Production of Dairy Products, Ice Cream, Chocolate and Cocoa

(Cocoa Bean, Cocoa Mass, Cocoa Powder, Cocoa Butter, Drinking Cocoa, Drinking Chocolate, Vegetable Lecithins, Soya Lecithin, Cheese, Soft Cheese, Khoa, Yoghurt, Ice Cream, Dry Whole Milk, Skim Milk and Buttermilk, Peach Ice Cream, Dried Fruits, Candied and Glaced Fruits)
Introduction

Cocoa, Chocolate and Ice Cream are the products which has a good nutritious value and relatively inexpensive food. Cocoa butter is used in chocolate and to cover other confectionery products. Now a day chocolate and ice cream are gaining good popularity among the society all over the world. Chocolate is a key ingredient in many foods such as milk shakes, candy bars, ice creams etc. It is ranked as one of the most favorite flavors in the world. Despite its popularity, most people do not know the unique origins of this popular treat. Chocolate is a product that requires complex procedures to produce. The process involves harvesting coca, refining coca to cocoa beans, and shipping the cocoa beans to the manufacturing factory for cleaning, coaching and grinding. These cocoa beans will then be imported or exported to other countries and be transformed into different type of chocolate products. Ice cream is a frozen dessert usually made from dairy products, such as milk and cream, and often combined with fruits or other ingredients and flavors. The meaning of ice cream varies from one country to another like frozen custard, frozen yogurt, sorbet, and gelato and so on. The ice cream industry has traditionally grown at a healthy rate of 12% per annum. India is the second largest milk producing country.
Milk products like butter, curd, ghee, etc have become an essential part of our food and are consumed in good quantity every day. In spite of the huge demand that exists for such milk based items conventional methods are employed for producing these items. The growth in cocoa, chocolate, Ice cream and other milk product industry has been primarily due to strengthening of distribution network and cold chain infrastructure. Some of the fundamentals of the book are cocoa bean production, sources of cocoa bean supplies, refining for production of chocolate masses for different uses, shipment of cocoa beans, cocoa processes, cocoa for drinking, instant cocoas, drinking chocolates manufacturing cocoa, cocoa butter & replacement fats, coatings and cocoa, chocolate manufacture, chocolate bars and covered confectionery, chocolate molding, determination of fat in cocoa and chocolate products, determination of cooling curve of cocoa butter and similar fats, the manufacture of dairy products, ice cream manufacture, energy value and nutrients of ice cream etc.
The present book contain formulae, processes and other relevant details related to manufacture of cocoa products, chocolates, ice cream and other milk products. An attempt has been made to bring in to focus the significant aspect of cocoa products, dairy products manufacturing. It is hoped that the subject matter contain and its presentation will be very helpful to new entrepreneurs, professionals, institutions, technocrats and students etc.
Market Outlook

Cocoa beans market is expected to reach over US$ 16.0 Bn by 2022, growing at a CAGR of more than 3.0% during the forecast period 2016-2022.
Global Cocoa Beans Market
Revenue of $21.1 billion in 2014 was a 2.9% increase over 2013. The greatest growth was in premium products, which expanded 11%, and in dark chocolate products, which grew 8%. Sales are expected to grow another 6% by 2017 to $22.4 billion.
Chocolate Bar Sales in the UK

- **Filled**
- **Dark**
- **White**
The chocolate market registered a value of US$ XX Bn in 2016. During a five-year forecast period 2016-2024.

The global chocolate market is set to grow at a CAGR of close to 5% through 2020.

Chocolate market in the US is forecast to cross US $ 30 billion by 2021.

The ice cream market in India is forecast to exhibit a CAGR of 17.03% during 2016-2021. The ice cream market in India is estimated to be over INR 4,000 crores, and is growing at a rate of 15-20% year-on-year. It is projected that by 2019, the market will reach around INR 6,198 crores.
India is the largest producer of milk in the world. It is also one of the largest producers and consumers of dairy products. The Indian dairy industry also offers good opportunities to both domestic and foreign investors for entry and expansion. Due to their rich nutritional qualities, dairy products' consumption has been growing exponentially in the country; and considering various facts and figures, the study anticipates that milk production in India will further grow at a CAGR of around 14% between 2015-16 and 2021-22.
Indian Dairy Consumption

- Fluid Milk: 46%
- Ghee (clarified butter): 27.5%
- Butter: 6.5%
- Yoghurt: 6.5%
- Khoa (dehydrated condensed milk): 7%
- Non-fat dry milk powder: 3.5%
- Paneer (cottage cheese): 2%
- Other value added products including ice cream: 1%
Demand for milk is likely to be about 155 million tonnes by 2016-17 and around 200 million tonnes in 2021-22. To meet the growing demand, there is a need to increase the annual incremental milk production from 4 million tonnes per year in past 10 years to 7.8 million tonnes in the next 8 years (210 million by 2021-22).
Milk Production

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1. COCOA BEAN PRODUCTION

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23. FANCY MOLDED ICE CREAMS, NOVELTIES, AND SPECIALS PRODUCTION SYSTEMS

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Contact us

Niir Project Consultancy Services
106-E, Kamla Nagar, Opp. Spark Mall,
New Delhi-110007, India.
Email: npcs.ei@gmail.com, info@entrepreneurindia.co
Tel: +91-11-23843955, 23845654, 23845886, 8800733955
Mobile: +91-9811043595
Fax: +91-11-23845886
Website: www.entrepreneurindia.co, www.niir.org
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- Consultancies
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Sectors We Cover

- Ayurvedic And Herbal Medicines, Herbal Cosmetics
- Alcoholic And Non Alcoholic Beverages, Drinks
- Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin
- Activated Carbon & Activated Charcoal
- Aluminium And Aluminium Extrusion Profiles & Sections,
- Bio-fertilizers And Biotechnology
- Breakfast Snacks And Cereal Food
- Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling
Sectors We Cover

- Bamboo And Cane Based Projects
- Building Materials And Construction Projects
- Biodegradable & Bioplastic Based Projects
- Chemicals (Organic And Inorganic)
- Confectionery, Bakery/Baking And Other Food
- Cereal Processing
- Coconut And Coconut Based Products
- Cold Storage For Fruits & Vegetables
- Coal & Coal Byproduct

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- Dairy/Milk Processing
- Disinfectants, Pesticides, Insecticides, Mosquito Repellents,
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- Engineering Goods
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- Fast Moving Consumer Goods
- Food, Bakery, Agro Processing

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- Herbs And Medicinal Cultivation And Jatropha (Biofuel)
- Hotel & Hospitality Projects
- Hospital Based Projects
- Herbal Based Projects
- Inks, Stationery And Export Industries
Sectors We Cover

- Infrastructure Projects
- Jute & Jute Based Products
- Leather And Leather Based Projects
- Leisure & Entertainment Based Projects
- Livestock Farming Of Birds & Animals
- Minerals And Minerals
- Maize Processing (Wet Milling) & Maize Based Projects
- Medical Plastics, Disposables Plastic Syringe, Blood Bags
- Organic Farming, Neem Products Etc.
Sectors We Cover

- Paints, Pigments, Varnish & Lacquer
- Paper And Paper Board, Paper Recycling Projects
- Printing Inks
- Packaging Based Projects
- Perfumes, Cosmetics And Flavours
- Power Generation Based Projects & Renewable Energy Based Projects
- Pharmaceuticals And Drugs
- Plantations, Farming And Cultivations
- Plastic Film, Plastic Waste And Plastic Compounds
- Plastic, PVC, PET, HDPE, LDPE Etc.
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- Printing And Packaging
- Real Estate, Leisure And Hospitality
- Rubber And Rubber Products
- Soaps And Detergents
- Stationary Products
- Spices And Snacks Food
- Steel & Steel Products
- Textile Auxiliary And Chemicals
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Niir Project Consultancy Services
106-E, Kamla Nagar, Opp. Spark Mall,
New Delhi-110007, India.
Email: npcs.ei@gmail.com, info@entrepreneurindia.co
Tel: +91-11-23843955, 23845654, 23845886, 8800733955
Mobile: +91-9811043595
Website: www.entrepreneurindia.co, www.niir.org
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