



ISSN 09771-7463  
POSTAL LICENSE DL (N)/114/2021-2023  
U(DN) 154/2021-2022

# Entrepreneur India



AN ISO 9001-2015 CERTIFIED COMPANY

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

₹ 20/-

An Industrial Monthly Journal on  
INDUSTRIAL DEVELOPMENT, TECHNOLOGIES & PROJECT OPPORTUNITIES

Vol. 27

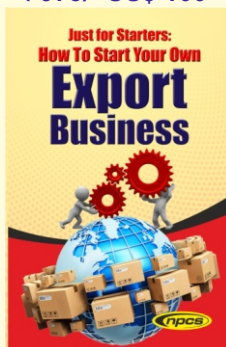
No. 06

June 2021

36 Pages

## Just For Starters: How to Start Your Own Export Business

₹ 975/- US\$ 100-



An export in international trade is a good or service produced in one country that is sold into another country. Entering export markets can boost turnover and improve innovation as firms develop new products for particular markets. It can also reduce exposure to risk, by distributing sales across various countries or regions. Exporting is lucrative because sometimes local prices are way lower than the export prices are. The three forms of exporting are indirect exporting, direct exporting, and intra-corporate transfer. Indirect exporting involves selling a product to a domestic customer, which then exports the product in its original form or a modified form.

Exporting can be lucrative for businesses of all sizes. On average, sales grow faster, more jobs are created, and employees earn more than in non-exporting firms. An astonishing 97 percent of all U.S. companies that export products are actually small businesses. That's according to new research by SCORE, a nonprofit association for small businesses. Small business exports currently account for \$541 billion and nearly six million jobs in the United States.

The major contents of the book are Organising An Export Firm, How To Export Business, How To Sell Overseas, Export Procedure, Export Product Planning, Introduction To Export Marketing, Registration Of Exporters, Online Company Registration In India -An Overview, Registration Process For Exports In India, Registration Process For Exports In India, Export Finance, Banking Regulation Governing Exports, Banking Regulation Governing Exports, Export Pricing And Costing, Foreign Sales Agent, Export Benefits, Export Incentives, Export Incentives, Export Incentives, Export Documentation And Procedures, Export Documentation And Procedures, Export Documentation And Procedures, Export Documentation And Procedures, GST On Export Of Goods & Services, GST Tax Rate For Exports, Export Promotion Organization, List of Export Promotion Council/Commodity Board/Export Development Authorities.

The book help to guide individuals through step by step of setting-up new export business. This book is one-stop guide to one of the fastest growing in Large & Small sectors in Export Business. This is the only complete handbook on Just For Starters: How to Start Your Own Export Business.

## The Complete Technology Book on Dyes & Dye Intermediates

₹1995/- US\$ 200-

A natural or synthetic substance used to add a color or to change the color of something. Dyes are the coloring material that color commodities of our day to day use. Dyes are applied everywhere, from Plastic toys for children to that fabrics you wear, from food to wood; hardly there is any industry where dyes are not used commercially.

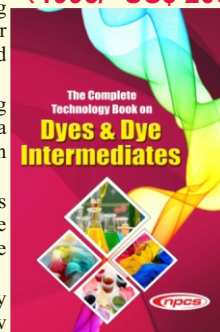
A dye is a colored substance that has an affinity to the substrate to which it is being applied. It is an ionising and aromatic organic compounds. The dye is generally applied in an aqueous solution, and may require a mordant to improve the fastness of the dye on the fiber. Apart from this, Dye Intermediates also serve as an important raw materials for the Acid, Reactive, and Direct Dyes.

Increase in demand for dye intermediates in textile and extensive use of dye intermediates are some factors driving the dye intermediates market. This is prompting companies to increase production of dye intermediates. Additionally, easy availability of raw materials is anticipated to boost the demand for dye intermediates in the near future.

The global dye intermediates market is witnessing technological advancements. Companies are constantly striving to develop new and better ways to manufacture dye intermediates. Development of new manufacturing processes of dye intermediates and applications is estimated to propel the dye intermediates market. However, volatility in prices of raw material is projected to inhibit the market.

The major contents of the Book are Azo Dyes, Reactive Dyes, Anthraquinone Dyes, Acid Dyes, Basic Dyes, Sulfur Dyes, Cyanine Dyes, Sensitizing Dyes, Dye Intermediates, BIS Specifications, Photographs of Machinery With Suppliers Contact Detail, Plant Layout and Process Flow Chart & Diagram.

A total guide to manufacturing and entrepreneurial success in one of today's Dyes & Dye Intermediates industry. This book is one-stop guide to one of the fastest growing sectors of Dyes & Dye Intermediates industry, where opportunities abound for manufacturers, retailers, and entrepreneurs. This is the only complete handbook on Dyes & Dye Intermediates. It serves up a feast of how-to information, from concept to purchasing equipment.



## Directory & Databases

**O**ffline Business directories are the best thing in today's business world. If you are searching for Buyers, then our Business Directories/Database are the perfect tools for you. We provide Business Directories for high quality business leads. We continue to give you the high value and low cost B2B data. We offer an extensive suite of Directories/ database to assist you in reaching the right businesses and people quickly and easily. Business Directories are used for sales planning, finding Buyers and marketing research to perform business analysis.

With our company database/Directory, you will have access to company list. You will find a business list consisting of company contact details. We compiled list of companies in excel format to give you access to over hundred thousands of businesses and companies. From small business to Corporate Houses, our data is complete with business contact information to help you connect with the right companies or buyers.

By having the right business leads, our client's would be able to have immediate communication with prospective businesses, partners and customers through our boundless list of companies in csv excel format.

With our B2B data, you will find database of companies with websites, phone, fax, mailing address and other contact info.

Our Database of Businesses includes the following fields:

- Company Name
- Phone
- Address
- City
- State
- Website
- Fax
- Zip
- Country
- Industry, Product & Services

Our Business Directories are useful for existing businesses looking to expand, a potential inward investor looking to reach Business World, or simply to forge links with the competitive businesses already located in our database.

## Reasons for Buying Our Reports

- Our report helps you to identify a profitable project for investing or diversifying into by throwing light to crucial areas like industry size, market potential of the product and reasons for investing in the product
- Our report provides vital information on the product like its characteristics and segmentation
- Our report helps you market and place the product correctly by identifying the target customer group of the product
- Our report helps you understand the viability of the project by disclosing details like machinery required, project costs and snapshot of other project financials
- The report provides a glimpse of government regulations applicable on the industry
- The report provides forecasts of key parameters which helps to anticipate the industry performance and make sound business decisions.

## Our Approach

- Our research reports broadly cover Indian markets, present analysis, outlook and forecast for a period of five years.
- The market forecasts are developed on the basis of secondary research and are cross-validated through interactions with the industry players
- We use reliable sources of information and databases. And information from such sources is processed by us and included in the report



# Entrepreneur India

RNI NO. 61509/95

www.entrepreneurindia.co

## **npcs** About NPCS

**E**ntrepreneur India, an Industrial monthly magazine on industrial development, technologies & project opportunities aims at simplifying the process of choosing the suitable project for investment. It makes business decisions easier and trouble-free for business leaders, young entrepreneurs, women entrepreneurs, investors, NRI (Non Resident Indian), startups, and professionals looking to start their own venture by providing information about right projects for investment. 'Entrepreneur India' - the right tool for identifying sound investment projects is published by Niir Project Consultancy Services (NPCS) An ISO 9001:2015 CERTIFIED COMPANY - a multidisciplinary project consultancy organization.

NPCS provides reliable consultancy services worldwide and has been excelling its expertise in a wide range of services. The services includes: investment opportunities, technology transfers, pre-feasibility study, business plan, new project identification, project feasibility, identification of profitable industrial project opportunities, thorough analysis of the project, plan all resources & details on capital and operational costs, economic feasibility study of the project, profile analysis, preparation of project profiles / pre-investment studies, market surveys / studies, preparation of techno-economic feasibility reports, funding analysis, market potential study, identification and section of plant / process / equipment, general guidance, technical and commercial counseling for setting up new business.

NPCS is one of the leading players in the industry endowed with the expertise, sound technical knowledge and intellectual asset. NPCS is a repository of reliable professional information for the entrepreneurial fraternity of India and has well experienced professionals in market research comprising of consultants, experts, field executives, researchers and analysts from different industries and sectors. We strive to provide a global platform for the entire entrepreneurial ecosystem by providing right project for investment, market survey studies and research through our advanced industrial, business and commercial databases.

We at NPCS want to grow with you by providing solutions scale to suit your new operations and help you reduce risk and give a high return on application investments. A large number of our Indian, Overseas and NRI Clients have appreciated our expertise for excellence which speaks volumes about our commitment and dedication to every client's success. We bring deep, functional expertise, but are known for our holistic perspective: we capture value across boundaries and between the silos of any organization. We have proven a multiplier effect from optimizing the sum of the parts, not just the individual pieces. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensures a high quality product.

### SPECTRUM OF SERVICES

- Thorough Analysis of the Project.
- Requirement Collection.
- Plan all Logistical Requirement and Resources & Details on Capital and Operational Costs.
- Techno-Economic Feasibility Study of the Project.
- Profile Analysis.
- Industrial Market Survey/Research.
- Product Test.
- Market Growth/ Potential Studies.
- Demand Studies.
- Brand Awareness and Preference Studies.
- Package and Concept Testing.
- Funding Analysis.

www.niir.org



### How to Scan QR Code to reach us?

1. Open the Scanner App and point your mobile camera towards the QR Code
2. Auto-focus feature having phone will automatically detect code.
3. For non-Auto-focus phones, press scan to capture QR Code and then it will show the result

entrepreneurindia.co



Vol. 27 No. 06  
June 2021

EDITOR

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

Entrepreneurship Management

ASSOCIATE EDITOR

**P. K. TRIPATHI**  
**UDANT GUPTA**

Owner, Publisher, Printer & Editor : **Ajay Kumar Gupta**, Printed at M/s. Balaji Offset Printers, 315/21, Daya Basti, Delhi 110 035 & Published at :

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

Tel. : 91-11- 23843955, 23845886, 23845654,

Mob. : +918800733955, 9097075054

Fax : 91-11-23845886

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

Website : www.niir.org

www.entrepreneurindia.co

Registered RNI No. 61509/95

Postal License DL (N)/14/2021-2023

and Vide U. Licence No. U(DN) 154/2021-22

Licensed to Post without Prepayment at Delhi R.M.S., Delhi - 110 006

## Contents

• About NPCS.....	3	• Banana Wafers.....	18
• List of Process Technology Books.....	4-8	• Needles for Sewing and Embroidery Machine.....	19
• Lucrative Business of Producing Paracetamol Tablets.....	8	• Rice Flakes and Puffed Rice.....	19
• Investment Opportunities in Business of Medical Disposables (Gowns & Drapes).....	8	• Biodegradable Plastic Bags from Corn & Cassava Starch.....	19
• Manufacturing Business of Razor Blade for Safety Razor and Disposable Safety Razor.....	8	• Aluminium Ingots from Aluminium Scrap.....	20
• Profitable Opportunities in Business of 7-Aminocephalosporanic Acid (7-ACA).....	9	• Empty Hard Gelatin Capsules.....	20
• Setup a Manufacturing Plant of Disposable Plate and Cups from Waste Rice Husk Powder.....	9	• Hot Melt Glue Stick.....	20
• Emerging Business of Ductile Iron Pipe Fittings.....	9	• Corn Starch Based Biodegradable Tableware.....	20
• Business Opportunities in Venturing into Silicon Metal.....	10	• Rice Husk Based Biodegradable Cutlery.....	21
• Rising Demand of Surgical Hand Gloves.....	10	• Composite Materials (Carbon Fibre Composites & Glass Fibre Composites).....	21
• Most Lucrative Business of Disposable Safety Razors.....	10	• Herbal Health Drink.....	21
• The Growing Business of Medium Density Fiberboard (MDF).....	11	• Copper Wire Manufacturing (Wire Drawing & Enamelling).....	21
• Progression in the Business of Oxygen Gas Plant (Industrial and Pharmaceutical Grade).....	11	• Eggshell Powder.....	21
• How to Setup an Oxygen Gas Plant.....	11	• Craft Beer.....	22
• Plastic Waste Pyrolysis (Plastic to Oil Conversion).....	12	• Hot Melt Adhesives for Corrugation Board.....	22
• Dal Mill (Pulse).....	12	• E-Waste & Lithium Battery Recycling Plant.....	22
• Porcelain Insulator.....	12	• Roller Flour Mill.....	22
• Fractionation of Turpentine Oil.....	12	• Cement Plant.....	23
• Recovery of Lead from Scrap Batteries.....	12	• Municipal Waste Treatment.....	23
• Methyl Isobutyl Ketone (MIBK) from Acetone.....	13	• Ethanol from Broken Rice, Maize & Wheat.....	23
• Discontinuous Sandwich Panel.....	13	• Red Iron Oxide (with Mining of Mineral Ore along with Processing and Beneficiation).....	23
• Neem Oil (Cold Process).....	13	• Sodium Chloride Liquid from Powder (31% Liquid NaClO2).....	24
• Mayonnaise.....	13	• Biodegradable Plastic Bags from Corn & Cassava Starch.....	24
• Exercise Note Book.....	14	• Herbal/Ayurvedic Hand Sanitizer.....	24
• Betel Nut (Supari) Processing.....	14	• Aluminium Ingots from Aluminium Scrap with Dross Processing.....	24
• Wall Paper Starch.....	14	• Calcium & Zinc Stabilizer for Pipe and Foam board Application.....	25
• Caustic Soda from Limestone and Sodium Carbonate (Soda Ash).....	14	• Toothpaste.....	25
• Industrial Gases.....	15	• Goat Rearing & Breeding.....	25
• Glass Reinforced Concrete (GRC).....	15	• Energy Bar.....	25
• Compressed Wood Pallets.....	15	• Synthetic Camphor.....	25
• Whiteness and > 90% CaCO <sub>3</sub> .....	16	• E-Rickshaw Assembling.....	26
• Oleoresin of Spices Black Pepper, Paprika and Cardamom.....	16	• Sugarcane Juice Preservation and Bottling Plant.....	26
• Peanut Butter.....	16	• Transparent LPG Cylinder from Fiber Glass.....	26
• Fiberglass Doors Surrounded Wood and Inside Filled Polyurethane Foam by Injection.....	16	• Dairy Farming & Dairy Products (Milk, Butter, Ghee & Paneer).....	26
• Dry Lemon Powder and Lemon Oil.....	16	• Particle Board from Wheat/Rice Straw.....	27
• Cow Urine (Gomutra) Processing and Packing.....	17	• Ready to Eat Food (RTE).....	27
• Bakery Products (Cake & Filled Croissants Puffs).....	17	• Groundnut Oil.....	27
• Dragon Fruits Farming.....	17	• List of Detailed Project Reports.....	28
• Toothpaste.....	17	• Curcumin Extraction Unit.....	32
• Hydrogen Peroxide.....	17	• Ethanol from Broken Rice, Maize & Wheat.....	32
• Bamboo Fabric.....	18	• Red Iron Oxide (with Mining of Mineral Ore along with Processing and Beneficiation).....	32
• Corn Flakes.....	18	• Banana Wafers.....	33
• Linear Alkyl Benzene Sulphonic Acid.....	18	• Cellophane Film.....	33
		• Dicyandiamide (DCDA).....	33
		• Tomato Products Tomato Ketchup, Sauce and Soup.....	33
		• Roller Bearing.....	34
		• NPK Fertilizer & Calcium Ammonium Nitrate.....	34

## PROCESS TECHNOLOGY

**BOOKS** (Limited Editions)

Only photostat copy available

₹ US \$

### Chemical/Jute/Pharma/ Drugs/Bio-Tech Hi-Tech Projects

Detailed Project Profiles on Chemical Industries (Vol. II) 2<sup>nd</sup> Rev.Edn. 1695/- 150

Detailed Project Profiles on 9 Selected Chemical Industries. 2<sup>nd</sup> Rev.Edn. 1995/- 150

Hand Book on 100% Export Oriented Jute & Jute Products (Eco Friendly Projects) 695/- 100

Investment Opportunity in Drugs & Pharmaceutical Projects 1895/- 150

Bio-Tech & Pharmaceutical Hand Book 1895/- 200

Hand Book on Projects in Export Thrust Area with International Market Survey (Bio-Tech & Pharmaceutical Technology) 1095/- 100

Detailed Project Profiles on Selected Hi-Tech Projects (Project Reports) 795/- 100

### Cereal Food/Food & Beverages/Dairy/Plantation/ Agro Based/Farming

Manufacture of Food & Beverages (2<sup>nd</sup> Edn.) 1895/- 150

Detailed Project Profiles on Dairy & Dairy Products (2<sup>nd</sup> Edn.) 1495/- 150

Detailed Project Profiles on Plantation (Agro Based Projects) 1095/- 100

Profitable Agro Based Projects with Project Profiles (Cereal Food Technology) 1895/- 150 (2<sup>nd</sup> Rev. Edn.)

Hand Book on Agro Based Industries (2<sup>nd</sup> Rev. Edn.) 1595/- 150

Profitable Farming & Allied Projects (2<sup>nd</sup> Rev. Edn.) 1495/- 150

## TERMS & CONDITIONS (FOR INDIA ONLY)

Send full payment in advance  
by Draft in favour of  
"NIIR PROJECT  
CONSULTANCY SERVICES"  
Delhi. add ₹ 85/- towards  
shipping charge for  
each book

Contact :



**NIIR PROJECT CONSULTANCY SERVICES**

AN ISO 9001 : 2015 Certified Company

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

Tel. : 91-11- 23843955, 23845886, 23845654,

Mob.: +918800733955, 9097075054

Fax : 91-11-23845886

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

Website : www.niir.org

www.entrepreneurindia.co



## PROCESS TECHNOLOGY BOOKS

NAME OF BOOKS

₹ /US\$

### CHEMICALS, FINE CHEMICALS, VITAMINS, AMINO ACIDS AND PROTEINS

- \* Handbook on Chemical Industries (Alcohol Based) 750/- 100
- \* Industrial Chemicals Technology Handbook 1100/- 125
- \* The Complete Technology Book on Chemical Industries 975/- 100
- \* Handbook on Manufacture of Acetophenone, Alcohols, Allethrin, Anthracene, Barium Potassium Chromate Pigment, Calcium Cyanamide, Carboxymethylcellulose, Carotene, Chlorophyll, Chemicals from Acetaldehyde, Fats, Milk, Oranges, Wood, Manufacture of Dye Intermediates and Dyes, Fine Chemicals, Formaldehyde, Granulated Fertilizers, Granulated Triple Superphosphate and Hydroquinone 1100/- 125
- \* The Complete Technology Book on Fine Chemicals 1 100/- 125
- \* Handbook On Fine Chemicals, Vitamins, Amino Acids And Proteins 1450/- 150
- \* The Complete Book on Non Ferrous and Precious Metals with Electroplating Chemicals 1975/- 200
- \* Modern Technology of Industrial Chemicals 1100/- 125

### PHARMACEUTICAL, DRUGS

- \* Drugs & Pharmaceutical Technology Handbook 1075/- 125

### PESTICIDES, INSECTICIDES

- \* The Complete Technology Book on Pesticides, Insecticides, Fungicides and Herbicides with Formulae & Processes 1 100/- 100
- \* Biopesticides Handbook 1575/- 150

### STARCH & ITS DERIVATIVES

- \* The Complete Technology Book on Starch & Its Derivatives 1 100/- 125

### WAX & POLISHES

- \* The Complete Technology Book on Wax and Polishes 1675/- 150
- \* Wax Polishes Manufacturing Handbook with Process and Formulae (Automobile, Industrial, Leather, Furniture, Floor, Marine, Metal and Shoe Polish) 1675/- 150

### BIO-TECHNOLOGY, NANOTECHNOLOGY, ENZYMES, FOOD BIO-TECHNOLOGY, VERMICULTURE, VERMICOMPOST, BIO-FERTILIZER, ORGANIC FARMING, BIOGAS, MUSHROOM

- \* Bio-Technology Handbook 1100/- 125
- \* Plant Biotechnology Handbook 1100/- 125
- \* Enzymes Bio-Technology Handbook 1100/- 125
- \* The Complete Book on Biotechnology Based Bulk Drugs 1050/- 125
- \* Handbook on Food Bio-Technology (Extraction, Processing of Fruits, Vegetables and Food Products) 2nd Revised Edition 1495/- 150
- \* Handbook on Plants and Cell Tissue Culture 1275/- 125
- \* The Complete Technology Book on Vermiculture and Vermicompost 750/- 100
- \* The Complete Technology Book on Bio-Fertilizer and Organic Farming (2nd Rev. Ed.) 1400/- 150
- \* Handbook on Biogas and It's Applications (from Waste & Renewable Resources with Engineering & Design Concepts) 2nd Revised Edition 1175/- 125
- \* Handbook on Mushroom Cultivation and Processing (With Dehydration, Preservation and Canning) 1275/- 125
- \* The Complete Book on Organic Farming and Production of Organic Compost (2nd. Rev. Edn.) 1575/- 150
- \* Nanotechnology Handbook 1675/- 150
- \* Nanoscience and Nanotechnology Handbook 1675/- 150
- \* Manufacture of Biofertilizer and Organic Farming 975/- 100
- \* Integrated Organic Farming Handbook 1275/- 125
- \* Handbook on Organic Farming and Processing 1275/- 125
- \* Handbook on Small & Medium Scale Industries (Biotechnology Products) 1695/- 150

### PRINTING, PACKAGING, PRINTING INK

- \* Handbook on Modern Packaging Industries (2nd Revised Edition) 1675/- 150
- \* Modern Technology of Printing & Writing Inks (2nd Revised Edition) 1475/- 150
- \* The Complete Technology Book on Printing Inks 1000/- 100
- \* Handbook on Printing Technology (Offset, Flexo, Gravure, Screen, Digital, 3D Printing with Book Binding and CTP) (4th Revised Edition) 1675/- 150
- \* Screen Printing Technology Handbook 1000/- 100
- \* Modern Printing Technology 250/- 50
- \* The Complete Book on Printing Technology with Process Flow Diagrams, Plant Layouts and Machinery Details (Offset, Gravure, Flexographic, Security, Web Offset and Pad Printing) 2nd Rev. Edn. 1695/- 150

### PAPER, PULP & PAPER CONVERSION

- \* Modern Technology of Pulp, Paper and Paper Conversion Industries 1000/- 100
- \* The Complete Technology Book on Pulp & Paper Industries 1100/- 125
- \* Handbook on Pulp and Paper Processing 1875/- 150

### AGRO BASED, CEREAL FOOD, MILK, COCOA, CHOCOLATE, ICE CREAM, PLANTATION, FARMING, FOOD & BEVERAGES, FRUITS, DAIRY, CONFECTIONERY, VEGETABLES, SPICES, OILS & FATS, BAKERY, SNACKS, FISHERIES, MEAT, COCONUTS, SUGARCANE, TEA CULTIVATION & PROCESSING

- \* Cultivation of Fruits, Vegetables And Floriculture 1 100/- 125
- \* Cultivation of Tropical, Subtropical, Vegetables, Spices, Medicinal And Aromatic Plants 1075/- 125
- \* Tropical, Subtropical Fruits and Flowers Cultivation 1075/- 125
- \* Food Packaging Technology Handbook (Biodegradable Films, Materials, Polymers, Aseptic Packaging, Labels and Labelling, Packaging of Cashew Nuts, Dairy Products, Milk, Fish, Meat, Shrimps, Canning of Vegetables, Fruits with details of Machinery and Equipments) 3rd. Rev. Edn. 1895/- 200
- \* Modern Technology on Food Preservation (2nd Rev. Edn.) 1275/- 125
- \* Modern Technology of Food Processing & Agro Based Industries (Confectionery, Bakery, Breakfast Cereal Food, Dairy Products, Sea Food, Fruits & Vegetable Processing) with Project Profiles (3rd Rev. Edn.) 1775/- 150
- \* Modern Technology of Confectionery Industries with Formulae & Processes (2<sup>nd</sup> Rev. Ed.) 600/- 100
- \* Modern Technology of Agro Processing & Agricultural Waste Products 975/- 100
- \* Handbook on Spices 975/- 100
- \* Modern Technology of Oils, Fats & Its Derivatives (2nd Rev. Edn.) 1875/- 150
- \* Modern Technology of Milk Processing & Dairy Products (4th Revised Edition). 1475/- 150
- \* The Complete Technology Book on Dairy & Poultry Industries with Farming & Processing (2nd Rev. Edn.) 1275/- 125
- \* The Complete Technology Book of Cocoa, Chocolate, Ice Cream and Other Milk Products 1275/- 125
- \* The Complete Technology Book on Flavoured Ice Cream (Manufacturing Process, Flavours, Formulations with Machinery Details) 2nd Revised Edition 1475/- 150
- \* Handbook on Drying, Milling and Production of Cereal Foods (Wheat, Rice, Corn, Oat, Barley and Sorghum Processing Technology) (2nd. Revised Edition) 1295/- 125
- \* The Complete Book on Spices & Condiments (With Cultivation, Processing & Uses) (2nd Rev. Edn.) 2275/- 200
- \* The Complete Book on Coconut & Coconut Products (Cultivation And Processing) 1 100/- 125
- \* Rabbit, Goat, Sheep, Poultry, Fish And Pig Farming with Feed Technology 1 100/- 125
- \* The Complete Technology Book on Bakery Products (Baking Science with Formulation & Production (4th Rev. Edition) 1995/- 200
- \* The Complete Technology Book on Snack Foods (2nd Rev. Edn.) 1475/- 150
- \* The Complete Technology Book on Processing, Dehydration, Canning, Preservation of Fruits & Vegetables (Processed Food Industries) (4th Rev. Edn.) 1995/- 200





## PROCESS TECHNOLOGY BOOKS

### NAME OF BOOKS

₹/US\$

* Handbook on Fruits, Vegetable & Food Processing with Canning & Preservation (3rd Rev. Edn.)	1475/- 150
* Handbook on Fisheries and Aquaculture Technology	1100/- 125
* The Complete Book on Meat Processing and Preservation with Packaging Technology	1275/- 125
* Preservation of Meat and Poultry Products	1100/-125
* Potato and Potato Products Cultivation, Seed Production, Manuring, Harvesting, Organic Farming, Storage and Processing	1275/- 125
* Handbook on Rice Cultivation and Processing	1075/- 125
* The Complete Technology Book on Meat, Poultry and Fish Processing (2nd Rev. Edn.)	1475/- 150
* The Complete Book on Beekeeping and Honey Processing (2nd Revised Edition)	1475/- 150
* The Complete Technology Book on Alcoholic and Non-Alcoholic Beverages (Fruit Juices, Sugarcane Juice, Whisky, Beer, Microbrewery, Rum and Wine)	2275/- 200
* Handbook on Citrus Fruits Cultivation and Oil Extraction	1575/- 150
* Fruits, Vegetables, Corn and Oilseeds Processing Handbook	1675/- 150
* Handbook on Spices and Condiments (Cultivation, Processing and Extraction)	1575/- 150
* Handbook on Fermented Foods and Chemicals	1875/- 150
* Industrial Alcohol Technology Handbook	1675/- 150
* The Complete Book on Wine Production	2275/- 200
* Handbook on Milk and Milk Proteins	1275/- 125
* The Complete Book on Cultivation and Manufacture of Tea (2nd Revised Edition)	1625/- 150
* The Complete Book on Sugarcane Processing and By-Products of Molasses (with Analysis of Sugar, Syrup and Molasses)	1675/- 150
* Confectionery Products Handbook (Chocolate, Toffees, Chewing Gum & Sugar Free Confectionery)	1975/- 200
* The Complete Book on Fruits, Vegetables and Food Processing	1675/- 150
* The Complete Book on Cashew (Cultivation, Processing & By-Products)	1775/- 150
* The Complete Book on Tomato & Tomato Products Manufacturing (Cultivation & Processing) 2nd Rev. Edn.	1400/-150
* The Complete Book on Onion & Garlic Cultivation with Processing (Production of Onion Paste, Flakes, Powder & Garlic Paste, Powder, Flakes, Oil) 2nd Revised Edition	1575/-150
* Handbook on Pig Farming and Pork Processing (Feeding Management, Breeding, Housing Management, Sausages, Bacon, Cooked Ham with Packaging) 2nd Rev. Edn.	1275/-125
* Handbook on Manufacture of Indian Kitchen Spices (Masala Powder) with Formulations, Processes and Machinery Details (Chaat Masala, Sambar Masala, Pav Bhaji Masala, Garam Masala, Goda Masala, Pani Puri Masala, Kitchen King Masala, Thandai Masala Powder, Meat Masala, Rasam Powder, Kesari Milk Masala, Punjabi Chole Masala, Shahi Biryani Masala, Tea Masala Powder, Jajjera Masala, Tandoori Masala, Fish Curry Masala, Chicken Masala, Pickle Masala, Curry Powder) (4th Revised Edition)	1825/-150
* The Complete Book on Ginger Cultivation and Manufacture of Value Added Ginger Products (Ginger Storage, Ginger Oil, Ginger Powder, Ginger Paste, Ginger Beer, Instant Ginger Powder Drink and Dry Ginger from Green Ginger)	1575/-150
* 55 Most Profitable Micro, Small, Medium Scale Food Processing (Processed Food) Projects and Agriculture Based Business Ideas for Startup	1275/-125
* Manufacture of Pan Masala, Tobacco and Tobacco Products (Tobacco Cultivation, Chewing Tobacco, Cigarettes, Bidi, Cigars, Khaini, Zarda, Gutka, Katha, Mouth Freshener, Pan Chatni, Kimam, Sweet Supari, Nicotine Sulphate, USP Nicotine, Nicotine Tartarate, Nicotine, Polacrilin Resin)	1975/-200
* फूड प्रोसेसिंग इंडस्ट्रीज़ (खाद्य प्रसंस्करण एवं फूड आधारित उद्योग परियोजनाएं) 2nd Rev. Edn.	1475/- 150

### SMALL SCALE INDUSTRY (SSI), ENTREPRENEURSHIP, PROJECT IDENTIFICATION AND PROFILES, HI-TECH PROJECTS, EXPORT BUSINESS, GUIDELINES, SELF EMPLOYMENT, WOMEN ENTREPRENEURSHIP, SMALL, COTTAGE & HOME INDUSTRIES

* Stop Dreaming - Start Your New Business	400/- 50
* What No One Ever Tells You About Starting Your Business-Facilities and Procedures for Entrepreneurs	400/-50
* Secrets for Making Big Profits from Your Business with Export Guidelines	400/-50
* Opportunities for Women Entrepreneurship (With Project Profiles) 2nd Edition	575/- 50
* लघु व कुटीर उद्योग (स्मॉल स्केल इण्डस्ट्रीज़) (5th Revised Edition)	1150/- 125
* लघु व एवं गृह उद्योग (स्वरोजगार परियोजनाएं)	600/- 100
* Profitable Small, Cottage & Home Industries	800/- 100
* Select And Start Your Own Industry (4th Revised Edition)	475/- 50
* Just For Starters : How To Start Your Own Export Business ? 4th Rev. and Enlarged Edn.	975/-100
* Just For Starters : How To Become A Successful Businessman ? 3rd Revised Edition.	475/- 75
* Best Businesses You Can Start With Low Cost (2nd Rev. Edition)	750/-100
* 50 Projects To Start With 5,00,000	475/- 75
* Just For Starters: Selected Projects To Start With 30,00,000	475/- 50
* Just For Starters: Selected Projects To Start With 15,00,000	475/- 50
* Just For Starters : Selected Projects To Start With 35,00,000	475/- 50
* Grow Rich By Starting Your Own Business	325/- 50
* 50 Best Home Businesses To Start with Just 50,000	425/- 75
* Profitable Cottage and Tiny Industries	475/- 50
* Money Making Business Ideas—You Can Start from Home with Low Costs	750/-100
* स्मॉल स्केल इण्डस्ट्रीज़ प्रोजेक्ट्स (लघु, कुटीर व घरेलू उद्योग परियोजनाएं उद्भिता मार्गदर्शिका) 2nd Rev. Edn.	950/- 100
* Start-Up Projects for Entrepreneurs :50 Highly Profitable Small & Medium Industries - 2nd Rev. Edn.	1700/-150
* Entrepreneur's Start-Up Handbook:Manufacturing of Profitable Household (FMCG) Products with Process & Formulations (2nd Rev. Edition)	1675/-150
* Profitable Small Scale Industries	
* Money making Business Ideas for Startup (when you don't know what industry to start)	975/-100

### FASHION TECHNOLOGY

\* Fashion Technology Handbook

325/- 50

### CANDLE: MAKING & DESIGNS

\* The Complete Technology Book on Candle: Making & Designs

650/- 100

### PLASTICS, SPECIALITY PLASTICS, FOAMS (URETHANE, FLEXIBLE, RIGID), PET & PREFORM, BIODEGRADABLE PLASTICS, POLYESTER FIBERS, MOULD DESIGNS, PLASTIC FILMS, HDPE AND THERMOSET PLASTICS, MEDICAL PLASTICS, INDUSTRIAL POLYMERS, ADDITIVES, COLOURANTS AND FILLERS, FIBRE GLASS, OPTICAL GLASS AND REINFORCED PLASTICS

* Modern Technology of Plastic Processing Industries (2 <sup>nd</sup> Edition)	975/- 100
* Handbook on Pet Film and Sheets, Urethane Foams, Flexible Foams, Rigid Foams, Speciality Plastics, Stretch Blow Moulding, Injection Blow Moulding, Injection and Co-Injection Preform Technologies	1275/- 125
* Handbook on Biodegradable Plastics (Eco-Friendly Plastics)	600/- 100
* Polymers and Plastics Technology Handbook	750/- 100
* The Complete Book on Biodegradable Plastics and Polymers (Recent Developments, Properties, Analysis, Materials & Processes)	1275/- 125

### PROCESS TECHNOLOGY BOOKS

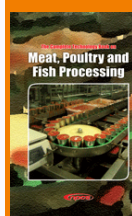
(Limited Editions)  
Only photostat copy available

₹ US \$

### Plastics/Paints/Varnishes/ Automobile/Infrastructure/ Hospitality, Medical, Entertainment, Ware Housing & Real Estate Projects

Detailed Project Profiles on Hi-Tech Plastic Products 2nd Rev. Edn.	1895/- 150
Manufacture of Paint, Varnish & Allied Products 2nd Rev. Edn.	1495/- 150
Hand Book on Automobile & Allied Products (with Data Bank) 2nd Rev. Edn.	1495/- 150
Investment Opportunities in Infrastructure Projects	2500/- 225
Investment Opportunities in Hospitality, Medical, Entertainment, Ware Housing & Real Estate Projects	4408/- 350
Handbook on Rubber and Allied Products (with Project Profiles)	2295/- 200
How to Start Profitable Education Business (12 Detailed Project Profiles) (Engineering, Dental, ITI, Management, Marine Engineering, Medical, Pharmacy, Polytechnic College and Schools)	2295/- 200

### BOOKS ON MEAT / FISHERIES



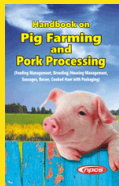
**The Complete  
Technology Book on  
Meat, Poultry  
and  
Fish Processing**  
(2nd Revised Edition)

₹ 1475/-  
US\$ 150

### Handbook on Pig Farming and Pork Processing

(Feeding Management,  
Breeding, Housing  
Management, Sausages,  
Bacon, Cooked Ham with Packaging)  
2nd Rev. Edn.

₹ 1275/- US\$ 125



### HANDBOOK OF FISHERIES AND AQUACULTURE TECHNOLOGY

₹ 1100/- US\$ 125

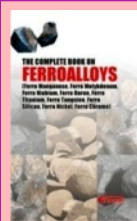
### FORMULARY BOOKS



**Selected Formulary  
Book on Petroleum,  
Lubricants, Fats,  
Polishes, Glass,  
Ceramics,  
Nitrogenous  
Fertilizers,  
Emulsions, Leather  
and Insecticides**

₹ 2275/- US\$ 200

## BOOK ON STEEL/ALUMINIUM



**The Complete Book on Ferroalloys (Ferro Manganese, Ferro Molybdenum, Ferro Boron, Ferro Niobium, Ferro Titanium, Ferro Tungsten, Ferro Silicon, Ferro Nickel, Ferro Chrome)**

₹ 2775/- US\$250

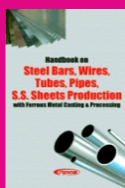
**STEEL AND IRON HANDBOOK**  
₹ 1775/-  
US\$150



**The Complete Book on Production of Automobile Components & Allied Products (Engine Parts, Piston, Pin, Piston Ring, Valve, Control Cable, Engine Mounting, Auto Lock, Disc Brake, Drum, Gear, Leaf Spring, Shock Absorber, Silencer, Chain, Cylinder Block, Chassis, Battery, Tyre & Flaps)**

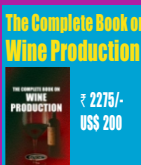
₹ 2275/- US\$200

**Handbook on Steel Bars, Wires, Tubes, Pipes, S.S. Sheets Production with Ferrous Metal Casting & Processing**  
₹ 1775/- US\$150



**Steel Rolling Technology Handbook**  
₹ 1775/-  
US\$ 150

**ALCOHOLIC AND NON-ALCOHOLIC BEVERAGES (FRUIT JUICES, WHISKY, BEER, RUM AND WINE)**



₹ 2275/-  
US\$ 200

Market Survey Cum Detailed Techno Economic Feasibility Report on Projects are Available. Contact:

**NIIR PROJECT CONSULTANCY SERVICES**  
AN ISO 9001:2015 CERTIFIED COMPANY

106-E, Kamla Nagar, Delhi - 110 007 (India).  
Tel.: 91-11- 23843955, 23845886, 23845654,  
Mob.: +918800733955, 9097075054

Fax: 91-11-23845886

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

Website: www.niir.org

www.entrepreneurindia.co



## PROCESS TECHNOLOGY BOOKS

### NAME OF BOOKS

₹ /US\$

- \* The Complete Book on Medical Plastics 975/- 100
- \* The Complete Technology Book on Expanded Plastics, Polyurethane Polyamide and Polyester Fibers 1275/- 125
- \* The Complete Technology Book on Industrial Polymers, Additives, Colourants And Fillers 1100/- 125
- \* The Complete Technology Book on Polymers (With Processing & Applications) 1 100/- 125
- \* The Complete Technology Book on Plastic Extrusion, Moulding and Mould Designs 1000/- 100
- \* The Complete Technology Book on Fibre Glass, Optical Glass And Reinforced Plastics 1275/- 125
- \* The Complete Technology Book on Plastic Films, HDPE and Thermoset Plastics 1 175/- 125
- \* Modern Technology of Plastic and Polymer Processing Industries 750/- 100
- \* Profitable Plastic Industries 250/- 50
- \* The Complete Book on Water Soluble Polymers 1575/- 150
- \* Speciality Plastics, Foams (Urethane, Flexible, Rigid) Pet & Preform Processing Technology Handbook 1275/- 125

### LEATHER PROCESSING & TANNING

- \* Leather Processing & Tanning Technology Handbook 1400/- 150

### TEXTILE SPINNING, WEAVING, FINISHING AND PRINTING, PROCESSING WITH EFFLUENT TREATMENT, TEXTILEDYES & PIGMENTS, NATURAL DYES & PIGMENTS, NATURAL FIBERS, JUTE & COIR

- \* The Complete Technology Book on Textile Spinning, Weaving, Finishing and Printing (3rd Rev.Edn.) 1275/- 150
- \* The Complete Technology Book on Textile Processing with Effluent Treatment 1000/- 100
- \* Modern Technology of Textile Dyes & Pigments (2nd Rev. Edn.) 1675/- 150
- \* The Complete Technology Book on Dyes and Dye Intermediates (2nd Rev. Edn.) 1995/- 200
- \* The Complete Book on Natural Dyes & Pigments 1100/- 125
- \* Handbook on Natural Dyes for Industrial Applications (Extraction of Dyestuff from flowers, Leaves, Vegetables) 2nd Revised Edition 1575/- 150
- \* Natural Fibers Handbook with Cultivation & Uses 1275/- 125
- \* Woollen Spinning, Weaving, Knitting, Dyeing, Bleaching and Printing Technology Handbook 1100/- 125
- \* Handbook on Textile Auxiliaries, Dyes and Dye Intermediates Technology 1575/- 150
- \* The Complete Book on Textile Processing and Silk Reeling Technology 1750/- 150
- \* The Complete Book on Jute & Coir Products (With Cultivation & Processing) 2nd Rev.Edn. 1575/- 150
- \* A Concise Guide on Textile Dyes, Pigments and Dye Intermediates with Textile Printing Technology 1675/- 150

### ELECTROPLATING, ANODIZING & METAL TREATMENT, POWDER COATING AND METAL FINISHING

- \* Electroplating, Anodizing & Metal Treatment Handbook 1475/- 150
- \* The Complete Technology Book on Electroplating, Phosphating, Powder Coating and Metal Finishing (2nd Revised Edition) 1675/- 150
- \* Handbook on Electroplating with Manufacture of Electrochemicals 1695/- 150

### RUBBER PROCESSING AND COMPOUNDING

- \* The Complete Book on Rubber Processing and Compounding Technology (with Machinery Details) (2nd Revised Edition) 1875/- 150
- \* The Complete Book on Rubber Chemicals 1575/- 150

### SURFACE COATING, PAINTS, VARNISHES & LACQUERS

- \* The Complete Book on Resins (Alkyd, Amino, Phenolic, Polyurethane Epoxy, Silicone, Acrylic) Paints, Varnishes, Pigments & Additives (Surface Coating Products with Formulae) 3rd Rev. Edn. 1995/- 150
- \* Paints, Pigments, Varnishes and Enamels Technology Handbook (With Process & Formulations) 2nd Rev. Edn. 1675/- 150
- \* Modern Technology of Paints, Varnishes & Lacquers 2nd Edn. 1575/- 125
- \* Handbook on Paints and Enamels 1275/- 125
- \* Surface Coating Technology Handbook 1475/- 125
- \* Spirit Varnishes Technology Handbook (with Testing and Analysis) 1275/- 150
- \* The Testing Manual of Paints, Varnishes and Resins 1875/- 150
- \* Handbook on Paint Testing Methods 1575/- 150
- \* Manufacture of Thinners & Solvents (Properties, Uses, Production, Formulation with Machinery Details) 2nd Rev.Edn. 1875/- 150

### GUMS, ADHESIVES & SEALANTS, ROSIN & DERIVATIVES, RESINS AND OLEORESINS

- \* Gums, Adhesives & Sealants Technology (with Formulae & their Applications) 2nd Rev.Edn. 1475/- 150
- \* Adhesives Formulary Handbook 1275/- 125
- \* Handbook on Speciality Gums, Adhesives, Oils, Rosin & Derivatives, Resins, Oleoresins, Katha, Chemicals with Other Natural Products 1275/- 125
- \* The Complete Book on Adhesives, Glues & Resins Technology (with Process & Formulations) 2nd Rev. Edn. 1675/- 150
- \* Phenolic Resins Technology Handbook (2nd Revised Edition) 1895/- 150
- \* The Complete Technology Book on Industrial Adhesives 1675/- 150
- \* The Complete Book on Gums and Stabilizers for Food Industry 1275/- 125
- \* The Complete Book on Water Soluble Gums and Resins 1675/- 150
- \* Handbook on Tall Oil Rosin Production, Processing and Utilization 1575/- 150

### SYNTHETIC RESINS

- \* Modern Technology of Synthetic Resins & Their Applications (2nd Revised Edition) 1575/- 150
- \* Synthetic Resins Technology Handbook 1100/- 125
- \* The Complete Technology Book on Synthetic Resins with Formulae & Processes 1 150/- 125
- \* Alkyd Resins Technology Handbook 1100/- 125
- \* Epoxy Resins Technology Handbook (Manufacturing Process, Synthesis, Epoxy Resin Adhesives and Epoxy Coatings) 2nd Revised Edition 1895/- 150

### PETROLEUM, GREASES, PETROCHEMICALS, LUBRICANTS

- \* Modern Technology of Petroleum, Greases, Lubricants & Petrochemicals (Lubricating Oils, Cutting Oil, Additives, Refining, Bitumen, Waxes with Process and Formulations) 3rd Rev. Edn. 1995/- 150
- \* The Complete Book On Distillation And Refining of Petroleum Products (Lubricants, Waxes And Petrochemicals) 975/- 100
- \* Lubricating Oils, Greases and Petroleum Products Manufacturing Handbook 1475/- 150
- \* Manufacturing of Petroleum Products (Petroleum Waxes, Greases and Solid Lubricants, Solid Fuels, Gaseous Fuels, Gasoline, Diesel Fuel Oils, Automotive, Diesel and Aviation Fuels, Lubricating Oils and Lubricating Greases) 1675/- 150
- \* Petroleum & Petroleum Products Technology Handbook (Thermal Cracking of Pure Saturated Hydrocarbons, Petroleum Asphalts, Refinery Products, Blending and Compounding, Oil Refining and Residual Fuel Oils) 1875/- 150

### WASTE MANAGEMENT, PRODUCTS FROM WASTE, MEDICAL, MUNICIPAL WASTE, E-WASTE, BIOMASS, MEDICAL & SURGICAL DISPOSABLE PRODUCTS

- \* Products From Waste (Industrial & Agro Waste) 2nd Edition 975/- 100
- \* Modern Technology Of Waste Management: Pollution Control, Recycling, Treatment & Utilization 975/- 100
- \* Handbook on Recycling & Disposal of
  - Hospital Waste • Municipal Solid Waste • Biomedical Waste • Plastic Waste
- \* Water and Air Effluents Treatment Handbook 1275/- 125
- \* The Complete Guide on Industrial Pollution Control 1275/- 125
- \* The Complete Book on Managing Food Processing Industry Waste 1275/- 125
- \* Handbook on Organic Waste for Biological Treatment, Liquid Manure into a Solid, Tomato Waste Water Treatment, Oxalic Acid from Jute Stick, Cotton Processing Waste, Fish Waste, Agro-Industrial Wastes, Bioconversion of Pretreated Wheat Straw and Sunflower Stalks to Ethanol, Agricultural Waste Treatment, Waste of Dehydrated Onion, Beef-Cattle Manure Slurry, Meat Meal and Algae for Calves, Wastes from Large Piggeries, Pig Waste, Oxytetracycline, Methane from Cattle Waste 1275/- 125



## PROCESS TECHNOLOGY BOOKS

NAME OF BOOKS

₹/US\$

- \* Handbook on Medical and Surgical Disposable Products (Blood Bags, Plastic Gloves, I.V. Cannula, Infusion Set, Gowns, Masks, Catheter, Cotton and Bandage, Surgical Wear, Syringes) 1775/- 150
- \* Disposable Products Manufacturing Handbook (Plastic Cups, Cutlery, Paper Cups, Banana Leaf Plates, Facial Tissues, Wet Wipes, Toilet Paper Roll, Sanitary Napkins, Baby Diapers, Thermocol Products, PET Bottles) 1575/- 150
- \* The Complete Book on Biomass Based Products (Biochemicals, Biofuels, Activated Carbon) 1575/- 150
- \* The Complete Technology Book on E-Waste Recycling (Printed Circuit Board, LCD, Cell Phone, Battery, Computers) 3rd Revised Edition 1975/- 150
- \* The Complete Book on Waste Treatment Technologies (Industrial, Biomedical, Water, Electronic, Municipal, Household/ Kitchen, Farm Animal, Dairy, Poultry, Meat, Fish & Sea Food Industry Waste) 1675/- 150
- \* Manufacture of Value Added Products from Rice Husk (Hull) and Rice Husk Ash (RHA) (Precipitated Silica, Activated Carbon, Cement, Electricity, Ethanol, Hardboard, Oxalic Acid, Paper, Particle Board, Rice Husk Briquettes, Rice Husk Pellet, Silicon, Sodium Silicate Projects) 2nd Rev. Edition 1400/- 150
- \* Medical, Municipal and Plastic Waste Management Handbook 1275/- 125
- \* The Complete Book on Biological Waste Treatment and their Utilization 1675/- 150

### WOOD AND ITS DERIVATIVES

- \* The Complete Technology Book on Wood And Its Derivatives 1 100/- 125
- \* Bamboo Plantation and Utilization Handbook 1475/- 150

### HERBAL PRODUCTS, AYURVEDIC, HERBAL & UNANI MEDICINES, DRUGS, NEEM, HERBS & MEDICINAL PLANTS CULTIVATION, COSMETICS, NATURAL PRODUCTS, JATROPHA

- \* Handbook on Unani Medicines with Formulae, Processes, Uses And Analysis 1 100/- 125
- \* Handbook on Herbal Drugs And Its Plant Sources 1000/- 100
- \* Herbal Foods And Its Medicinal Values 1275/- 125
- \* Herbal Cosmetics & Ayurvedic Medicines (Eou) (3rd Rev. Edn.) 1475/- 150
- \* Handbook on Ayurvedic Medicines with Formulae, processes & Their Uses (2<sup>nd</sup> Rev. Edn.) 1475/- 150
- \* Herbal Cosmetics Handbook (3rd Revised Edition) 1875/- 150
- \* The Complete Technology Book on Herbal Beauty Products with Formulations and Processes 1100/- 125
- \* Modern Technology of Cosmetics 1 100/- 100
- \* Handbook of Herbal Products (Medicines, Cosmetics, Toiletries, Perfumes) 2 Vols. 1500/- 220
- \* Herbs Cultivation & Medicinal Uses 975/- 100
- \* Herbs Cultivation & Their Utilization 800/- 100
- \* Medicinal Plants Cultivation & Their Uses 975/- 100
- \* Compendium of Medicinal Plants 875/- 100
- \* Compendium of Herbal Plants 975/- 100
- \* Cultivation And Processing of Selected Medicinal Plants 1 175/- 125
- \* Aromatic Plants Cultivation, Processing and Uses 975/- 100
- \* Cultivation and Utilization of Aromatic Plants 1 100/- 125
- \* The Complete Book on Jatropha (Bio-Diesel) With Ashwagandha, Stevia, Brahmi & Jatamansi Herbs (Cultivation, Processing & Uses) 1500/- 150
- \* Handbook on Medicinal Herbs With Uses 1075/- 125
- \* Aloe Vera Handbook Cultivation, Research Findings, Products, Formulations, Extraction & Processing 1275/- 125
- \* Handbook on Herbs Cultivation & Processing 875/- 100
- \* The Complete Technology Book On Natural Products (Forest Based) 1275/- 125
- \* Handbook of Neem & Allied Products 975/- 100
- \* Handbook on Herbal Medicines 750/- 100
- \* Handbook on Cosmetics (Processes, Formulae with Testing Methods) 1675/- 150
- \* Handbook on Drugs from Natural Sources 1175/- 125

### ESSENTIAL OILS, AROMATIC CHEMICALS, PERFUMES, FLAVOURS, FOOD COLOURS

- \* The Complete Technology Book of Essential Oils (Aromatic Chemicals) (Reprint 2011) 1275/- 125
- \* Essential Oil Hand Book 975/- 100
- \* The Complete Technology Book on Herbal Perfumes & Cosmetics (2<sup>nd</sup> Rev. Edn.) 1275/- 125
- \* Modern Technology of Perfumes, Flavours And Essential Oils 2<sup>nd</sup> Edn. 975/- 100
- \* Food Colours, Flavours And Additives Technology Handbook 1000/- 100
- \* Food Flavours Technology Handbook 1075/- 125
- \* The Complete Technology Book on Flavours, Fragrances and Perfumes 1675/- 150
- \* Perfumes and Flavours Technology Handbook 1875/- 150

### SOAPS, DETERGENTS, ACID SLURRY, TOILETRIES & DISINFECTANTS

- \* Modern Technology of Soaps, Detergents & Toiletries (With Formulae & Project Profiles) (4th Rev. Edn.) 1275/- 125
- \* Herbal Soaps & Detergents Handbook 1275/- 125
- \* Handbook on Soaps, Detergents & Acid Slurry (3rd Rev. Edn.) 1575/- 150
- \* The Complete Technology Book on Detergents (2nd Revised Edn.) 1 100/- 125
- \* The Complete Technology Book on Soaps (2nd Revised Edn.) 1425/- 150
- \* Surfactants, Disinfectants, Cleaners, Toiletries, Personal Care Products Manufacturing and Formulations (Phenyl, Naphthalene Ball, Mosquito Coil, Floor Cleaner, Glass Cleaner, Toilet Cleaner, Utensil Cleaning Bar, Liquid Detergent, Detergent Powder, Detergent Soap, Liquid Soap, Handwash, Hand Sanitizer, Herbal Shampoo, Henna Based Hair Dye, Herbal Cream, Shaving Cream, Air Freshener, Shoe Polish, Tooth Paste) 2nd Revised Edition 1750/- 150
- \* 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/- 150

### GLASS, CERAMICS, COAL, LIGNIN & MINERALS

- \* The Complete Book on Glass & Ceramics Technology (2nd Revised Edition) 1495/- 150
- \* The Complete Book on Glass Technology 1625/- 150
- \* The Complete Technology Book on Minerals & Mineral Processing 2200/- 200
- \* Handbook on Rare Earth Metals and Alloys (Properties, Extraction, Preparation and Applications) 1875/- 150
- \* Hand book on Coal, Coke, Cotton, Lignin, Hemicellulose, Wood, Wood-Polymer Composites, Lignocellulosic-Plastic Composites from Recycled Materials, Wood Fiber, Rosin and Rosin Derivatives 1875/- 150

### ALUMINIUM, STEEL, FERROUS, NON-FERROUS METALS WITH CASTING AND FORGING, FERROALLOYS & AUTOMOBILE COMPONENTS

- \* The Complete Technology Book On Hot Rolling Of Steel 1575/- 150
- \* Steel Rolling Technology Handbook (2nd Revised Edition) 1775/- 150
- \* The Complete Book on Ferrous, Non-Ferrous Metals with Casting and Forging Technology 1575/- 150
- \* The Complete Technology Book on Aluminium And Aluminium Products 1450/- 150
- \* The Complete Technology Book on Steel and Steel Products (Fasteners, Seamless Tubes, Casting, Rolling of flat Products & others) 1625/- 150
- \* The Complete Book on Ferroalloys (Ferro Manganese, Ferro Molybdenum, Ferro Niobium, Ferro Boron, Ferro Titanium, Ferro Tungsten, Ferro Silicon, Ferro Nickel, Ferro Chrome) 2775/- 250
- \* Steel and Iron Handbook 1775/- 150
- \* Handbook on Steel Bars, Wires, Tubes, Pipes, S.S. Sheets Production with Ferrous Metal Casting & Processing 1775/- 150

## WASTE MANAGEMENT



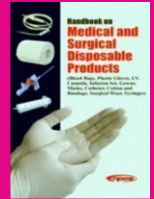
**THE COMPLETE BOOK ON BIOMASS BASED PRODUCTS (BIOCHEMICALS, BIOFUELS, ACTIVATED CARBON)**  
₹ 1575/- US\$ 150

The Complete Technology Book on **E-Waste RECYCLING**  
Printed Circuit Board, LCD, Cell Phone, Battery, Computers  
₹ 1975/- US\$ 150



**Manufacture of Value Added Products from Rice Husk (Hull) and Rice Husk Ash (RHA)**  
₹ 1295/- US\$ 125

**Handbook on Medical and Surgical Disposable Products (Blood Bags, Plastic Gloves, I.V. Cannula, Infusion Set, Gowns, Masks, Catheter Cotton and Bandage, Surgical Wear, Syringes)**  
₹ 1775/- US\$ 150

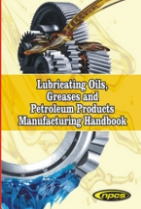


## Disposable Products Manufacturing Handbook

(Plastic Cups, Cutlery, Paper Cups, Banana Leaf Plates, Facial Tissues, Wet Wipes, Toilet Paper Roll, Sanitary Napkins, Baby Diapers, Thermocol Products, PET Bottles)  
₹ 1575/- US\$ 150



**Lubricating Oils, Greases and Petroleum Products Manufacturing Handbook**  
1475/- US\$ 150







## PROCESS TECHNOLOGY BOOKS

### NAME OF BOOKS

₹/US\$

\* The Complete Book on Production of Automobile Components & Allied Products ( Engine Parts, Piston, Pin, Piston Ring, Valve, Control Cable, Engine Mounting, Auto Lock, Disc Brake, Drum, Gear, Leaf Spring, Shock Absorber, Silencer, Chain, Cylinder Block, Chassis, Battery, Tyre & Flaps) 2275/- 200

### FORMULARY (FORMULATION) BOOKS

\* Selected Formulary Book on Cosmetics, Drugs, Cleaners, Soaps and Detergents (2nd Revised Edition) 1475/- 150  
 \* Selected Formulary Book on Inks, Paints, Lacquers, Varnishes and Enamels 1475/- 150  
 \* Selected Formulary Handbook 1475/- 150  
 \* Selected Formulary Book on Petroleum, Lubricants, Fats, Polishes, Glass, Ceramics, Nitrogenous Fertilizers, Emulsions, Leather and Insecticides 2275/- 200

### CONSTRUCTION MATERIALS, CEMENT, BRICKS, ASBESTOS

\* The Complete Book on Construction Materials 1475/- 150  
 \* The Complete Technology Book on Bricks, Cement and Asbestos 1400/- 150  
 \* The Complete Technology Book on Asbestos, Cement, Ceramics and Limestone 1875/- 150  
 \* Handbook on Gypsum and Gypsum based Products (Mining, Processing, Transportation, Handling & Storage, Gypsum Board, Plaster of Paris with Machinery & Equipment Details) 2275/- 200

### EMULSIFIERS AND OLEORESINS


\* The Complete Book on Emulsifiers with Uses, Formulae and Processes. 2nd Rev. Edn. 1400/- 150  
 \* Handbook on Oleoresins and Pine Chemicals (Rosin, Terpene, Derivatives, Tall Oil, Resin & Dimer Acids) 2200/- 200

### COLD STORAGE, COLD CHAIN & WAREHOUSE

\* The Complete Book on Cold Storage, Cold Chain & Warehouse (with Controlled Atmosphere Storage & Rural Godowns) 4th Revised Edition 1575/- 150

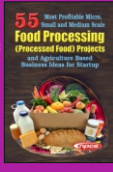


## SELECTED PROJECTS FOR YOU



**Surfactants, Disinfectants, Cleaners, Toiletries, Personal Care Products Manufacturing and Formulations**

₹ 1895/-  
USD\$ 200/-



**55 Most Profitable Micro, Small and Medium Scale Food Processing (Processed Food) Projects and Agriculture Based Business Ideas for Startup**

₹ 1495/- \$150/-

## Lucrative Business of Producing Paracetamol Tablets

**P**aracetamol (an international name used in Europe) and acetaminophen (an international name used in the USA) are two official names of the same chemical compound derived from its chemical name: N-acetyl-para-aminophenol (the segment "CET" inserted between "para" and "amino") and Acetyl-para-aminophenol. This drug has a long history and, as it often happens with important discoveries, it was found by chance. India enjoys an important position in the global pharmaceuticals sector. The country also has a large pool of scientists and engineers with a potential to steer the industry ahead to greater heights. Presently, over 80% of the antiretroviral drugs used globally to combat AIDS (Acquired Immune Deficiency Syndrome) are supplied by Indian pharmaceutical firms. The pharmaceutical industry in India ranks 3rd in the world terms of volume and 14th in terms of value. 20% of global exports in generics, making it the largest provider of generic medicines globally.

Paracetamol is a well-established treatment, recommended by healthcare organizations globally, for fever reduction and mild to moderate pain relief in adults and children aged two months and over. Paracetamol has been available for more than 60 years and is used by millions of patients worldwide. Paracetamol is currently recommended by public health authorities, including the World Health Organization (WHO), as part of symptomatic treatment to relieve mild to moderate pain and reduce fever in COVID-19.

India's domestic pharmaceutical market turnover reached Rs 1.4 lakh crore (US\$ 20.03 billion) in 2019, up 9.8% y-o-y from Rs 129,015 crore (US\$ 18.12 billion) in 2018. The Indian pharmaceutical industry is the third largest in the world in terms of volume of output and thirteenth in domestic demand. However, the Indian industry, valued at USD 17 bn in represented just over 1% of the global pharmaceutical industry (USD 1700 bn) in value terms. The domestic market is estimated at Rs. 680 bn. India has the world's third largest active pharmaceutical ingredients (API) for the industry valued at a little less than USD 2 bn. Top 5 API producers account for approximately 6.5 %. The leading APIs are anti-infective, gastrointestinal, cardiovascular and respiratory drugs.

## Investment Opportunities in Business of Medical Disposables (Gowns & Drapes)

**S**urgical gowns must repel diseases and infections yet provide adequate freedom to move. They must allow necessary mobility without rubbing and chafing, and must resist tearing and lining. They must fit closely but not restrict movement. Since there is generally excess fabric, the gowns must withstand constant pulls on the fabric during routine movements.

A surgical drape is a covering made of a disposable non-woven material and is used to cover the area of a patient. A drape usually has a fenestration (an opening) to allow the surgeon to perform the operation. It comes in various sizes depending on the type of operation for which it is used. Drapes also vary from hospital to hospital.

The global medical disposable market is expected to reach USD 160 billion by 2023 from USD 114 million in 2018, growing at a CAGR of 7%. Increasing hospital visitation, increasing cases of hospital acquired infections, increasing awareness of patients are some of the major factors driving the growth of the global disposable medical market.

## Manufacturing Business of Razor Blade for Safety Razor and Disposable Safety Razor

**T**he double-edged safety razor is a razor with a slant bar that can be used on both sides, with two open edges. The blade on the double-edged safety razor is slightly curved to allow for a smoother and cleaner shave. With the disposable razor only made of a single blade and a plastic handle, it easily became a convenient tool for countless of men who liked the fact that they can get a quick shave, even more safely than a safety razor.

The demand for men's grooming market has seen a rise in the last few years because of increased consciousness of their looks among the male customer. Also as more than 50% of the population is under the age group of 30, the industry has huge local market. Moreover, rising urban

### PROJECT COST ESTIMATE CAPACITY

Paracetamol Tablets : 5.0 MT Per Day  
 Paracetamol Powder : 1.4 MT Per Day  
 Plant & Machinery : ₹ 385 Lakhs  
 Cost of Project : ₹ 794 Lakhs  
 Rate of Return : 29%  
 Break Even Point : 53%

### PROJECT COST ESTIMATE CAPACITY

Medical Gowns : 1,250 Pcs Per Day  
 Medical Drapes : 1,250 Pcs Per Day  
 Plant & Machinery : ₹ 209 Lakhs  
 Cost of Project : ₹ 529 Lakhs  
 Rate of Return : 30.54%  
 Break Even Point : 55.16%



middle class population, and improved distribution channels in tier II and tier III cities, are also expected to stimulate growth in the market through 2020.

Men's grooming product can be divided into Bath & Shower products, Hair Care, Skin Care, Deodorants and Shaving products. Shaving products currently control the largest market share in terms of revenue in Indian men's grooming market. As per NOVONOUS estimates, Indian shaving products market is expected to grow at a CAGR of 20% till 2020 and maintain its market share position even in 2020.

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

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

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

## 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.

### PROJECT COST ESTIMATE CAPACITY

Disposable Safety Razors	: 864,000 Units Per Day
Razor Blade	: 172,800 Units Per Day
Steel Scrap	: 500 Units Per Day
Plant & Machinery	: ₹ 467 Lakhs
Cost of Project	: ₹ 2285 Lakhs
Rate of Return	: 34.51%
Break Even Point	: 43.43%

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

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

## Emerging Business of Ductile Iron Pipe Fittings

Pipe fittings basically include the range of components that are used to connect pipe ends for in-line, multi-port, offset and mounting configurations. Pipe fitting cross sections are mostly, but not always, circular in shape to match with the pipe section with which they are connected. Pipes can be metallic or plastic and pipe fittings vary depending on the type of pipe used.

The plastic pipes used are predominantly PVC pipes and recent increase in use of HDPE pipes in competition for PVC pipes. The other pipes include GRP, BWSPP pipes, Hume pipes, stoneware pipes, etc. GRP pipes, RCC pipes, and stoneware pipes are used predominantly in sewerage applications.

The increasing share of DI pipes obviously indicates its rising acceptance by customers and its growing popularity. The increasing share of DI pipes indicates that DI pipes are gradually replacing all other pipes, especially steel pipes. The government bodies have virtually stopped purchase of CI pipes for potable water supply and the existing CI pipelines are increasingly being replaced by DI pipes.

### PROJECT COST ESTIMATE CAPACITY

Capacity	: 12 MT Per Day
Plant & Machinery	: ₹ 311 Lakhs
Cost of Project	: ₹ 1135 Lakhs
Rate of Return	: 33.83%
Break Even Point	: 55.20%

Market Survey Cum Detailed Techno Economic Feasibility Report on All Above Projects are Available. Contact :

**NIIR PROJECT CONSULTANCY SERVICES**  
AN ISO 9001:2015 CERTIFIED COMPANY

106-E, Kamla Nagar, Delhi - 110 007 (India). Tel.: 91-11- 23843955, 23845886, 23845654,  
Mob.: +918800733955, 9097075054 Fax : 91-11-23845886  
Website : www.niir.org • www.entrepreneurindia.co • E-mail : info@niir.org, npcs.india@gmail.com

Plastic pipes and cement pipes (AC/RCC/PSC) are also being replaced in urban and semi-urban areas; however, in rural water supply schemes they still exist due to the low initial investment.

## Business Opportunities in Venturing into Silicon Metal

**S**ilicon is the fourteenth element of the periodic table and is a Group IVA element, along with carbon, germanium, tin and lead. Pure silicon is a dark gray solid with the same crystalline structure as diamond. Its chemical and physical properties are similar to this material. Silicon has a melting point of 2570°F (1410°C), a boiling point of 4271°F (2355°C), and a density of 2.33 g/cm<sup>3</sup>.

Silicon is the second most common element in the Earth's crust, although it is hard to find it in nature as a pure element. China is by far the world's largest producer of silicon, including thereby silicon content for ferro-silicon and silicon metal. Around 4.6 million metric tons of silicon was produced in China in 2016 which accounted for about two-thirds of global production that year, which reached about 7.2 million metric tons. Other major producers are Russia, the United States, and Brazil.

Silicon based polymers, known as silicones, provide an alternative to environmentally harmful hydrocarbon based products. We unknowingly use these polymers in everyday items from lubricants, greases and resins to skin and hair care products, antiperspirants, polishes, anti-foam agents and fabric softeners.

The silicon metal market was valued at over 2.9 million ton, and the market is projected to register a CAGR of 4% during the period of (2021-2026). Silicon metal is the base material for so many products; hence, it has an important role in industrial and consumer sectors. Presently, the use of silicon metal for producing aluminum alloys holds the largest share in the total silicon metal production. Aluminum alloys are used in producing automotive components and aerospace products.

COVID-19 has affected both the demand and supply of silicon all around the world. Due to restrictions, there could not be a regular material supply, while most of the silicon metal plants stopped production temporarily. The price reversal due to COVID-19 and the recent commerce imposition of preliminary duties on all silicon metal imports may further affect the market negatively.

## Rising Demand of Surgical Hand Gloves

**A**surgical (surgeon's) glove is made of natural or synthetic rubber intended to be worn by operating room personnel to protect a surgical wound from contamination. Surgical gloves have more precise sizing (numbered sizing, generally from size 5.5 to size 9), and are made to higher specifications. They are hand specific. Non-latex materials gloves have not yet replaced latex gloves in surgical procedures, as gloves made of alternate materials generally do not fully match the fine control or greater sensitivity to touch available with latex surgical gloves.

The demand for rubber gloves is rapidly increasing on account of rapid industrialization and urbanization of our country currently taking place. Several workers in the chemical, electrical and food processing industries use rubber gloves. Similarly, the number of people using gloves

for household purposes during handling of detergents, floor polishes, pesticides and the like is also increasing especially in the urban areas.

The Indian market for medical gloves is still evolving. While the global market is growing at a compound annual growth rate (CAGR) of

two per cent, the Indian market is at seven per cent growth. Every day there is a new hospital or nursing home popping up in India, so the demand for medical gloves is expected to increase. Medical tourism is also driving

the growth of this product category in our country. The market size therefore only for surgical gloves in India is Rs 300 crore. In view of all this, there is a good scope to initiate small-scale rubber gloves manufacturing unit. Indian surgical glove market is growing at 15%.

### PROJECT COST ESTIMATE CAPACITY

Capacity	: 40,000 Pairs Per Day
Plant & Machinery	: ₹ 239 Lakhs
Cost of Project	: ₹ 816 Lakhs
Rate of Return	: 29.41%
Break Even Point	: 45.36%

### PROJECT COST ESTIMATE CAPACITY

Capacity	: 167 MT Per Day
Plant & Machinery	: ₹ 2138 Lakhs
Cost of Project	: ₹ 6900 Lakhs
Rate of Return	: 28.47%
Break Even Point	: 60.26%

## Most Lucrative Business of Disposable Safety Razors

**T**he double-edged safety razor is a razor with a slant bar that can be used on both sides, with two open edges. The blade on the double-edged safety razor is slightly curved to allow for a smoother and cleaner shave. With the disposable razor only made of a single blade and a plastic handle, it easily became a convenient tool for countless of men who liked the fact that they can get a quick shave, even more safely than a safety razor.

The safety razor is gentler on the skin. Because it only has a single blade, there aren't many opportunities for cutting skin—unless of course, one is really clumsy. A safety razor also allows more maneuverability than a cartridge disposable. The safety razor design allows to make slight adjustments to the angle, thereby increasing the quality of shave. Present razor technology has sufficiently improved on the basic design so that disposables now come in blade cartridges—which essentially contain blades—in the belief that the more blades a razor has, the better shave it can provide.

The demand for men's grooming market has seen a rise in the last few years because of increased consciousness of their looks among the male customer. Also as more than 50% of the population is under the age group of 30, the industry has huge local market. Moreover, rising urban middle class population, and improved distribution channels in tier II and tier III cities, are also expected to stimulate growth in the market through 2020. Men's grooming product can be divided into Bath & Shower products, Hair Care, Skin Care, Deodorants and Shaving products.

Shaving products currently control the largest market share in terms of revenue in Indian men's grooming market. As per NOVONOUS estimates, Indian shaving products market is expected to grow at a CAGR of 20% till 2020 and maintain its market share position even in 2020.

### PROJECT COST ESTIMATE CAPACITY

Razor Blade for Safety Razors	: 57,600 Units Per Day
Pack of 5 Pcs. each	
Steel Scrap	: 500 Units per Day
Plant & Machinery	: ₹ 393 Lakhs
Cost of Project	: ₹ 815 Lakhs
Rate of Return	: 57.75%
Break Even Point	: 28.02%

## The Growing Business of Medium Density Fiberboard (MDF)

Fiberboard is sometimes used as a synonym for particle board, but particle board usually refers to low-density fiberboard. Plywood is not a type of fiberboard, as it is made of thin sheets of wood, not wood fibers or particles. Fiberboard, particularly medium-density fiberboard (MDF), is heavily used in the furniture industry. For pieces that will be visible, a veneer of wood is often glued onto fiberboard to give it the appearance of conventional wood.

Medium density fiberboard (MDF) is a generic term for a panel primarily composed of lignocellulosic fibers combined with a synthetic resin or other suitable bonding system and bonded together under heat and pressure. The panels are compressed to a density of 0.50 to 0.80 and specific gravity (31-50 lb/ft<sup>3</sup>).

The total wood-based substrate industry in India, the INR 13 bn MDF market currently accounts for a mere 7% as compared to 80% globally. Albeit on a lower base, the domestic MDF market has been growing at 15-20% CAGR over the last five years.

### PROJECT COST ESTIMATE CAPACITY

Capacity	: 100 CBM Per Day
Plant & Machinery	: ₹ 1769 Lakhs
Cost of Project	: ₹ 2955 Lakhs
Rate of Return	: 22.92%
Break Even Point	: 48.83%

MDF is a superior substitute for cheap unbranded plywood and demand for it is being driven by a penchant for readymade modular furniture among the young and the aspiring who are eager on aesthetizing their interiors.

Moreover, with ready to-move-in offices and retail outlets mushrooming across the country, the prospects for this sector look brighter than ever. The MDF market is estimated worth ~H35 billion in India and has grown at a CAGR of ~5-8% over the last five years. The Central Government's decision to withhold fresh licenses for the manufacture of plywood has widened the gap between demand and supply. This is a positive development for the MDF industry and will increase the use of engineered panel products.

## Progression in the Business of Oxygen Gas Plant (Industrial and Pharmaceutical Grade)

Oxygen (CO<sub>2</sub>, gas at 0.1 matm. 1.429 g./l, crit. pressure, 49.7 matm.) is a colorless, odourless, and tasteless gas, somewhat heavier than air. It is one of the most active elements and plays on essential part in the respiration of living cells and in combustion.

Oxygen gas comprises 21 percent of atmospheric gas. Its symbol is O<sub>2</sub>. Atomic weight of oxygen is 16 and atomic no. is 8. Oxygen gas is nonmetallic element. Oxygen reacts with all elements, but not with inert gases to form compound called oxides. Oxygen support combustion and support flammable materials to burn more rapidly. And this combustion supporting property prefers it for different industrial applications.

The Indian industrial gases market is dominated by oxygen. Oxygen accounts for nearly 75% of total production of gases outside carbon dioxide in the merchant market. If the captive segment is included, oxygen enjoys an over 70% share in all gases (outside carbon dioxide).

The gas industry in India has a large number of small

plants spread all over the country. Also there are tonnage plants of global standards and capacity, which are set up in different parts of the country. There are about 330 industrial gas plants with capacities ranging from 100 to 350 m<sup>3</sup> per hour or 2.5 tonne to 8.5 tonne per day. These plants mainly serve small industrial consumers, hospitals and nursing homes.

The industrial gases industry has gone through substantial reorganisation and modernisation with a large increase in capacity since liberalisation of the Indian economy. Some of the Indian majors are expanding their capacities or replacing their old plants. Most of the new plants are captive units. These are reasonably large sized plants involving new technologies which have been sourced from abroad. These are backed by large resources. With the new growth and intense competition, the small and weak units are getting marginalised.

### PROJECT COST ESTIMATE CAPACITY

Oxygen Gas (Medical Grade)	: 500 Cylinders Per Day
Purity	99.5-99.9%
Oxygen Gas (Industrial Grade)	: 500 Cylinders Per Day
Purity	95-99%
Plant & Machinery	: ₹ 418 Lakhs
Cost of Project	: ₹ 748 Lakhs
Rate of Return	: 57.69%
Break Even Point	: 26.80%

## How to Setup an Oxygen Gas Plant

Medical grade oxygen for an oxygen concentrator should be no less than 90.0% and no more than 96.0%. It's also important to consider altitude level when looking at ideal oxygen saturation levels. It is designated as a drug and therefore must satisfy FDA requirements for compressed medical gas. One of the requirements is that cylinders containing oxygen must always be completely evacuated to minimize the risk of contamination.

Covid-19 has positively impacted the growth of global medical gas oxygen cylinder market. During Covid-19 pandemic, the rising number of COVID-19 cases has essentially accelerated the demand for medical oxygen gas cylinders for intensive care. The requirement for oxygen has expanded to 1.1 million cylinders in low to center pay countries alone due to increasing number of COVID-19 patients.

In hospital Oxygen concentrators are used that purifies Oxygen from the received air. The U.S. Food & Drug Administration (FDA) makes the rule that nobody is allowed to purchase Medical Oxygen and Oxygen concentrator or any other oxygen device without prescription. Oxygen therapy is taken by the people affected by cardiac arrest, cyanosis, shock, severe hemorrhage, and others.

### PROJECT COST ESTIMATE CAPACITY

Capacity	: 172 Cylinders Per Day
Plant & Machinery	: ₹ 178 Lakhs
Cost of Project	: ₹ 416 Lakhs
Rate of Return	: 63.51%
Break Even Point	: 14.46%

The key factor for growth of global medical oxygen gas cylinders market is the rise prevalence of chronic and infectious diseases like pandemic Covid-19, cancer, asthma, diabetes, heart attack etc.

and surge in global geriatric population. According to WHO in 2020, there has been significant death toll happened worldwide due to this infectious disease corona virus till now more than 346000 deaths has been noted with more than 5.5 Million infected cases around the world. Hence to combat such covid-19 pandem-



ic, medical oxygen cylinders are widely used for the critical patients.

## Plastic Waste Pyrolysis (Plastic to Oil Conversion)

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

Increasing industrialization and motorization has led to a significant rise in demand of petroleum products. As

### PROJECT COST ESTIMATE CAPACITY

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

these are the nonrenewable resources it is difficult to predict availability of these resources in future, resulting uncertainty in its supply and price and is impacting growing economies like India. Many alternate fuels like Alcohols, Biodiesel, LPG, CNG etc have been already commercialized in the transport sector.

Recent developments in recycled plastic and plastic waste to oil market indicate that policymakers and energy industry players in various regions, particularly in North America and Europe, are focusing on the commercialization of the technology. As a whole entrepreneur can venture in this field will be successful.

## Dal Mill (Pulse)

**I**ndia 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.

## Porcelain Insulator

**E**lectricity play a vital role in the development and growth of Agriculture and Industry, as it is a high priority item for all the developing or developed

nations. For the generation and distribution of Electricity, High Tension Insulators are an important adjuncts.

Insulators have very few free electrons and do not transfer electrical energy well. An electrical insulator is a material whose internal electric charges do not flow freely, and therefore make it nearly impossible to conduct an electric

current under the influence of an electric field. This contrasts with other materials, semiconductors and conductors, which conduct electric current more easily. The property that distinguishes an insulator is its resistivity; insulators have higher resistivity than semiconductors or conductors.

The end type insulator is used on all distribution lines and on low voltage transmission lines.

World is experiencing a tremendous expansion of industrial and real estate sectors and accompanied by a massive increase in the need for electric power energy due to the essential role of the electric power in the development and growth in all areas of life. This huge demand of the electrical power bodes market demand for large investments in the field of electric power and its support services industry. Thus, as an entrepreneur this project offers an exciting opportunity to you.

## Fractionation of Turpentine Oil

**T**urpentine is an essential oil obtained from pine trees. It is one of the most important substances with many applications, being widely used as a solvent in chemical industries, resins and as an ingredient in paints. Uttarakhand, Himachal, J & K, and Assam are extremely rich in pine forests. Highly purified  $\alpha$ -pinene can be obtained by vacuum-fractional distillation of turpentine that has to reach 97% purity.

Pine oils are also widely utilized in cleaning & home products owing to their superior antibacterial and antiseptic properties. Other uses includes Ore-dressing Agent, Textile Degreaser, Bactericide, Fragrance, Others Customers are keen on specialized products as various applications require specific characteristics and ingredients.

Pine Oil (CAS 8002-09-3) Market is predicted to discover Vigorous Growth by 2021. Throughout the world every industry is spending a large amount in Research for future expansion. Growing consumer preference for natural products has led to the development of innovative applications in personal care and cleaning products. Rapid industrialization and increasing disposable consumer income are the other major factors driving the market growth, mainly in developing countries such as China, India, Vietnam, and Thailand. Thus, as an entrepreneur this project offers an exciting opportunity to you.

## Recovery of Lead from Scrap Batteries

**T**he recovery of metals from metal scrap has the advantage that it is easier and far less energy dependent than the production of primary lead from ores. Lead is a chalcophile metallic element forming

PROJECT COST ESTIMATE CAPACITY	
Insulator (HT & LT)	: 3,500 MT/Annum
Plant & Machinery	: ₹ 131 Lakhs
Cost of Project	: ₹ 1010 Lakhs
Rate of Return	: 25%
Break Even Point	: 51%

PROJECT COST ESTIMATE CAPACITY	
Turpentine Oil	: 3,000,000 Ltr/Annum
Plant & Machinery	: ₹ 82 Lakhs
Cost of Project	: ₹ 425 Lakhs
Rate of Return	: 30%
Break Even Point	: 52%

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%



several important minerals including galena PbS, angle site PbSO<sub>4</sub>, crosstie PbCO<sub>3</sub> and minimum Pb<sub>3</sub>O<sub>4</sub>. Recycling

**PROJECT COST ESTIMATE  
CAPACITY**

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

lead is relatively simple and in most of the applications where lead is used, such as lead-acid batteries, it is possible to recover it for use over and over again.

The production of lead in India from primary sources accounts for nearly two thirds of the total lead production in the country whereas, the world over, the

production from secondary smelters accounts for nearly 60% of the total production of lead. This facilitates the development of new technologies and ensures a high quality product.

**Methyl Isobutyl Ketone (MIBK) from Acetone**

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

Methyl isobutyl ketone (MIBK) [CAS registry number: 108-10-1] is an organic compound with the formula (CH<sub>3</sub>)<sub>2</sub>CHCH<sub>2</sub>C(O)CH<sub>3</sub>. This colorless liquid, a ketone, is widely used as a solvent. MIBK is a colorless liquid with a characteristic ketone odor. It is highly flammable and vapors may travel to the source of ignition and flashback. It is soluble in water and miscible with most organic solvents and evaporates in air. It irritates the skin, eyes and respiratory tract and in high concentrations leads to nausea, headaches, dizziness and unconsciousness. MIBK is a clear liquid with a sweet odor; the odor threshold is 1.64-mg/m<sup>3</sup> (0.4 ppm). It is moderately soluble in water. MIBK can react violently with oxidizing and reducing agents. When heated, peroxides may form by auto-oxidation and may explode spontaneously.

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

**PROJECT COST ESTIMATE  
CAPACITY**

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

**Discontinuous Sandwich Panel**

A sandwich panel is any structure made of three layers: a low-density core and a thin skin-layer bonded to each side. Sandwich panels are used in applications where a combination of high structural rigidity and low weight is required. SIP is a sandwich structured composite, consisting of an insulating layer of rigid core

sandwiched between two layers of structural board, used as a building material. A structural insulated panel, or structural insulating panel, (SIP), is a form of sandwich panel used in the construction industry. The board can be sheet metal, plywood, cement, magnesium oxide board (MgO) or oriented strand board (OSB) and the core either expanded polystyrene foam (EPS), extruded polystyrene foam (XPS), polyisocyanurate foam, polyurethane foam or composite honeycomb (HSC).

Sandwich panels in India have been showing strong growth mainly in telecom shelters, cold chain and industrial buildings. Huntsman is a leading supplier of polyurethane (PU) chemicals to sandwich panel manufacturers across the world. In this paper, we would like to share our

**PROJECT COST ESTIMATE  
CAPACITY**

Discontinuous Sandwich Panel : 1000000 Sq.mt. /Annum  
Plant & Machinery : ₹ 7081 Lakhs  
Cost of Project : ₹ 8431 Lakhs  
Rate of Return : 27%  
Break Even Point : 37%

experience gained in Europe for sandwich panel applications. In the Europe, Africa, Middle East (EAME) region, the market for polyurethane-cored sandwich panels has been growing rapidly over the last years and is currently estimated to be 130 million per annum. The majority of

these panels are produced on laminators while the discontinuous press technique is mainly used for more specialized panel designs. As a whole entrepreneur can venture in this field will be successful.

**Neem Oil (Cold Process)**

Neem oil is obtained from the seeds of neem tree. Utilization of neem seeds is to be set with the problem of organization of systematic collection and crushing of seeds.

**PROJECT COST ESTIMATE  
CAPACITY**

Neem Oil : 150 Kgs/Day  
Deoil Cake as by product : 1680 Kgs/Day  
Plant & Machinery : ₹ 23 Lakhs  
Cost of Project : ₹ 51 Lakhs  
Rate of Return : 27%  
Break Even Point : 67%

Neem oil is usually opaque and bitter but it has recently been shown that it can be processed into non bitter edible oil with 50% oleic acid and 15% linoleum acid. 'Neem oil extractives', a waste from neem oil refining has been found to be effective

mosquitolarvicide. The material acts as instant killer of the first instar larvae of Culex fatigans at 0.04% concentration whereas at lower concentrations it had delayed toxicity.

Azadirachtin, an active compound derived from neem seeds and other parts has natural insecticidal properties. It is potentially a substitute for synthetic pesticides used in crop production. Projected growth in global bio-pesticide market at CAGR of 15.8 per cent from 2012 to 2017 could be a prospective growth driver for the neem products in future. As a whole there is a good scope for new entrepreneur to invest in this business.

**Mayonnaise**

Mayonnaise is one of the most popular types of sauces in the world. It is a semi-solid oil-in-water emulsion produced as a mixture of egg yolk, vinegar, oil and some other ingredients. The color of mayonnaise varies, but it is often white, cream color, or pale yellow. It may range in texture from a light cream to a thick gel. It is served with sausages, burger patties, chips and salads as food flavouring and to stimulate the appetite for a starter meal. The oil content in mayonnaise is more than

60% and this contributes to lubricity and the creamy texture of the product.

Indian Mayonnaise & Salad Dressing Market is growing with a CAGR of 21.54% from last five years and is projected to get more than thrice by the 2021 due to growing trend of international food, brand awareness, increasing disposable income, growing demand in middle class people and increasing International food chains. The unorganized market in this industry is lagging compared to organized industry; as institutional food players focus on quality mayonnaise and salad dressing rather than prices so that they only consume the branded mayonnaise and salad dressing variants. As a whole entrepreneur can venture in this field will be successful.

## Exercise Note Book

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

composed of pages, often ruled, made out of paper, used for purposes including recording notes or writing, drawing and similar activities.

The demand for notebooks is projected to reach 2,250 tons and 3,155 tons by the year 2017 and 2022. India exercise notebook market is expected to reach Rs.

334.6 billion by FY'2020. India exercise notebook market, segmentation on the basis of Use, Number of Pages, GSM, Recycled/Non-Recycled Papers, Retail/Institutional Sales, Size, Bindings, Cover Types, City Tiers, Rural/Urban Demand and Paper Types. India stationery market revenues are projected to grow at a CAGR of 10.5% during 2018-24.

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

## Betel Nut (Supari) Processing

Areca nut is the nut of areca palm. Biological name of areca nut palm is Areca catechu and it is a member of the family arecaceae or palmar. It is also called betel nut, as it is usually chewed with betel leaf and lime. Betel nut is a seed of the Areca catechu, a type of palm tree. It's commonly chewed after being ground up or sliced and wrapped in leaves of the Piper betel vine that have been coated with lime. This is known as a betel quid. Tobacco or flavorful spices may also be added. The dust and

'Chogaru' are traditionally used as a masticatory and for tanning leather. The tannins of arecanut tan leather satisfactorily except for the colour.

India is the highest producer of areca nut with a production of around 3.3 lakh tones and a total acreage under cultivation of 2.64 lakh hectares,

with Karnataka and Kerala accounting for nearly 72 per cent of the total production. Over six million people are engaged in areca nut cultivation, processing and trade. More than 85 per cent of the area under cultivation is made up of small and marginal holdings. Among the two varieties white nuts have a share of 60 per cent. India is also the largest consumer with around 3.2 lakh tonnes. As a whole you can invest in this project without risk and earn profit.

## Wall Paper Starch

Starches are inherently unsuitable for most applications and, therefore, must be modified chemically and/or physically to enhance their positive attributes and/or to minimize their defects. Chemical modification of starch generally involves esterification, etherification or oxidation of the available hydroxyl groups on the B-D-glucopyranosyl units that make up the starch polymers. Reactions used to produce most commercially modified starches have been reviewed by others. Many commercial derivatives are produced by the addition of reactive, organic reagents to aqueous starch slurries while controlling alkalinity (pH 7-9 for esterification and pH 11-12 for etherification) and temperature (typically 60°C).

The wall paper starch is used in the fixing of the wall paper on the walls. This is implied that this shall be directly connected with construction industry and its opportunities. The demand for starches and derivatives looks very promising in India as all the major user segments of starches and derivatives are showing near double digit growth in their production. The major users of starches and derivatives are food, textile, paper and pharma sectors. Global Modified Starch Market was valued at \$7,995 million in 2016, and is projected to reach at \$10,700 million by 2023, growing at a CAGR of 4.2% from 2017 to 2023. Modified starch is formed by morphological or physicochemical changes in the structure of native starch via its treatment with heat, acids, alkalis, or enzymes. As a whole entrepreneur can venture in this field will be successful.

## Caustic Soda from Limestone and Sodium Carbonate (Soda Ash)

Sodium hydroxide, also known as lye and caustic soda, is an inorganic compound with the formula NaOH. It is a white solid ionic compound consisting of sodium cations Na<sup>+</sup> and hydroxide anions OH<sup>-</sup>. Sodium hydroxide is highly caustic base and alkali that decomposes proteins at ordinary ambient temperatures and may cause severe chemical burns. Sodium hydroxide in solid form, also called caustic soda, is an inorganic chemical compound belonging to the strongest alkali. In solid form, it is a white substance with crystalline appearance (flakes). Sodium hydroxide is used in many industries in the manufacture of pulp and paper, textiles, drinking water, soaps and detergents, and as a drain cleaner.

Caustic Soda Market, also known as sodium hydroxide, has the chemical formula of NaOH. Caustic soda is the co-product of chlorine production. It is a major building block in many industrial processes. The global caustic soda market is expected to register a remarkable CAGR of 5.92% during the forecast period, 2019-2027. The prime factor supporting the growth of the global caustic soda market is the growth of the alumina industry due to the increasing use of aluminium in the automotive industry as the manufacturers are increasingly using aluminium to reduce the overall weight of the vehicles to curb emissions.

### PROJECT COST ESTIMATE CAPACITY

Mayonnaise	: 500 Kgs/Day
Plant & Machinery	: 14 Lakhs
Cost of Project	: 60 Lakhs
Rate of Return	: 26%
Break Even Point	: 62%

### PROJECT COST ESTIMATE CAPACITY

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

### PROJECT COST ESTIMATE CAPACITY

Wall Paper Starch	: 32 MT /Day
Plant & Machinery	: ₹ 52 Lakhs
Cost of Project	: ₹ 367 Lakhs
Rate of Return	: 29%
Break Even Point	: 72%

### PROJECT COST ESTIMATE CAPACITY

Supari	: 500 Kgs./Day
Tannin	: 33 Kgs./Day
Brushes/Rope	: 250 Kgs./Day
Pan Masala	: 500 Kgs./Day
Plant & Machinery	: ₹ 42 Lakhs
Cost of Project	: ₹ 191 Lakhs
Rate of Return	: 27%
Break Even Point	: 58%

The global caustic soda market has been segmented by type, application, and region. By type, the lye segment accounted for the largest share of 67% by value in 2018. The segment is expected to register a CAGR of over 4.5% during the forecast period, owing to its widely used application as a chemical.

PROJECT COST ESTIMATE CAPACITY	
<b>Caustic Soda from Limestone : 60 MT Per Day and Sodium Carbonate</b>	
<b>Plant &amp; Machinery</b>	: ₹ 171 Lakhs
<b>Cost of Project</b>	: ₹ 827 Lakhs
<b>Rate of Return</b>	: 29%
<b>Break Even Point</b>	: 67%

## Industrial Gases

Industrial gases are gaseous materials that are manufactured for use in industry. The principal gases provided are nitrogen, oxygen, carbon dioxide, argon, hydrogen, helium and acetylene; although a huge variety of gases and mixtures are available in gas cylinders. Industrial gases are used in a wide range of industries, which include oil and gas, petrochemicals, chemicals, power, mining, steelmaking, metals, environmental protection, medicine, pharmaceuticals, biotechnology, food, water, fertilizers, nuclear power, electronics and aerospace. Industrial gas is sold to other industrial enterprises; typically comprising large orders to corporate industrial clients, covering a size range from building a process facility or pipeline down to cylinder gas supply.

Industrial gas is a group of materials that are specifically manufactured for use in industry and are also gaseous at ambient temperature and pressure. They are chemicals which can be an elemental gas or a chemical compound that is either organic or inorganic, and tend to be low molecular weight molecules. They could also be a mixture of individual gases. They have value as a chemical; whether as a feedstock, in process enhancement, as a useful end product, or for a particular use; as opposed to having value as a "simple" fuel.

As per the latest report by Persistence Market Research (PMR), the global market for industrial gases is likely to witness robust growth, registering a 7.7% CAGR between 2017 and 2025. The global industrial gases market is estimated to reach US\$ 114.5 Bn in revenue by 2025 end. Rise in Metal Manufacturing & Fabrication to Boost Demand for Industrial Gases there has been an exponential increase in metal manufacturing in recent years. Argon is also witnessing an increasing demand for fabrication and manufacturing to use as a shield gas in welding processes. Oxygen to Emerge as the Highly Preferred Gas in the Global Industrial Gases Market Oxygen is one of the largest used gases across various industries including steel, chemical, paper and pulp, and other industries.

## 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	
<b>Capacity</b>	: 50 MT Per Day
<b>Plant &amp; Machinery</b>	: ₹ 58 Lakhs
<b>Cost of Project</b>	: ₹ 405 Lakhs
<b>Rate of Return</b>	: 29%
<b>Break Even Point</b>	: 67%

## Compressed Wood Pallets

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 (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

PROJECT COST ESTIMATE CAPACITY	
<b>Compressed Wood Pallets : 180 Pcs. Per Day (each 15 Kgs)</b>	
<b>Plant &amp; Machinery</b>	: ₹ 155 Lakhs
<b>Cost of Project</b>	: ₹ 408 Lakhs
<b>Rate of Return</b>	: 25%
<b>Break Even Point</b>	: 67%



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.

## Ground Calcium Carbonate

with 90% Brightness and Whiteness and > 90% CaCO<sub>3</sub>

**G**round calcium carbonate, commonly referred to as GCC in industrial applications, is widely used as a filler material. Ground calcium carbonate may be referred to as calcium or limestone in agricultural applications. GCC products are used in the whole variety of applications for lime stones – building products, paints, plastics, agriculture, glass, among others.

The demand in the global ground calcium carbonate market at a considerable CAGR of 5.0% during the forecast period from 2017 to 2025. As per the research, the global ground calcium carbonate market is foreseen to reach around worth of US\$22,311.06 mn before 2025, considerably more the end of 2025. As a whole there is a good scope for new entrepreneur to invest in this business.

PROJECT COST ESTIMATE	
CAPACITY	
Ground Calcium Carbonate : 200 MT/Day	
5-10 Micron size	
Plant & Machinery	: ₹ 12 Crore
Cost of Project	: ₹ 24 Crore
Rate of Return	: 28%
Break Even Point	: 55%

## Oleoresin of Spices

Black Pepper, Paprika and Cardamom

**O**leoresin is a homogeneous mixture comprising of resin and oils that are volatile in nature. Spice oleoresins represent the complete flavour profile of the spice. It contains the volatile as well as non-volatile constituents of spices. Spice oleoresins guarantee superior quality of flavour and aroma. They have several applications like in the preparation of beverages, soup powders, confectionary, curries, noodles, sauces, canned meat etc.

The Indian spice oleoresin market is about Rs.600 crores. India accounts for 70% of the world oleoresin production with competition from China, US, Lanka, South Africa and Latin America. Entrepreneurs who invest in this project will be successful.

PROJECT COST ESTIMATE	
CAPACITY	
Black Pepper Oleoresin : 14 Kgs/Day	
Black Pepper Spent : 545 Kgs/Day	
Cardamom Oleoresin : 10 Kgs/Day	
Cardamom Spent : 120 Kgs/Day	
Paprika Oleoresin : 1.2 Kgs/Day	
Paprika Spent : 15 Nos./Day	
Plant & Machinery	: ₹ 234 Lakhs
Cost of Project	: ₹ 424 Lakhs
Rate of Return	: 27%
Break Even Point	: 53%

## Peanut Butter

**P**eanut butter is a food paste made from ground nut or peanut. It consists essentially of cleaned, graded, blanched, roasted and crushed groundnuts containing about 45 percent of oil and over 25 percent of proteins, being thus a highly nutritive food. The paste is used in preparation of side dishes and is also cooked with vegetables, pearled sorghum and maize to make a variety of dishes.

Indian butter market was valued at INR 420 crore in the year 2011-12 in value terms. On the other hand, cheese spread is expected to have market value of 5473 metric ton at the end of forecast period. Peanut butter market is ex-

pected to have growth rate more than 10% from 2017-18 to 2022-23. The India Peanut Butter market Size will be 3.3 Billion USD in 2023, with a CAGR of 13% between 2018 and 2023. This facilitates the development of new technologies and ensures a high quality product.

PROJECT COST ESTIMATE	
CAPACITY	
Peanut Butter	: 12595 Kgs/Day
Plant & Machinery	: ₹ 221 Lakhs
Cost of Project	: ₹ 632 Lakhs
Rate of Return	: 29%
Break Even Point	: 63%

## Fiberglass Doors

Surrounded Wood and Inside Filled Polyurethane Foam by Injection

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

Commercial doors market will witness a valuation of over USD 60 billion by 2024. The demand varies depending upon the client's requirement with varied functions. Increase in consumer spending on new construction as well as renovation of existing residential & commercial buildings will drive the global doors market growth. As a whole there is a good scope for new entrepreneur to invest in this business.

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

## Dry Lemon Powder and Lemon Oil

**S**pray dried lemon juice powder was used to enhance the acceptability and nutritive value. It reserves the most of bioactive ingredients of lemon and also its property (color, smell, and taste) Ingredient: Vitamin c, citric acid, malic acid. Lemon Essential Oil is a natural detoxifier and contains antiseptic properties that aid in clearing the face from pimples and acne. By doing so, lemon also tightens the skin, preventing wrinkles, and removes excess Oils that clog pores and cause blackheads.

According to Lemons and Limes–Market Report, Analysis and Forecast to 2025", the world market of lemons and limes grew by 19% to \$ 13.9 billion. The lemon juice powder market, in terms of value, is projected to reach around USD 93.94 Billion by 2021, at a CAGR of 6.0% from 2016 to 2021. The global lemon essential oils market is projected to register an estimated CAGR of 9.2%, during the forecast period, 2018-2023.

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

PROJECT COST ESTIMATE	
CAPACITY	
Lemon Powder : 32 MT/Day	
Lemon Oil : 12 MT/Day	
Plant & Machinery	: ₹ 721 Lakhs
Cost of Project	: ₹ 1983 Lakhs
Rate of Return	: 33%
Break Even Point	: 51%



## Cow Urine (Gomutra) Processing and Packing

**G**omutra is not a toxic waste material. 95% of it is water, 2.5% consists of urea, and the remaining 2.5% is a mixture of minerals, salts, hormones and enzymes. Gomutra or gaumutra cow urine is urine from cows used for therapeutic purposes in traditional Indian medicine, Ayurveda and also for purification in Vaastu Shastra. Cow urine has bio enhancing activity for Rifampicin, the front-line anti-tubercular drug used against tuberculosis, increasing

its action up to sevenfold against Escherichia coli, and up to 11-fold against Gram-positive bacteria.

There are more than 50 units processing cow urine in India. That cow urine is in demand not just in India, but around the world, became evident recently when health authorities in

London raised objections to shopkeepers placing cow urine concentrate on shelves next to food items. As a whole any entrepreneur can venture in this project without risk and earn profit.

### PROJECT COST ESTIMATE CAPACITY

**Distilled Cow Urine : 2000 Lts./Day (Gomutra)**  
**Plant & Machinery : ₹ 22 Lakhs**  
**Cost of Project : ₹ 187 Lakhs**  
**Rate of Return : 28%**  
**Break Even Point : 68%**

## Bakery Products (Cake & Filled Croissants Puffs)

**B**akery holds an important place in food processing industry and is a traditional activity. Bakery products, due to high nutrient value and affordability, are an item of huge consumption. Due to the rapid population rise, the rising foreign influence, the emergence of a female working population and the fluctuating eating habits of people, they have gained popularity among people, contributing significantly to the growth trajectory of the bakery industry.

India is a major manufacturing house for bakery products and is the third-largest biscuit manufacturing country after USA and China. The Indian bakery market is valued at Rs. 3,295 crore and out of this, bread and biscuits hold 82% of the share. India's organised bakery sector produces about 1.3 millions tonne of bakery products (out of three million tonnes) while the balance is produced by unorganised, small-scale local manufacturers. As a whole any entrepreneur can venture in this project without risk and earn profit.

### PROJECT COST ESTIMATE CAPACITY

**Cakes (200 gm) : 720000 Pcs./Day**  
**Filled Croissants : 480000 Pcs./Day**  
**Puffs (60 gm)**  
**Plant & Machinery : ₹ 540 Lakhs**  
**Cost of Project : ₹ 12913 Lakhs**  
**Rate of Return : 33%**  
**Break Even Point : 35%**

## Dragon Fruits Farming

**A**pitaya or pitahaya is the fruit of several cactus species. "Pitaya" usually refers to fruit of the genus Stenocereus, while "pitahaya" or "dragon fruit" always refers to fruit of the genus Hylocereus. They are also called strawberry pears because of the bright red features of the fruit. These plants are also known by other names as well. Dragon fruit is a good source of nutrients which are very beneficial for our health. It contains high amount of Vitamin C as well as iron, calcium, Vitamin B, potassium, fiber, other vitamins and minerals.

Dragon fruit demand in India is very high and many people are showing interest in dragon fruit cultivation in Karnataka, dragon fruit farming in Gujarat, Assam, Haryana, Punjab, and Maharashtra. The dragon fruit farming in some places of Telangana and Andhra Pradesh as well. The dragon fruit farming profit depends on many factors, however, let us see the approximate cost and income from dragon fruit cultivation in India. The demand for

dragon fruits is increasing rapidly nowadays. The demand of dragon fruit is increasing in Gujarat too. However, the fruit is not affordable to all. In the wholesale market, dragon fruit sells for Rs 120 to 150 per kg. Entrepreneurs who invest in this project will be successful.

### PROJECT COST ESTIMATE CAPACITY

**Capacity : 36,000 Kgs Per Annum**  
**Plant & Machinery : ₹ 29 Lakhs**  
**Cost of Project : ₹ 73 Lakhs**

## Toothpaste

**T**he global toothpaste market is projected to grow at a CAGR of 6.1% during the forecast period. The toothpaste market was valued at USD 26.09 billion in 2018, and it is projected to reach USD 36.98 billion by 2024. Increasing dental problems among children and adults, due to poor eating habits, and the rise in popularity of herbal oral care products are the factors primarily driving the global toothpaste market. Entrepreneurs who invest in this project will be successful.

### PROJECT COST ESTIMATE CAPACITY

**Toothpaste 35 gms Tubes : 28,572 Tubes / Day**  
**Toothpaste 70 gms Tubes : 14,286 Tubes / Day**  
**Toothpaste 140 gms Tubes : 7,143 Tubes / Day**  
**Plant & Machinery : ₹ 173 Lakhs**  
**Cost of Project : ₹ 2185 Lakhs**  
**Rate of Return : 22%**  
**Break Even Point : 44%**

## Hydrogen Peroxide

**H**ydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) is a very pale blue liquid which appears colorless in a dilute solution, slightly more viscous than water. It is a weak acid. It has strong oxidizing properties and is therefore a powerful bleaching agent that is mostly used for bleaching paper, but has also found use as a disinfectant, as an oxidizer, and as a propellant for rockets.

The chemical industry also uses hydrogen peroxide. Rising adoption of the hydrogen peroxide in the production of propylene oxide is anticipated to boost the demand for hydrogen peroxide in the chemical industry in the near future. The other uses of hydrogen peroxide are found across industries such as in textile, electronics, and food processing. Hydrogen peroxide is used in the electronics industry for pickling of metal surfaces. It is also used to bleach natural and synthetic fibers in the textile industry.

Demand for hydrogen peroxide is expected to increase from this industry in the near future owing to increasing usage of paper across the globe. Advent of internet and digitalization has reduced the use of newsprint paper in developed countries. However, rising demand for paper in personal care and

### PROJECT COST ESTIMATE CAPACITY

**Hydrogen Peroxide 50% : 12,000 MT Per Annum**  
**Plant & Machinery : ₹ 3932 Lakhs**  
**Cost of Project : ₹ 5737 Lakhs**  
**Rate of Return : 25%**  
**Break Even Point : 34%**

packaging industries in developing countries has propelled the overall demand for paper.

The market in the region is driven by rising demand from paper and pulp, chemical, and wastewater treatment industries. In terms of value, the market is anticipated to expand at a CAGR of 5.3% between 2017 and 2025. Global paper & pulp industry may consume hydrogen peroxide worth over USD 2,500 million by 2024. As a whole there is a good scope for new entrepreneur to invest in this business.

## Bamboo Fabric

As bamboo fabric is gaining popularity in the fashion industry, there will naturally be an increase in growth and demand for more bamboo plants. This could ultimately lead to an increased amount of photosynthesis and result in another alternative to combating greenhouse gases. India's textiles sector is one of the oldest industries in Indian economy dating back several centuries. India's textile and apparel exports stood at US\$ 38.70 billion in FY19 and is expected to increase to US\$ 82.00 billion by 2021 from US\$ 22.95 billion in FY20 (up to November 2019).

The Indian textiles industry is extremely varied, with the hand-spun and hand-woven textiles sectors at one end of the spectrum, while the capital-intensive sophisticated mills sector at the other end of the spectrum. The decentralized

power looms/ hosiery and knitting sector form the largest component of the textiles sector. The close linkage of the textile industry to agriculture (for raw materials such as cotton) and the ancient culture and traditions of the country

in terms of textiles make the Indian textiles sector unique in comparison to the industries of other countries. The Indian textile industry has the capacity to produce a wide variety of products suitable to different market segments, both within India and across the world. As a whole any entrepreneur can venture in this project without risk and earn profit.

## Corn Flakes

Corn flakes being one of most nutritious foods and is consumed as breakfast food not only in India but elsewhere in the world. Basically, it is prepared from maize; this is the main raw material. Flavours, like sugar or salt, are also added. Maize, the main raw material, is itself a corn grain. India is predominantly an agricultural country. Due to the progressive increase in farm produce a need has been felt to develop more agro based food-processing industries to make gainful utilization of the raw material resources and to provide remunerative prices to the growers. Maize is one of the important commercial food-grains grown abundantly in our country.

The global breakfast cereal market size was valued at USD 37.44 billion in 2016. It is projected to expand at a CAGR of 4.3% from 2017 to 2025. Breakfast cereals are available in different variety, but the essential ingredient is grains. Commonly used grains include oats, rice, barley, wheat, and corn. Few hot cereals such as oatmeal does not comprise any other ingredient while other variants may include coloring agents, yeast, salts, minerals, vitamins, sweeteners, and food preservatives. Food habits have taken a healthy turn since then, although not at the

pace Kellogg would have liked, and the acceptance of cereals, cornflakes, oats and muesli has improved. Kellogg has tried every trick in the bag with smaller and more affordable packs, variants for evening meals and niche products such as Special K cornflakes for women. Of the Rs 400-crore cornflakes market (growing at 20 per cent per annum), it now commands around 70 per cent. As a whole any entrepreneur can venture in this project without risk and earn profit.

## Linear Alkyl Benzene Sulphonic Acid

Linear Alkyl Benzene Sulphonic Acid is a largest volume synthetic surfactant because of its relatively low cost, good performance, the fact that it can be dried to a stable powder and the biodegradable environmental friendliness. LAB Sulphonic Acid is an anionic surfactant widely used in formulation of all ranges of Domestic Detergents Powder, Cake & Dish wash cleaners. Due to its high active matter, miscibility with water and low salt content, it is also used in formulation of Industrial & Household liquid cleaners as well as in numerous industrial applications like as a coupling agent and as an emulsifier for agricultural herbicides and in emulsion polymerization. Linear Alkyl Benzene Sulphonic Acid is an anionic surface active agent with superior detergency and compatibility with a broad range of other anionic, nonionic and amphoteric surfactants.

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

in North America. Latin America and Middle East & Africa are projected to provide lucrative opportunities to manufacturers in the near future due to the rapid urbanization and industrialization. As a whole any entrepreneur can venture in this project without risk and earn profit.

## Banana Wafers

Fried banana wafers are a deep fried snack food prepared from green fresh mature bananas of the cooking variety. Success in deep-fat frying of snack foods depends upon several factors, such as (a) the use of proper raw material of optimum maturity or quality, (b) correct method of preparation, (c) use of suitable equipment, (d) selection of appropriate fat or oil as frying medium, (e) optimum time and temperature of frying, (f) efficient packaging, and (g) proper storage. Though consumption of these products is at present very high there is no systematic quality control.

The Global Snack Food Market was valued at USD 450 billion in 2017 and is expected to reach a value of USD 638 billion by 2023 at a CAGR of 5.79% during the forecast period (2018-2023). While the factors like demand for urbanization and change in lifestyle fuel the growth of the market, whereas government rules and health concerns are hindering

### PROJECT COST ESTIMATE CAPACITY

Bamboo Fabric	: 50,000 Meters / Day
160 gsm	
Plant & Machinery	: ₹ 87 Lakhs
Cost of Project	: ₹ 540 Lakhs
Rate of Return	: 30%
Break Even Point	: 57%

### PROJECT COST ESTIMATE CAPACITY

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

### PROJECT COST ESTIMATE CAPACITY

Corn Flakes	: 5 MT/ Day
Plant & Machinery	: ₹ 151 Lakhs
Cost of Project	: ₹ 426 Lakhs
Rate of Return	: 27%
Break Even Point	: 61%

the market growth. The growing demand in developing regions and development of innovative products provides ample growth opportunities.

India wafers market has shown remarkable growth in past couple of years. The market is forecasted to grow with a CAGR of more than 9% in near future. Currently, the growing young population represents a key segment for the potato wafers, banana wafers, and tortilla wafers market. Major factors driving the global demand of wafers are growing urbanization, rise in disposable incomes and rapidly changing lifestyles. As a whole any entrepreneur can venture in this project without risk and earn profit.

**PROJECT COST ESTIMATE  
CAPACITY**

Banana Wafers (40 gms size) :	10,700 Packs / Day
Banana Wafers (20 gms size) :	21,300 Packs / Day
Banana Wafers (10 gms size) :	42,600 Packs / Day
Plant & Machinery	: ₹ 37 Lakhs
Cost of Project	: ₹ 393 Lakhs
Rate of Return	: 30%
Break Even Point	: 53%

**Needles for Sewing and Embroidery Machine**

A sewing needle, used for hand-sewing, is a long slender tool with a pointed tip at one end and a hole (or eye) at the other. The earliest needles were made of bone or wood; modern needles are manufactured from high carbon steel wire and are nickel- or 18K gold-plated for corrosion resistance. High quality embroidery needles are plated with two-thirds platinum and one-third titanium alloy. Traditionally, needles have been kept in needle books or needle cases which have become objects of adornment. Needles are offered in a wide range of sizes and the selection of needle size is based on the combination of fabric and sewing thread which is to be sewn. If the selected sewing needle is too small for the sewing thread size, the thread will not fit well into the long groove of the needle and will suffer from extreme abrasion.

The global sewing machines market is projected to grow at the rate of 4.1% during the forecast period, 2018 to 2023. The large scale adoption of these automated sewing machines for most apparel and non-apparel manufacturing contributes to the growth of the sewing machine market. Supporting government policies in emerging policies, like China and India, influence textile manufacturers to adopt the latest technologies and expand their manufacturing sites, is expected to increase the demand for industrial sewing machines. However, strong presence of unorganized players and uncertainty in raw material costs are restraining the growth of sewing machines market. As a whole any entrepreneur can venture in this project without risk and earn profit.

**PROJECT COST ESTIMATE  
CAPACITY**

Sewing Needles (30 g each) :	6,400 Packs / Day per Pack 50 Pcs.
Embroidery Needles (30 g each) :	1,600 Packs / Day per Pack 50 Pcs.
Plant & Machinery	: ₹ 256 Lakhs
Cost of Project	: ₹ 939 Lakhs
Rate of Return	: 27%
Break Even Point	: 59%

**Rice Flakes and Puffed Rice**

Rice flakes consumed by people of all ages and all times. With tea and coffee, rice flakes make a tasty and nutritious snack. There is a definite

need for the rice flakes industry to make inroads in the rural areas. Manufacturing of rice flakes products have substantial scope for development in smaller towns, village and backward areas and can provide a good number of employment opportunities at different levels. Rice is a major source of energy and an important source of protein.

The availability of nutrients per 100 g of raw white rice provides 361 kcal and 6 g of protein. It also contains substantial amounts of zinc and niacin. On the other hand, it is low in calcium, iron, thiamine and riboflavin and has virtually no beta-carotene (Vitamin A). It is noteworthy that the highest the degree of polishing, the lowest the level of proteins, vitamins and minerals in the final product.

The global edible flakes market value was estimated at nearly 14.51 (USD Billion) in 2018 and is expected to be valued at 24.75 (USD Billion)

**PROJECT COST ESTIMATE  
CAPACITY**

Puffed Rice (Muri) :	20,000 Kgs / Day
Rice Flakes (Poha) :	30,000 Kgs / Day
Broken Rice Flakes (Poha) :	1,500 Kgs / Day
Rice Husk (bye product) :	15,000 Kgs / Day
Plant & Machinery	: ₹ 120 Lakhs
Cost of Project	: ₹ 571 Lakhs
Rate of Return	: 28%
Break Even Point	: 57%

by 2025 at a cumulative growth rate of around 8%. The report edible flakes market encompasses market estimation and analysis on both the global as well as regional level. The research report offers an extensive valuation of the market, business rivalry, opportunities,

sales forecasts, revenue forecasts, and industry-validated market data. The report offers historical data from 2016 to 2018 and a forecast from 2019 to 2025 based on earnings (USD Billion). As a whole any entrepreneur can venture in this project without risk and earn profit.

**Biodegradable Plastic Bags from Corn & Cassava Starch**

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

**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%



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.

## Aluminium Ingots from Aluminium Scrap

**I**ngots are very large casting products, greater in size and shape than blooms, billets and slabs. Ingot generally has rectangular/square cross section, but it is not necessary that it should be uniform throughout its length. (Ingot may have variable cross section.) Aluminium Alloy Ingots Like LM-2, LM-4, LM-6 which are commonly used in Gravity and Sand Casting, Pressure Die Casting Alloys like LM-13, LM-14, LM-24, ADC-12, ALSI-132 etc. are also being manufactured as per the Indian and International standards.

In the transportation sector, aluminium is used for paneling, floors and windows. So far, it is not used for structural parts and bodies of automobiles. An Indian car uses only about 54 kg of aluminium against a global average of 100 to 110 kg. This sets the high potential for growth with the increase in the automobile sector.

India's share in world aluminium market is estimated at around 3%. India ranks fifth in bauxite production after Australia (62 mntonnes), Guinea (17.50 mntonnes), Brazil (16.20 mntonnes) and China (10.75 mntonnes). With a total output of 9.25 mntonnes, the country contributes about 6% of the world's total production of 159 mntonnes, India holds the fifth position in reserves base and is ahead of China with 2300 mntonnes. India ranked seventh in alumina production with a total output of 3 mntonnes, a share of nearly 5% of the global production of 61 mntonnes. The per capita consumption of aluminium in India continues to remain abysmally low at under 1 kg as against nearly 25 to 30 kg in the US and Europe, 15 kg in Japan, 10 kg in Taiwan and 3 kg in China. As a whole any entrepreneur can venture in this project without risk and earn profit.

## Empty Hard Gelatin Capsules

**H**ard gelatin capsules are made of two shells: the capsule body and a shorter cap. They are clear, colorless, and essentially tasteless. Two-piece capsules have been used for almost a century in the pharmaceutical field and the gelatin has been adopted as the main material of these capsules due to its excellent characteristic as a gelatinizer.

The global empty

hard gelatin capsules market was valued at \$1,841.5 million in 2017 and is expected to reach \$3,707.5 million by 2025, registering a CAGR of 9.1% from 2018 to 2025. Capsules are relatively stable shells that contain or encapsulate medicines, which are administered in a variety of dosage forms. As a whole there is a good scope for new entrepreneur to invest in this business.

## Hot Melt Glue Stick

**H**ot melt adhesive is special kind of adhesives, which can be used at high temperature and adhesion properties remain unchanged on cooling. Hot melt adhesives basically formed by compounding of synthetic polymeric resin. Synthetic polymeric resins are used polyvinyl acetate, Polyethylene acetate, Urea formaldehyde etc.

Hot Melt Adhesives Market size exceeded USD 6.60 billion, globally in 2018 and is estimated to grow at over 6.4% CAGR between 2019 and 2026. Automobile application segment held the highest share in 2018, and is expected to maintain its dominance throughout the forecast period.

Hot melt adhesives demand is attributed towards rising importance regarding disposable hygiene products and growing government initiatives to promote health & wellness among individuals. With increasing awareness for personal hygiene, consumers are looking for products with enhanced features such as better absorption and improved softness which has augmented the adoption of environment friendly disposable adhesives.

The hot melt adhesives market offers an effective solution for carton closing, sealing and play a significant role in overcoming challenges such as energy efficiency and product safety. This has further enhanced its usage in food, beverage & other consumer goods packaging applications. The Adhesive Technologies business unit is a leading solution provider for adhesives, sealants and functional coatings for consumers, craftsmen and industrial applications. Henkel offers a multitude of applications to satisfy the needs of different target groups: consumers, craftsmen and industrial businesses. In 2019, the business unit generated sales of 9,461 million euros, 47 percent of total company sales. As a whole any entrepreneur can venture in this project without risk and earn profit.

## Corn Starch Based Biodegradable Tableware

**R**ising 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

### PROJECT COST ESTIMATE CAPACITY

Clear Transparent Glue Stick : 2,000 Kgs / Day	
Size 200 mmx 7 mm (LxD)	
Yellow Glue Stick : 2,000 Kgs / Day	
Size 250 mmx 11 mm (LxD)	
Milky Glue Stick : 2,000 Kgs / Day	
Size 100 mmx 7 mm (LxD)	
Plant & Machinery	: ₹ 73 Lakhs
Cost of Project	: ₹ 687 Lakhs
Rate of Return	: 27%
Break Even Point	: 49%

### PROJECT COST ESTIMATE CAPACITY

Aluminium Alloy Ingots : 24 MT / Day	
Aluminium Scrap : 0.40 MT / Day	
Plant & Machinery	: ₹ 186 Lakhs
Cost of Project	: ₹ 703 Lakhs
Rate of Return	: 30%
Break Even Point	: 62%

### PROJECT COST ESTIMATE CAPACITY

Empty Hard Gelatin Capsules : 2500 Th.Nos./Day	
Plant & Machinery	: ₹ 1565 Lakhs
Cost of Project	: ₹ 2149 Lakhs
Rate of Return	: 28%
Break Even Point	: 49%



during the forecast period 2020-2028. Entrepreneurs who invest in this project will be successful.

## PROJECT COST ESTIMATE CAPACITY

Biodegradable Plate 9" Size : 6,000 Nos / Day (10 Pcs. Each Box)	
Biodegradable Bowl 6" Size : 800 Nos / Day (10 Pcs. Each Box)	
Biodegradable Cup : 1,333.3 Nos / Day (10 Pcs. Each Box)	
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%

## Rice Husk Based Biodegradable Cutlery

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

## PROJECT COST ESTIMATE CAPACITY

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

## Composite Materials (Carbon Fibre Composites & Glass Fibre Composites)

The future of the composites market looks attractive with opportunities in the transportation, construction, wind energy, pipe & tank, marine, consumer goods, electrical and electronics, aerospace, and others. The composite materials market is expected to reach an estimated \$40.2 billion by 2024 and it is forecast to grow at a CAGR of 3.3% from 2019 to 2024. The composites end product market is expected to reach an estimated \$114.7 billion by 2024. Thus, due to demand it is best to invest in this project.

## PROJECT COST ESTIMATE CAPACITY

Carbon Fibre Composite : 833.3 Sq. Mt. / Day Laminate M2 width 1500 mm	
Glass Fibre Composite : 833.3 Sq. Mt. / Day Laminate M2 width 1500 mm	
Plant & Machinery	: ₹ 115 Lakhs
Cost of Project	: ₹ 452 Lakhs
Rate of Return	: 29%
Break Even Point	: 67%

## Herbal Health Drink

Global Herbal Tea Market is expected to register a CAGR of 4.94% to reach USD 4,226.9 Million by 2025. Herbal teas or tisanes are caffeine-free and do not use the leaves of the Camellia silences plant. Tisanes are made using a mixture of dried leaves, seeds, grasses, nuts, barks, fruits, flowers, or other botanical elements that provide taste and various health benefits. The global herbal tea market has been largely benefited by the high demand for functional beverages and the launch of new and innovative flavors. Several tea producers are entering the food & beverage industry, which is contributing to the growth of the herbal tea market across the globe. Thus, due to demand it is best to invest in this project.

## PROJECT COST ESTIMATE CAPACITY

Herbal Health Drink : 30,000 Bottles / Day 200 ml Size Bottle	
Herbal Health Drink : 12,000 Bottles / Day 500 ml Size Bottle	
Plant & Machinery	: ₹ 27 Lakhs
Cost of Project	: ₹ 328 Lakhs
Rate of Return	: 28%
Break Even Point	: 52%

## Copper Wire Manufacturing (Wire Drawing & Enamelling)

Wire and cables demand is directly dependent on the growth of the manufacturing industry and infrastructure in the power, telecommunications, residential and commercial sectors. Thus the government's initiatives on various fronts like - power, housing, infrastructure and digitization are sure to generate a lot of business for the wire and cable industry in foreseeable future. The global winding wire market size was valued at USD 25.6 billion in 2018 and is expected to witness a revenue-based CAGR of 3.7% from 2019 to 2025. Rising demand for the product from the energy sector is the significant factor driving the market for winding wire. Entrepreneurs who invest in this project will be successful.

## PROJECT COST ESTIMATE CAPACITY

Copper Wire : 350 Kgs / Day (0.914 to 0.376 mm)	
Enamelled Copper Wire : 350 Kgs / Day (0.914 to 0.376 mm)	
Intermediate Copper Wire : 4,000 Kgs / Day (2.5 mm)	
Intermediate Copper Wire : 5,000 Kgs / Day (1.2 mm)	
Plant & Machinery	: ₹ 437 Lakhs
Cost of Project	: ₹ 951 Lakhs
Rate of Return	: 30%
Break Even Point	: 52%

## Eggshell Powder

The eggshell membrane powder market is expected to grow at a CAGR of ~13% during the forecast period 2019-2029. The pet food supplement industry is an emerging industry, as consumers are becoming fonder of their pets and take proper care of their nutrition. In order to ensure that their pets get adequate nutrients, consumers prefer pet food supplements that are organic and natural, to avoid any adverse effects on pets. Egg membrane protein powder is mainly used in pet supplements to

reduce bone disorders and comfort them in case of seasonal allergies. Hence, this evolving demand for pet supplements is driving the global egg membrane protein powder market. Thus, due to demand it is best to invest in this project.

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%

## Craft Beer

Craft brewing is a more encompassing term for developments in the industry succeeding the microbrewing movement of the late 20th century. The definition is not entirely consistent but typically applies to relatively small, independently-owned commercial breweries that employ traditional brewing methods and emphasize flavor and quality.

Their craft beer, originally made in small batches for consumption at brewpubs, will be initially launched at retail stores in markets such as Goa, Bengaluru, Pune and Gurugram. So far, India has seen just a few craft beer brands such as Bira, White Owl and Simba, sold off shelves despite nearly 170 microbreweries that opened over the past decade. India's craft beer industry accounts for 2-3% of the country's beer market which is largely skewed towards the stronger version. The surge of interest in craft beer has been driven by millennials, many particularly interested in this form of beer that is more authentic, premium and has a complex flavour compared to regular lager sold by MNCs. "Brewpubs make good experience centres that help scale a brand.

The beer market is rapidly expanding and is expected to reach \$9billion in 2018. It is the third largest market in the Indian alcoholic beverages industry. The size of the beer market has virtually doubled every five-and-a-half years. Beer market has been segmented into strong beer and mild beer on the basis of their alcohol content. Beer is globally the third most popular drink 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.

### PROJECT COST ESTIMATE CAPACITY

Craft Beer (Cans & Bottles 650 ml Size)	: 15384 Nos. Per Day
Plant & Machinery	: ₹ 1273 Lakhs
Cost of Project	: ₹ 2052 Lakhs
Rate of Return	: 26%
Break Even Point	: 43%

## Hot Melt Adhesives for Corrugation Board

A thermoplastic, polymer based adhesive which is applied in the molten state and which functions primarily by mechanical anchorage. We can define hot-melt adhesives as thermoplastic materials, solid at room temperature. When heated above their melting point, they become fluid and are able to wet the surfaces to which they are applied. Generally, a quantity of fluid hot melt is applied to one or both of the surfaces to be joined and the surfaces are brought together.

Hot Melt Adhesives be defined as adhesives that melt and flow on application of heat and solidifies on cooling to give a strong adhesion. The global market for hot melt adhesives is expected to reach 2, 379.9 Kilo tons by 2020, growing at an estimated CAGR of 5.1% from 2014 to 2020. The market size of all types of adhesives is very large and growing. Of this, the premium products account for some 45%. Quantitatively, the overall market size is growing annually at 11%. Adhesives market in India is projected to cross US\$ 1.3 billion by 2025. As a whole there is a good scope for new entrepreneur to invest in this business.

PROJECT COST ESTIMATE CAPACITY	
Hot Melt Adhesive	: 1 MT/Day
Plant & Machinery	: ₹ 63 Lakhs
Cost of Project	: ₹ 254 Lakhs
Rate of Return	: 28%
Break Even Point	: 52%

## E-Waste & Lithium Battery Recycling Plant

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

### PROJECT COST ESTIMATE CAPACITY

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

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

According to E-Waste Market in India 2015-

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

## Roller Flour Mill

Roller Flour Mills involved in commercial milling operations and unorganized sector consisting of mainly Chakkis. Around 800 large Flour Mills in the country convert about 10.5 Million Tons of wheat into wheat products i.e., Coarse Flour, Flour, Semolina, Bran & Wheat Germ. The flour milling industry is the main consumer of wheat and rye because these grains are the key cereals used for bread production. Maize, oat, barley and rice are used in flour production.

### PROJECT COST ESTIMATE CAPACITY

Maida	: 10500 MT/Annum
Sooji	: 2520 MT/Annum
Wheat Flour	: 4200 MT/Annum
Wheat Bran	: 3780 MT/Annum
Plant & Machinery	: ₹ 154 Lakhs
Cost of Project	: ₹ 538 Lakhs
Rate of Return	: 29%
Break Even Point	: 56%

The market size of packaged wheat flour will touch Rs 15,500 crore mark by

2020, double of its current market size of Rs 7,500 crore. The packaged wheat flour market in India is growing at a Compound Annual Growth Rate of almost 19 per cent since past three years. Entrepreneurs who invest in this project will be successful.

## Cement Plant

**C**ement is a material with adhesive and cohesive properties which make it capable of bonding minerals fragments into a compact whole. It can be defined as any substance, which can join unite two or more pieces of some other substance together to form a unit mass. Cement is the binding agent in concrete, which is a combination of cement, mineral aggregates and water.

Concrete is a key building material for a variety of applications.

The global cement market size was valued at USD 355.6 billion in 2016. It is expected to register a CAGR of 7.8% from 2017 to 2025. Increasing investments in the infrastructure sector is one of the key trends esca-

lating market growth. As per the World Bank in 2016, the global infrastructure investment is likely to reach nearly USD 94 trillion by 2040. As a whole there is a good scope for new entrepreneur to invest in this business.

## Municipal Waste Treatment

**M**unicipal Solid Waste management is one of the most vital issues in the contemporary urban environments particularly in developing countries. The estimated quantity of Municipal Solid Waste (MSW) generated worldwide is 1.7-1.9 billion metric tons. In many cases, municipal wastes are not well managed in developing countries, as cities and municipalities cannot cope with the accelerated pace of waste production and waste collection rates are often lower than 70 per cent in low-income countries. More than 50 per cent of the collected waste is often disposed of through uncontrolled land filling and about 15 per cent is processed through unsafe and informal recycling.

The global waste management market size is expected to reach \$530.0 billion by 2025 from \$330.6 billion in 2017, growing at a CAGR of 6.0% from 2018 to 2025. Waste management is the process of treating solid wastes, and involves different solutions to recycle items. It includes activities from its inception to final removal, such as collection, transport, treatment, and disposal of waste along with inspection and regulation.

Increase in environmental awareness, rapid industrialization, surge in population, and rise in urbanization foster the growth of the global waste management market. In addition, implementation of stringent government norms toward open dumping is expected to fuel the waste management market growth.

The market includes domestic consumables mainly furniture, product packaging, clothing, grass clippings, bottles, newspapers, food scraps, and appliances. These scraps mainly originate from several schools, homes, hospitals, and other commercial establishments. The demand for mu-

nicipal solid waste management across the residential sector will witness significant gains on account of the ongoing urbanization along with increasing consumer spending toward manufactured goods. As a whole any entrepreneur can venture in this project without risk and earn profit.

## Ethanol from Broken Rice, Maize & Wheat

**E**thanol is a clear, colorless liquid with a characteristic, agreeable odor. In dilute aqueous solution, it has a somewhat sweet flavor, but in more concentrated solutions it has a burning taste. Ethanol,  $\text{CH}_3\text{CH}_2\text{OH}$ , is an alcohol, a group of chemical compounds whose molecules contain a hydroxyl group,  $-\text{OH}$ , bonded to a carbon atom. Ethanol melts at  $-114.1^\circ\text{C}$ , boils at  $78.5^\circ\text{C}$ , and has a density of  $0.789 \text{ g/mL}$  at  $20^\circ\text{C}$ . Its low freezing point has made it useful as the fluid in thermometers for temperatures below  $-40^\circ\text{C}$ , the freezing point of mercury, and for other low-temperature purposes, such as for anti-freeze in automobile radiators.

Indian ethanol market is projected to grow from \$ 2.50 billion in 2018 to \$ 7.38 billion by 2024, exhibiting a CAGR of 14.50% during 2019-2024, on the back of increasing ethanol use in applications such as fuel additives and beverages. Ethanol is a prominent alcoholic beverage, mainly found in beer, cider, wine, spirits and ale. Indian government is trying to reduce its dependence on imported crude oil and incentivizing Indian sugar manufacturers to produce ethanol for Oil Marketing Companies (OMCs). It is expected that ethanol production will increase by three to five folds in the future in order to meet the demand for its 20% Fuel Blending Program (FBP). Factors such as increasing alcohol consumption and changing lifestyle along with growing influence of the western culture are likely to drive the demand for ethanol in the country. As a whole any entrepreneur can venture in this project without risk and earn profit.

## Red Iron Oxide (with Mining of Mineral Ore along with Processing and Beneficiation)

**I**ron (III) oxide or ferric oxide is the inorganic compound with the formula  $\text{Fe}_2\text{O}_3$ . It is one of the three main oxides of iron, the other two being iron (II) oxide ( $\text{FeO}$ ), which is rare; and iron (II,III) oxide ( $\text{Fe}_3\text{O}_4$ ), which also occurs naturally as the mineral magnetite. As the mineral known as hematite,  $\text{Fe}_2\text{O}_3$  is the main source of iron for the steel industry.  $\text{Fe}_2\text{O}_3$  is readily attacked by acids. Iron (III) oxide is often called rust, and to some extent this label is useful, because rust shares several properties and has a similar composition. To a chemist, rust is considered an ill-defined material, described as hydrated ferric oxide.

The Indian government has allocated USD 63 billion for the infrastructure sector in 2019-20 and is planning to spend USD 1.4 trillion over the next five years. The development of smart cities and other schemes like "housing for all" are expected to increase the demand for paints and coatings.

Iron Oxide Pigments comprises iron and oxides and can be produced from both natural and synthetic sources. Naturally, Iron Oxide Pigments are derived from hematite (red iron oxide mineral), limonites (yellow or brown minerals) such as ochers, sienna's & umbers, and magnetite (black iron oxide). Synthetic Iron Oxide Pigments are

### PROJECT COST ESTIMATE CAPACITY

Cement Plant	: 200 MT/Day
Plant & Machinery	: ₹ 683 Lakhs
Cost of Project	: ₹ 2343 Lakhs
Rate of Return	: 26%
Break Even Point	: 60%

### PROJECT COST ESTIMATE CAPACITY

Organic Compost	: 300 MT / Day
Refuse Derivated Fuel (RDF)	: 66.7 MT / Day
Plastics	: 20 MT / Day
Inerts	: 86.7 MT / Day
Recyclables	: 73.3 MT / Day
Plant & Machinery	: ₹ 2038 Lakhs
Cost of Project	: ₹ 3239 Lakhs
Rate of Return	: 26%
Break Even Point	: 44%

### PROJECT COST ESTIMATE CAPACITY

Ethanol	: 60 Klters / Day
Plant & Machinery	: ₹ 1938 Lakhs
Cost of Project	: ₹ 4569 Lakhs
Rate of Return	: 25%
Break Even Point	: 49%



produced from basic chemicals by three processing methods which includes precipitation of iron salts, thermal decomposition of iron salts, and reduction of organic compounds by iron. The product finds use in numerous applications including construction, paints & coatings, plastics, paper, pharmaceuticals, and cosmetics among others. As a whole any entrepreneur can venture in this project without risk and earn profit.

PROJECT COST ESTIMATE CAPACITY	
Red Iron Oxide	: 4,000 MT / Day
Plant & Machinery	: ₹ 1096 Lakhs
Cost of Project	: ₹ 4391 Lakhs
Rate of Return	: 31%
Break Even Point	: 50%

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

## Sodium Chlorite Liquid from Powder (31% Liquid NaClO<sub>2</sub>)

Sodium chlorite (NaClO<sub>2</sub>) is a chemical compound used in the manufacturing of paper and as a disinfectant. Sodium chlorite, NaClO<sub>2</sub>, sometimes in combination with zinc chloride, also finds application as a component in therapeutic rinses, mouthwashes, toothpastes and gels, mouth sprays, as preservative in eye drops, and in contact lens cleaning solution under the trade name Purite. It is also used for sanitizing air ducts and HVAC/R systems and animal containment areas (walls, floors, and other surfaces).

The global sodium chlorate market reached a volume of 4.3 Million Tons in 2019, registering a CAGR of 4.2% during 2014-2019. The market is further projected to reach a volume of around 5.1 Million Tons by 2025, exhibiting a CAGR of 2.9% during 2020-2025. Sodium chlorate (NaClO<sub>3</sub>) is an inorganic chemical compound manufactured by the electrolysis of brine (NaCl). A powerful oxidizing agent, sodium chlorate is an odorless, pale-yellow crystalline solid and readily dissolves in water. It is inflammable in nature in pure form and acts as an extreme combustion accelerant in the presence of flammable materials during decomposition. Currently, sodium chlorate is widely used in the preparation of chlorine dioxide which is employed as a bleaching agent in the manufacturing of bleached pulp. As a whole any entrepreneur can venture in this project without risk and earn profit.

## Herbal/Ayurvedic Hand Sanitizer

India hand sanitizer market is projected to surpass \$ 43 million by 2025. Growth of hand sanitizer market in India can be attributed to rising awareness about healthy lifestyle & wellness, shifting consumer preference towards convenient hygiene products and rising disposable income. Moreover, the strong marketing activities by leading brands, in addition to huge endorsements, are some other drivers of hand sanitizer market in India. Moreover, the COVID-19 outbreak has boosted demand for sanitizers like never before across the diverse end user segments.

PROJECT COST ESTIMATE CAPACITY	
Herbal/Ayurvedic : 20,000 Bottles / Day Hand Sanitizer (100 ml Size each)	
Plant & Machinery	: ₹ 14 Lakhs
Cost of Project	: ₹ 724 Lakhs
Rate of Return	: 32%
Break Even Point	: 36%

## Aluminum Ingots from Aluminum Scrap with Dross Processing

Indian aluminium industry is on a strong growth trajectory. Piggybacking buoyancy in the power and automotive sectors, the light metal used in appliances to aerospace, grew at a CAGR (compounded annual growth rate) of eight per cent during 2011-16. The same uptrend is expected to continue till 2020. The 'Make in India' drive will provide a further boost to the demand catapulting it to a level of five million tonnes (mt) by 2020 and eight mt by 2025 from the current 3.2 mt. India's building and construction sector is another sector where aluminium will find enhanced application. Thus, due to demand it is best to invest in this project.

PROJECT COST ESTIMATE CAPACITY	
Aluminium Ingots : 12.5 MT / Day	
Plant & Machinery	: ₹ 301 Lakhs
Cost of Project	: ₹ 1057 Lakhs
Rate of Return	: 27%
Break Even Point	: 53%

## 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

## Calcium & Zinc Stabilizer for Pipe and Foam board Application

The global metallic separate market size was valued at USD 3,017.7 million in 2016. The U.S. metallic separate market size was recorded at USD 263.9 million in 2016 and is anticipated to grow at a CAGR of over 3% from 2017 to 2025. There are various product types in the industry, including ones based on zinc, calcium, aluminum, and magnesium. The others segment includes, sodium and lithium stearates. The demand for the product in various applications, such as plastics, rubber, pharmaceutical, cosmetics, building & construction, and paints & coatings has increased over the years, and is expected to expand in major markets such as China and India. Entrepreneurs who invest in this project will be successful.

### PROJECT COST ESTIMATE CAPACITY

Calcium/Zinc Stabilizer : 1 MT / Day for Pipe	
Calcium/Zinc Stabilizer : 1 MT / Day for Foamboard	
Plant & Machinery	: ₹ 9 Lakhs
Cost of Project	: ₹ 86 Lakhs
Rate of Return	: 29%
Break Even Point	: 68%

conversion efficiency, quick pay off and low risk involved.

The goat is multipurpose animal to provide milk, meat, hair (fur) and manure for soil. The world population of goats is approximately 860 million, of which 94% are found in the developing countries. Africa and Asia account for about 81% of the total population in the developing countries, including a bewildering variety of breeds. Goat rearing is the backbone of economy of small and landless farmers in India. It is an insurance against crop failure and provides alternate source of livelihood to farmers all the year round. Goats play an important role in income generation, capital storage, employment generation and improving household nutrition. As a whole it is a good project for entrepreneurs to invest.

## Energy Bar

Energy bars may contain high levels of sugar and sometimes are called "candy bars". Energy bars, which contain some form of milk-derived or plant-based protein like whey, hemp, pea or rice protein. Energy bars are the fuel you need for your busy life. These bars feature 2:1 carbs to protein ratio for energy and recovery from your active lifestyle. They provide carbs and protein.

The India Energy bar market is expected to reach USD 99.23 million by 2023 witnessing a double digit CAGR during the forecast period 2018-2023. The India Energy bar sale has recorded a historic CAGR of 14.1 during the past five year. Energy bar holds the largest share of 60% in Indian snack bar market, which is growing at a faster rate. Thus, due to demand it is best to invest in this project.

### PROJECT COST ESTIMATE CAPACITY

Energy Bar : 40000 Pcs./Day	
Plant & Machinery	: ₹ 183 Lakhs
Cost of Project	: ₹ 520 Lakhs
Rate of Return	: 31%
Break Even Point	: 57%

## Toothpaste

The global toothpaste market is projected to grow at a CAGR of 6.1% during the forecast period. The toothpaste market was valued at USD 26.09 billion in 2018, and it is projected to reach USD 36.98 billion by 2024. Increasing dental problems among children and adults, due to poor eating habits, and the rise in popularity for herbal oral care products are the factors primarily driving the global toothpaste market. Thus, due to demand it is best to invest in this project.

### PROJECT COST ESTIMATE CAPACITY

White Toothpaste 50 gms Size	: 96,000 Tubes / Day
White Toothpaste 240 gms Size	: 16,800 Tubes / Day
Striped Toothpaste 180 gms Size	: 33,600 Tubes / Day
Gel Toothpaste 120 gms Size	: 67,200 Tubes / Day
Plant & Machinery	: ₹ 308 Lakhs
Cost of Project	: ₹ 6936 Lakhs
Rate of Return	: 36%
Break Even Point	: 34%

## Synthetic Camphor

Camphor is a waxy, flammable, white or transparent solid with a strong aroma. It is a terpenoid with the chemical formula C<sub>10</sub>H<sub>16</sub>O. It is found in the wood of the camphor laurel (Cinnamomum camphora), a large evergreen tree found in Asia and also of the unrelated kapur tree, a tall timber tree from the same region. This port traded in camphor extracted from laurel trees (Cinnamomum camphora) that were abundant in the region. Even now, the local tribespeople and Indonesians in general refer to aromatic naphthalene balls and moth balls as kapur Barus.

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

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

Synthetic camphor is conventionally prepared

## Goat Rearing & Breeding

Goats, one of the world's smallest domesticated livestock, have been actively managed for food and fiber earlier and longer than cattle and sheep. India possesses the largest goat population and ranks first in the world. In the prevailing socio-economic conditions in India where per capita holding is hardly 0.2 ha, goat rearing becomes an inseparable counterpart of mixed farming system. Goat rearing has been recommended as the best choice for the rural people in developing countries because of their wider adaptability, low investment, high fertility and fecundity, low feed and management needs, high feed

### PROJECT COST ESTIMATE CAPACITY

Goat Meat	: 31,320Kgs/Annum
Goat Skin	: 2000Nos/Annum
Goat Milk	: 360,000Ltrs/Annum
Goat Manure	: 1440 MT/Annum
Plant & Machinery	: ₹ 50 Lakhs
Cost of Project	: ₹ 558 Lakhs
Rate of Return	: 12%
Break Even Point	: 42%

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

## E-Rickshaw Assembling

**E**-Rickshaws are three wheel battery operated vehicles, which are considered as an upgrade to conventional rickshaws, and economically better than auto rickshaws and other fuel variants, these rickshaws, since are battery powered have zero emission, and is often argued to be much better than other rickshaws as they are considered almost pollution free. Such vehicle is constructed or adapted to carry not more than four passengers, excluding the driver, and not more than forty kilograms luggage in total.

### PROJECT COST ESTIMATE CAPACITY

E Rickshaw	: 4 Nos./Day
Plant & Machinery	: ₹ 28 Lakhs
Cost of Project	: ₹ 323 Lakhs
Rate of Return	: 24%
Break Even Point	: 56%

The Indian automobile industry is one of the largest growing markets of the world, and contributes highly in the country's manufacturing facilities. Not only this, the automotive industry in India is further expected to pull up the share of manufacturing in India's GDP to 25% by 2022 from 15% currently, with production of Electric Vehicles being new talk of the town. Entrepreneurs who invest in this project will be successful.

## Sugarcane Juice Preservation and Bottling Plant

**S**ugarcane juice is quite nutritious as it contains natural sugars, minerals like iron, magnesium, phosphorous, calcium and organic acids e.g. malic acid, succinic acid, acotinic acid etc. Preservation is done when Juice or food is kept for longer period without any deteriorated or spoils the juice by the direct contact with atmosphere. Sugarcane juice is excellent in treating urinary related diseases. It keeps the urine flow clear and aids the kidneys to perform better. Sugarcane juice relieves the burning sensation which arises due to infections of the urinary tract. The sugar cane juice provides the glucose, which is stored, as glycogen to be 'burned' by muscles when required. Sugar Industry contributes about 2500 crore rupees as tax to both central and state governments. The industry size in terms of capital is more than Rs. 40,000 crore. Almost 50 million people depend on sugar industry for their livelihood. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensure a high quality product.

### PROJECT COST ESTIMATE CAPACITY

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

## Transparent LPG Cylinder from Fiber Glass

**A** gas cylinder is a pressure vessel for storage and containment of gases at above atmospheric pressure. High-pressure gas cylinders are also

called bottles. Inside the cylinder the stored contents may be in a state of compressed gas, vapor over liquid, supercritical fluid, or dissolved in a substrate material, depending on the physical characteristics of the contents.

Global composite cylinders market stood at \$ 601 million in 2018 and is projected to reach \$ 921 million by 2024, exhibiting a CAGR of over 7% during 2019-2024, owing to increasing demand for explosion proof, non-corrosive and lightweight LPG cylinders.

Composite cylinder is a high-pressure vessel that is made of a composite-polymer material and placed in a plastic body. The technology of manufacturing a modern composite cylinder is a very complex and high-tech process, thus its cost is much higher than the cost of a metal analogue. Increasing consumption of LPG in the developing countries is expected to boost the demand.

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

### PROJECT COST ESTIMATE CAPACITY

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

## Dairy Farming & Dairy Products (Milk, Butter, Ghee & Paneer)

**D**airy farming has been part of agriculture for thousands of years, but historically, it was usually done on a small scale on mixed farms. Specialist scale dairy farming is only viable where either a large amount of milk is required for production of more durable dairy products such as cheese, or there is a substantial market of people with cash to buy milk, but no cows of their own.

The global dairy products market is expected to grow at a CAGR of 5.2% from 2019 to reach \$645.8 billion by 2025. Dairy is defined as a business enterprise that deals with the processing and harvesting of animal milk for human consumption. Some of the common milch animals include cow, goat, buffalo, camel and sheep. The milk obtained from these animals can be consumed directly and processed into ice cream, cheese, paneer, butter, ghee, condensed milk and yogurt. These products offer various nutrients such as calcium, proteins, zinc, magnesium, and vitamin D and B12. With widespread demand for dairy products and their proactive function in the global food industry, dairy plays a crucial role in the growth of the economies worldwide. Over the years, the dairy industry has witnessed improvements in product safety through specialization, modernization and consolidation. Moreover, advancements in global trade have also influenced the profitability of dairy farms.

India has the highest livestock population in the world with 50% of the buffaloes and 20% of the world's cattle



population, most of which are milch cows and milch buffaloes. India's dairy industry is considered as one of the most successful development programs in the post-Independence period. India is the world's largest milk producer, accounting for more than 13% of world's total milk production. As it is the world's largest consumer of dairy products, but consuming almost 100% of its own milk production. Dairy products are a major source of cheap and nutritious food to millions of people in India and the only acceptable source of animal protein for large vegetarian segment of Indian population, particularly among the landless, small and marginal farmers and women. In India, about three-fourth of the population live in rural areas and about 38% of them are poor. As a whole any entrepreneur can venture in this project without risk and earn profit.

**PROJECT COST ESTIMATE  
CAPACITY**

Milk	: 5,000 Ltrs / Day
Butter	: 120 Kgs/ Day
Ghee	: 100 Kgs/ Day
Paneer	: 220 Kgs/ Day
Cow Urine	: 6,500 Ltrs / Day
Kande	: 2,900 Pkts/ Day
Plant & Machinery	: ₹ 276 Lakhs
Cost of Project	: ₹ 1768 Lakhs
Rate of Return	: 27%
Break Even Point	: 42%

ceptable source of animal protein for large vegetarian segment of Indian population, particularly among the landless, small and marginal farmers and women. In India, about three-fourth of the population live in rural areas and about 38% of them are poor. As a whole any entrepreneur can venture in this project without risk and earn profit.

**Particle Board from  
Wheat/Rice Straw**

The particle board market reached a value of US\$ 19.3 Billion in 2018, growing at a CAGR of 6.1% during 2011-2018. Particle boards are mostly used in places such as recording studios and concert venues due to their excellent sound-absorbing properties. These are also used for making household furniture such as kitchen cabinets, bookcases, doors, windows, and covering the walls and floor. Moreover, particle boards can be painted, wallpapered and laminated which adds to the aesthetic quality of the surroundings. Owing to these factors, the market is expected to reach a value of US\$ 25 Billion by 2024.

**PROJECT COST ESTIMATE  
CAPACITY**

Particle Board (Size 6x3x0.471')	: 5,000,000.0 Sq.Mtrs. / Annum
Plant & Machinery	: ₹ 335 lakhs
Cost of Project	: ₹ 930 lakhs
Rate of Return	: 28%
Break Even Point	: 57%

**Ready to Eat Food (RTE)**

Ready to Eat Foods (RTE) are convenience foods, enclosed in aluminium container or pouches that only need to be cut and heated before being served. Instant vegetables in retort pouches fall under this category and find application not only as home meal replacement in working class households but also in fast-food restaurants and multi cuisine food joints. These are handy meals for armed forces and paramilitary forces deployed in remote places. RTE food includes wide range of products viz. vegetarian/non- vegetarian, basic food/delectable desserts, south and north Indian items available from a specialty or multi cuisine restaurant & food joint only.

Ready To Eat, Shelf Stable, Retort Sterilized Foods are completely cooked foods packed in airtight containers, which could be preserved at room temperature for a long

period of time without the necessity of freezing, cooling and drying. The thermally-processed retort pouch foods are waterproof, weatherproof and bug proof. The Shelf Life of Ready To Eat Foods is from 1 year to 5 years, depending on the type of packing materials and processing procedures.

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

**PROJECT COST ESTIMATE  
CAPACITY**

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

The Indian food processing market was worth INR 24,665 Billion in 2018. Looking forward, the market is projected to reach INR 50,571 Billion by 2024, exhibiting a CAGR of 12.4% during 2019-2024. Rising household incomes, urbanization and the growth of organized retail are currently some of the major drivers of this market. Food processing

is a large sector that covers activities such as agriculture, horticulture, plantation, animal husbandry and fisheries.

**Groundnut Oil**

Groundnut oil is a vegetable oil derived from groundnuts. It is also called peanut oil. The oil has a strong peanut flavor and aroma. It is often used in American, Chinese, South Asian and Southeast Asian cuisine, both for general cooking, and in the case of roasted oil, for added flavor.

However, the high production cost of peanut oil is a major factor expected to restraint growth of the target market in the near future. In addition, high consumption of peanut oil results in various side effects in human health which is one of the major factors expected to hamper growth of the target market to a certain extent. Global peanut oil market is set to witness a steady CAGR of 4.25% in the forecast period of 2019- 2026.

**PROJECT COST ESTIMATE  
CAPACITY**

Groundnut Oil (1 Ltr Pack each)	: 35,178 Packs / Day
Groundnut Oil (5 Ltrs Pack each)	: 3,015 Packs / Day
Groundnut Cake (100 Kgs Bag each)	: 637.5 Bags / Day
Plant & Machinery	: ₹ 318 Lakhs
Cost of Project	: ₹ 838 Lakhs
Rate of Return	: 30%
Break Even Point	: 65%

Cooking oil is an important and essential item in the FMCG sector. An average Indian consumes 15 Kg of oil in a year. Compared to other oils like sunflower oil, cottonseed oil, and soy oil, groundnut oil has more nutritional value. In addition to cooking, groundnut oil is used in the bakery and confectionery industry. Groundnut oil is used in soaps, salad oils, mayonnaise, etc. Groundnut oil is expensive compared to other oils. It has more vitamins, minerals, nutritional value and low levels of cholesterol. It is also suitable edible oil for Indian cooking.

**Continue on Page 32**

# MARKET SURVEY

Cum

Detailed Techno Economic  
Feasibility Reports



**npcs**

AN ISO 9001 : 2015 CERTIFIED COMPANY

## EACH DETAILED PROJECT REPORT CONTAINS

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

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

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

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

**MANUFACTURING TECHNIQUES** : Formulae Detailed Process of Manufacture, Flow Sheet Diagram.

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

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

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

- Prepared by highly qualified and experienced consultants and Market Research and Analyst Supported by a panel of experts and computerised data bank.
- Data provided are reliable and upto date collected from suppliers/manufacturers, plant already commissioned in India.
- NPCS Reports are very economical and 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.



**Disinfectants, Pesticides, Insecticides,  
Mosquito Repellents, Destroyers,  
Phenyl, Fertilizer, Fungicides,  
Herbicides, Plant Regulator,  
Plant Growth Regulator, Mixture,  
Intermediates, Agrochemicals, Bio  
Stimulate, Growth Activator,  
Organic Pesticides**

- Aerosol Spray (Bagon type) for Mosquito, Insects
- Ayurvedic Herbal Hand Sanitizer
- Benzyl Benzoate
- Biofertilizers from Cotton Seed Cake
- Biopesticides (Trichoderma Harzianum, Pseudomonas Fluorescens, Beauveria Bassiana)
- Black Phenyl
- Cypermethrin from CMAC
- Disinfectants IP Grade for Hospital Use (Lysol Type)
- Hand Sanitizer
- Herbal Ayurvedic Hand Sanitizer
- Liquid Hand Wash
- Liquid Organic Fertiliser (Biofertiliser)
- Melamine
- Mosquito Coil
- Mosquito Coils (Automatic Plant)



- Mosquito Coils and Mats
- Mosquito Repellent Mats & Liquid
- Mosquito Repellent Oil
- Mosquito Repellent Candles
- Mosquito Repellent Coils
- Mosquito Repellent Incense Stick
- Mosquito Repellent Liquidator, Vaporiser (All out Type)
- Naphthalene Balls
- Nicotine from Tobacco Waste
- Pesticide Preparation Using Neem Fruits & Seeds (Margosa)
- Pesticide Residual Analysis Laboratory
- Pesticides
- Pesticides from Neem Seeds & Leaves
- Pesticides Insecticides (Technical Grade)
- Phenyl (Black & White)
- Phenyl (Brown & White)



Market Survey Cum Detailed Techno Economic Feasibility Report on All Above Projects are Available. Contact :

**NIIR PROJECT CONSULTANCY SERVICES**  
AN ISO 9001:2015 CERTIFIED COMPANY

106-E, Kamla Nagar, Delhi - 110 007 (India). Tel.: 91-11- 23843955, 23845886, 23845654,  
Mob.: +918800733955, 9097075054 Fax : 91-11-23845886

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

## SELECTED PROJECTS FOR RIGHT INVESTMENT

- Potassium Sulphate (Fertilizer Grade)
- Sodium Hypochlorite
- Surfactants (Hand Wash, Floor Cleaner, Toilet Cleaner, Phenyl Black And White, Glass



- Cleaner, Dish
- Wash Liquid, Air Freshener
- White Phenyl



## Dyestuff, Dyes, Pigments and Dye Intermediates Projects

- Acrylic Yarn Dyeing
- Aniline
- AZO Dye Stuffs
- Beta-Naphthol
- Bordeaux GP Red B
- Caramel Color from Sugar
- Cotton Yarn Dying
- Disperse Dye
- Dye Intermediates
- Dyeing of Hank Yarn for Power Loom



- Dyes & Dye Intermediates
- Erythrosine
- Fast Colour Base
- Indigo Dyes
- Non-Formal Dye Fixing Agent (Natural)
- Pigment Binders for Textile Printing
- Sulphur Black Dye
- Titanium Dioxide (Anatase Grade)
- Ultramarine Blue
- Vat Dyes



## Edible Oils, Non Edible Oils, Fats, Vegetable Fats and Oils, Corn Oil, Cooking Oils, Rice Bran Oil, Castor Oil, Sesame Oil, Linseed Oil, Vanaspati Ghee



- Black Pepper Oil
- Calcium Salt of Higher Fatty Acid using Cotton Seed Oil
- Cardamom Oil
- Cashew Nut Shell Oil
- Castor Oil & Its Derivatives
- Castor Oil (Extraction and Refining)
- Castor Oil from Castor Seeds
- Celery Seed Oil
- Chili Oil
- Coconut Oil from Copra
- Compound Wax from Residual Oil
- Copra Oil
- Corn Oil (Maize Oil)
- Cotton Seed Delinting, Crushing and Refining Of Oil
- Cotton Seed Delinting, Dehulling and Oil Extraction
- Edible Corn Oil
- Edible Oil Industry
- Edible Oil Refinery (Sunflower Oil, Groundnut Oil & Rice Bran Oil)
- Edible Oil Refinery from Crude Palm Oil
- Edible Oil Refinery Unit



- Edible Vegetable Oil
- Essential Oil from Flowers and Leaves
- Essential Oils Extraction (Lemongrass, Citronella, Lavender, Rosemary and Peppermint)
- Eucalyptus Oil
- Extraction of Jasmine Flowers
- Extraction of Oil (Jeera, Ajwain, Ginger, Cardamom Oil)
- Extraction of Oil from Artemisia Vulgaris
- Extraction of Sesame, Rice Bran & Palm Oil
- Extraction of Spice Oleoresin (Chilly)
- Fatty Acid based on Sunflower Acid Oil
- Filtration and Airtight Packing of Coconut Oil
- Fractional Distillation of Essential Oils and Medicinal Plant Extracts
- Ghee Manufacturing Unit
- Groundnut Oil Production and Refining Business
- Herbal Hair Oil (Banphool Type)
- Jatropha Plantation and Oil Extraction (Used As Bio Fuel)
- Linseed Oil Manufacturing
- Mahuwa Oil
- Menthol Oil, Clove Oil & Citronella Oil



Market Survey Cum Detailed Techno Economic Feasibility Report on All Above Projects are Available. Contact :

**NIIR PROJECT CONSULTANCY SERVICES**  
AN ISO 9001:2015 CERTIFIED COMPANY

106-E, Kamla Nagar, Delhi - 110 007 (India). Tel. : 91-11- 23843955, 23845886, 23845654,  
Mob.: +918800733955, 9097075054 Fax : 91-11-23845886

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



## SELECTED PROJECTS FOR RIGHT INVESTMENT

- Mustard Oil Mill
- Neem Oil
- Neem Oil (Cold Process)
- Neem Oil and Neem Cake
- Oil Refinery (Cotton Seed- Ground Nut & Sunflower Oil)
- Olive Oil
- Palm Oil Production and Processing
- Patchouli Oil
- Peanut Oil
- Poppy Seed Oil by Expeller Process
- Refining Of Crude Soyabean and Palm Oil
- Rice Bran based Solvent Extraction Plant
- Rice Bran Oil with Rice Mill and Captive Power Plant (Integrated Unit)
- Rice Mill, Rice Bran Oil Extraction with Captive Power Plant

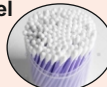


- Rose Oil Extraction
- Rose Plantation and Rose Oil Extraction
- Sesame Oil
- Solvent Extraction Plant (Soyabean Oil and Cake)
- Soya Bean Oil, Soya Paneer & Soya Extract
- Soya Lecithin
- Soybean and Palm Oil Refining
- Spice Oil Extraction from Curry Leaves
- Transformer Oil
- Turkey red Oil
- Vanaspati Ghee
- Vegetable Crude Oil (Solvent Extraction Plant)
- Virgin Coconut Oil
- Wetting Oil (Textile Yarn Wetting Agent)



## Cosmetics, Perfumery Compounds, Flavours & Essential Oils, Essential Perfume Oil, Cosmetics Fragrances, Perfumes & Fragrances, Aromatic Oils, Chemicals, Attar, Essences, Toiletries, Nail Polish, Hair Care, Personal Care, Skin Care, Makeup, Beauty Products

- Aerosol Spray [Rose Flavour Tube, Night Queen, Jasmin]
- Amla (Indian Gooseberry) Hair Oil Based On Vegetable Oil
- Aromatic Herbal Shampoo
- Aromatic Perfumery Compound
- Bindiya (Shilpa Type)
- Bleach Liquor
- Cosmetics Perfume Gel, Nail Polish Remover Liquid, Hair Gel, Face Wash Gel, Face Cream, Talcum Powder, After Shave Lotion Liquid, Shaving Cream Gel And Hand Wash Gel
- Cotton Buds
- Cresols
- Essential Oil from Flowers (Rose Oil)
- Essential Oil from Lily, Mogra, Nishigandha
- Extraction of Essential Oil and Packing of Ground Spices
- Extraction of Neem Oil
- Fractional Distillation Unit (For Lemongrass, Palmarosa and Citronella)
- Ginger (Dry, Powder, Flakes, Oil) & Garlic (Powder, Flakes, Oil) Ginger Oil (Super Critical Co2 Process)
- Hair Dye Henna Based (Black, Burgundy, Chasetnut & Special Brown Colours)
- Herbal Body Care Beauty Products (Herbal Body Wash, Shampoo, Hair Conditioners, Soaps,



- Lotions and Scrubs)
- Herbal Cosmetics (Shampoo, Conditioner, Face Wash, Body Wash, Massage Oil, Hair Oil, Face Cream, Massage Cream, Lip Balm)
- Herbal Hair Oil (Banphool Type)
- Light & Fragrant Hair Oil with Coconut Oil & Mineral Oil
- Menthol Crystals
- Perfumery Chemicals (Synthetic & Natural)
- Perfumery Compounds (Fragrance Oil)
- Petroleum Jelly
- Plastic Collapsible Tubes for Tooth Paste, Cream, Gel, Cosmetics & Pharmaceutical
- Resin for Nail Polish (Polycondensation Resin (Polyester, Alkyds), Epoxy Tosylamide Resin, Solvent Based Acrylic Resin)
- Shampoo & Creams
- Shaving Cream
- Shoe Polish
- Sindur Roli Bindi & Gulal
- Sorbitol
- Steel Safety Pins
- Talc Manufacture from Talc Ore (Cosmetic Grade)
- Talcum and Compact Face Powder
- Toothpaste
- Xanthan Gum (Food and Oil Drilling Grade)



Market Survey Cum Detailed Techno Economic Feasibility Report on All Above Projects are Available. Contact :

**NIIR PROJECT CONSULTANCY SERVICES**  
AN ISO 9001:2015 CERTIFIED COMPANY

106-E, Kamla Nagar, Delhi - 110 007 (India). Tel. : 91-11- 23843955, 23845886, 23845654,  
Mob.: +918800733955, 9097075054 Fax : 91-11-23845886

Website : www.niir.org • www.entrepreneurindia.co • E-mail : info@niir.org , npcs.india@gmail.com

## Fisheries and Aquaculture, Fish and Marine Products, Fish Farming, Processing and Value Added Products



- Agar Agar (Bacteriological Grade)
- Aqua Fish Feed (Aquaculture Feed & Food)
- Aquaculture Prawn Farming
- Fish Canning in Tins & Pouches
- Fish Dehydration
- Fish Farming
- Fish Oil (Production and Refining) With Fish Meal
- Fresh Water Fish Processing
- Menthol Crystals-Bold (EOU)



- Moringa Oleifera (Drumstick) Powder Drumstick Powder
- Non-Woven Bag
- Prawn/Shrimp Farming
- Fish and Shrimp (Prawn) Feed
- Shrimp Farming (Breeding In Sea Water)
- Shrimp Farming (E O U)
- Sterile Water for Injection with BFS Technology
- Wood Plastic Composite (WPC)



**Glass, Flat Glass, Art Glass, Hollow Glass, Automotive Glass, Optical Glass, Glass Processing Line, Glassware Industry, Ceramic, Industrial Ceramics Production, Ceramic Powder, Refractory, Pottery, Mining Industry, Metals and Natural Resources Industry**

- Acrylic Mirror
- Artificial Marble Tiles
- Calcination of Non-Plastic Clay
- Captive Thermal Power Plant for Glass Industry
- Carbide Tips Inserts & Indexable
- Conversion of Industrial Vitrified Tiles into Commercial Vitrified Tiles
- Drinking Glasses-Juice & Water Glasses (Glassware)
- Float Glass (Automatic Plant)
- Glass Ampoules (Distilled Water)
- Glass Bangles & Pressed Wares of Glass
- Glass Beads Manufacturing
- Glass Blocks
- Glass Bottle for Beer
- Glass Bottles for Cosmetics
- Glass Bottles for Wine
- Glass Bottles using Broken Glass (Recycling of Glass)
- Glass Density Hydrometer
- Glass Fiber Continuous Filament Glass Fibers (CFGF)



- Glass Manufacturing (Security Glass, Window Glass, Glass Basin & Elevation Glass)
- Glass Marble
- Glass Reinforced Concrete
- Glass Sheet (Automatic Plant)
- Glass Sheet, Flat Glass, Float Glass
- Glass Vials
- Hollow Glassware
- Hot and Cold Fusion of Glass
- Lead Metal from Lead Ore
- Multicoloured Glass Bottle with Cork Cap on Top
- Optical Fiber Cable
- Optical Glass
- Optical Lenses
- Power Project for Glass Industry
- Production of Glass Fiber
- Production of Toughened Glass (Toughened Safety Glass)
- Project in Glass Sector
- Smartphone Tempered Glass Screen Protector Manufacturing
- Tempering and Toughening Of Flat Glass
- Toughened Glass
- Water Proofing Liquid and Powder (Concrete and Mortar Admixture)



Market Survey Cum Detailed Techno Economic Feasibility Report on All Above Projects are Available. Contact :

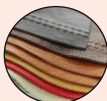
**NIIR PROJECT CONSULTANCY SERVICES**  
AN ISO 9001:2015 CERTIFIED COMPANY

106-E, Kamla Nagar, Delhi - 110 007 (India). Tel.: 91-11- 23843955, 23845886, 23845654,  
Mob.: +918800733955, 9097075054 Fax : 91-11-23845886  
Website : www.niir.org • www.entrepreneurindia.co • E-mail : info@niir.org , npcs.india@gmail.com

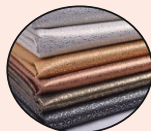


## Leather, Leather Goods and Leather Tanning, Finished Leather for Footwear and Leather Goods, Products, Industries, Leather Tannery, Leather Accessories

- Extraction of Gelatin Glue from Leather Waste
- Glue from Leather Waste
- Industrial Safety Leather Shoes
- Leather & Leather Goods
- Leather Bags and Wallets
- Leather Binder (Resin Based)
- Leather Finishing



- Leather Finishing For Sofa & Automotive Upholstery
- Leather Shoes, Chappals
- Leather Tanning
- PU & PVC Leather Cloth
- Shoe Uppers
- Sport Shoes (Automatic Imported Plant)
- Synthetic Tannin Powder for Leather Industry



## SELECTED PROJECTS FOR YOU

In India, groundnut is cultivated in 5.8 million hectares. Gujarat is the highest producer of groundnut oil in India. Groundnut seed contains 50-55% of the oil. It is one of the best oil seeds to extract oil from. As a whole any entrepreneur can venture in this project without risk and earn profit.

### Curcumin Extraction Unit

Curcumin is the main biologically active phytochemical compound of Turmeric. Molecular chemical formula of Curcumin: C<sub>21</sub>H<sub>20</sub>O<sub>6</sub>. The most important constituents in organic turmeric are Curcuminoid, which is approximately 6%, and the yellow coloring principles of which Curcumin constitutes 50-60%.

Curcumin market size may observe significant growth owing to pharmaceutical and cosmetic industry expansion. APAC organic cosmetic spending was over USD 2.5 million in 2014 and is estimated to exceed USD 4 million by 2024 which should favor regional industry growth.

#### PROJECT COST ESTIMATE CAPACITY

Curcumin Powder	: 50 Kgs / Day
Turmeric Oil	: 20 Kgs / Day
Deoiled Turmeric	: 920 Kgs / Day
Plant & Machinery	: ₹ 231 Lakhs
Cost of Project	: ₹ 666 Lakhs
Rate of Return	: 21%
Break Even Point	: 48%

The production is mainly dominated by India, with over 78 percent of global output taking place in the country. India & China are the major supplier of Curcumin. The turnover of Curcumin could reach USD 94.32 million in 2022. India contributes 80% of world production and roughly 60% of export. Indian Curcumin market size accounted for over 81% of the overall Asia Pacific revenue most of these as a food coloring agent. Though Curcumin is currently used majorly as a cosmetic but the market may witness a growth of 10% over last year, majorly driven by its role as a dietary supplements (as immunity booster & anticancer drugs). As a whole any entrepreneur can venture in this project without risk and earn profit.

### Ethanol from Broken Rice, Maize & Wheat

Ethanol is a clear, colorless liquid with a characteristic, agreeable odor. In dilute aqueous solution, it has a somewhat sweet flavor, but in more concentrated solutions it has a burning taste. Ethanol, CH<sub>3</sub>CH<sub>2</sub>OH, is an alcohol, a group of chemical compounds whose mol-

#### PROJECT COST ESTIMATE CAPACITY

Ethanol	: 60 Kltres / Day
Plant & Machinery	: ₹ 1938 Lakhs
Cost of Project	: ₹ 4569 Lakhs
Rate of Return	: 25%
Break Even Point	: 49%

ecules contain a hydroxyl group, -OH, bonded to a carbon atom. Ethanol melts at -114.1°C, boils at 78.5°C, and has a density of 0.789 g/mL at 20°C. Its low freezing point has made it useful as the fluid in thermometers for temperatures below -40°C, the freezing

point of mercury, and for other low-temperature purposes, such as for antifreeze in automobile radiators.

India ethanol market is projected to grow from \$ 2.50 billion in 2018 to \$ 7.38 billion by 2024, exhibiting a CAGR of 14.50% during 2019-2024, on the back of increasing ethanol use in applications such as fuel additives and beverages. Ethanol is a prominent alcoholic beverage, mainly found in beer, cider, wine, spirits and ale. Indian government is trying to reduce its dependence on imported crude oil and incentivizing Indian sugar manufacturers to produce ethanol for Oil Marketing Companies (OMCs). It is expected that ethanol production will increase by three to five folds in the future in order to meet the demand for its 20% Fuel Blending Program (FBP). Factors such as increasing alcohol consumption and changing lifestyle along with growing influence of the western culture are likely to drive the demand for ethanol in the country. As a whole any entrepreneur can venture in this project without risk and earn profit.

### Red Iron Oxide (with Mining of Mineral Ore along with Processing and Beneficiation)

Iron (III) oxide or ferric oxide is the inorganic compound with the formula Fe<sub>2</sub>O<sub>3</sub>. It is one of the three main oxides of iron, the other two being iron (II) oxide (FeO), which is rare; and iron (II,III) oxide (Fe<sub>3</sub>O<sub>4</sub>), which also occurs naturally as the mineral magnetite. As the mineral known as hematite, Fe<sub>2</sub>O<sub>3</sub> is the main source of iron for the steel industry. Fe<sub>2</sub>O<sub>3</sub> is readily attacked by acids. Iron (III) oxide is often called rust, and to some extent this label is useful, because rust shares several properties and has a similar composition. To a chemist, rust is considered an ill-defined material, described as hydrated ferric oxide.

The Indian government has allocated USD 63 billion for the infrastructure sector in 2019-20 and is planning to spend USD 1.4 trillion over the next five years. The development of smart cities and other schemes like "housing for all" are



expected to increase the demand for paints and coatings.

Iron Oxide Pigments comprises iron and oxides and can be produced from both natural and synthetic sources. Naturally, Iron Oxide Pigments are derived from hematite

#### PROJECT COST ESTIMATE CAPACITY

Red Iron Oxide	: 4,000 MT / Day
Plant & Machinery	: ₹ 1096 Lakhs
Cost of Project	: ₹ 4391 Lakhs
Rate of Return	: 31%
Break Even Point	: 50%

(red iron oxide mineral), limonites (yellow or brown minerals) such as ochers, sienna's & umbers, and magnetite (black iron oxide). Synthetic Iron Oxide Pigments are produced from basic chemicals by three processing methods which includes precipitation of iron salts, thermal decomposition of iron salts, and reduction of organic compounds by iron. The product finds use in numerous applications including construction, paints & coatings, plastics, paper, pharmaceuticals, and cosmetics among others. As a whole any entrepreneur can venture in this project without risk and earn profit.

### Banana Wafers

**F**ried banana wafers are a deep fried snack food prepared from green fresh mature bananas of the cooking variety. Success in deep-fat frying of snack foods depends upon several factors, such as (a) the use of proper raw material of optimum maturity or quality, (b) correct method of preparation, (c) use of suitable equipment, (d) selection of appropriate fat or oil as frying medium, (e) optimum time and temperature of frying, (f) efficient packaging, and (g) proper storage. Though consumption of these products is at present very high there is no systematic quality control.

The Global Snack Food Market was valued at USD 450 billion in 2017 and is expected to reach a value of USD 638 billion by 2023 at a CAGR of 5.79% during the forecast period (2018-2023). While the factors like demand for urbanization and change in lifestyle fuel the growth of the market, whereas government rules and health concerns are hindering the market growth. The growing demand in developing regions and development of innovative products provides ample growth opportunities.

India wafers market has shown remarkable growth in past couple of years. The market is forecasted to grow with a CAGR of more than 9% in near future. Currently, the growing young population represents a key segment for the potato wafers, banana wafers, and tortilla wafers market. Major factors driving the global demand of wafers are growing urbanization, rise in disposable incomes and rapidly changing lifestyles. As a whole any entrepreneur can venture in this project without risk and earn profit.

#### PROJECT COST ESTIMATE CAPACITY

Banana Wafers (40 gms size)	: 10,700 Packets / Day
Banana Wafers (20 gms size)	: 21,300 Packets / Day
Banana Wafers (10 gms size)	: 42,600 Packets / Day
Plant & Machinery	: ₹ 37 Lakhs
Cost of Project	: ₹ 393 Lakhs
Rate of Return	: 30%
Break Even Point	: 53%

### Cellophane Film

**C**ellulose film packaging market will reach an estimated valuation of USD 1007.67 million by 2027, while registering this growth at a rate of 5.0% for the forecast period of 2020 to 2027.

Cellulose Film Packaging Market is anticipated to record a CAGR of 5.1% over the forecast period. Many multi-national companies are concentrating towards new product advances in cellulose film packaging.

Moreover, the many superior properties of cellulose film packaging are exploited in the field of food and beverage now and then. New uses for cellulose film packaging derivatives are discovered on a regular basis which is expected to drive the cellulose film packaging market rapidly. Currently the global cellulose film packaging market is observing vibrant growth owing to an increase in demand of biodegradable and compostable packaging in the market.

#### PROJECT COST ESTIMATE

##### CAPACITY

Cellophane Film	: 10 MT / Day
Plant & Machinery	: ₹ 605 Lakhs
Cost of Project	: ₹ 1294 Lakhs
Rate of Return	: 29%
Break Even Point	: 53%

### Dicyandiamide (DCDA)

**D**icyandiamide is a strongly alkaline and water-soluble white crystalline compound with the scientific name of cyan guanidine. The chemical is the dimer of cyan amide or cyan guanidine, which is mainly used in the production of melamine. Dicyandiamide is also used as a curing agent for epoxy resins and laminates for circuit boards, powder coatings and adhesives.

#### PROJECT COST ESTIMATE

##### CAPACITY

Dicyandiamide (DCDA)	: 10 MT / Day
Plant & Machinery	: ₹ 50 Lakhs
Cost of Project	: ₹ 373 Lakhs
Rate of Return	: 29%
Break Even Point	: 61%

Dicyandiamide Market size should observe lucrative CAGR from 2019 to 2025 in the coming years due to developments in the water treatment industry. Dicyandiamide or cyan guanidine is a free-flowing white colored versatile chemical with diverse applications. Extensive use of the product in wastewater treatment plants as a discoloring agent or flocculating agent will drive the market in coming years. Entrepreneurs who invest in this project will be successful.

### Tomato Products

#### Tomato Ketchup, Sauce and Soup

**T**omatoes are widely consumed and worldwide cultivated. They are one of the most important crops around the world. Tomato (*Lycopersicon esculentum*) belongs to the genus *Lycopersicon* under Solanaceae family. Tomato is an herbaceous sprawling plant growing to 1-3 m in height with weak woody stem. The flowers are yellow in colour and the fruits of cultivated varieties vary in size from cherry tomatoes, about 1-2 cm in size to beefsteak tomatoes, about 10 cm or more in diameter. Most cultivars produce red fruits when ripe. Tomato is a native to Peruvian and Mexican region.

#### PROJECT COST ESTIMATE CAPACITY

Tomato Ketchup (500 gms Size Glass Bottle)	: 2,000 Kgs / Day
Tomato Sauce (500 gms Size Glass Bottle)	: 2,000 Kgs / Day
Tomato Soup (50 gms Size Pouch)	: 1,000 Kgs / Day
Plant & Machinery	: ₹ 387 Lakhs
Cost of Project	: ₹ 686 Lakhs
Rate of Return	: 26%
Break Even Point	: 57%

With the growing patterns of fast food consumption in the country the need for ketchup is also increasing. According to a recent survey conducted by Down to Earth it is

estimated that Indians spend about ` 4,449 crore a year in fast-food centers. Entrepreneurs who invest in this project will be successful.

## Roller Bearing

**B**earing, in machine construction, a connector (usually a support) that permits the connected members to rotate or to move in a straight line relative to one another. Often one of the members is fixed, and the bearing acts as a support for the moving member. Most bearings support rotating shafts against either transverse (radial) or thrust (axial) loads. Bearings Market size was USD 48.1 billion in 2019 and will witness 8.2% CAGR from 2020 to 2026. Ever increasing vehicle sales and growing adoption of electric and connected vehicles will primarily drive the bearings demand for their production and related accessories. A passenger vehicle on an average uses minimum 35 bearings, that vary largely on the basis of vehicle model and wide spreading technologies. Thus, due to demand it is best to invest in this project.

### PROJECT COST ESTIMATE CAPACITY

Roller Bearing ID-40 & OD-80	: 4,000 Pcs. / Day
Plant & Machinery	: ₹ 604 Lakhs
Cost of Project	: ₹ 1412 Lakhs
Rate of Return	: 28%
Break Even Point	: 70%

## NPK Fertilizer & Calcium Ammonium Nitrate

**F**ertilizers are used daily by farmers and families to help crops and gardens grow. Whether for a small garden of flowers and plants, or a large farm with thousands of acres of crops, a wide range of fertilizers have been developed to help different crops grow in different soil and weather conditions. The NPK grade with the highest count in the new CRU fertilizer grade database is 15-15-15. As it dominates the other unique 1200 grades, it is unlikely to be challenged in 2020. Perhaps surprisingly, the second and third most offered grades from the database are NPK 18-18-18 and 20-20-20, both of which are water-soluble. This facilitates the development of new technologies and ensures a high quality product.

### PROJECT COST ESTIMATE CAPACITY

NPK Fertilizer (19-19-19)	: 200 MT / Day
Calcium Ammonium Nitrate	: 200 MT / Day
Plant & Machinery	: ₹ 1746 lakhs
Cost of Project	: ₹ 5165 lakhs
Rate of Return	: 26%
Break Even Point	: 50%

## OUR BANK DETAILS

Bank	HDFC Bank Roop Nagar, Delhi - 110007
Current A/c No.	59207871640641
RTGS/NEFT	HDFC0000339
MICR CODE	110240053

*Market Survey Cum Detailed Techno Economic Feasibility Report on Required Projects can be had from*



## NIIR PROJECT CONSULTANCY SERVICES

AN ISO 9001:2015 CERTIFIED COMPANY

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

Tel. : 91-11- 23843955, 23845886, 23845654,  
Mob.: +918800733955, 9097075054

Fax : 91-11-23845886

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

Website : www.niir.org

www.entrepreneurindia.co

**DL (N)/114/2021-2023  
U(DN) 154/2021-22**



**Entrepreneur India**

*An Industrial Monthly Journal  
on Industrial Development  
Technologies & Project  
Opportunities*

**www.entrepreneurindia.co**

## SUBSCRIPTION RATES FOR INDIA

Single copy	₹ 20.00
One year (With Registered Post Charges)	₹ 720.00

**DD/Cheques to be drawn in  
favour of Entrepreneur India.**

Project Reports included in this issue were prepared on the basis of data available at the time of preparing these reports. With the passage of time there might be variations in data. Entrepreneurs are requested to update the data before venturing into any project discussed herein. However efforts has been made to give correct information even then no guarantee can be given about the authenticity of the matter. All disputes are subject to Delhi Jurisdiction only.

## PUBLISHERS :



## NIIR PROJECT CONSULTANCY SERVICES

AN ISO 9001:2015 CERTIFIED COMPANY

(Dedicated to Global Industrial Development)

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

Tel. : 91-11- 23843955, 23845886, 23845654,

Mob.: +918800733955, 9097075054

Fax : 91-11-23845886

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

Website : www.niir.org

www.entrepreneurindia.co

## PUBLISHING ASSOCIATES :



**Asia Pacific Business Press Inc.**

AN ISO 9001 : 2015 CERTIFIED COMPANY

E-MAIL : apbp.books@gmail.com

Website: www.apbp-techbooks.com

# Market Research Reports

While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line. And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:

- Good Present/Future Demand
- Export-Import Market Potential
- Raw Material & Manpower Availability

The report provides an expansive market analysis by covering areas like: growth drivers, trends prevailing in the industry, Demand-Supply Situation, Foreign Trade, Porters 5 Forces Analysis, regulatory framework as well as comprehensive SWOT analysis of the sector.

The report further establishes the regulatory framework of the industry. It encapsulates the status of the current legislation in the industry as well as the recent changes and developments in the regulations. The report also provides key player profiles along with key financials and comparison. The market research report shares vital information like shareholding pattern, revenue mix, plant location and financial summary of the key companies.

The market forecasts are developed on the basis of:

- Secondary Research
- Surveys One-on-one Interactions Databases
- Industry Sources

It covers contact information of Present major players like address of registered office, key financials like plant location, raw material consumption and financial comparison covering balance sheet, profit & loss account and financial ratios. The report by its graphical representation and forecasts of key data indicators helps in analyzing the market potential by elaborating on various factors that will contribute to the consumption growth of products in India, import-export markets of the products as well as market size and outlook of the industry.

Scope & Coverage of Market Research Report are:

- Present Status (Indian & Global)
- Internal Market Analysis
- Outlook & Forecasts (5 Years)
- SWOT & Porters Analysis

We at NPCS, through our reliable expertise in the project consultancy and market research field, have identified different projects, which satisfies all the customer requirements and has high growth potential in the market. We help catalyze business growth by providing distinctive and profound market analysis. We use authentic &

reliable sources to ensure business precision and through our report we aim to help you make sound and informed business decision. We have built a veritable reputation for our commitment to fulfilling our clients' exacting market research solutions. Our team of experts specializes in offering syndicated market research reports, customized research reports and consulting services at cutthroat prices.

## Reasons for Buying Report:

- The research report helps you get a detail picture of the industry by providing overview of the industry along with the market structure and classification.
- The report provides market analysis covering major growth driving factors for the industry, latest market trends and regulatory framework of the industry.
- Report provides analysis and in-depth financial comparison of major players/competitors.
- Report provides indispensable buyers data with their company financials as well as the contact details, which can be an important tool in identifying the target customers.
- The report provides forecasts of key parameters which helps to anticipate the industry performance.
- We use reliable sources of information and databases. And information from such sources is processed by us and included in the report.

## List of Ready Available Reports:

1. India Active Pharmaceutical Ingredient (API) Market
2. Maize (Corn) Products in India (Starch, Glucose, Dextrose, Sorbitol)
3. Cold Chain Logistics in India (Cold Storage & Reefers)
4. Market Research Report on Milk Processing & Dairy Products
5. Market Research Report on Packaged Fruit Juices & Drinks
6. Market Research Report on Future Potential of Flexible Packaging
7. Medical Devices & Disposables Industry
8. India Natural Food Colour Market
9. Bakery Industry in India
10. India Lithium-Ion Battery Market
11. Market Research Report on Detergent Industry
12. Market Research Report on FEMININE HYGIENE PRODUCTS
13. Market Research Report on Future of Online Retailing in India
14. Market Research Report on Edible Oils in India
15. India Beer Market
16. Vacuum Blood Collection Tube Market
17. Aluminium Easy Open End



R.N.I. NO. 61509/95 POSTAL NO. DL (N)/114/2021-2023

U.N.O. U(DN) 154/2021-2022 LICENSED TO POST WITHOUT PREPAYMENT AT DELHI R.M.S.

DATE OF PUBLICATION : 19 EVERY MONTH - DATE OF POSTING : 21 OR 22 EVERY MONTHS

## BOOKS FOR SELF EMPLOYMENT, UNEMPLOYED YOUTH, ENTREPRENEURS, SMALL, HOME, COTTAGE, BUSINESS/PROJECTS, CANDLE MAKING, FASHION & EXPORT GUIDELINES



### Just for starters How to start you own export business (4th Rev. Edition)

The uniqueness of this book is that it furnishes in a lucid manner various steps, incentives and facilities relating to export business. Essential factors for successful exporting, preliminaries for stating export business, registration for exporters, sending samples, procurement of license, processing of export orders, appointment of overseas agent etc, ensure good beginning for the new entrants in the export business and many more. ISBN : 978-81-950755-4-6 **Price : ₹975 US\$ 100**



### Fashion Technology Hand Book

Fashion leads the world & it will continue to do so though times. Human can not be ever segregated from fashion. With the advancement of new age we envisage tremendous change. We also see for the career boom of young designers are always in search of course way in which they can be explained the requirement and stages in which to work. ISBN : 8178330970 **Price : ₹325 US\$50**



### Just for Starters How to Become a Successful Businessman 3rd Rev. Ed.

The book contains introduction, steps in setting up an SSI, Registration/ License for SSI, Resourcing, Technical Know-How, Foreign Collaboration, Marketing, Lessons from experience, policies and programmes for rural development, Prime Minister Rozgar Yozna, Rural Woman Entrepreneurship in India. Bright prospects, Industrial Innovation by small and medium Sized Enterprises, Indian Small Industry, Organisation, Supporting Entrepreneurship, development in India, directory Section etc. ISBN:978-93-81039-03-8 **Price : Rs.475 US\$75**



### Stop Dreaming-Start Your New Business

The small industries sector plays a vital roll in the industrial development of the recent globalization process. Any unit or new entrepreneur, establishing or implementations the project needs finance for long term. This book will help you to handle all aspects of running your own business. This very useful book for new entrepreneurs. You will see how your dream to be your own boss become a reality. ISBN:8178330458 **Price : ₹400 US\$50**



### What No one Ever Tells You about starting Your Business-Facilities and Procedures For Entrepreneurs

The Government had announced series of steps to promote industrial development by way of rationalization of the policies to encourage the new entrepreneurs as well as existing units. This book is a unique guideline for those who are looking for starting a new business and wants to start some industry with help of different concerned departments. It also covers the export guidelines. We are confident that this book will help to the important guidelines for new entrepreneurs. ISBN:8178330474 **Price: ₹400 US\$50**



### Just for Starters : Selected Projects to Start with 15,00,000

The first and paramount problem faced by an entrepreneur is "WHAT TO PRODUCE"? Academic qualification are not prerequisites for setting up a successful industry. It is necessary for the entrepreneur to have qualities like ability to plan, Maintain good public relation, Reasonable risk taking capacity and of course have adequate financial resources. The first step towards setting up an industry is the identification of product and feasible product line after a thorough study of the market for the product, its demand and supply position, People's changing attitudes, Competition in the line, Method of distribution etc. This book is meant to help new entrepreneurs in product identification along with market survey studies, cost estimation, profitability calculation and various other aspect. ISBN : 8178330237 **Price : ₹475 US\$50**



### Just For Starters : Selected Projects to Start with 30,00,000

The small scale enterprise sector is a dynamic vibrant segment of the Indian Economy. By APRIL-2000 this sector accounted for 40% of the industrial production, 35% of the total exports and provides employment to over 17 million through over 3 million small enterprises across the country. These small Enterprises manufactures a wide range of more than 7500 products, ranging from inexpensive consumer goods and services to technically advanced products, meeting requirements of sophisticated industries and consumed in India and abroad. This sector is the nursery for the development of entrepreneurial talent and has grown into an important component of the production chain. As this sector moves ahead our Government id proactively assisting in three major thrust areas "Technology, Marketing and Credit," and Government has set up an elaborate support for promotion of small, cottage and informal industries. ISBN : 8178330229 **Price : ₹475 US\$50**



### The Complete Technology Book on Candle Making Designs

Candle making is a very flourishing industry in modern times owing to the versatile use of candle on various occasions and ceremonies. Candle are prepared by well established methods in multifarious fascinating colours, designs and shapes. This is one of the unique book deals ostensibly with different candle making process viz. Dipping, Pouring, Moulding or Casting and Drawing, delineating their technicalities in most illustrious manner with pictorial representations. Finally, the book concludes with directory section giving addresses of raw materials, plant and machinery suppliers. ISBN:81-86623-66-3 **Price : ₹650 US\$100**



### Select & Start Your Own Industry (4<sup>th</sup> Rev. Edn.)

The book contains more than 4500 projects with their installed capacities, cost of projects, rate of return etc. This is a very helpful book for those who want to diversify or start new industry. ISBN:978-93-81039-15-1 **Price : ₹475 US\$50**



### Profitable Small Scale Industries

- Money making Business Ideas for Startup.  
(when you don't know what industry to start) - 2nd Revised Edition

The major contents of the book are India Government Loan Schemes for Small Scale Businesses, Government Support for Innovation and Entrepreneurship in India, Pradhan Mantri Mudra Yojana, Packaging and Labeling, Products Packaging, Marketing, Onion Dehydration, Garlic Dehydration, Onion Pickle, Onion Chutney, Garlic Oil, Onion Powder, Ginger Oil, Ginger Powder, Ginger Paste, Tomato Pulp, Tomato Paste, Tomato Ketchup, Tomato Powder, Disposable Blood Bags, Disposable Masks, Disposable Surgical Catheters, Disposable Plastic Syringes, Plastic Cups, Disposable Banana Leaf Plate, Facial Tissue & Baby Wet Wipes, Urea Formaldehyde Resin Adhesive, Toothpaste Production, Gypsum Board, Surgical Absorbent Cotton, Glass Fibre, Complex Fertilizers, Activated Carbon from Wood, Biscuits, Candy, Chocolates, Milk Powder, Instant Noodles, Khakhra, Soft Drinks, Spices and Sample Plant Layouts.

ISBN: 9789381039922 **Price : ₹975 US\$100**



### Profitable Small, Cottage & Home Industries

The identification of a suitable project within the investment limit of a new entrepreneur is very difficult. The present book strives to meet this specific entrepreneurial need. The book contains processes formulae, brief profiles of various projects which can be started in small investment without much technical knowledge at small place. ISBN : 8178330636 **Price : ₹800 US\$100**



### Grow Rich By Starting Your Own Business

The contents of this book will guide you, step by step, to get our business up and running. You will see how to choose a business that is right for you and find the fund you need to begin and support it. This book will help you how to handle all aspect of running your own business setting up your office, marketing your product or service, getting the help your cash flow and collection, adding employees to expand more, fighting the defaulting customers and more.

ISBN :8178330903 **Price ₹325 US\$50**



### 50 Project to Start With 5,00,000

The book has been written for the benefit of small entrepreneurs who do onot wish to invest large amount and case has been taken to present the matter in a very simple and comprehensive language so that person without much technical background can grasp the subject easily. More than 50 profitable products have been included in this book with brief project profiles, processes, addresses of machinery and raw material suppliers. ISBN:978-81-7833-060-0 **Price : ₹475 US\$75**



### Best Businesses You Can Start with Low Cost (2nd Rev.Edn.)

Major contents of the book are cooking classes, handmade jewellery making, in house salon, cake & pastry making, home tutoring, internet business, cleaning business, detergent making, pet sitting business, gardening business, home based photography, recruitment business, banana chips making, potato chips and wafers, leather purse and hand bags, biscuit manufacturing, papad manufacturing, pickles manufacturing, spice manufacturing, ice-cream cones manufacturing, wax candles manufacturing, chilli powder manufacturing, soft toys manufacturing, soap coated paper, baking powder making, moong dal bari making etc. ISBN:9788178331607 **Price : ₹750 US\$100**



### Secrets For Making Big Profits from Your Business with Export Guidelines

The purpose of this book is to enrich the people with an understanding of the entrepreneurial process. There is no presumption, however, that entrepreneurship can be "taught," because entrepreneurs have their own peculiar way of doing things. Yet it is possible to help them to better prepared for transforming dreams in realities. Consequently the book is organized to explore the nature of entrepreneurship, provide models for new venture creation and describe way to help entrepreneurs succeed. The book contains different parameters, procedures and facilities provided by central and state Govt. The book can prove to be useful compendium for any body wanting to setup a small scale unit. ISBN:8178330466 **Price : ₹400 US\$50**



### Opportunities For Women Entrepreneurship (with Project Profiles) 2<sup>nd</sup> Edition

To empower women entrepreneurship, we have released this book which contains number of project profiles suitable for women entrepreneurs. Projects covered in this book are pickles, murabbas, squashes, spices, soya bean bariyan, pam nasala, readymade garments, socks knitting and many more. This book will be helpful to those women who want to succeed in their life & dream of moving a step closer of being self dependent. ISBN:9788178330587 **Price : ₹575 US\$50**



### Just for Starters : Select Projects to Start with 35,00,000

The economic environments going to be more and more responsive to enterprising activities and tremendous potential is likely to enhance for the development of small-scale sector at all level of investment. This book provide technical assistance and special guidance to the entrepreneurs in identifying projects to be started with in Rs. 35,00,000. The book contains processes, project profile, raw material and machinery list with the addresses of their suppliers.

ISBN : 8189579002 **Price : ₹475 US\$50**



### लघु व कुटीर उद्योग (स्मॉल स्केल इण्डस्ट्रीज) (5th Revised Edition)

यह पुस्तक उन नये एवं प्रथम पीढ़ी के उद्यमियों की आवश्यकताओं को ध्यान में रखकर लिखी गयी है जिन्हें औपचारिक औद्योगिक प्रशिक्षण प्राप्त नहीं है और लाभकारी परियोजनाओं के कार्यान्वय हेतु प्रयत्नशील हैं। इसके अतिरिक्त लघु उद्योगपालियों, व्यवसायिकों, तकनीकी परामर्शदाताओं आदि के लिए भी यह पुस्तक बहुत सहायक सिद्ध होगी। विभिन्न उद्यमों की उत्पादन विधि, मशीन, उपकरण एवं कच्चे माल की जानकारी तथा उनके मिलने के पते, लागत, लाभार्श आदि इस पुस्तक के विशेष आकर्षण हैं। ISBN : 9789381039656 **Price : ₹1150 US\$125**



### स्मॉल स्केल इण्डस्ट्रीज प्रोजेक्ट्स (लघु, कुटीर व घरेलू उद्योग परियोजनाएं) उद्यमिता मार्गदर्शिका (2nd Revised Edition)

इस पुस्तक में प्रोजेक्ट प्रोफाइल्स का विवरण दिया गया है और इन प्रोजेक्ट प्रोफाइल्स के माध्यम से विभिन्न उद्यमों की निर्माण विधि, बाजार सर्वेक्षण / संभावनाएं, कर्मचारियों की संख्या, कुल भूमि क्षेत्र, उद्योग को शुरू करने में लगने वाली पूंजी तथा उद्योग से प्राप्त कुल लाभ आदि की जानकारी दी गयी है। साथ ही कच्चे माल के आपूर्तिकर्ताओं (Raw Material Suppliers), सर्वर और मशीनरी के आपूर्तिकर्ताओं (Plant & Machinery Suppliers) के पते तथा चित्र (Photographs) दिए गए हैं जिससे उद्यमी ज्यादातर लाभ उठा सकें। ISBN :978-93-81039-60-1 **Price: ₹950 US\$ 100**