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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.

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Fashion Technology Handbook

2nd Edition

₹ 595/-



Fashion and life style exist parallel to each other. Fashion leads the world & it will continue to do so through times. Human cannot be ever segregated from fashion. Fashion keeps on changing along with the times, it can be old styled, and traditional, modern, rigid, practical, customary, experimental, trendy, sober, etc. generation have witnessed the colour and glamour that constitutes the fashion. Accessories are the extra elements of fashion which enhance the look of your garments design. They form an excellent focal point if used carefully.

It helps in making you appear taller or shorter. Some of the examples of accessories are scarves, belts, jewellery, handbags, shoes etc. The Principles are concepts used to organize or arrange the structural elements of design. Again, the way in which these principles are applied affects the expressive content, or the message of the work. The principles are: balance, proportion, rhythm, emphasis and unity. The elements of design converge to create a equal distribution of visual weight within the particular composition. Balance in design principles is the design or arrangement of elements that appear to be a whole with equilibrium. The simplistic type of balance is called symmetrical balance which has a basic appeal to the viewer.

Asymmetrical balance is achieved by unlike object that has equal eye attraction. Asymmetrical balance is based on: balance by value and colour, balance of shape and texture and by position and eye direction. The Indian fashion industry has experienced significant expansion in the last decade mainly driven by the growth of domestic designers, some of whom have gained international recognition in recent years. Industry growth in India is mainly driven by the growing exposure of domestic designers at international forums, but growth is also supported by other factors such as the launch of focused business education courses for emerging designers and the establishment of an industry association.

This book basically deals with history of fashion, sketching, designing principles, drawing the garments, understanding and application of silhouettes, basic principles of fashion illustrations, fashion accessories and their creative uses, designing techniques, achieving texture in pen and ink, sketching human body, drawing of hands & postures, structure of feet & postures drawing of other parts of body, contemporary western fashion style, etc.

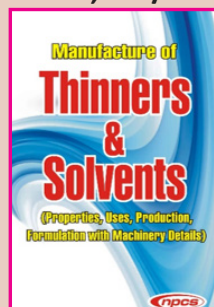
Professional students, new entrepreneurs and designers will find valuable educational material and wider knowledge of fashion technology in the book. Comprehensive in scope, the book provides solutions that are directly applicable to the basic principles, history, designing principles, language guide of fashion industry.

Manufacture of Thinners & Solvents

2nd Edition

(Properties, Uses, Production, Formulation with Machinery Details)

₹ 1,875/-



Solvents are defined as chemicals compound that are introduced during manufacture of the paint itself and before packaging, in order to maintain all components of the paint in a liquid / viscous state such as we know it. A solvent is usually a liquid but can also be a solid or a gas. Solvents find various applications in chemical, pharmaceutical, oil, and gas industries, including in chemical syntheses and purification processes.

Thinners are defined as chemical compounds that are introduced into the paint prior to application, in order

to modify the viscosity and other properties related to the rate of curing that may affect the functionality and aesthetics of the final layer painting. Paint thinner, a solvent used in painting and decorating, for thinning oil-based paint and cleaning brushes. A Thinner may be a single solvent or a combination of solvent types. Often, specific thinners are required by the manufacturer of a coating to prevent damage to coating properties that may occur when an inappropriate thinner is used.

Solvents (for cleaning up or softening) and Thinners (for diluting or extending) are useful not only in painting but in other areas such as Wooden Furniture industry, Automobile industry, Ink industry, Rubber industry.

As the paint industry is a major consumer of Thinners & Solvents, and is expanding at a tremendous speed, it is very obvious that the demand of thinners, too, will increase tremendously. The paints & coatings accounts for the largest share in the aliphatic hydrocarbon Thinners & Solvents market. It is also projected to be the fastest-growing application of the aliphatic hydrocarbon Thinners and Solvents market.

The book contains Properties, Uses, manufacturing of Thinners & Solvents and providing information regarding thinner formulation. It also covers raw material suppliers, photographs of plant & Machinery with supplier's contact details. Some of the fundamentals of the book are thinner in Paint Industry, Health and Safety Measures of Chemicals, Pollution Control, Waste Disposal of Hazardous Chemicals and Storage, Labelling and Packaging of Chemicals etc.

It will be a standard reference book for professionals and entrepreneurs. Those who are interested in this field can find the complete information from manufacture to final uses of Solvents and Thinners. It will be very helpful to consultants, new entrepreneurs, technocrats, research scholars, libraries and existing units.

Cargo Container (Shipping Container) Manufacturing: A High-Potential Business for Indian Entrepreneurs

Global trade runs on steel boxes. That's not a simplification — it's a reality that has shaped international commerce since Malcolm McLean put the first standardized container on a ship in 1956. Today, over 90% of the world's non-bulk cargo moves inside shipping containers, and the industry that makes them is worth billions. For Indian entrepreneurs looking at manufacturing businesses with genuine scale, export muscle, and government tailwinds, cargo container manufacturing deserves serious attention.

Why This Business Makes Sense Right Now

India is on an infrastructure and trade expansion trajectory that few economies can match. The National Logistics Policy, Sagarmala Programme, and PM Gati Shakti are collectively pushing port capacity, multimodal connectivity, and export volumes upward. Yet India produces only a tiny fraction of the containers it consumes. China currently dominates global container production with roughly 95% market share — a concentration that COVID-era supply disruptions exposed as a serious vulnerability for global trade.

That's the opening. As buyer nations and shipping lines actively diversify their container sourcing, India has a clear structural advantage: steel availability (SAIL, RINL, JSW), a large skilled fabrication workforce, competitive labor costs, and proximity to

key trade routes in the Indian Ocean. For a startup, entering this manufacturing space means stepping into a market that is both undersupplied domestically and actively looking to reduce China dependence globally.

Market Size and Trends

The global shipping container market was valued at approximately USD 12–14 billion and is projected to grow at a CAGR of around 4–6% through 2030, driven by rising containerized trade volumes, replacement demand (containers have a lifespan of 10–15 years), and the growing cold-chain logistics sector pushing demand for reefer containers.

In India specifically, container demand is tied directly to EXIM trade volumes, which crossed ₹68 lakh crore in FY24. Indian ports handle over 20 million TEUs (twenty-foot equivalent units) annually, and that number is rising. The domestic market relies almost entirely on imported containers — creating a direct import substitution opportunity that a domestic manufacturer can capture with the right cost structure and quality certifications.

PROJECT COST ESTIMATE CAPACITY

Steel Container	: 4 Nos Per Day (Size 20 Feet)
Plant & Machinery	: ₹ 122 Lakhs
Cost of Project	: ₹ 448 Lakhs
Rate of Return	: 27%
Break Even Point	: 54%

Gel NPK Fertilizer Manufacturing: A Profitable Green Business Opportunity for Entrepreneurs

Conventional NPK fertilizers dissolve fast, leach into subsoil, and often miss the root zone entirely. Gel NPK fertilizers solve this problem by encapsulating nitrogen, phosphorus, and potassium in a hydrogel matrix. The result? Controlled, slow release of nutrients over weeks rather than hours. Plants absorb more, farmers waste less, and the soil retains moisture that would otherwise evaporate. This isn't a niche concept anymore. With water scarcity affecting large parts of Maharashtra, Rajasthan, Punjab, and Tamil Nadu, and with the government pushing precision agriculture under schemes like PM-PRANAM and the National Mission for Sustainable Agriculture (NMSA), gel-based fertilizers are becoming mainstream.

Market Size, Trends, and Export Potential

The global slow-release and controlled-release fertilizer market was valued at approximately USD 2.8 billion in 2023 and is projected to cross USD 4.5 billion by 2030, growing at a CAGR of around 7.2%. In India specifically, the specialty fertilizer segment — within which gel NPK sits — has been growing at 8–10% annually, driven by horticulture expansion, floriculture export demand, and progressive state agriculture policies.

Export potential is substantial. Gulf countries, Southeast Asian markets (Vietnam, Indonesia, Thailand), and parts of Africa are actively importing efficient fertilizer

formats because they face similar water and soil challenges. Indian manufacturers, with a cost-production advantage, are already competitive on price. Certification under FCO (Fertilizer Control Order) and BIS compliance opens doors to institutional buyers and government procurement.

Why Entrepreneurs Should Invest Here

The entry barriers are manageable for an MSME unit. Gel NPK production doesn't demand pharmaceutical-grade infrastructure. A plant operating at 500–1,000 MT per annum is viable at the small-scale level, and the product commands 2–3x the price of granular NPK due to its agronomic efficacy.

Additionally, the input-to-output value chain is well-defined: hydrogel polymers (polyacrylamide or starch-based), urea, DAP, MOP, and micronutrient premixes are all domestically available. There is no critical import dependency. Working capital cycles are relatively short, and institutional buyers — cooperatives, FPOs, state agri-departments — provide bulk demand.

PROJECT COST ESTIMATE

CAPACITY:

Gel NPK Fertilizer : 3,000 Kgs Per Day
(25:25:25)

Gel NPK Fertilizer : 3,000 Kgs Per Day
(15:25:40)

Plant & Machinery : ₹ 126 Lakhs

Cost of Project : ₹ 547 Lakhs

Rate of Return : 41%

Break Even Point : 55%

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

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Power Transformer Manufacturing: A High-Voltage Business Opportunity for Indian Entrepreneurs

India is electrifying itself at a pace the world has rarely seen. Thousands of villages are getting connected. Industrial corridors are expanding. Renewable energy parks are being commissioned at record speed. And at the core of every single one of these developments sits one critical piece of equipment that rarely gets the recognition it deserves — the power transformer. For a startup founder or entrepreneur scanning for a manufacturing opportunity that combines government backing, long-term demand, and genuine barriers to entry, power transformer manufacturing deserves serious attention. Here is why.

What the Market Is Telling Us

India's power transformer market was valued at approximately ₹28,000–₹30,000 crore in 2023-24 and is projected to grow at a CAGR of 7–9% through 2030. The drivers are structural, not cyclical. The government's ₹3.03 lakh crore Revamped Distribution Sector Scheme (RDSS), the push for 500 GW of renewable energy capacity by 2030, and rapid urbanization are creating sustained demand for distribution and power transformers across

the entire voltage range. Export potential is equally compelling. Indian transformer manufacturers already export to Africa, Southeast Asia, the Middle East, and Central Asia. As "China+1" supply chain strategies reshape global procurement, Indian manufacturers are emerging as credible alternatives. Exports of transformers and their parts crossed ₹4,800 crore in FY2023, and the trajectory is upward.

Why a Startup Should Enter This Space Now

The conventional wisdom is that transformer manufacturing is a big-company game. That is only half-true. The distribution transformer segment — units ranging from 25 kVA to 2,500 kVA — is well-suited for small and medium manufacturers. State electricity boards (SEBs) routinely empanel MSME manufacturers, and the GeM (Government e-Marketplace) portal has opened direct procurement pathways that did not exist a decade ago.

PROJECT COST ESTIMATE CAPACITY

Power Transformers (33/66KV, 5000 KVA Core Type Oil Cooled)	: 4 Nos Per Day
Plant & Machinery	: ₹ 1215 Lakhs
Cost of Project	: ₹ 3438 Lakhs
Rate of Return	: 30%
Break Even Point	: 70%

Biodegradable Disposable Cups and Plates Using Sugarcane Bagasse:

A Smart Manufacturing Bet for Indian Entrepreneurs

India generates roughly 350 million tonnes of sugarcane every crushing season. After the juice is extracted, what remains is bagasse — a fibrous, lightweight residue that most mills once burned or dumped. Today, that same waste is being pressed, molded, and sold as eco-friendly tableware commanding premium prices in domestic supermarkets and international retail chains. For a startup looking for a business with built-in raw material supply, rising demand, and government tailwinds, bagasse-based disposable cups and plates deserve serious consideration.

Why Entrepreneurs Should Back This Business

The single most compelling reason is timing. India's Plastic Waste Management Amendment Rules (2022) effectively banned single-use plastic cutlery, plates, and cups across the country. That ban didn't kill demand for disposables — it redirected it. Caterers, quick-service restaurants, airlines, hospitals, and railway pantry contractors still need millions of disposable tableware pieces every single day. Bagasse fills that gap perfectly: it is heat-resistant up to 100°C, microwave-safe, oil and water resistant, and fully compostable within 45–90 days.

Market Size, Trends, and Export Potential

The global biodegradable foodservice disposables market was valued at approximately USD 4.8 billion in 2023 and is projected to grow at a CAGR of around 6.2% through 2030. India's domestic market for eco-tableware alone is estimated to cross INR 3,500 crore by 2027, driven by food delivery platforms, HORECA (hotel, restaurant, catering) chains, and organized retail. Export potential is equally strong. Europe, the United States, Australia, and the UAE have aggressive single-use plastic restrictions, and they import aggressively from South and Southeast Asia. Indian manufacturers currently export bagasse tableware to over 40 countries, with Germany, the UK, and the US among the top destinations. A unit in India with the right certifications (FDA food-contact compliance, EU food-safe standards, BIS IS 14543) can tap into global procurement chains relatively quickly.

PROJECT COST ESTIMATE CAPACITY

Project Capacity	: 1,000 Kgs Per Day
Plant & Machinery	: ₹ 304 Lakhs
Cost of Project	: ₹ 555 Lakhs
Rate of Return	: 27%
Break Even Point	: 45%

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NPK Liquid Fertilizer Manufacturing:

A High-Demand Business Opportunity for Smart Entrepreneurs

India's agriculture sector is undergoing a quiet revolution. Farmers who once swore by bagged granular fertilizers are switching — fast — to liquid alternatives that promise faster nutrient absorption, lower wastage, and easier application. At the center of this shift sits NPK liquid fertilizer: a balanced blend of Nitrogen, Phosphorus, and Potassium in water-soluble form that's reshaping how Indian crops are fed. For an entrepreneur looking at a manufacturing venture with strong fundamentals, this sector deserves serious attention.

Why NPK Liquid Fertilizer? The Business Case in Plain Terms

The global liquid fertilizer market was valued at approximately USD 3.2 billion in 2023 and is projected to cross USD 5.5 billion by 2032, growing at a CAGR of around 6.2%. India commands a significant slice of this demand, given that agriculture contributes roughly 18% to GDP and supports over 58% of the rural workforce. What's driving growth? Three things, primarily. First, drip irrigation adoption has exploded across Maharashtra, Gujarat, Rajasthan, and Karnataka — and drip systems run best with liquid nutrients, not granules that clog emitters. Second, protected cultivation (polyhouses, net houses)

demands precision feeding where liquid NPK is the standard input. Third, government schemes like PM-KUSUM and the push toward fertigation under the National Horticulture Mission are creating structured demand that wasn't there a decade ago.

Market Size and Export Potential

India's liquid fertilizer market (across all formulations) was estimated at over INR 3,800 crore in FY2023-24, with NPK liquids growing fastest within that segment. Export opportunity is real and underutilized. Indian manufacturers currently export liquid fertilizers primarily to Bangladesh, Nepal, Sri Lanka, Vietnam, Kenya, and parts of the Middle East. With competitive raw material access and established MSME production economics, Indian NPK liquid fertilizer can be price-competitive in African and Southeast Asian markets that are scaling up fertigation infrastructure.

PROJECT COST ESTIMATE

CAPACITY :

NPK WSF (20:20:20) : 3,000 Kgs Per Day

NPK WSF (00:30:34) : 3,000 Kgs Per Day

Plant & Machinery : ₹ 52 Lakhs

Cost of Project : ₹ 431 Lakhs

Rate of Return : 29%

Break Even Point : 49%

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.

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.

PROJECT COST ESTIMATE CAPACITY

Hybrid Electric Scooter : 50 Nos. Per day

Plant & Machinery : ₹ 95 Lakhs

Cost of Project : ₹ 279 Lakhs

Rate of Return : 34%

Break Even Point : 74%

Lithium Iron Phosphate Battery (LiFePO4):

A Promising Manufacturing Business for Startups

LiFePO4 batteries stand apart from other lithium-ion chemistries because of one critical advantage: safety. Unlike NMC (Nickel Manganese Cobalt) or NCA cells, LiFePO4 does not undergo thermal runaway under overcharge or physical damage conditions. The iron-phosphate bond is inherently stable. That stability translates into longer cycle life — typically 2,000 to 5,000 charge cycles versus 500–1,000 for conventional Li-ion — making the total cost of ownership far more attractive for buyers even when the upfront price is slightly higher.

There is also a supply chain argument. LiFePO4 uses iron and phosphate instead of cobalt and nickel — materials that are geopolitically sensitive and expensive. India has significant iron ore reserves and growing phosphate processing capacity, which gives domestic manufacturers a real structural edge over imported alternatives in the long run.

Market Size, Trends and Outlook

The global LiFePO4 battery market was valued at approximately USD 14–16 billion in 2023, and projections place it between USD 45–60 billion by 2030, at a compound annual growth rate (CAGR) of roughly 18–20%. Asia-Pacific dominates production today, with China accounting for nearly 70% of global output through manufacturers like CATL and BYD.

India's own LiFePO4 battery market is growing at a faster clip than the global average, driven by three parallel forces: the PLI (Production Linked Incentive) scheme for Advanced Chemistry Cell (ACC) batteries, the FAME-II push for electric two- and three-wheelers, and a surge in demand for solar energy storage systems in both rural and commercial segments. The domestic EV market alone is expected to cross 10 million units annually by 2030, and a significant share of those vehicles will use LiFePO4 chemistry given its cost and safety profile.

PROJECT COST ESTIMATE

CAPACITY :

LiFePO4 Battery 12.8-25.6 V, 50-100Ah Offline Inverters: 12 Nos Per Day

LiFePO4 Battery 51.2-72 V, Inverters & E-Rickshaw : 12 Nos Per Day

LiFePO4 Battery 51.2-72 V, 200-600 Ah L5 Vehicle, : 2 Nos Per Day

Tractor, Railway & Material Handling

Plant & Machinery : ₹ 280 Lakhs

Cost of Project : ₹ 365 Lakhs

Rate of Return : 30%

Break Even Point : 65%

Beyond EVs, the UPS and telecom tower backup segment — where India has hundreds of thousands of diesel genset installations that need replacement — represents a massive near-term opportunity for LiFePO4 packs.

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The global movement of goods depends on a simple but essential product: the steel cargo container. From automobiles and machinery to textiles, food products and industrial equipment, millions of tonnes of goods travel in containers every year. Behind this enormous logistics network is a manufacturing industry that offers opportunities for steel fabricators, engineering companies and entrepreneurs looking to enter the infrastructure and export-support sector.

For startups in India, steel container manufacturing can be an attractive business idea because it combines industrial fabrication, international trade requirements and long-term demand from logistics companies. With the right machinery, quality standards and customer network, a small or medium-sized enterprise can develop a business supplying standard containers, specialized cargo units and customized steel storage solutions.

Market Overview and Growth Potential

The global shipping container market presents a sizeable opportunity for manufacturers. According to Fortune Business Insights, the market was valued at USD 12.32 billion in 2025 and is projected to reach USD 16.57 billion by 2034, growing at a CAGR of 3.37%. Asia Pacific accounted for 37.77%

Steel Container (Cargo Container) Manufacturing: A Promising Business Opportunity for Startups

of the market in 2025, highlighting the importance of the region in container manufacturing and trade.

Another market study by Global Market Insights estimates the industry at USD 11.2 billion in 2025, with a projected value of USD 16.7 billion by 2035. These estimates differ because market research firms use different definitions and methodologies, but both indicate an established global market with continued expansion potential.

The dry storage container segment

remains central to the industry. Standard 20-foot and 40-foot containers are widely used for general cargo, while high-cube, open-top, flat-rack and refrigerated containers serve specialized requirements. This product diversity gives manufacturers opportunities to serve customers beyond the standard cargo market.

Why Startups Should Invest in Steel Cargo Container Manufacturing

A steel container manufacturing plant can serve shipping companies, freight forwarders, logistics operators, exporters, importers, construction businesses and container leasing companies. The demand is connected to the movement of goods across sea, road and rail, making the industry relevant to the wider infrastructure and supply-chain economy.

India offers an opportunity for entrepreneurs with experience in steel fabrication, welding, engineering and industrial project management. A startup can begin with standard dry containers and gradually expand into customized cargo units, storage containers, reefer components and specialized transport equipment.

PROJECT COST ESTIMATE CAPACITY

Cargo Containers (Size 20 Feet)	: 34 Nos Per Day
Plant & Machinery	: ₹ 259 Lakhs
Cost of Project	: ₹ 2185 Lakhs
Rate of Return	: 30%
Break Even Point	: 50%

Demanding Business of E-Rickshaw Assembling

Erickshaws are now one of the preferred modes of transport in streets because of its low maintenance cost, low fuel cost, Eco-friendly, no noise pollution, easy to drive and last but not the least livelihood, e-rickshaw is a boon to the common man. Without putting in much physical efforts and without investing much amount of money, the earning is quite good for an e-rickshaw driver and hence it is an important means of livelihood for many. These e-rickshaws consist of 3 wheels with a differential mechanism at rear wheels. Basically these vehicles have a mild steel tubular chassis.

The global e-Rickshaw market is projected to expand at around 9% CAGR during the upcoming period. The growth of the market is attributed to low cost of transportation and low power consumption. E-rickshaws are widely accepted as an alternative to

diesel, petrol, CNG auto rickshaws. The mismatch between any of these components is nasty and may reduce performance. The global e-Rickshaw market is projected to expand at around 9% CAGR during the period. The growth of the market is attributed to low cost of transportation due better mileage and low power consumption. Increase in sales and production of electric vehicles as an alternative for fuel-based mobility, owing to several government initiatives and environmental regulations on the electric vehicle industry, is projected to drive the e-rickshaw market.

PROJECT COST ESTIMATE CAPACITY

E-Rickshaw	: 200 Nos. Per Day
Plant & Machinery	: ₹ 2.06 Cr.
Cost of Project	: ₹ 25.80 Cr.
Rate of Return	: 30%
Break Even Point	: 68%

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.

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.

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%

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A Business Plan for Surgical Sutures (Assembling)

Surgical sutures are a vital part of the medical industry and are used in numerous medical procedures. Sutures are used to close wounds, hold tissue together, reduce scarring, and promote healing. They can be made of a variety of materials such as nylon, polyester, silk, or absorbable material.

Uses and Applications

Surgical sutures are a vital tool used by surgeons and medical professionals in a variety of different procedures. From simple stitching to complex surgeries, sutures are essential for ensuring the safety and successful healing of a patient.

Indian Market Outlook

The India surgical sutures market is expected to exhibit a CAGR of 8.01% during 2022-2027. The rising cases of numerous chronic diseases, along with the increasing number of surgeries across India, are primarily driving the market growth.

Global Market Outlook

The global surgical sutures market size was valued at USD 4.2 billion in 2021 and is expected to expand at a compound annual growth rate (CAGR) of 5.8% from 2022 to 2030. The North American region dominated the market for surgical sutures with a revenue share of over 40.0% owing to the presence of local and key players, high cost of sutures as compared to other regions, supportive reimbursement scenario, rising government programs, and developed healthcare infrastructure.

PROJECT COST ESTIMATE

CAPACITY

Surgical Sutures	: 450,000 Boxes Per Annum
Plant & Machinery	: ₹ 169 Lakhs
Cost of Project	: ₹ 877 Lakhs
Rate of Return	: 27 %
Break Even Point	: 63 %

Turmeric is a golden spice derived from the rhizomes of *Curcuma longa*, a member of the ginger family (Zingiberaceae). It is widely utilised in India for a variety of purposes, including health, food preservation, and textile dyeing. Underground horizontal stems that develop roots and branches are known as rhizomes.

Curcumin's market exceeded USD 70 million in 2020, with a CAGR of more than 11% expected between 2021 and 2027. Curcumin is a substance that is often used to treat cancer, Alzheimer's disease, and other serious

Setup Curcumin Extraction Unit

PROJECT COST ESTIMATE

CAPACITY:

Curcumin Powder	: 100 Kgs Per Day
Turmeric Oil	: 48 Kgs Per Day
Deoiled Turmeric	: 1,842 Kgs Per Day
Plant & Machinery	: ₹ 215 Lakhs
Cost of Project	: ₹ 493 Lakhs
Rate of Return	: 27%
Break Even Point	: 64%

illnesses. It's also used to treat cancer, arthritis, and viral infections, so the pharmaceutical sector will continue to want it.

Curcumin's anti-inflammatory and antioxidant properties, as well as its use in ayurvedic medical formulations, will increase demand for curcumin-based nutritional supplements. Curcumin's benefits in decreasing depression, metabolic syndrome, and cholesterol management are expected to drive market growth throughout the forecast period.

Production of White Fused Alumina

White fused alumina is an extremely pure type of aluminium oxide that may be utilised with both stainless steel and aluminium. The fusion of high purity calcined alumina in electric arc furnaces produces White Fused Alumina (WFA).

White Fused Aluminum Oxide is a fused aluminium oxide with a high purity. Its white hue comes from the fact that it has less impurities than brown or pink fused aluminium oxide. Brown

fused aluminium oxide has a higher friability than white fused aluminium oxide.

It's best for refractory applications where purity, chemical stability, or great refractoriness are important factors.

- Polishing cloth and abrasive tape materials
- Precision grinding wheels (bearing steel, etc.) and high-classed polishing grinding wheels
- Various lapping materials for metal, glass, crystal, semiconductor crystal, and other materials
- Electrical insulation materials, high-grade refractory materials, and other items

The global White Fused Alumina market is predicted to increase at a CAGR of 2.2 percent between 2021 and 2026, from 447.8 million USD in 2020 to 522.4 million USD by the end of 2026.

The alumina market is divided into abrasives, ceramics, refractories, metallurgy, and other applications. The ceramics category is predicted to have the highest CAGR during the projection period. Alumina that has been calcined is utilised to make sophisticated ceramics.

PROJECT COST ESTIMATE

CAPACITY

White Fused Alumina	
(Al ₂ O ₃ -99.73% and Na ₂ O -0.3%)	: 80 MT Per Day
Plant & Machinery	: ₹ 977 Lakhs
Cost of Project	: ₹ 2532 Lakhs
Rate of Return	: 27%
Break Even Point	: 52%

The protection of food stuffs from spoilage by moulds and bacteria is a major concern of the food technologist. Potatoes can be consumed in varied forms. In fact, it is a vegetable that can easily be combined with any other food item including other vegetables, cereals, pulses, meat and poultry. Potato is one of the important tuber vegetable which is consumed throughout the year. The potato tubers vary in size, shape, colour, depth of eyes etc. which are important characteristics. In India potato is largely cultivated. So it is a good idea to make potato powder from raw potato. That's why we have to say that this is a good opportunity for a new entrepreneur.

Potato Powder

PROJECT COST ESTIMATE

CAPACITY

Plant Capacity	: 500 Kgs./ Day
Plant & Machinery	: ₹ 7 Lakhs
Working Capital/Month	: ₹ 3.5 Lakhs
Total Capital Investment	: Rs. 19.60 Lakhs
Rate of Return	: 53%
Break Even Point	: 47%

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

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Multispeciality Hospital (100 Bedded)

A specialty hospital is dedicated to specific sub-specialty care (Urology, General Surgery, Cosmetic surgery, Bariatric surgery, Clinic Pathology, Pediatrics & Neonatology). Patients will often be referred from smaller hospitals to a specialty hospital for major operations, consultations with sub-specialists and when sophisticated intensive care facilities are required. A private hospital is a place where one may get treatment from ordinary fever to a major surgery operation. As a matter of fact, no limitation has been made for the facilities available in a hospital.

These hospitals are able to do specialized tests, undertake dialysis for acute renal failure, provide ventilation to patients with respiratory failure and render intensive care to critically ill patients. The Healthcare Information Technology (IT) market which is valued at US\$ 1 billion currently is expected to grow 1.5 times by 2020. Thus, due to demand it is best to invest in this project.

PROJECT COST ESTIMATE CAPACITY

Capacity	: 100 Bedded
Plant & Machinery	: ₹ 13989 Lakhs
Cost of Project	: ₹ 38304 Lakhs
Rate of Return	: 26%
Break Even Point	: 31%

Glucose Saline

Glucose, also known as dextrose, is a simple sugar that can be found in nature and are chemically identical. Dextrose may decrease body protein and nitrogen losses, promote glycogen deposition, and decrease or prevent ketosis if sufficient doses are given. Since dextrose is usually metabolized to carbon dioxide and water, administration of a solution of dextrose and water is equivalent to providing the same volume of free water.

It is generally used in the patient who has lost his body fluid. Saline solution is used when large amount of sodium has been lost by vomiting or by gastric or intestinal duodenal aspiration or through anastomosis fistula.

The global intravenous solutions market reached a value of US\$ 8.5 Billion in 2019. IV solutions and electrolytes are mainly used for fluid resuscitation, routine maintenance, replacement, and redistribution. The Market size value in 2020 is USD 86.2 million and Revenue forecast in 2025 is USD 121.7 million is expected to exhibit a CAGR of 7.1% from 2018 to 2025. As a whole any entrepreneur can venture in this project without risk and earn profit.

Eggshell Powder

Eggshell Powder Manufacturing is a promising waste-to-value business opportunity that converts eggshell waste into useful calcium-rich powder and other value-added products. Eggshells are generated in large quantities by the poultry and food-processing industries and are often disposed of in landfills, creating waste management costs. Processing this waste into powder offers opportunities for resource recovery and industrial utilization.

Eggshell powder can be utilized in applications such as calcium supplements, fertilizers, animal nutrition, and other value-added products. Eggshell waste also has potential applications in wastewater treatment, biomaterials, and biodiesel production as a solid-base catalyst.

The growing poultry industry and demand for natural calcium-based products create opportunities for entrepreneurs to explore eggshell processing and powder manufacturing. A suitable manufacturing plant can help convert an abundant waste material into a marketable product while supporting sustainable industrial development.

Business Opportunity: Eggshell Waste Recycling and Calcium-Rich Powder Manufacturing

PROJECT COST ESTIMATE CAPACITY

Eggshell Powder	: 2 MT / Day
Plant & Machinery	: ₹ 11 Lakhs
Cost of Project	: ₹ 42 Lakhs
Rate of Return	: 30%
Break Even Point	: 79%

PROJECT COST ESTIMATE CAPACITY

Capacity	: 200000/ Day
Plant & Machinery	: ₹ 2170 Lakhs
Cost of Project	: ₹ 4083 Lakhs
Rate of Return	: 25%
Break Even Point	: 37%

Start Production of Ethanol from Broken Rice

Ethanol is a clear, colourless liquid with a distinct and pleasant aroma. In dilute aqueous solutions, it has a mildly sweet flavour, but in higher concentrated solutions, it has a burning flavour. Ethanol, $\text{CH}_3\text{CH}_2\text{OH}$, is a chemical compound that has a hydroxyl group, -OH, connected to a carbon atom in its molecules.

Ethanol, usually referred to as ethyl alcohol, drinking alcohol, or grain alcohol, is a colourless, flammable, and mildly toxic chemical compound present in alcoholic beverages. In ordinary speech, it is frequently referred to as "alcohol." Its chemical formulas include EtOH , $\text{CH}_3\text{CH}_2\text{OH}$, and $\text{C}_2\text{H}_5\text{OH}$, as well as the empirical formula $\text{C}_2\text{H}_6\text{O}$. (which it shares with diethyl ether).

The global industrial ethanol market demand in 2019 was estimated to be around 116.9 billion litres. Demand is predicted to grow at a CAGR of 2.5 percent between 2020 and 2025, reaching a volume of roughly 135.5 billion litres.

PROJECT COST ESTIMATE

Capacity:	
Ethanol	: 30 Units Per Day
Cattle feed	: 27 Units Per Day
as by Product	
Plant & Machinery	: ₹ 24 Cr.
Cost of Project	: ₹ 39 Cr.
Rate of Return	: 26%
Break Even Point	: 41%

Opportunities in Manufacturing of Solar Inverter (100 KVA – 1000 KVA)

A solar inverter, also known as a PV inverter, is an essential component of a photovoltaic system that converts the variable direct current (DC) generated by solar panels into utility-frequency alternating current (AC). It enables solar power to be supplied to commercial electrical grids or used in off-grid electrical networks.

Solar inverters are equipped with advanced features such as Maximum Power Point Tracking (MPPT) and anti-islanding protection, which improve system performance and safety. Solar pumping inverters convert solar energy into AC power for operating water pumps without batteries or other energy storage systems.

The growing installation of solar PV systems, declining inverter prices, and technological advancements are creating opportunities in the solar inverter manufacturing industry. This project offers potential for entrepreneurs and investors interested in renewable energy equipment manufacturing.

PROJECT COST ESTIMATE CAPACITY

Solar Inverter	: 15 Nos. Per Day
50 Hz 100 to 1000 KVA	
Plant & Machinery	: ₹ 373 Lakhs
Cost of Project	: ₹ 1288 Lakhs
Rate of Return	: 26%
Break Even Point	: 47%

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- Soaps, Detergents and Disinfectants Technology Handbook (Washing Soap, Laundry Soap, Handmade Soap, Detergent Soap, Liquid Soap, Hand Wash, Liquid Detergent, Detergent Powder, Bar, Phenyl, Floor Cleaner, Toilet Cleaner, Mosquito Coils, Naphthalene Balls, Air Freshener, Hand Sanitizer and Aerosols Insecticide) (3rd Revised Edition) 1595/-

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- Solar PV Power and Solar Products Handbook (Solar Energy, Solar Lighting, Solar Power Plant, Solar Panel Solar Pump, Solar Photovoltaic Cell, Solar Inverter, Solar Thermal Power Plant, Solar Farm, Solar Cell Modules with Manufacturing Process, Equipment Details, Plant Layout & Process Flow Chart) 2nd Edition 2375/-

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- Handbook on Electric Vehicles Manufacturing (E- Car, Electric Bicycle, E- Scooter, E-Motorcycle, Electric Rickshaw, E- Bus, Electric Truck with Assembly Process Machinery Equipments & Layout) 2nd Rev. Edition 3795/-

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- Manufacture of Electrical Cables, Wire and Wire Products Handbook (Copper Wire, Barbed Wire, Spring, Wire Nail, Wire Mesh, Fiber-Optic Cable, PVC Wire and Cable, Aluminum Wire, Steel Wire Rope, Galvanised Wire, Coaxial Cable, Litang Cable LAN/Ethernet Cable, Power Cord Cable, Submersible Cable, XLPE Cable with Machinery Equipment Details & Factory Layout) 2575/-

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NIIR PROJECT CONSULTANCY SERVICES

AN ISO 9001:2015 CERTIFIED COMPANY

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

Tel. : 91-11- 23843955

Mob.: + 91-9097075054, 8800733955

Website : www.niir.org www.entrepreneurindia.co

E-mail : info@niir.org , npcs.india@gmail.com

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%

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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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 Manufacturers).

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.

Business Ideas: Upto 25 Lakhs (Plant and Machinery): Selected Project Profiles for Entrepreneurs, Startups



- » Connecting Rod Mk2 (Electro Galvanized) for Hand Pump
- » A4 and A3 Size Paper
- » Activated Carbon (by Steam Activation Process)
- » Activated Carbon from Saw Dust Adhesive (Fevicol Type)
- » Adhesive from Maize Starch
- » Atta Chakki Plant
- » Ayurvedic /Herbal Hand Sanitizer
- » Ayurvedic Pain Balm



- » Baby Cereal Food
- » Baby Wet Wipes and Facial Wet Tissue Banana Powder
- » Battery Sprayer
- » Biodegradable Plastic Bags from Corn & Cassava Starch Granules
- » Biodegradable Plastic Bags from Corn Starch Production
- » Biofertilizer from Birds Excreta –
- » Bricks from Fume Dust
- » Micronutrient Fortified Energy Dense Food



- » Caffeine from Tea Waste
- » Calcium & Zinc Stabilizer for Pipe and Foam Board Application
- » Cashew Nut Shell Oil
- » Cold Pressed Rice Bran Oil (Edible Oil)
- » Copper Wire Drawing, Annealing & Enamelling
- » Corrugated Galvanized Sheet
- » Cow Urine (Gomutra) Processing and Packing
- » Dairy Farming for Milk
- » Dall/Pulse Mill



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

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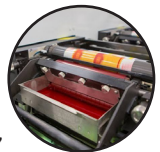
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SELECTED BUSINESS IDEAS FOR RIGHT INVESTMENT

- » Detergent Cake & Powder
- » Disposable Plates from Banana Leaves
- » Eggshell Powder
- » English Willow Cricket Bat
- » Essential Oil Extraction (Jasmine and Tuberose)
- » Exercise Note Book & Registers Pads and File
- » Exercise Note Book and Register
- » Extraction of Essential Oil and Packing of Ground Spices
- » Extraction of Neem Oil
- » Extraction of Oil from Rajnigandha
- » Filtration and Airtight Packing of Coconut Oil
- » Filtration and Airtight Packing of Coconut Oil
- » Flexographic Printing
- » Fuel Bricks from Ground Nuts, Soyabean Hulls and Jute
- » Ginger Oil
- » Glass Fiber Reinforced Polymer (GFRP) Rebar Manufacturing Business
- » Goat Farming for Meat and Breeding Cattle Breeding Farm, Fodder, Livestock Farming
- » Growing Demand of Rice Husk Based Biodegradable Cutlery
- » Gutkha & Pan Masala
- » Hand Sanitizer
- » Hand Sanitizer Manufacturing
- » Herbal/Ayurvedic Hand Sanitizer
- » High Temperature Aluminium Based Paint
- » Steel Epoxy Putty Stick
- » Hydraulic Hoses for Heavy Earth Movers
- » Hydroponic Green House Farming
- » Instant Noodles
- » Insulator (Made By Fiber Glass & Reinforced Plastics By Hand Moulding Press)
- » Iron Powder from Mill Scale Scrap
- » Jute Shopping Bags
- » Ladies Under Garments (Bra & Panties)
- » Ladies Under Garments
- » Liquid Glucose from Maize
- » Liquid Hand Wash
- » Liquid Organic Fertiliser (Biofertiliser)
- » Lucrative Business of Magnesium Stearate
- » M.S. Welding Electrodes
- » Macaroni, Vermicelli & Noodles Manufacturing
- » Magnesium Sulphate
- » Mango Pickles
- » Steel Container (Cargo Container)
- » Basic Violet 10 (Rhodamine B Base)
- » Mayonnaise
- » Meat Analogue, Vegan Meat & Mock Meat from Soyabean and Wheat Gluten
- » Micronutrients Fertilizer
- » Micronutrients Fertilizer for Banana, Vegetables and Citrus
- » Mineral Wool Ceiling Tiles
- » Moringa Leaf Tablets
- » Mosquito Repellent Liquidator
- » Mosquito Repellent Liquidator, Vaporiser (All Out Type)
- » Namkeen (Dalmoth, Bhujia, Chana Chur, Khatta Meetha)
- » Natural Tanning Powder
- » Neem Oil (Cold Process)
- » Non Asbestos Jointing Sheet
- » Non Glazed Ceramic Tiles
- » Non-formaldehyde Dye Fixing Agent for Reactive Dyes
- » Pan Masala
- » Pan Masala Sada, Meetha & Zarda
- » Pan Masala, Gutka & Pouch Making Plant
- » Pan Masala, Tobacco, Zarda & Kimam Pan Masala, Zarda, Khaini, Gutka, Sweet & Scented Supari
- » Paracetamol
- » Pectin from Citrus, Lemon and Oranges
- » Plaster of Paris Emulsion
- » Poly Aluminium Chloride
- » Potassium Chloride
- » Micronutrients Fertilizer
- » Profitable Growing Industry of Medical Disposables (Gowns/Drapes)
- » PVA Adhesive (Fevicol Type) -
- » Ready Mix Coating Powder used for Coating of Pharmaceuticals Tablets for Regular Fill Coating and Functional Film Coating
- » Readymade Garments (T-shirt)
- » Readymade Garments
- » Readymade Khaini (Geeli)
- » Refrigerant Gas R22 Bottling Plant
- » Rewinding of Burnt Electric Motors
- » Sanitary Napkin (Low Investment Project)
- » Sanitary Napkins
- » Sanitary Napkins (Low Cost Project)
- » School (CBSE Pattern)
- » Premix Tea and Coffee Cappuccino, Vanilla Flavoured Coffee, Mocha Coffee, Masala Chai, Ginger Tea & Green Tea (for Diabetic and Non Diabetic)
- » Silica Gel Crystal & Beads
- » Sodium Chlorite Liquid from Powder (31% Liquid NaClO₂)
- » Sodium Silicate (Soda Ash And Silica Sand)
- » Spice Oil Extraction from Curry Leaves (100% EOU)
- » Spice Powder (Turmeric, Chilli, Pepper, Coriander and Cumin Powder)
- » Spices (100 % EOU)
- » Spices (Masala)
- » Spices (Turmeric Powder, Red Chilli Powder, Dhaniya Powder, Garam Masala, Sabji Masala, Popcorn Masala)
- » Spices in Pouch Packing
- » Stable Bleaching Powder
- » Micronutrient Fortified Energy Dense Food
- » Ferric Pyrophosphate (Food Grade/ Pharma Gade)
- » Trading/Export of Spices (Coriander, Chilli, Turmeric & Cumin) Business
- » Sterile Water for Injection
- » Sugarcane Juice Preservation
- » Surgical Cotton & Bandages
- » Surgical Cotton & Bandages (EOU)
- » Surgical Cotton
- » Tailoring Chalk (Triangle Pattern)
- » Tennis Ball (Used in Playing Cricket)
- » Tomato Products
- » Tundish Insulated Powder (radex) –Turmeric, Dhania and Chilli Powder
- » Urea Formaldehyde Uf85
- » Virgin Coconut Oil
- » Washing Powder
- » Welding Electrodes
- » Whole Spices Processing (Cleaning / Grinding & Packaging)
- » Wire Drawing Lubricants
- » Wire Nail
- » Wire Nail & Wire Drawing Plant
- » Workshop for Motors of Low Voltage (up-to 1000V) and Distribution Transformers (Maintenance, Overhauls and Repairs)
- » Carbon Fiber, Carbon Fiber Composites, Graphite Fibre and Carbon Fiber Reinforced Polymer Projects
- » Carbon Composite Fiber
- » Carbon Fiber
- » Carbon Fiber Composites
- » Cellulose Fiber
- » Cold Storage
- » Production of Carbon Black
- » Production of Composite Materials
- » Setting Up A Hospital in India



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

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Urea Formaldehyde UF85

Urea-formaldehyde (UF), also known as urea-methanal, so named for its common synthesis pathway and overall structure, is a non-transparent thermosetting resin or polymer. It is produced from urea and formaldehyde. These resins are used in adhesives, finishes, particle board, medium-density fibreboard (MDF), and molded objects. UF and related amino resins are a class of thermosetting resins of which urea-formaldehyde resins make up 80% produced globally. Examples of amino resins use include in automobile tyres to improve the bonding of rubber to tyre cord, in paper for improving tear strength, in molding electrical devices, jar caps, etc.

In 2019, the market size of Urea Formaldehyde is 8390 million US\$ and it will reach 12800 million US\$ in 2025, growing at a CAGR of 5.4% from 2019. Wood flour and thermoplastic-modified urea-formaldehyde (UF) suspensions are blended to form a wood composite which can sustain impacts better than other similar composites. Wooden furniture market on a global forum is expected to grow at a CAGR of around 5% during 2018-2022. However, volatile prices and availability of raw materials, availability of substitute compounds, and stringent government environment regulations are the key restraints for the urea formaldehyde market.

PROJECT COST ESTIMATE

CAPACITY

Capacity	: 2 MT Per Day
Plant & Machinery	: ₹ 23 Lakhs
Cost of Product	: ₹ 125 Lakhs
Rate of Return	: 28%
Break Even Point	: 66%

Liquefied petroleum gas (LPG) is a term describing a group of hydrocarbon-based gases derived from crude oil and or natural gas. LPG Cylinder is an essential item for filling liquefied petroleum gas used for cooling purpose. The body of LPG cylinder is deep drawn in two pieces then these are welded together to make a compact unit without any leak and defect etc. LPG cylinders are in use in 5 Kg., 12 Kg., 14.2 Kg. & 19 Kg. capacities.

LPG Cylinders

The LPG cylinder market is segmented on the basis of product type and applications. There are various types of cylinder valves which include hand wheel valves, quick-on valves, forklift valves, safety valves, self-closing valves, and cut-off push & turn valves. The LPG cylinders are utilized in various household, outdoors, and other applications. Entrepreneurs who invest in this project will be successful.

PROJECT COST ESTIMATE

CAPACITY:

LPG Cylinders (14.20 Kgs Size)	: 1000 Nos./Day
LPG Cylinders (19 Kgs Size)	: 1000 Nos./Day
Plant & Machinery	: ₹ 471 Lakhs
Cost of Project	: ₹ 1113 Lakhs
Rate of Return	: 30%
Break Even Point	: 56%

Bamboo charcoal production is a great business to start since it has high profit margins, requires few expensive inputs, and can be set up in a short amount of time. Furthermore, bamboo charcoal can be provided to customers in a variety of forms, such as briquettes and wood chunks, obviating the need for any middlemen or manufacturers in the supply chain. In a nutshell, this is the future of business! Let's take a look at how you may get started making bamboo charcoal right now.

Market Predictions:

From 2021 to 2026, the value of the bamboo charcoal market is expected to increase by USD 2.33 billion, with a CAGR of 19.35 percent. The bamboo charcoal market is mostly

Manufacturing Business of Bamboo Charcoal

driven by factors such as rising demand for natural charcoal.

The bamboo charcoal powder market is segmented into culinary, medicinal, cosmetics, and other applications. Chemicals, labs, and agriculture are among the other segments.

Different grades of bamboo charcoal powder are utilised in industries depending on their needs. In terms of application, the bamboo charcoal powder market is dominated by the culinary, medicinal, and cosmetics industries.

PROJECT COST ESTIMATE

CAPACITY

Capacity	: 4 MT Per Day
Plant & Machinery	: ₹ 40 Lakhs
Cost of Project	: ₹ 200 Lakhs
Rate of Return	: 26%
Break Even Point	: 56%

Set Up Ready to Eat Food (Retort Packaging)

Vegetable Pulao, Dal Makhani, Palak, Rajma, Potato Peas and Muutter Mushroom)

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.

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

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.

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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Silicon ingots form the backbone of the modern electronics and solar industries. These cylindrical, purified forms of silicon are sliced into wafers and used in semiconductors, integrated circuits, solar cells, and more. The rising global emphasis on renewable energy and technological advancement has created an urgent demand for high-purity silicon ingots. For startups and entrepreneurs looking to invest in a forward-looking, high-demand industry, silicon ingot manufacturing is an ideal opportunity.

Why Startups Should Choose Silicon Ingot Manufacturing

1. Growing Demand from Multiple Sectors: Silicon ingots are essential in manufacturing photovoltaic (PV) cells, a key component in solar panels. With governments across the globe pushing for solar energy adoption to reduce carbon footprints, the demand for solar-grade silicon is skyrocketing. In addition, the electronics and semiconductor industries rely heavily on silicon ingots, making the market highly diverse and stable.

2. Strategic Alignment with Global Trends: The world is transitioning toward clean energy and digital transformation. Solar energy is not just a trend but a necessity for achieving net-zero carbon targets. Silicon ingot production supports both solar technology and advanced electronics, aligning well with India's Make in India and green energy missions.

Silicon Ingots:

A Strategic Business Opportunity for Emerging Entrepreneurs

PROJECT COST ESTIMATE CAPACITY

Project Capacity	: 100 MT Per Day
Plant & Machinery	: ₹ 33 Crore
Cost of Project	: ₹ 93 Crore
Rate of Return	: 27%
Break Even Point	: 78%

3. High ROI and Scalability: Silicon ingot manufacturing requires a one-time capital-intensive setup but offers long-term profit due to consistent demand and high export potential. Once the production line is optimized, the business is highly scalable, and additional capacities can be added with minimal disruption.

Market Size, Trends, and Analysis

The global silicon wafer market size was valued at over USD 10 billion in 2024 and is projected to grow at a CAGR of 5.5% till 2030. Asia-Pacific, particularly India, is emerging

as a manufacturing hub due to lower labor costs, government support, and increasing investments in renewable infrastructure and electronics.

India's National Solar Mission and Production Linked Incentive (PLI) schemes offer further impetus to domestic manufacturing. Indian startups that venture into silicon ingot production can benefit from capital subsidies, tax rebates, and a ready domestic and international market.

Key growth drivers:

- Increased solar panel installation in rural and urban sectors.
- Growth in electric vehicles and automotive electronics.
- Expansion of telecom and 5G infrastructure.
- Export potential to high-demand countries like the USA, Germany, and Japan.

Manufacturing Process of Silicon Ingots

- 1. Raw Material Procurement:** The base material used is metallurgical-grade silicon, which is further purified to electronic or solar grade.
- 2. Purification:** Through a process called chemical vapor deposition or Siemens process, the silicon is purified to a very high level (99.9999% purity or more).
- 3. Crystal Growth (Czochralski Process):** In this step, purified silicon is melted in a quartz crucible, and a seed crystal is dipped into the melt and slowly pulled upward while rotating to form a single large cylindrical crystal—known as a monocrystalline silicon ingot.

4. Ingot Shaping: The cylindrical ingot is shaped and trimmed to desired dimensions. The ends are cut off, and the ingot is made uniform in diameter.

5. Annealing and Cooling: The ingots undergo thermal annealing to relieve internal stress and are cooled gradually to room temperature.

6. Quality Testing and Grading: The ingots are subjected to electrical and structural tests to assess purity and crystal integrity. Based on the results, they are graded for different applications.

Export Potential

India can position itself as a reliable supplier of solar and electronic grade silicon ingots. Countries like Germany, Japan, the U.S., and South Korea, which are leaders in electronics and solar installations, depend on high-quality silicon imports. With the right quality certifications, Indian manufacturers can tap into this lucrative export market.

Conclusion

The manufacturing of silicon ingots is a strategically sound business idea for entrepreneurs seeking a technology-driven, high-demand, and environmentally aligned opportunity. It is not just a profitable venture but also one that supports the global sustainability movement and contributes to technological advancement. For startups aiming to make a significant impact in green energy or semiconductor industries, investing in silicon ingot production is a smart move with long-term growth potential.

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

1. Adhesive: Silica is used as a reinforcing and thickening agent, as well as to improve bond strength. When a liquid adhesive comes into touch with a solid surface, the dispersed silica particles within it solidify quickly. Adhesive based on natural and synthetic rubber.

2. Chappals: Silica is utilised in shoe soles because of its wear and tear durability, non-scutting properties, and the ability to create compounds with light colours or even transparent materials.

3. Conveyor Belt & Transmission Belt: Due to its small particle size and complex aggregate structure, silica is

Start Production of Silica from Rice Husk Ash

PROJECT COST ESTIMATE

CAPACITY :

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

employed to improve tear strength.

4. PVC Sheets: Silica improves pigment dispersion, acts as a separating agent and an absorbent to increase flow, and gives the compound a dry feel.

5. Railway Pads: Silica is utilised in railway pads for the following reasons:

7. Rubber Products and Rubber Hoses: In industrial rubber, silica gives higher strength and durability, as well as improved heat resistance and tear strength, to industrial Rubber Belts and Rubber Hoses.

8. Silicon Tubes: Silicone rubber is utilised in a variety of applications where its distinct qualities are advantageous. Many of these characteristics are heavily influenced by the type and amount of filler used in the compound.

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

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