the region. Even now, the local tribespeople and Indonesians in general refer to aromatic naphthalene balls and moth balls as kapur Barus.

Camphor can be produced from alpha-pinene, which is abundant in the oils of coniferous trees and can be distilled from turpentine produced as a side product of chemical pulping. With acetic acid as the solvent and with catalysis by a strong acid, alpha-pinene readily rearranges into camphene, which in turn undergoes Wagner-Meerwein rearrangement into the isobornylcation, which is captured by acetate to give isobornyl acetate.

The global market for synthetic camphor is estimated to be valued at US\$ 322.3 Mn by the end of 2018 and is expected to reach a market value of US\$ 571.6 Mn by the end of 2028, expanding at a CAGR of 5.9% over the forecast period. The global market is anticipated to represent incremental opportunity worth US\$ 249.3 Mn between 2018 and 2028. Synthetic camphor is used in production of insecticides such as moth repellants and mosquito repellants. With the rising awareness around the air purifying properties of synthetic camphor, the demand for synthetic camphor powder has seen an upsurge from the downstream producers of synthetic camphor tablets.

PROJECT COST ESTIMATE

Capacity

Capacity	: 2,500 MT Per Annum
Plant & Machinery	: ₹ 359 Lakhs
Cost of Project	: ₹ 1192 Lakhs
Rate of Return	: 28%
Break Even Point	: 51%

Synthetic camphor is conventionally prepared from the extracts of the camphor tree. While the one produced using chemical synthesis is known as synthetic camphor. One of the most important raw material employed in the manufacturing of synthetic camphor is turpentine oil. Synthetic camphor involves two grades of products solely differentiated in the terms of its purity.

Baby Diaper (T-shape and Pull-up Pants)

Diapers are primarily worn by children who are not yet potty trained or experience bedwetting. During the 1950s, companies such as Johnson and Johnson, Kendall, Parke-Davis, Playtex, and Molnlycke entered the Baby diaper market, and in 1956, Procter & Gamble began researching Baby diapers. They have helped many families with low income to get diapers needed for their babies.

Several improvements were made, such as the use of double gussets to improve diaper fit and containment. Modern Baby diapers products have a layered construction, which allows the transfer and distribution of urine to an absorbent core structure where it is locked in. According to "India Diaper Market Outlook, 2021", India's diaper market was growing with a CAGR of 22.23% over past five years. Thus, due to demand it is best to invest in this project.

PROJECT COST ESTIMATE

Capacity:

Pull-up Baby Pant Single Diaper (4 Pcs/Pkt)	: 60000 Pkt/Day
T-shape Open Style Baby Diaper (4 Pcs/Pkt)	: 60000 Pkt/Day
Plant & Machinery	: ₹ 2600 Lakhs
Cost of Project	: ₹ 4178 Lakhs
Rate of Return	: 29%
Break Even Point	: 36%

Exercise Note Book

Exercise books are widely known & vastly used as day-to-day products. Notebooks are available in the market in various sizes, shapes & pages and having various types of covers paper bound, board and Rexene bound etc. Writing pads, exercise notebooks and ring books are made from paper sheet layers which are commonly ruled, stitched or glued and used for writing. They are composed of pages, often ruled, made out of paper, used for purposes including recording notes or writing, drawing and similar activities.

The demand for notebooks is projected to reach 2,250 tons and 3,155 tons by the year 2017 and 2022. India exercise notebook market is expected to reach Rs. 334.6 billion by FY'2020. India exercise notebook market, segmentation on the basis of Use, Number of Pages, GSM, Recycled/Non-Recycled Papers, Retail/Institutional Sales, Size,

PROJECT COST ESTIMATE

Capacity

Exercise Note Books	: 10000 Pcs./Day (17x27 cm.)
Plant & Machinery	: ₹ 48 Lakhs
Cost of Project	: ₹ 86 Lakhs
Rate of Return	: 27%
Break Even Point	: 67%

Bindings, Cover Types, City Tiers, Rural/Urban Demand and Paper Types. India stationery market revenues are projected to grow at a CAGR of 10.5% during 2018-24.

Thus, due to demand it is best to invest in this project.

Transparent LPG Cylinder from Fiber Glass

A gas cylinder is a pressure vessel for storage and containment of gases at above atmospheric pressure. High-pressure gas cylinders are also called bottles. Inside the cylinder the stored contents may be in a state of compressed gas, vapor over liquid, supercritical fluid, or dissolved in a substrate material, depending on the physical characteristics of the contents.

Global composite cylinders market stood at \$ 601 million in 2018 and is projected to reach \$ 921 million by 2024, exhibiting a CAGR of over 7% during 2019-2024, owing to increasing demand for explosion proof, non-corrosive and lightweight LPG cylinders. Composite cylinder is a high-pressure vessel that is made of a composite-polymer material and placed in a plastic body. The technology of manufacturing a modern composite cylinder is a very complex and high-tech process, thus its cost is much higher than the cost of a metal analogue. Increasing consumption of LPG in the developing countries is expected to boost the demand.

Indian LPG imports have been registering some remarkable trends in the last 10 years. The growth trends over the last 10 years, 5 years and 1 year are: 17% CAGR (FY07 to FY17), 14% CAGR (FY12 to FY17) and 23%. At nearly 11 million tonnes in FY17, India surpassed Japan's imports at 10.6 million tonnes. Increasing demand for lightweight, explosion proof and non-corrosive LPG cylinders

and government push towards the usage of composite cylinders are some of the major drivers of the market. Increase in the consumption of LPG in the developing economies further elevate the demand for composite LPG cylinders over the next five years. As a whole any entrepreneur can venture in this project without risk and earn profit.

PROJECT COST ESTIMATE

Capacity

Transparent LPG Cylinder	: 2,243.6 Nos. / Day
Plant & Machinery	: ₹ 28274 Lakhs
Cost of Project	: ₹ 32012 Lakhs
Rate of Return	: 25 %
Break Even Point	: 27%

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

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Biodegradable Plastic Bags from Corn & Cassava Starch

Corn starch has 25% amylose and 75% amylopectin. The amylose molecules lose water increase biodegradation characteristic and amylopectin molecule is responsible for plasticizer properties. Their granule size ranges between 5 to 20 microns. I.e. good absorption capacity, rapid gel formation & good strength. Starch is used to produce such diverse products as food, paper, textiles, adhesives, beverages, confectionery, packaging, pharmaceuticals, and building materials. Cassava starch has many remarkable characteristics, including high paste viscosity, high paste clarity, and high freeze-thaw stability, which are advantageous to many industries.

Cassava starch could be used for making various types of packaging products. As a

PROJECT COST ESTIMATE	
Capacity:	
Biodegradable Plastic Bags from Corn Starch (Per Bag 25 gms Size)	: 6 MT / Day
Biodegradable Plastic Bags from Cassava Starch (Per Bag 25 gms Size)	: 6 MT / Day
Plant & Machinery	: ₹ 1053 Lakhs
Cost of Project	: ₹ 1768 Lakhs
Rate of Return	: 27%
Break Even Point	: 51%

major source of starch in tropical and subtropical regions, cassava is a promising raw material for the development of biodegradable plastics in these areas.

The global biodegradable plastic packaging market was valued at USD 4.65 billion in 2019, and is expected to reach a market value of USD 12.06 billion by 2025, registering a CAGR of 17.04% during the forecast period of 2020-2025. Growing environmental con-

cerns regarding plastic usage that consists of toxic pollutants which are harming plants, animals, and people are driving the use of biodegradable plastic. Stringent regulations by various government and federal agencies with an objective to reduce plastic waste and promote biodegradable plastics usage in packaging is boosting the demand of this market. As a whole any entrepreneur can venture in this project without risk and earn profit.

HDPE/PP Bags

Woven polypropylene/HDPE bags or simply woven PP/HDPE bags are considered to be the toughest packaging bags, widely used to pack materials for grain, milling and sugar industry. HDPE/PP oriented strips are becoming increasingly popular in India & have caught the eye of many end users for their requirement of packing materials. HDPE sacks have an edge over the conventional jute sacks in the sense that the former are light in weight, strong and attractive. The major users of HDPE/PP woven sacks are fertilizer, sugar, cattle feed, cement & other chemical Industries. Today, PP sacks enjoy a good market share in India and is likely to continue to do so as such in the coming years.

With an investment of ~ INR 28,000 crore, it employs about 13

lakh workers, with installed processing capacity of 2800 KTA, gross annual turnover of INR 30,000 crore and enjoys the reputation of making an important economic contribution to the country's growth. Thus, due to demand it is best to invest in this project.

PROJECT COST ESTIMATE	
Capacity	
Capacity	: 1846 kg/Day
Plant & Machinery	: ₹ 645 Lakhs
Cost of Project	: ₹ 1411 Lakhs
Rate of Return	: 24%
Break Even Point	: 66%

Dehydrated Fruits

Dehydration is a process by which shelf life of the fruits can be extended by evaporating water while preserving the taste. Dehydrated products can be used during off season and the fresh produce of far off places can be saved from decomposition due to severe weather conditions and inefficient transport facilities. It is one of the oldest methods of preserving fruit is removes moisture stops the growth of bacteria, yeasts & molds that normally spoil fruit.

The Indian dried fruits industry size is currently pegged at Rs 15,000 crore (4,50,000 tons approx.). By 2020, this is likely to reach almost a million tonnes in volume, leading to an industry size exceeding Rs 30,000 crore. As a whole any entrepreneur can venture in this project without risk and earn profit.

PROJECT COST ESTIMATE	
Capacity	
Dehydrated Fruits	: 400 Kgs./Day
Plant & Machinery	: ₹ 1084 Lakhs
Cost of Project	: ₹ 1425 Lakhs
Rate of Return	: 26%
Break Even Point	: 45%

Rice Husk Based Biodegradable Cutlery

PROJECT COST ESTIMATE	
Capacity	
Biodegradable Cutlery (Per Set 9 Pcs. Flatware)	: 1,852 Sets / Day
Plant & Machinery	: ₹ 28 Lakhs
Cost of Project	: ₹ 142 Lakhs
Rate of Return	: 28%
Break Even Point	: 63%

The global biodegradable cutlery market size was accounted for USD 33.9 million, in 2018 and is projected to grow at a significant rate of CAGR of 5.9% during the forecast period, 2019 to 2025. The growing awareness about hazardous impacts of non-biodegradable waste is expected to positively affect the market growth. The government has formed strict regulations for banning non-biodegradable plastic. Supportive government initiatives along with growing consumer awareness about side effects of non-biodegradables are projected to boost the market growth. Entrepreneurs who invest in this project will be successful.

Fiberglass Doors

Surrounded Wood and Inside Filled Polyurethane Foam by Injection

Fiberglass doors are two large molded skins with a polyurethane foam core between the skins which is a great insulator against heat and cold. They are popular for their high insulation values, low maintenance, and resistance to dents and scratches. Fiberglass is widely used for manufacturing and building in today's most demanding industries- cars, boats, pools and more, due to its ability to create molds and create custom shapes and never become distorted over time.

Commercial doors market will witness a valuation of over USD 60 billion by 2024. The demand varies depending upon the client's require-

ment with varied functions. Increase in consumer spending on new construction as well as renovation of existing residential & commercial buildings will drive the global doors market growth. As a whole there is a good scope for new entrepreneur to invest in this business.

PROJECT COST ESTIMATE	
Capacity	
Fiberglass Doors	: 150 Nos./Day
Plant & Machinery	: ₹ 89 Lakhs
Cost of Project	: ₹ 392 Lakhs
Rate of Return	: 29%
Break Even Point	: 61%

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