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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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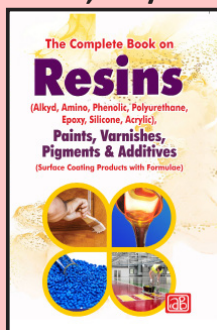
The Complete Book on Resins

(Alkyd, Amino, Phenolic, Polyurethane,
Epoxy, Silicone, Acrylic),

Paints, Varnishes,
Pigments & Additives

(Surface Coating Products with Formulae)

₹ 2,575/-



Resin is a versatile material that can be utilized for a variety of applications. It's frequently utilized in durable castings, arts and crafts, flooring, countertops, and other applications. Resin is a good adhesive and can be used to produce plastics.

The best approach to maintain a range of surfaces safe is to use industrial coatings. Surface coating is any mixture of film-forming materials, pigments, solvents, and other additives that, when applied to a surface and cured or dried, produces a thin functional and frequently decorative film. Paints, drying oils

and varnishes, synthetic transparent coatings, and other items with the primary function of protecting an object's surface from the environment are examples of surface coatings.

The global resin market is expected to grow at a CAGR of 6.4%. The growing demand for epoxy resin in the paints and coatings industry is driving the market. In addition, demand is likely to be driven by the growing use of epoxy in the electronics and electrical industries as an insulator and to protect components from dust, short-circuiting, and moisture.

The rising demand for convenience and processed food and beverages is increasing the demand for packaging in both developed and emerging countries. Resins are used in internal coatings of cans to enhance the shelf life of canned food and beverages products. They are also used to protect and preserve the taste, texture, and colour of food and beverage products while preventing corrosion. Moreover, the increasing use of glass packaging is significantly contributing to the market growth as it uses resin to prevent corrosion in jars and bottles. The introduction of various stringent policies regarding food safety by several governments is increasing the use of epoxy resin, further fuelling the market growth.

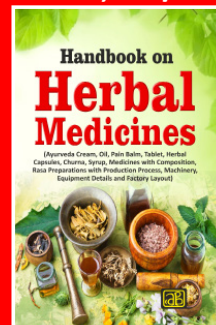
The book covers a variety of topics related to starting a Resin Business. It also includes images of the equipment and facility structure, as well as information on machinery suppliers.

An in-depth look at the Resin Industry and how to start a business in it. This book is a one-stop shop for everything you need to know about the Resin Industry, which is rife with opportunities for manufacturers, merchants, and entrepreneurs. This is the only book on the market that covers the entire process of establishing a commercial Surface Coating facility. From concept to equipment acquisition, it's a wonderful feast of how-to information.

Handbook on Herbal Medicines

(Ayurveda Cream, Oil, Pain Balm, Tablet, Herbal
Capsules, Churna, Syrup, Medicines with Composition,
Rasa Preparations with Production Process,
Machinery, Equipment Details and Factory Layout)

₹ 1,995/-



Herbal medicines, sometimes referred to as herbal remedies or botanical medicine, have a long history of use spanning centuries as a natural approach to addressing various health conditions. These treatments are derived from plants and their components, such as leaves, flowers, stems, roots, and seeds. Herbal medicines leverage the therapeutic properties found in nature to promote general health and well-being. One of the key advantages of herbal medicines is their holistic approach to health. Unlike pharmaceutical drugs that often target specific symptoms, herbal remedies aim to treat the underlying cause of the ailment by addressing the body as a whole. This

integrative approach focuses on supporting the body's innate healing mechanisms and restoring balance.

The Herbal Medicine Market Size was valued at USD 148.5 Billion and is projected to grow from USD 165.13 Billion to USD 386.07 Billion in coming years, exhibiting a compound annual growth rate (CAGR) of 11.20%. The demand for herbal medicinal goods has grown as people become more aware of allopathic medications' side effects and the advantages of using them instead. The expanding population, coupled with an increase in the prevalence of chronic diseases, is another market driver impacting market growth.

The market of herbal medicines will rise due to consumer preferences for natural and herbal goods. Natural goods like herbal medications and health supplements are popular among young people and those close to retirement. As a result, healthcare spending has changed as more senior citizens use herbal medications to maintain their active lifestyles. According to the World Health Organization (WHO), around 80% of the world's population consults traditional health practitioners for plant-based medicines, as they believe that products labeled as 'natural' are safe to consume and do not have any side effects on their health.

The primary content of the book consists Herbal Plant Based Medicine, Herbal Plant-Made Pharmaceuticals, Potential Value-Added Products of Herbal Plants, Manufacturing of Ayurveda Cream, Oil, Pain Balm, Tablet, Herbal Capsules, Churna and Syrup. Rasa Preparations, Medicine for Gastrointestinal Tract, Impotency, Central Nervous System, Musculoskeletal Disorders, Genitourinary Disorders, Respiratory System, Skin, Women Care, Infection & Infestation, General Disease, Endocrinology Medicines, Nutritional Medicines, Cardiovascular Medications, Packaging of Herbal Medicine, Factory Layouts, Machinery, Equipment Details & photographs with Suppliers Contact Details.

This publication is a useful guide, thoroughly covering every important aspect of herbal medicine. It's set to be a go-to resource for professionals and budding entrepreneurs in this domain, providing an exhaustive insight into herbal medicine. The content is also immensely useful for consultants, entrepreneurs, start-ups, technocrats, research scholars, educational institutions, and established businesses. It presents a clear, step-by-step guide, leading from the foundational concepts to the stages of acquiring equipment.

Every furnace, kiln, and industrial oven in the country loses money through its walls. That single fact explains why micro porous insulation boards — arguably the most efficient thermal insulation material available commercially — are moving from a niche specialty product to a mainstream industrial requirement. For entrepreneurs scanning the manufacturing landscape for a defensible, technology-led business, this one deserves a close look.

What Makes the Product Special

Micro porous insulation is engineered from fumed silica, opacifiers (typically silicon carbide or titanium dioxide), and reinforcing fibres, compressed into rigid boards. The pore structure is smaller than the mean free path of air molecules, which suppresses convective and conductive heat transfer almost entirely. The result: thermal conductivity as low as 0.020–0.025 W/mK — roughly three to four times better than ceramic fibre and five times better than calcium silicate. A 25 mm micro porous board does the job of 100 mm of conventional refractory lining, freeing up furnace volume and cutting fuel bills sharply.

Market Overview and Growth Drivers

The global microporous insulation market is estimated in the range of USD 180–220 million and is projected to grow at a CAGR of 5–7% through 2030, driven by three powerful demand streams. First, the iron and steel, aluminium, glass, and cement sectors are under regulatory

Micro Porous Insulation Boards:

A High-Margin Manufacturing Opportunity Worth Serious Attention

and cost pressure to reduce specific energy consumption — India's PAT (Perform, Achieve, Trade) scheme directly rewards thermal efficiency upgrades. Second, the electric vehicle battery segment has emerged as a fast-growing application: micro porous sheets are used as thermal runaway barriers between lithium-ion cells, a market expanding in step with EV production. Third, aerospace, marine, and fire-protection applications continue to absorb premium-grade boards.

For India specifically, the demand picture is compelling. The country is the world's second-

largest steel producer and a major aluminium and cement manufacturer, yet a large share of high-performance microporous material is still imported. That import-substitution gap, combined with export potential to the Middle East, Southeast Asia, and

Africa — regions with growing metallurgical and petrochemical capacity but negligible local production — gives an Indian manufacturer a two-sided market from day one.

Why This Business Suits a Startup

- High entry barriers, once crossed, become your moat. The formulation and pressing know-how filters out casual competition, keeping margins healthy at 25–35% at the EBITDA level for established players.
- Compact plant footprint. A viable unit can start at 300–500 MT per annum on roughly 1,500–2,000 sq. m of covered area, keeping project cost in the ₹6–10 crore band (indicative — final figures depend on capacity and automation level).
- MSME-friendly economics. The project qualifies for credit-linked schemes, and buyers (steel plants, furnace builders, OEMs) sign recurring supply contracts since boards are consumed during every relining cycle.
- Rising energy prices work in your favour. Every fuel price increase shortens your customer's payback period and strengthens your sales pitch.

Major Players

Globally, the segment is led by Promat (Etex Group), Morgan Advanced Materials, Unifrax (Alkegen), Isoleika, Johns Manville, and NICHAS Corporation. In India, participants include Bharat Refractories-linked suppliers, Lloyd Insulations, and Anh Refractories India, alongside importers distributing Promat and Alkegen grades — evidence of demand outpacing domestic supply.

PROJECT COST ESTIMATE

CAPACITY:

Microporous Insulation Boards	: 168 Kgs Per Day
Fine Dust	: 5.2 Kgs Per Day
Plant & Machinery	: ₹ 73 Lakhs
Cost of Project	: 186 Lakhs
Rate of Return	: 27%
Break Even Point	: 67%

Autoclaved Aerated Concrete (AAC) is a non-combustible, lime-based, cementitious building material that is expanding into new worldwide markets. In our country aerated techniques have been developed for about 40 years, and its technique skills and equipments are becoming mature.

The AAC has the features of light bulk density, good thermal insulation properties and sound-absorption, certain strength and process ability, and its raw materials is very rich, especially the reuse of fly ash enables the comprehensive utilization of industrial residue, curbs environmental pollution, no destroy on farmland, create good social and economic benefits. AAC is an ideal alternative of the traditional clay brick wall materials. This is a light-weight building material produced by autoclaving a set mix of fine siliceous materials

Autoclaved Aerated Concrete Blocks (AAC Blocks)

such as ground sand or fly ash and a binder like Portland cement or lime.

AAC products are equally suitable for residential construction, multistory buildings, commercial, and industrial construction.

The autoclaved aerated concrete sector of the construction industry is now in the phase of a tremendous growth cycle. AAC Reduces Additional Material Use and Minimizes Waste and Pollution. The main benefits of autoclaved aerated concrete over other cladding materials are its good strength-

to-weight ratio, its mobility and, because it is a non-combustible material, its fire performance. There will be phenomenal growth in autoclaved aerated industry in the near future. It is estimated that by 2025 about 66 per cent of the world population will live in urban areas on 7 per cent of the land, which means that urbanization will be on a small portion of land. This will need taller buildings and use of high strength concrete.

PROJECT COST ESTIMATE

CAPACITY

AAC Blocks	: 500 Cu.Mtr./Day
Plant & machinery	: ₹ 601 Lakhs
Cost of project	: ₹ 1415 Lakhs
Rate of Return	: 25%
Break Even Point	: 50%

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Walk past any modern warehouse, cold storage facility, or pre-engineered factory building in India today and you are almost certainly looking at sandwich panels. These composite panels — two metal facings bonded to an insulating core of PUF, PIR, EPS, or rockwool — have quietly become the default building envelope for industrial construction. For entrepreneurs scouting a manufacturing venture with steady institutional demand, a continuous sandwich panel line deserves serious attention.

Market Overview and Size

The global sandwich panels market is estimated at around USD 16.5 billion in 2026 and is projected to cross USD 21 billion by 2031, growing at roughly 5–6% annually. What matters more for an Indian promoter is where that growth sits: Asia-Pacific accounts for nearly half of worldwide demand and is expanding faster than any other region. Industrial buildings alone contribute about 46% of consumption, followed by cold storage, commercial construction, and modular housing.

India's own demand curve is steeper than the global average. The push behind it is structural — the PLI-driven factory construction boom, the National Logistics Policy, expansion of organised cold chains for agri-produce and pharma, data centre construction, and the shift from conventional brick-and-RCC construction toward pre-engineered buildings (PEB) that cut project timelines by half. Every one of these end-uses

Continuous Sandwich Panel Manufacturing: A High-Growth Business Opportunity for Startups and Entrepreneurs

specifies insulated panels.

Why a Startup Should Invest

Three reasons stand out. First, recurring institutional demand: buyers are PEB companies, EPC contractors, cold chain developers, and government infrastructure projects — repeat customers who order in volume. Second, the technology is proven and machinery is readily available; a continuous line is capital-intensive but operationally straightforward, with steel coil, chemicals, and adhesives forming a transparent cost structure. Third, regional supply gaps persist. Freight economics limit how far panels travel profitably, so a well-located plant in an industrial cluster enjoys a natural catchment area with limited competition.

Energy-efficiency codes are an added tailwind. As ECBC norms and green-building certification tighten, insulated envelopes

move from optional to mandatory — locking in long-term demand.

Export Potential

Panels manufactured in India are cost-competitive across the Middle East, Africa, Nepal, Bangladesh, and Sri Lanka, where construction activity is strong but local panel capacity is thin. GCC infrastructure spending and African cold chain development offer sustained export headroom, and Indian producers benefit from favourable steel pricing and freight proximity compared with European suppliers.

Major Players

Indian: Kirby Building Systems, Lloyd Insulations, Jindal Mectec, Interarch Building Products, Everest Industries, Multicolor Steels, and Rinac India.

Overseas: Kingspan Group (Ireland), Metecno (Italy), Assan Panel (Turkey), Isopan (Italy), ArcelorMittal Construction, Nucor Building Systems (USA), and Tata BlueScope Steel.

The Bottom Line

Continuous sandwich panel manufacturing combines institutional demand, policy tailwinds, export reach, and defensible regional economics — a rare mix for a first-generation industrial entrepreneur. With India's construction cycle firmly in expansion mode, the timing favours those who move early.

PROJECT COST ESTIMATE

CAPACITY	
Project Capacity	: 6,000 Sq.mt. Per Day
Plant & Machinery	: ₹ 1286 Lakhs
Cost of Project	: ₹ 2400 Lakhs
Rate of Return	: 25%
Break Even Point	: 46%

Presswood pallets, also known as molded wooden pallets, are made of wood byproducts such as waste pallets, raw wood shavings, wood waste, saw-dust and any other material containing wooden fibre. Their unique design means that they can hold substantial load capacities, whilst also being relatively lightweight. They are also both stackable and nestable, helping to reduce storage space and freight costs during shipment. Generally they are made from 'resinous' trees (pine, fir, etc.), the chips come directly from logging and sawmills or from the wood recycling industry. This makes this particular type of pallet extremely eco-friendly. Compressed wood pallets are recognized worldwide as complying with ISPM 15 and that the vast majority of countries readily accept the pallets without the need for further treatment.

The demand for pallets in India is expected to increase at a Y-o-Y growth rate of 9.3% in 2016 over 2015. The India pallets market is estimated to register a CAGR of 13.9% during the forecast period

Compressed Wood Pallets

(2016-2024). These are the major findings of a report titled "Pallets Market: Demand for pallets in India is expected to increase at a significant rate due to the growth of the manufacturing sector in India. Growing demand for safe transportation of products is also likely to propel the growth of the market. Moreover, a rise in the development of the warehousing and logistical structure in India is

anticipated to boost pallet usage shortly.

Increased demand from the user industry, up-surged economic activity, positive business sentiments and rising investment in the manufacturing and infrastructure facilities are the major growth drivers for global pallet market in the upcoming years. In addition to that, escalating demand from packaging and automobile industry is yet another factor to act as a growth driver for the global pallet market in coming future. The limited availability of raw material and high cost of raw material are the two major challenges for the global pallet market.

PROJECT COST ESTIMATE

CAPACITY	
Compressed Wood Pallets (each 15 Kgs)	: 180 Pcs. Per Day
Plant & Machinery	: ₹ 155 Lakhs
Cost of Project	: ₹ 408 Lakhs
Rate of Return	: 25%
Break Even Point	: 67%

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Every tobacco processing unit generates mountains of waste — broken leaves, stems, dust, and factory rejects that most treat as a disposal headache. Yet locked inside that waste is nicotine, an alkaloid that commands premium prices in the global pharmaceutical, agrochemical, and specialty chemical markets. For an entrepreneur willing to convert a low-value byproduct into a refined industrial input, this is one of the more compelling value-addition plays available today.

Why This Deserves a Serious Look

The economics are unusually favorable. Raw material — tobacco scrap and dust — is cheap and abundantly available across Andhra Pradesh, Karnataka, Gujarat, and other tobacco belts. The finished product, on the other hand, sells at a steep multiple. Nicotine feeds three growing demand streams: nicotine replacement therapy (gums, patches, lozenges), bio-pesticides for organic farming, and the nicotine polacrilex and salt segment used in reduced-risk consumer products. That diversity insulates a promoter from being dependent on any single buyer or regulatory shift.

Market Overview and Trends

The global nicotine market runs into several billion US dollars and has been expanding at a healthy clip — analysts commonly cite a compound annual growth rate in the high single digits, driven largely by smoking-cessation products and the reduced-risk category. India sits in an advantageous position: it is among the world's largest tobacco producers,

Nicotine from Tobacco Leaves and Waste:

A High-Value Extraction Opportunity for Indian Entrepreneurs

which means feedstock security that most competing nations simply cannot match. The pull toward plant-derived, organic crop-protection agents is a second tailwind, since nicotine sulphate remains a recognized botanical insecticide.

Export Potential

This is fundamentally an export-oriented proposition. Pharmaceutical-grade nicotine is imported in large volumes by North America, Europe, and East Asia, where domestic tobacco waste is limited and

labour costs are high. An Indian manufacturer producing to USP or EP purity standards can supply NRT formulators and e-liquid manufacturers abroad at a meaningful cost advantage. Buyers, though, are quality-sensitive — GMP compliance and consistent alkaloid purity are the gatekeepers to premium pricing.

Major Players

Overseas: Alcaliber (Spain), Contraf-Nicotex-Tobacco (Germany), Zhaoqing Fenghua Biochemical and Shanghai Tobacco (China), and various US-based NRT ingredient suppliers.

Indian: ITC's leaf and byproduct operations, VST Industries, Godfrey Phillips, and a handful of specialist nicotine and alkaloid extractors serving export markets.

The Bottom Line

A nicotine extraction venture pairs cheap, locally secured raw material with a high-margin, export-hungry finished product. The technology is mature, the demand drivers are structural rather than cyclical, and India's tobacco base gives a domestic promoter a genuine edge. For a startup prepared to invest in quality systems and regulatory certification, this is a rare case of turning literal waste into a globally traded chemical — and that is exactly the kind of arbitrage that builds durable manufacturing businesses.

PROJECT COST ESTIMATE

CAPACITY:	
Nicotine Powder	: 0.4 Units Per Day
Nicotine 100ml Bottle each	: 1750 Units Per Day
Plant & Machinery	: ₹ 1088 Lakhs
Cost of Project	: ₹ 3278 Lakhs
Rate of Return	: 37%
Break Even Point	: 41%

Packaged Drinking Water with PET Bottle

Bottled water is drinking water (e.g., well water, distilled water, mineral water, or spring water) packaged in plastic or glass water bottles. Bottled water may be carbonated or not. Sizes range from small single serving bottles to large carboys for water coolers. Bottled water is the most dynamic market of all the food and beverage industry.

The market is expected to reach INR ~403.06 Bn by the end of 2023, from its current value of INR ~160 Bn, expanding at a compound annual growth rate (CAGR) of ~20.75% from 2018. Based on volume, the market is likely to reach ~35.53 Bn liters by 2023, expanding at a CAGR of ~18.25% from 2018 to 2023. As a whole there is a good scope for new entrepreneur to invest in this business.

PROJECT COST ESTIMATE

CAPACITY:	
Packaged Drinking Water : 28,800 Bottles Per Day 200 ml Size Bottle	
Packaged Drinking Water : 28,800 Bottles Per Day 500 ml Size Bottle	
Packaged Drinking Water : 38,400 Bottles Per Day 1000 ml Size Bottle	
Plant & Machinery	: ₹ 306 Lakhs
Cost of Project	: ₹ 632 Lakhs
Rate of Return	: 24%
Break Even Point	: 51%

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.

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

LPG Cylinders

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%

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Surgical Latex and Nitrile Gloves Manufacturing: A Profitable Opportunity for Startups and Entrepreneurs

Every surgery, every diagnostic test, every dental procedure begins with the same small ritual — a fresh pair of gloves. That single habit, repeated millions of times a day across the world's hospitals, has turned surgical latex and nitrile gloves into one of the most dependable consumables in healthcare. For a startup looking for a product with guaranteed repeat demand, few manufacturing ideas offer this kind of built-in consumption cycle.

Market Overview and Size

The global surgical gloves market stands at around USD 5.26 billion in 2026 and is projected to touch USD 6.54 billion by 2031, growing at a steady 4.4% CAGR. The nitrile segment is the real growth engine: the global nitrile gloves market, valued near USD 5.7 billion in 2026, is expected to nearly double to USD 11 billion by 2033 at 9.9% CAGR, driven by latex-allergy concerns and superior chemical and puncture resistance.

India's story is even more compelling. The domestic surgical gloves market generated roughly USD 84 million in 2025 and is forecast to reach about USD 163 million by 2033 at 8.7% CAGR — making India the fastest-growing market in Asia Pacific. In nitrile gloves specifically, India leads all major countries with an estimated 11.3% CAGR through 2036.

Trends Shaping the Industry

Three shifts stand out. First, powder-free gloves now command over 85% of the market following regulatory bans on powdered variants. Second, nitrile continues to displace natural latex in hospitals because it eliminates protein-allergy risk while matching tactile performance. Third, innovation is moving toward accelerator-free and thin-gauge, high-sensitivity formulations — Indian firms have already launched accelerator-free nitrile gloves meeting EN 455 and ISO 13485 standards.

Export Potential

Malaysia and Thailand dominate global supply today, but international buyers are actively diversifying sourcing after pandemic-era disruptions — a genuine window for Indian manufacturers. India still imports a substantial volume of surgical gloves and nitrile raw materials, so a new unit enjoys a double opportunity: import substitution at home and

exports to the US, EU, Middle East and Africa, where infection-control mandates keep demand rising. CE marking, US FDA 510(k) clearance and ISO 13485 certification open these markets.

Why Entrepreneurs Should Invest

- **Recurring, non-cyclical demand:** gloves are single-use by law and habit; every customer reorders forever.
- **Expanding healthcare infrastructure:** new private hospitals, diagnostic chains, PHCs and ambulatory surgical centres create continuous institutional procurement.
- **Policy support:** MSME schemes, medical device parks and production-linked incentives lower the entry barrier for domestic manufacturing.
- **Diversified end-use:** beyond healthcare — food processing, pharma, laboratories, electronics and industrial safety all consume nitrile gloves.

Major Players

Indian manufacturers include Kanam Latex Industries, Primus Gloves, RFB Latex, Mallcom (India) and Sara Healthcare. Global leaders are Top Glove, Hartalega, Kossan and Supermax (Malaysia), Ansell (Australia) and INTCO Medical (China).

The Bottom Line

Strong domestic growth, an open export window and policy tailwinds make surgical latex and nitrile glove manufacturing a genuinely bankable venture. NPCS can support entrepreneurs with detailed project reports, techno-economic feasibility studies and market surveys to take this idea from concept to commissioning.

PROJECT COST ESTIMATE

CAPACITY:

Surgical Latex Gloves	: 1,25,000 Pcs Per Day
(4gm ± 0.02gm) each	
Nitrile Gloves (Powder Free)	: 1,25,000 Pcs Per Day
(5.5gm ± 0.02gm) each	
Plant & Machinery	: ₹ 823 Lakhs
Cost of Project	: ₹ 2226 Lakhs
Rate of Return	: 30%
Break Even Point	: 43%

Glass Reinforced Concrete (GRC)

Glass Fiber Reinforced Concrete (GFRC) or (GRC) is a type of fiber reinforced concrete. GRC is a composite material consisting of a mortar of hydraulic cement and fine aggregate reinforced with alkali resistant glass fibres. The GRC is a form of concrete that uses fine sand, cement, polymer (usually an acrylic polymer), water, other admixtures and alkali-resistant glass fibers. The fibre contents are typically 3% to 5% by weight depending on product application and production method employed.

GRC is a family of composite materials that combine the high compressive strength properties of cement mortars with significantly increased impact, flexural and tensile strengths imparted by the fibre reinforcement. GRC products are safe, have good chemical resistance and will not rot or corrode. GRC is made of inorganic materials and will not burn, has negligible smoke emission and offers good fire resistance. GRC is normally of relatively thin cross section, giving a low component weight, which allows savings in handling, storage, transportation, and installation compared with traditional concrete products.

The GRC or GFRC market was valued at USD 1.83 Billion in 2017 and is projected to reach USD 3.32 Billion by 2023, at a CAGR of 10.5% during the forecast period. Increasing demand for fire & weather resistance, design flexibility, dimensional stability, ease of handling and rapid installation is driving the growth of the GFRC market. The global glass fiber reinforced concrete market (GFRC) is likely to gain significant momentum in the coming years, owing to the rising concerns about environment conservation. GFRC is produced using recycled and low toxicity raw materials including glass fibers, sand, cement, and water. They offer superior mechanical characteristics as compared to traditional building materials such as steel reinforced concrete (SRC).

PROJECT COST ESTIMATE

CAPACITY

Capacity	: 50 MT Per Day
Plant & Machinery	: ₹ 58 Lakhs
Cost of Project	: ₹ 405 Lakhs
Rate of Return	: 29%
Break Even Point	: 67%

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Setup a Manufacturing Plant of Disposable Plate and Cups from Waste Rice Husk Powder

Disposable plate and cups has emerged as a better alternative to plastics across the globe and Indians have been early adopters of biodegradable products. All kinds of plant biomass material such as bagasse, rice husk, coconut coir etc. are being utilized for producing eco-friendly cutlery, tableware and packaging products that could see a surge in usage in the coming decade.

Rice husk plates is highly friendly, high performing, and cost-effective products manufacturing using top-quality materials and industry-leading technology. Great to hold and use and no unpleasant feeling of wooden single use tableware in your mouth. Ditch the single use plastic and bio plastic and reuse the natural sustainable alternative. Give a gift that has a positive effect, take to work, use at the deli takeout, switch from plastic at the refectory and avoid single use surcharges too.

Disposable plates and cups has gathered groundswell of interest among consumer worldwide due to compelling environmental reasons. To that end, augmenting the popularity of biodegradable utensils are their better sustainability than plastics and the salient environmental-friendliness of biodegradable materials. In particular, biodegradable tableware made of plant-based materials and biodegradable bio-plastics have attracted widespread attention world over. Most popularly, eco-friendly tableware are made using corn, areca leaves, and bagasse, and rice husk. Over the years, the remains of fast growing trees have been utilized. The demand for disposable plate and cup with bamboo in regions where they are abundantly available has gathered stream, such as in India.

PROJECT COST ESTIMATE

CAPACITY:

<i>Disposable Plates from Waste Rice Husk Powder</i>	: 10,000 Pcs Per Day
<i>Disposable Cups from Waste Rice Husk Powder</i>	: 10,000 Pcs Per Day
Plant & Machinery	: ₹ 38 Lakhs
Cost of Project	: ₹ 166 Lakhs
Rate of Return	: 28.44%
Break Even Point	: 59.78%

India's snacking habits have changed more in the last decade than in the previous three combined. Roasted namkeen and fried chips are steadily losing shelf space to something that used to be reserved for festivals and weddings — flavoured dry fruits, and cashews in particular. Peri-peri cashew, tandoori cashew, cheese-onion cashew, honey-roasted almonds, salted pistachios in resealable pouches — this segment has moved from a niche gifting category into everyday retail. For a new entrepreneur or an MSME looking for a manufacturing venture with genuine margins and export legs, flavoured cashew processing with dry fruit packaging deserves serious consideration.

Why This Business Makes Sense for Startups

Three things make this idea attractive at entry level. First, the raw material — raw cashew kernels — is widely available through domestic processors in Kerala, Karnataka, Maharashtra, and Odisha, so a new unit doesn't need to build its own cashew nut processing from scratch; it can start with kernel processing, flavouring, and packaging alone, keeping capital investment moderate. Second, the value addition is disproportionate to the effort: a kilogram of plain cashew kernel gains 25–40% in realizable price once it's roasted, flavoured, and packed in a branded pouch. Third, demand isn't seasonal in the way people assume — while festive months (Diwali, Rakhi, wedding season) still spike, organised retail, quick-commerce, and airline/hotel gifting have made this a year-round category.

Market Size, Share and Trends

India's dry fruits and nuts market is currently estimated in the range of USD 5–6 billion, with flavoured and value-added nuts forming one of the fastest-growing sub-segments, growing faster than the plain/unflavoured category. Cashew alone accounts for a significant share of India's nut consumption, and India remains both a major cashew processor and consumer, alongside Vietnam. Key trends worth noting: rising preference for healthier snacking over fried namkeen; growth of D2C and quick-commerce brands built entirely around flavoured nuts; premiumisation through gifting packs; and increasing private-label demand from supermarket chains.

Export Potential

India is among the world's largest cashew processors, and processed cashew — including flavoured and roasted variants — finds strong demand in the Middle East (UAE, Saudi Arabia), the US, and European markets, aided by the Indian diaspora and growing

Flavoured Cashew Processing with Packaging of Dry Fruits: A High-Potential Business Opportunity for Entrepreneurs

acceptance of Indian flavour profiles abroad. Gulf Cooperation Council countries are particularly promising for flavoured/spiced variants given existing familiarity with Indian snacking flavours. Export documentation typically routes through FSSAI, APEDA registration, and relevant BIS/food safety compliances for the destination country.

Major Players in the Industry

Indian: Tata Consumer Products (Tata Sampann), Nutraj, Happilo, Farmley, True Elements, and regional processors across Kollam and Panruti clusters known for cashew grading and export.

Overseas: Olam Group (Singapore-based, major global cashew processor), Mount Franklin Foods (US), and Vietnamese exporters who dominate raw cashew supply chains feeding global roasting and flavouring units.

Bottom Line for Entrepreneurs

Flavoured cashew processing sits at a comfortable intersection — moderate capital entry, strong value addition, and both domestic organised-retail pull and export headroom. For an MSME or startup evaluating manufacturing ideas in the food processing space, this is one of the more resilient, brand-buildable options on the table today.

PROJECT COST ESTIMATE

CAPACITY:

<i>Roasted Cashew</i>	: 375 Kgs Per Day
<i>Fried Cashew</i>	: 375 Kgs Per Day
<i>Flavoured Cashew</i>	: 375 Kgs Per Day
<i>Coated Cashew</i>	: 375 Kgs Per Day
<i>Outsource – Almond</i>	: 500 Kgs Per Day
<i>Outsource – Raisins</i>	: 500 Kgs Per Day
<i>Outsource – Pistachios</i>	: 500 Kgs Per Day
Plant & Machinery	: ₹ 18 Lakhs
Cost of Project	: ₹ 197 Lakhs
Rate of Return	: 34%
Break Even Point	: 82%

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

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Walk into any electronics showroom, construction site, or fish market in India, and you'll find Expanded Polystyrene doing quiet, unglamorous work — cushioning a television in transit, insulating a cold-storage wall, or keeping prawns fresh on ice. EPS rarely gets discussed with excitement, yet it sits at the intersection of three booming Indian sectors: packaging, construction, and cold-chain logistics. For a startup scouting its first manufacturing venture, that intersection is exactly where the opportunity lies.

Why This Business Deserves a Serious Look

EPS manufacturing checks boxes that few other MSME-friendly industries manage simultaneously. The raw material — expandable polystyrene beads — is a single, well-standardized input, which keeps procurement simple compared to multi-ingredient chemical processes. The machinery is modular, so a unit can start small (block moulding only) and add shape-moulding or thermocol sheet lines later as demand grows. Payback periods are typically attractive because EPS packaging is now near-mandatory for several downstream industries — appliance makers, pharma cold-chain, and horticulture exporters all consume it in volume, giving a new manufacturer built-in demand rather than a market that needs to be created from scratch.

There's also a policy tailwind: India's Production Linked Incentive push for electronics and white goods manufacturing indirectly expands EPS

Expanded Polystyrene (EPS): A Manufacturing Opportunity Indian Entrepreneurs

packaging demand, since every additional appliance factory needs matching protective packaging capacity nearby.

Market Overview, Size and Trends

The Indian EPS market has been tracking upward on the back of construction-sector insulation demand and e-commerce packaging growth, broadly estimated in the range of ₹3,000–3,500 crore annually, with mid-single-digit to high-single-digit CAGR expected over the next five years. Globally, the EPS market is valued well above USD 12 billion, with Asia-Pacific —

led by China and India — commanding the largest and fastest-growing share.

Three trends are reshaping demand. First, insulation-grade EPS is gaining traction in green building codes (ECBC compliance), as builders look for cost-effective thermal insulation. Second, fish and horticulture exporters are driving steady demand for EPS boxes, particularly from coastal states like Kerala, Gujarat, and Andhra Pradesh. Third, recyclable and low-density EPS variants are emerging as manufacturers respond to plastic-waste regulation — an area where early movers can differentiate.

Export Potential

India's EPS packaging finds ready buyers among Middle Eastern and African markets for seafood and produce packaging, while insulation-grade EPS has demand across South Asia's expanding construction sector. Proximity to major ports (Kandla, Mundra, Cochin, Vizag) gives western and southern-based units a genuine logistics edge for export orders.

Major Players

Indian: BASF India, Supreme Petrochem Ltd, Vardhman Industries, Vishal Fome Pvt. Ltd, Sanchi Fom Pvt. Ltd

Overseas: BASF SE (Germany), TotalEnergies (France), NOVA Chemicals (USA), Kaneka Corporation (Japan), Synthos S.A. (Poland)

PROJECT COST ESTIMATE CAPACITY

Project Capacity	: 6,000 Kgs Per Day
Plant & Machinery	: ₹ 272 Lakhs
Cost of Project	: ₹ 498 Lakhs
Rate of Return	: 25%
Break Even Point	: 68%

Biofuels are transportation fuels such as ethanol and biomass-based diesel fuel that are made from biomass materials. These fuels are usually blended with petroleum fuels (gasoline and distillate/diesel fuel and heating oil), but they can also be used on their own. Using ethanol reduces the consumption of gasoline and diesel fuel made from crude oil, which can reduce the amount of crude oil imported from other countries.

Ethanol is used extensively as a solvent in the manufacture of varnishes and perfumes; as a preservative for biological specimens; in the preparation of essences and flavorings; in many medicines and drugs; as a disinfectant and in tinctures (e.g., tincture of iodine); as a fuel and gasoline additive. Ethanol has been produced from different sources in the past.

Properties of Ethanol

- It is 10th % pure ethyl alcohol.
- It is highly flammable, non-toxic sweet smelling compound
- Ethanol has a greater affinity for water
- Highly Soluble
- Ethanol has an auto-ignition temperature of 793°F

Lucrative Business of Ethanol as Bio-Fuel

- Some ethanol blends can conduct electricity

The global fuel ethanol market was valued at USD 78.6 billion in 2018 and expected to grow at a CAGR of 5.8% in, 2019–2025. Crude oil and natural gases are commonly used sources for manufacturing fuels across the world. As India has very large area under sugar cultivation, we can also follow the Brazilian route (i.e. using ethanol as motor fuel) of ethanol production. Biofuel refers to the specific type of fuel derived from the natural sources such as plants, organic materials, animal wastes. Biofuel industry is gaining

substantial attraction as alternative fuel for the petroleum derived fuels in order to mitigate major concerns of global warming, raised due to the fossil fuels. The market is mostly driven by rising environmental concerns and the need to reduce GHG emissions.

Government has been promoting use of ethanol as a blend stock with main automotive fuel like petrol in line with the National Policy on Biofuels -2018 under the Ethanol Blended Petrol (EBP) Programme. This policy envisages an indicative target of blending 20% ethanol in petrol by 2030. Department of Food & Public Distribution (DFPD) has informed that the production of ethanol varies from distillery to distillery and depends upon various factors viz. cost of raw material, conversion cost, efficiency of distillery plants etc. Several supply and demand side interventions have been

initiated by the Government including enhancing scope of raw material for ethanol production and fixing remunerative prices of ethanol from different feedstocks being utilized for ethanol production.

PROJECT COST ESTIMATE CAPACITY

Ethanol	: 30.0 KL Per Day
Plant & Machinery	: ₹ 345 Lakhs
Cost of Project	: ₹ 4325 Lakhs
Rate of Return	: 24.00%
Break Even Point	: 48.48%

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

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Disposable Syringes are made of plastic material and are used in the field of medical and veterinary science. Due to their availability in sterilized condition, ready to use, and cost effectiveness, disposable syringes are fast replacing the age-old glass syringes. The constantly increasing use of this type Syringe indicates its importance which is based mainly on the advantages it offers regarding cost and hygienic applications. The manufacture of plastic syringes has been developed to such a degree that the products now satisfy the requirements and standards set by Hospital and physicians. At the same time they offer the best possible technique of application to the physician and the highest possible degree of safety to the patient.

Disposable Syringes are being used by doctors to inject medicines through intravenous or intramuscular ways for the treatment of diseases & also by research & development personnel. Disposable syringes are made of plastic material and are used in the field of medical and veterinary science. Due to their availability in sterilized condition, ready to use, and cost effectiveness, disposable syringes are fast replacing the age-old glass syringes.

Medical-grade disposable hypodermic syringes are often used in research laboratories for convenience and low cost. Another application is to use the needle tip to add liquids to very confined spaces, such as washing out some scientific apparatus. They are often used for measuring and transferring solvents and reagents where a high precision is not required. Alternatively, microliter syringes can be used to measure and dose chemicals very precisely by using a small diameter capillary as the syringe barrel.

Setup a Manufacturing Plant of Disposable Plastic Syringes With Needles

Disposable Syringes Market is valued at USD 7.29 Billion in 2018 and expected to reach USD 11.08 Billion by 2025 with the CAGR of 6.19% Increasing prevalence of many chronic diseases that necessitate the use of disposable syringes in their care is expected to drive the Global Disposable Syringes Market. Furthermore, numerous government agencies are funding companies that produce disposable syringes for the care of chronic disease such as Diabetes, which predominate the global disease burden.

PROJECT COST ESTIMATE

CAPACITY:

Disposable Plastic Syringes with Needles 1 ml Size : 50,000.0 Nos. Per Day each Packed in Polypack

Disposable Plastic Syringes with Needles 3 ml Size : 50,000.0 Nos. Per Day each Packed in Polypack

Disposable Plastic Syringes with Needles 5 ml Size : 50,000.0 Nos. Per Day each Packed in Polypack

Disposable Plastic Syringes with Needles 10 ml Size : 50,000.0 Nos. Per Day each Packed in Polypack

Plant & Machinery : ₹ 524 Lakhs

Cost of Project : ₹ 345 Lakhs

Rate of Return : 30.78%

Break Even Point : 35.60%

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.

Entrepreneurial Opportunities: Lucrative Manufacturing Projects for Startups (3.5 - 4 Crore)



- » Titanium Dioxide from Rutile Ilmenite Ore
- » Absorbent Surgical Cotton (Cotton Rolls)
- » Aluminium Cables and Conductors from Molten Aluminium Metal/Aluminium Ingots
- » Aluminium Extrusion
- » Aluminium Fluoride
- » Beer Plant
- » Bentonite Processing & Pulverising
- » Craft Beer
- » Dairy Farming & Dairy Products (Milk, Butter, Ghee, Paneer & Curd)
- » Disposable Baby Diaper
- » Disposable Nitrile Gloves (Nitrile Examination Hand Gloves)



- » Disposable Surgical Face Mask & N95 Masks
- » Paracetamol Tablets
- » Ginger Oil & Ginger Powder Production Business
- » HDPE and UPVC Pipes
- » Herbal/Ayurvedic Hand Sanitizer
- » High Tensile Nuts & Bolts (for Automobile Industry)
- » Hospital
- » Hospital 30 Bedded
- » Surgical Cotton Manufacturing Business
- » Integrated Unit Textile Mill and Readymade Garments
- » Invert Sugar Syrup
- » IV Fluids (BFS Technology)



- » Jute Yarn, Jute Sutli & Hessian Cloth Weaving Integrated Unit
- » Linear Alkyl Benzene Sulphonic Acid
- » Low Carbon Ferromanganese e
- » LPG Cylinders
- » Hdpe Jumbo Bags (Flexible Intermediate Bulk Containers)
- » Paprika Oleoresin
- » Truck Trailer (Sidewall, Flatbed, Bulker, Tip Trailer & Container Trailer)
- » Disposable Safety Razors
- » Solar Inverter (100 Kva – 1000 Kva)
- » Organic Yeast from Organic Molasses
- » Particle Board from Wheat/Rice Straw



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

- » PVC Edge Banding Tape Manufacturing Business
- » Epoxy Hardener Plant
- » Potato Starch
- » Chlorinated Polyvinyl Chloride
- » Copper Flats & Copper Tubes



- » Malic Acid (Powder)
- » Disposable Plate and Cups from Waste Rice Husk Powder
- » Surgical & N95 Masks
- » Synthetic Camphor



- » TMT Bars, Angles & Pipes
- » Tomato Products Tomato Ketchup, Sauce and Soup
- » Truck Body Building
- » Zinc Oxide from Zinc Dross



Start Investing in Fastest Growing Industries

The popularity of smart phones and tablets has resulted in a significant increase in the demand for lithium ion batteries in recent years. Because these gadgets contain hazardous elements that must be properly disposed of to avoid contamination of the environment, it is now more important than ever to recycle these batteries. Most commercial lithium ion batteries contain transition metal oxides or phosphates, aluminium, copper, graphite, organic electrolytes containing poisonous lithium salts, and other chemicals.

As a result, an increasing number of scientists are concentrating their efforts on the recycling and repurposing of spent lithium ion batteries. However, recycling expended lithium ion batteries is difficult due to their high energy density, greater safety, and low cost.

Lithium-ion batteries are becoming increasingly popular. Cell phones, computers, consumer gadgets, and certain industrial applications already use them. They're used in telecom towers, solar storage systems, and electric automobiles. Lithium-ion batteries should be recycled for a variety of reasons, according to battery experts and environmentalists. The recovered materials might be utilised to build new batteries, cutting production costs. These components now account for more than half of the cost of a battery. The most expensive components of the cathode, cobalt and nickel, have seen significant price changes in recent years.

The removal of any plastic, rubber, or metal pieces is the first stage in recycling a lithium ion battery. These parts are sold as raw materials after being separated from the remainder of the waste stream. The next stage is to separate all metals, which is usually done by electrolysis, which produces an acid solution that dissolves metals while leaving the bulk of other components behind.

Batteries can be dismantled into groups of similar materials and reused without any additional processing. Cobalt and nickel, for example, could be employed in new batteries or as semiconductor components. Steel is created from manganese and iron, and aluminium is delivered to aluminium smelters. Despite the fact that chromium is infrequently recovered for use in steel manufacturing, it is most commonly used as a high-purity alloying agent. Lithium waste does not react with other

Recycling of Lithium Ion Battery

chemicals, thus it can be disposed of properly in landfills or resold to manufacturers who will reuse it after separation.

India's lithium-ion battery sector is expected to grow quickly over the next five years. One of the primary steps taken by the Indian government to drive the growth of this sector is the National Electric Mobility Mission Plan 2020, which forecasts 6-7 million electric vehicles on Indian roads by 2020 and a target of 175 GW renewable energy installation by 2022. India's annual lithium-ion battery market is expected to increase at a 37.5 percent compound annual growth rate (CAGR) from now until 2030, when it would reach 132 GWh, according to projections. By 2030, the market for lithium-ion batteries will have grown from 2.9 gigawatt-hours in 2018 to around 800 gigawatt-hours.

India's goal to transition from fossil fuel-based vehicles to electric vehicles (EVs) would drive up demand for batteries in the coming years. The lithium-ion battery (LiB) is now the most suitable alternative among the various existing battery technologies. With today's recycling technology, valuable metals including cobalt, nickel, manganese, lithium, graphite, and aluminium can be recovered up to 90%. These make up around 50-60% of the total battery cost, with cobalt being the most expensive.

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	: ₹ 199 Lakhs
Cost of Project	: ₹ 422 Lakhs
Rate of Return	: 27%
Break Even Point	: 55%

Biodegradable Plastic Pellets

- Corn Starch Thermoplastic & Polyvinyl Alcohol
- PBAT & Corn Starch Thermoplastic
- PLA + PBAT + Corn Starch Thermoplastic
- PLA + PBAT + CaCO_3

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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Corn is a popular source for materials that can be recycled into biodegradable plastic polymers. Most people know that corn is a major crop in America, but they may not have known the amount of corn crops are actually used to make plastic products. Corn has the potential to be one of the most sustainable crops in America because it produces biodegradable plastics, which are made from renewable resources, and these plastics are also recyclable.

Benefits of Bio-Degradable Plastic Polymer

Biodegradable plastics are a type of plastic that break down in the environment instead of remaining there as a contaminant. Currently biodegradable plastics are used for packaging food products or other materials that need protection from degradation during shipping.

Bio-Degradable Plastic Polymer from Corn

PROJECT COST ESTIMATE

CAPACITY

Bio-Degradable Plastic Polymer	: 10,000 MT Per Annum
Plant & Machinery	: ₹ 6058 Lakhs
Cost of Project	: ₹ 8100 Lakhs
Rate of Return	: 28%
Break Even Point	: 38%

Bioplastics will soon replace most petroleum-based products which is an excellent way to reduce

greenhouse gas emissions and global warming.

Indian Market outlook

India Bio plastics Market was valued at US\$ 320.13 Mn. in 2021 and expected to reach US\$ 1060.77 Mn. by 2027 at a CAGR of 22.1% during 2022-2027. As the country's population continues to grow, there is an increasing demand for sustainable and eco-friendly products.

Global Market outlook

In 2021, it was predicted that the global market for biodegradable plastic would be worth USD 4.1 billion. During 2022-2030, it is anticipated to increase at a compound annual growth rate (CAGR) of 9.7%. One of the main trends driving market expansion is governments banning the use of single-use plastic together with increased public awareness of the negative consequences of plastic waste.

Biodegradable Plastic Bags from Corn & Cassava Starch

Corn starch has 25% amylose and 75% amylopectin. The amylose molecules loose loose 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 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 concerns 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.

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%

Dal Mill (Pulse)

India is the still by and large vegetarian in dietary habit and heavily depends upon vegetative source to meet out its daily protein requirement. India is bound to be global leader in terms of production and consumer of pulses. Since, India is leading importer of pulses; production of pulse/legume crops has been stagnant over the years.

They are the main sources of protein. The important dals in the country are Channa, Moong, Urad, Moth, turdal and Masoor, Matar etc. The pulses are used for preparing hot dishes, sweet dishes and other varieties. Pulses are the important sources of proteins, vitamins and minerals and are popularly known as "Poor man's meat" and "rich man's vegetable", contribute significantly to the nutritional security of the country. India is the largest producer (25% of global production), consumer (27% of world consumption) and importer (14%) of pulses in the world.

The dal milling industry in India is one of the major agro processing industries in the country. From an annual production of 13.19 million tonnes of pulse in the country, 75% of these pulses are processed by dal mills. Thus, due to demand it is a good project for entrepreneurs to invest.

PROJECT COST ESTIMATE

CAPACITY:

Black Gram Dal	: 1800 MT/ Annum
Channa Dal	: 1800 MT/ Annum
Green Gram Dal	: 1800 MT/ Annum
Turdal	: 1800 MT/ Annum
Plant & Machinery	: ₹ 104 Lakhs
Cost of Project	: ₹ 221 Lakhs
Rate of Return	: 29%
Break Even Point	: 70%

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Manufacturing Business of Triacetin

Triacetin, also known as Glyceryl Triacetate, is an organic chemical compound which plays an important role in the manufacturing of cosmetics products, detergent products, and even certain medications and food additives. The compound was first developed in 1887 by German chemist Hermann Kolbe.

Uses and Application of Triacetin

It can be used as a solvent for dyes, oils, and waxes in paints; as an intermediate for adhesives; as a plasticizer in rubber goods; and as an ingredient in insecticides. It's also used to make cosmetics like hand lotions and lipstick. **Benefits of Starting Triacetin Business**

There are many benefits to manufacturing triacetin. One of these benefits is that it serves as a raw material for other industrial chemicals, such as phenol, glycerine, benzene, and acetone. Additionally, this product is often easier to store than some alternatives since it doesn't evaporate like some of its counterparts do. Finally, this product may also have a lower risk profile than some other ingredients used in making items such as cosmetics or pharmaceuticals due to its non-volatile nature and low toxicity.

Global market outlook

Triacetin Market is expected to reach USD 334 million by 2027, with a CAGR of 4 % between 2021 and 2027. Asia Pacific has the biggest market for triacetin among all the continents. The Asia Pacific triacetin market is expanding as a result of ongoing R&D activities being conducted by end-use industries, such as food & beverage and pharmaceutical, for the creation of new products.

PROJECT COST ESTIMATE

CAPACITY

Triacetin	: 5,000 MT Per Annum
Plant & Machinery	: ₹ 2206 Lakhs
Cost of Project	: ₹ 3524 Lakhs
Rate of Return	: 27%
Break Even Point	: 62%

Corn Starch Based Biodegradable Tableware

Rising awareness regarding the ill effects of plastic tableware, awareness about the benefits of environmental friendly tableware, increasing adoption of non-toxic and petroleum free products, increasing disposable income and extending investment in research and development are some of the significant factors that are projected to result in the market growth. Additionally, the sustainability trend has led to the packaging industry to adopt a change in the materials used by them. These sustainability-centered initiatives and the need for change in packaging formats along with other prominent industry trends have been impacting the packaging industry. This is evolving consumer preferences, cost constraints, e-commerce, and favorable government regulations for permitting biodegradable tableware market which is further estimated to boost the market growth with notable CAGR during the forecast period 2020-2028. Entrepreneurs who invest in this project will be successful.

PROJECT COST ESTIMATE

CAPACITY:

Biodegradable Plate 9" Size (10 Pcs. Each Box)	: 6,000 Nos / Day
Biodegradable Bowl 6" Size (10 Pcs. Each Box)	: 800 Nos / Day
Biodegradable Cup (10 Pcs. Each Box)	: 1,333.3 Nos / Day
Biodegradable Lunch Box with Hinged Lid 650 ml (10 Pcs. Each Box)	: 1,866.7 Nos / Day
Plant & Machinery	: ₹ 40 Lakhs
Cost of Project	: ₹ 159 Lakhs
Rate of Return	: 28%
Break Even Point	: 65%

Although the term "microbrewery" was originally used in relation to the size of breweries, it gradually came to reflect an alternative attitude and approach

to brewing flexibility, adaptability, experimentation and customer service. The term and trend spread to the US in the 1980s and was eventually used as a designation of breweries that produce fewer than 15,000 U.S. beer barrels (1,800,000 liters; 460,000 U.S. gallons) annually. A microbrewery or craft brewery is a brewery that produces small amounts of beer (or sometimes root beer), typically much smaller than large-scale corporate breweries, and is independently owned. Such breweries are generally characterized by their emphasis on quality, flavour and brewing technique.

Beer is globally the third most popular drink

Microbrewery

after water and tea. Growing at a CAGR of 2.4%, it is projected that the global beer market will reach approximately USD 636 billion by 2020. The Indian beer market is expected to grow and cross 430 billion by the end of 2017, as per the research of All India Brewers' Association (AIBA). Tapping brewed beer market at cost-effective rates, a variety of innovative startups have aplenty of ideas for diverse flavors, events and apps that could facilitate customers to indulge.

The market for microbreweries is still developing. Today, only 4-5 states have established microbreweries that are essentially resto-bars where one can consume fresh-off-the-tap beer that has been brewed in-house. These microbreweries produce between 5,000 and 50,000 litres of beer, a day.

PROJECT COST ESTIMATE

CAPACITY

Microbrewery (650 ml Size Bottle)	: 1538 Nos. Per Day
Plant & Machinery	: ₹ 171 Lakhs
Cost of Project	: ₹ 397 Lakhs
Rate of Return	: 13%
Break Even Point	: 60%

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%

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