



सत्यमेव जयते

GOVERNMENT OF GUJARAT

Setting up a Health Drink Manufacturing Plant

Agro & Food Processing

Government of Gujarat



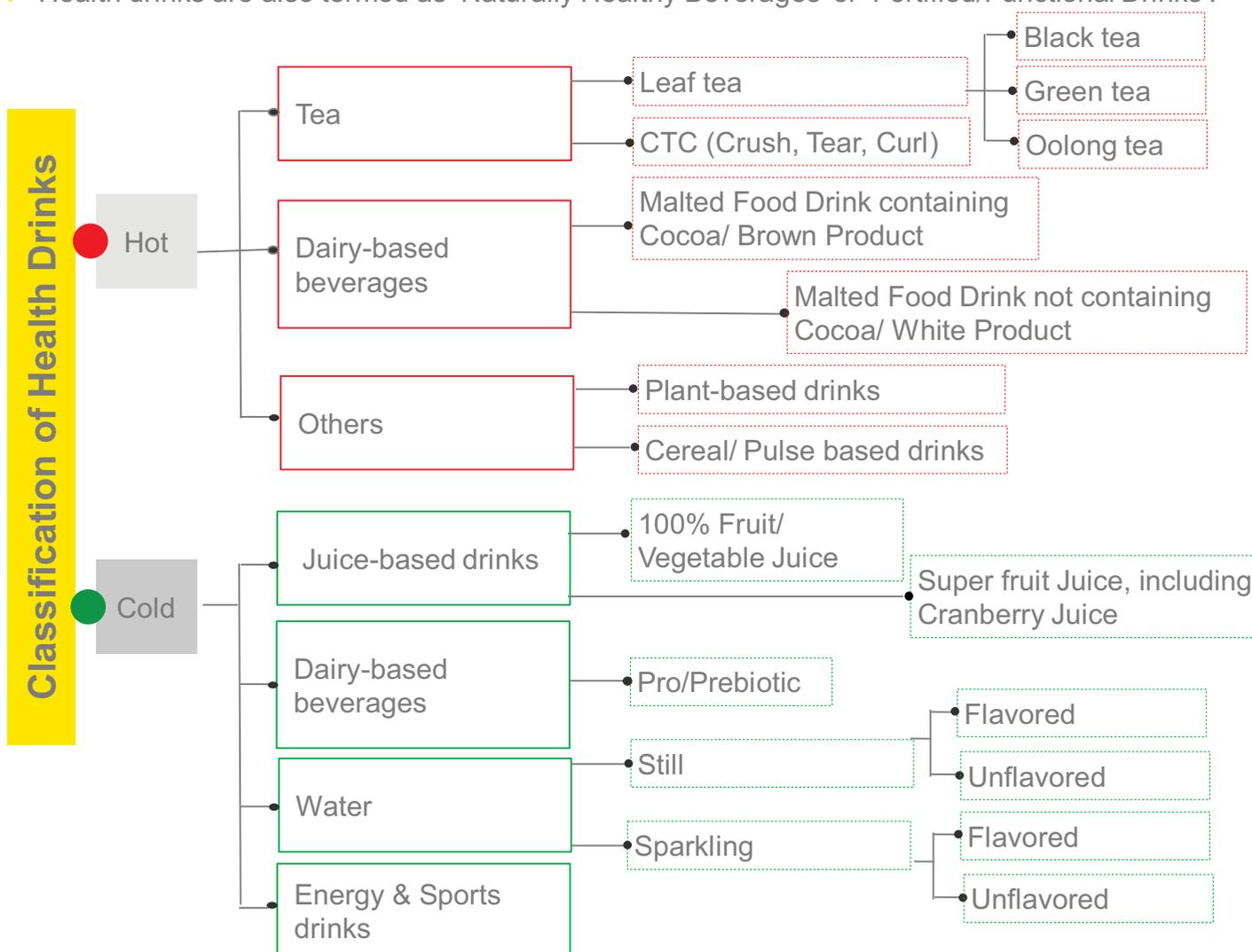
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Health drinks/ Functional drinks

- ▶ Health drinks are a segment of non-alcoholic beverages that contain vitamins, herbs, pre- and probiotic live bacteria and yeasts, non-digestible fiber, amino acids, raw vegetables and fruits.
- ▶ Functional beverages also include Ready-to-drink (RTD) teas that have functional benefits, as well as non-dairy beverages that provide nutrition for lactose intolerant individuals.
- ▶ Energy & sports drinks claim a major market segment, especially among the youth. An energy drink is a type of beverage containing stimulant drugs, chiefly caffeine, which is marketed as providing mental and physical stimulation. And sports drinks are beverages whose purpose is to help athletes replace water, electrolytes, and energy after physical workout.
- ▶ Health drinks are also termed as 'Naturally Healthy Beverages' or 'Fortified/Functional Drinks'.



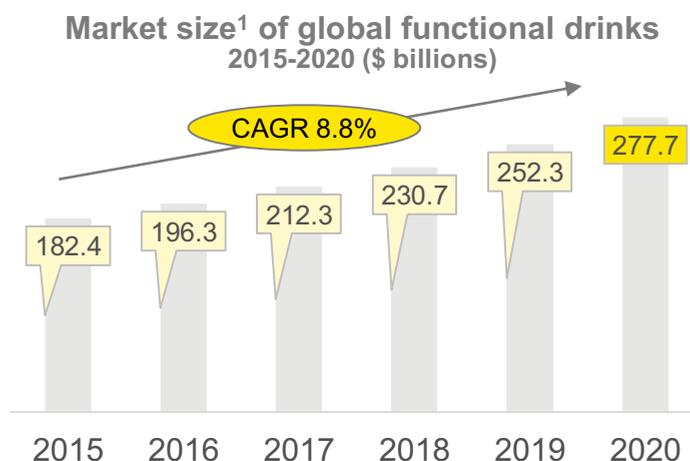
The concept

The project envisages setting up of **Health drink manufacturing plant**, which can focus on production, processing, packaging, export, etc.

Benefits of health drinks

- ▶ Boost overall health and energy
- ▶ Provide immune system support
- ▶ Reduce the risks of illness and age-related conditions
- ▶ Improve performance in athletic and mental activities
- ▶ Support the healing process during illness

Global health/ functional drinks market



Source: Global Functional Drinks Market, Technavio

- ▶ The global functional drinks market is expected to grow at a CAGR of 8.8% to reach a value of USD 277.7 billion by 2020. Consumers are increasingly opting for healthy and nutritive drink choices over calorie-heavy soft drinks that have little or no functional benefits. This drive comes from a growing focus on preventive healthcare and greater awareness of health and wellness among people.
- ▶ Functional fruit and vegetable juice is the largest product segment in the market, followed by energy drinks. Dairy-alternative beverages will see the highest growth during the forecast period with a CAGR of 13.5%.
- ▶ In 2015, the Americas led the market by revenue with a share of 38.5%, followed by Europe, Asia-Pacific (APAC), and the Middle East and Africa (MEA). APAC will, however, grow the fastest, posting a CAGR of 11.5% over the next five years and replacing Europe in terms of market position.

CAGR forecast by product segment

Product	CAGR 2016-2020
Dairy-alternative beverages	13.5%
Energy drinks	13.2%
Functional RTD teas	8.2%
Pro- and pre-biotic drinks	7.1%
Sports drinks	6.9%
Functional water	6.8%
Fruit and vegetable teas	4.6%

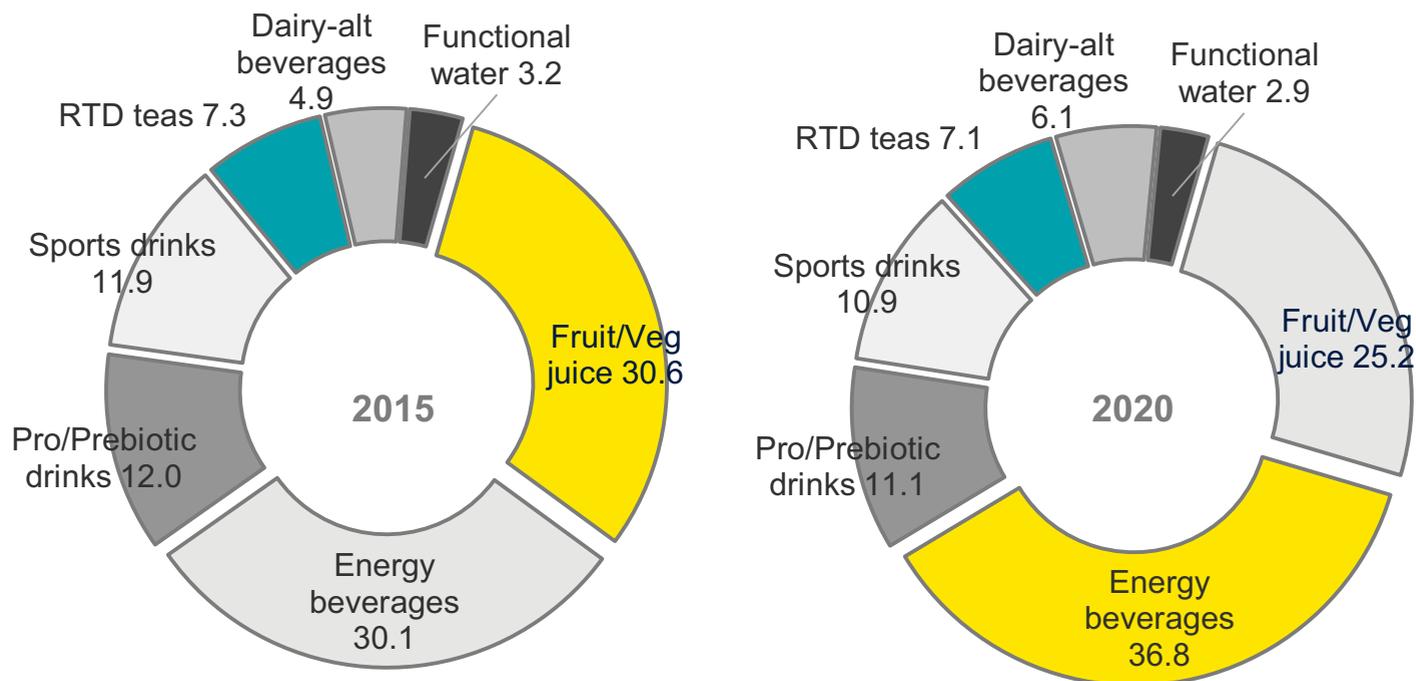
Source: Global Functional Drinks Market, Technavio

Global trend

Increase in global demand for energy drinks

Fruit and vegetable juice accounts for majority share

Segmentation by product type (% share)



Source: Global Functional Drinks Market, Technavio

- ▶ Fruit/Vegetable juice and Energy drinks continue to hold the majority (~60%) of health drinks market.
- ▶ An approx. 5% shift is expected from fruit/ vegetable-based beverages to energy drinks.
 - The use of natural ingredients in energy drinks, and increase in new varieties and types of energy drinks are primary drivers for the growth of this market.
 - In addition, energy drinks are increasingly being used as mixers for alcoholic beverages. This trend is more commonly observed among the younger population in the age group of 18-34 years.
- ▶ Consumer demand for energy drinks and dairy-alternative beverages is expected to increase, while for all other segments a decline is expected.



India - Key segments

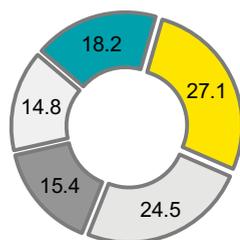
Juice-based drinks

The juices market consists of the retail sale of 100% fruit juice (from concentrate), 100% fruit juice (not from concentrate), nectar (30%-99% juice), fruit drinks (0-29% juice), and vegetable juice.

In 2019, the Indian juices market is forecast to have a value of USD874.2 million, an increase of 50.8% since 2014. The CAGR of the market in the period 2014–19 is predicted to be 8.6%.

Drink segment	% share
Fruit drinks (0-29% juice)	68.9
Nectars (30-90% juice)	26.1
100% fruit juice (from concentrate)	4.5
Vegetable juice	0.5

Competitor landscape (% share)



- Coca Cola 27.1%
- PepsiCo 24.5%
- Dabur India 15.4%
- Parle Agro 14.8%
- Others 18.2%

Coca Cola and Pepsi face stiff competition from each other to become the market leader for juices segment in India.

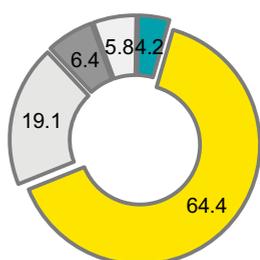
Source: Juices in India, Technavio

Energy & Sports drinks

The three major drinks under this category are Energy drinks, Sports drinks and Nutraceutical drinks. In 2019, these three drinks, together, are forecast to have a value of USD432.6 million, an increase of 68.9% since 2014. The CAGR of this market segment in the period 2014–19 is predicted to be 11%.

Drink segment	% share
Energy drink	63.2
Sports drink	31.3
Nutraceutical drink	5.5

Competitor landscape (% share)



- Red Bull 64.4%
- PepsiCo 19.1%
- Goldwin Healthcare 6.4%
- JMJ Group 5.8%
- Others 4.2%

Red Bull is the clear market leader for Energy & Sports drinks in India, holding 64.4% of market.

Source: India Functional Drinks Market, Technavio

Market Potential – India

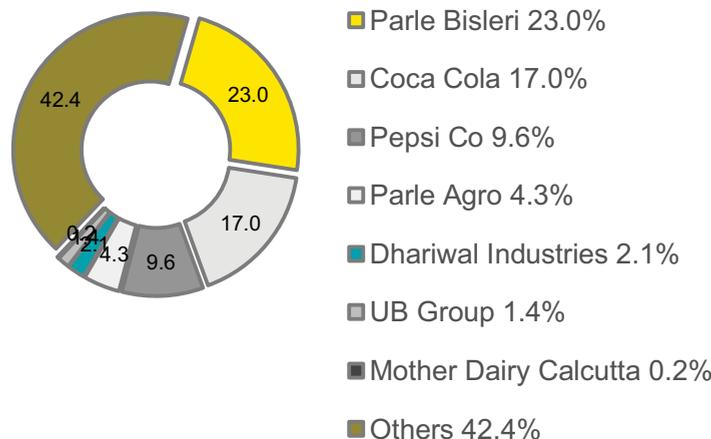
Water

The water market consists of two segments – still and sparkling. As per 2014 statistics, Still water accounts for 99.1% of the market; while 0.9% is held by sparkling water. Within still and sparkling, the market is further categorized by flavoured and unflavoured.

In 2019, the Indian bottled water market is forecast to have a value of USD3,401.4 million, an increase of 112.2% since 2014. The CAGR of the market in the period 2014–19 is predicted to be 16.2%. Growth in the Indian bottled water market is fuelled by urbanization and increasing incomes across the country, which mean more consumers are in a position to purchase the product.

Water segment	% share
Still unflavored	97.9
Still flavored	1.2
Sparkling unflavored	0.7
Sparkling flavored	0.2

Competitor landscape (% share)



Parle Bisleri continued to lead bottled water in 2015. The company maintained its leadership by starting up new plants across the country to reach new markets.

Source: Bottled water in India, Marketline

Greater health consciousness

With increasing focus on health consciousness, consumers wish to prevent lifestyle related conditions like diabetes and obesity, and are on the lookout for healthy, low fat, and low-calorie diet options. By positioning functional drinks as requisites during exercises, they have become regular use products with many buyers. For example, sports drinks are marketed as hydration drinks for use during exercise and sports.

Rising awareness about health foods

Consumers are becoming more aware of the detoxifying and anti-aging properties of health and wellness foods. Vendors also advertise their products through various channels, including print, electronic, digital media, and awareness campaigns.

Higher disposable income

- ▶ With the growth of the middle class, rising aspirations for higher standards of living and comfortable disposable incomes, the consumption of health drinks has seen a significant rise.
- ▶ Increasing number of “Dual Income, No Kids” and “Double Income Single Kid” families in urban areas of India is driving demand for exotic health food & beverages.

Increase in ageing population

- ▶ The number of Indians over the age of 60 has hit an all-time high, accounting for 8.6% of the country’s 121-crore population, as per a news article, dated 22 April 2016. As per Ministry of Statistics, the number of citizens over the age of 60 jumped 35.5% — from 7.6 crore in 2001 to 10.3 crore in 2011.
- ▶ Disorders like hypertension and diabetes are common in old age. Older people are also more prone to illnesses due to weakened immune systems. This segment of the population requires food that has fewer calories but the right combination of essential nutrients.

Wide reach through organized retailing

- ▶ The retail industry in many developing countries is witnessing the growth of organized retailers with the establishment of supermarkets and hypermarkets. Healthy food products are primarily sold by large organized retailers, signifying the heavy reliance of vendors on large organized retailers.
- ▶ The increasing availability of these products online is also influencing the sales in the global market. The customer-friendly web interfaces of functional drink brands like Gatorade Endurance made available at gatoradeendurance.com simplifies the buying process. This increase in retail penetration is expected to drive growth in the market.

Availability of numerous options

Companies are expanding their portfolio by introducing healthier variations of their existing products.

- ▶ PepsiCo is expected to launch, in 2016, a new line of Organic Gatorade and is also promoting its Tropicana brand as being GMO (genetically modified oranges) -free
- ▶ Coca-Cola entered the Indian dairy market in January 2016 with Vio flavoured milk. Made from milk sourced from dairy farmers, VIO has been formulated with a blend of saffron, pistachio and almond flavours in the respective 'Kesar Treat' and 'Almond Delight' variants.

Low penetration

With low penetration of health drinks in India, there is immense opportunity to grow the market by penetrating into semi-urban and rural areas.

As per GlaxoSmith Kline, in 2014, "The penetration in urban areas is 46 per cent while in the rural areas is a mere 12 per cent. Growth will come more by growing the market than gaining market share. Among the users of nutritional drink those consuming it daily are only 30 per cent. For us the target is to get new households, use the product and increase the frequency of usage among those who are not consuming it daily".

1 Highest Dairy output (Dairy-based beverages)

- ▶ For the year 2014-15, Gujarat ranks 3rd (after Uttar Pradesh and Rajasthan) in terms of milk production which is about 8% of entire country's milk produce. Total milk production in Gujarat in 2014-15 was 11.7 million tonnes.
- ▶ As per the Socio-Economic Review 2013-14, Gujarat has more than 16,900 village milk co-operative societies with highest members (3.2 million) and highest milk procurement by co-operative channels (12.7 million litres per day) in the country. In addition, there are 12 district milk producers' union.
- ▶ There are 17 cooperative dairy plants in the state with handling capacity of 12.5 million litres of milk per day.

2 Fruit produce

Gujarat ranks third in the major fruit growing states, after Maharashtra and Andhra Pradesh. Mango, Banana, Sapota, Papaya, Pomegranate, Ber, Guava, Gooseberry are Custard Apple are the fruits grown in the region (in descending order of area under cultivation)

Leading fruit-producing states: 2013-14 (% share)



Source: Horticultural Statistics, 2015, Horticulture Statistics Division Department of Agriculture, Cooperation & Farmers Welfare

3 Agriculture development

The state has witnessed above average growth rate of Gross State Domestic Product (GSDP) from agriculture and allied activities. During the period 2005-06 to 2011-12, the national average was ~4% while that for Gujarat was 5.5%.

4 Government support

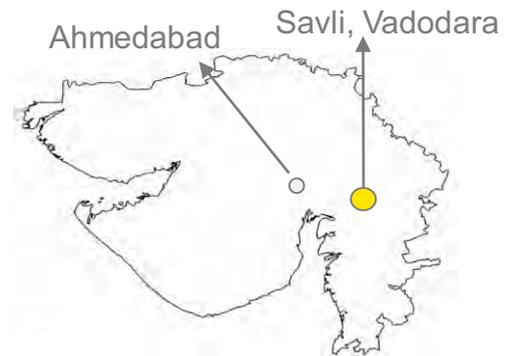
- ▶ Gujarat government has aggressively pursued innovative agriculture development by liberalizing markets, inviting private capital, reinventing agricultural extension, improving roads and other infrastructure.
- ▶ As per Prime Minister, Narendra Modi's suggestion, beverage firms have been asked to include 2% fruit juice in their carbonated offerings; which further supports the functional drinks segment.

Project Information

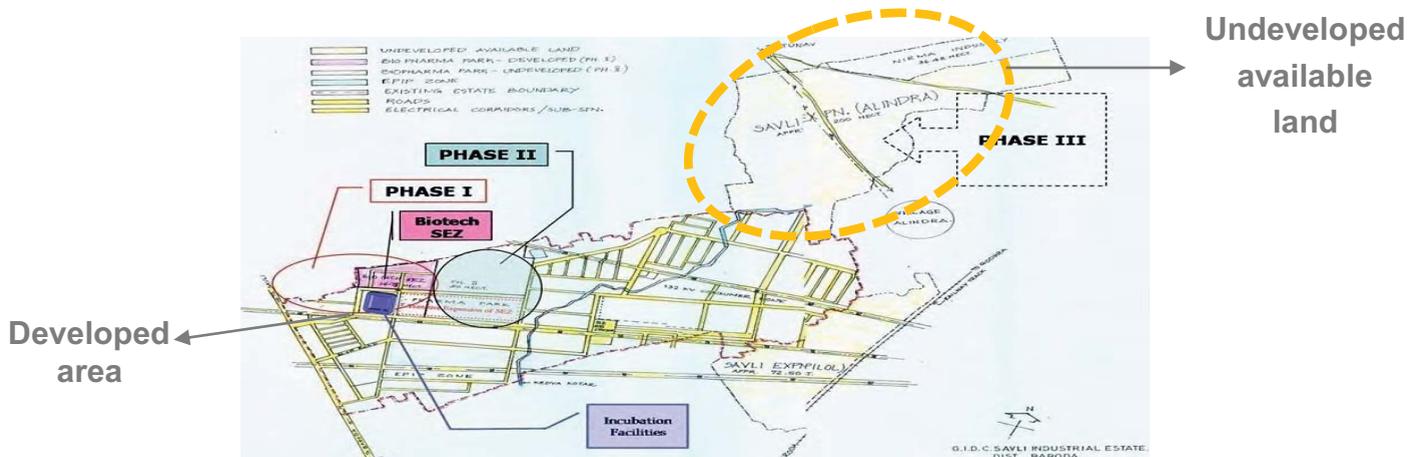
Project location

- ▶ Savli industrial estate in Vadodara district will be an ideal location to establish health drinks manufacturing plant.
- ▶ The site is owned and managed by Gujarat Industrial Development Corporation (GIDC).

Savli industrial estate: Key highlights	
Area	544.29 hectares
Land price	INR 1,050 per sq mt (Aug'13)
Key agro-players with presence in GIDC, Savli	<ul style="list-style-type: none"> ▶ Manpasand Beverages ▶ DSM Nutrition Products India Pvt. Ltd.



GIDC, Savli – Project site



Benchmarking parameters

- ▶ **Industry:** Health drink – Juice-based drink
- ▶ **Project capacity:** 50,000 boxes per day. Average capacity of a box which contains 24-27 bottles is around 9 litres. Total capacity – 450,000 litres.
- ▶ The **company** - Manpasand Beverages- which is setting up this benchmark project (at Ambala) already has presence in Gujarat for similar products.

Juice-based beverage manufacturing process

Stage I - Preparation of Beverages

- ▶ **Water Treatment:** Ground water extracted from bore well or procured from third parties is processed through a reverse osmosis process through multiple filters so as to make the water free of bacteria and fit for beverage preparation.
- ▶ **Sugar Syrup Preparation:** Raw sugar is transferred into a sugar dissolving tank and treated water is added to dilute the sugar granules. Thereafter, the sugar mix is heated in a steam jacketed tank so that all sugar particles get dissolved in the form of sugar syrup. The sugar syrup is passed through a filter press equipment which helps to make the syrup free and clear from impurities. Thereafter, the sugar syrup is cooled to ambient temperature and stored for blending with beverages.
- ▶ **Dilution of pulp or juice concentrates:** Fruit pulp or juice concentrates are procured in aseptic bags or cans and are cut open and transferred to a pulp storage tank as per required sizes and production batches. The pulp or juice concentrate is then diluted by adding treated water and transferred to a beverage preparation tank.
- ▶ **Blending and homogenization:** Diluted pulp or juice concentrate and sugar syrup are transferred to a blending tank and other ingredients are added as per the requisite formulation. This mix is blended with an agitator fan so as to ensure proper mixing. At this stage, the blended beverage is checked for quality and specification and is processed for further production only upon receiving quality approval. The blended beverage is passed through a homogenization process through a pressure and temperature treatment so as to make the beverage free of bacteria and microorganisms as well as achieve consistent quality of the beverage.

Stage II – Filing and Packaging

- ▶ **Tetra pak packaging:** The homogenized beverage is passed on to a plate heat exchanger for pasteurization and then to a tubular heat exchanger for sterilization through an aseptic filing process. Thereafter, the aseptically processed beverage is transferred to aseptic fill and seal machines, which fills them into sterilized tetra pak packaging materials. In case of 200 ml packaging, the packages come through a conveyor belt inscribing batch no. and expiry date and pass through a straw applicator where they are laddered with drinking straw and are then subsequently packed into cases. In case of 100 ml packaging, the straws are kept loosely bundled with the packaging.
- ▶ **PET bottle packaging:** The homogenized beverage is passed on to a plate heat exchanger for pasteurization and then to a tubular heat exchanger for sterilization through an aseptic filing process. Thereafter, the beverage is transferred to a rinse, fill and seal machine at a high temperature and the heated beverage is transferred to PET bottles and sealed with plastic caps. Hot filled PET bottles are passed through a cooling tunnel and thereafter is passed on to a sleeve applicator machine, which applies the product label. Finally, the PET bottles are passed through a shrink tunnel which shrinks the product label on the bottles, and are then packed for dispatching.

Infrastructure availability/ connectivity

Logistics & connectivity



Rail

- ▶ Savli has access to broad gauge railway network from the following railway stations:
 - ▶ Vadodara railway station: 17 Km
 - ▶ Ahmedabad railway station: 110 Km



Road

- ▶ Connected to National Highway 8 (NH 8) and National Expressway 1 (NE 1) through 4 lane State Highway No 87
- ▶ SH 158 connects Savli to Vadodara.



Air

- ▶ Ahmedabad international airport: 110 Km.
- ▶ Vadodara domestic airport: ~14 Km.



Port

- ▶ Savli (Vadodara) is connected to the following ports:
 - ▶ Dahej – 150 Km
 - ▶ Kandla – 400 Km
 - ▶ Mumbai – 450 Km

Utilities



Water

- ▶ Gujarat Industrial Development Corporation (GIDC) will provide water to the proposed facility.



Power

- ▶ Electricity is supplied from an existing 132 KVA sub-station operated by Gujarat Energy Transmission Corporation (GETCO) located in the premises.



Gas

- ▶ Gujarat State Petroleum Corporation (GSPC) is the gas supplier to the site through a well established pipeline.
- ▶ The company needs to directly apply for gas to GSPC.

Leading players

Player	Fruit/Veg juice	Energy & Sports drink	Functional water
Goldwin Healthcare			
JMJ Group			
Pepsi Co			
Red Bull			
Coca Cola			
Bisleri			
Manpasand Beverages	✓		
Dabur			
Enkay Texofood Industries	✓		
Rasna	✓		
GCMMF		✓	
Parle			

✓ Manufacturing presence in Gujarat

Manufacturing presence in Gujarat

Manpasand Beverages: The company has two existing units for manufacture of fruit (Mango)-based juice in Vadodara, Gujarat.

Enkay Texofood Industries: The company's plants near Vapi in Gujarat have been producing daily 80,000 packs of 250 ml and 70,000 packs of one litre of Onjus.

Rasna: Gujarat's home-grown brand, that enjoys over 80% market share in the powdered and concentrates category, has its production facilities at three locations in Gujarat – two in Ahmedabad and one in Kalol.

GCMMF: Amul's energy drink – Stamina – leveraging the large distribution network of the dairy giant with a million plus outlets and 6,000 Amul parlours.

Manpower requirement

Manpower required would include ~120-150 permanent employees¹ including machine operators, supervisory, quality control and maintenance staff. In addition, there would be a need to selectively hire contract workers to work on the production line based on production requirements, from time to time.

Suppliers of raw material

Raw material	State	Supplier
Fruit pulp and juice concentrate	Mango pulp – Andhra Pradesh, Karnataka Juice concentrates - Maharashtra	There are usually no long term contracts for sourcing fruit pulp and juice concentrates. Order is placed depending on production requirements at negotiated prices.
Sugar	Gujarat, Uttar Pradesh	No long term contracts
Packaging Material	Gujarat, Uttar Pradesh	Tetra Pak India Private Limited
Water and other consumables	Gujarat	GIDC

Machinery requirement

Following is the list of common machines and equipment, required for fruit juice production

▶ Intake equipment and bins	▶ Inspection, washing, and sizing equipment
▶ Rasper	▶ Pasteurizer
▶ Finisher	▶ Cooling machine
▶ Filling and sealing machine	▶ Boiler
▶ Labeller	▶ Laboratory Equipment
▶ Vessels	▶ Centrifuge
▶ Conveying unit	▶ Juice extractor

Key considerations

- ▶ Low packaging costs in order to remain competitive
- ▶ Raw material
 - ▶ Uninterrupted and consistent raw material supply
 - ▶ Price fluctuation of raw material (In case of fruit and vegetable – based beverages – prices tend to fluctuate depending on monsoon conditions)
- ▶ Reduction in Start-up and Operating Wastages

Project structure

Project is likely to be a private investment by:

- ▶ an existing Food and Beverage company in pursuit of expanding product portfolio
- ▶ new entrant/s in the industry
- ▶ foreign investor/s looking to enter Food and Beverage or Juices industry

Cost of setting-up a health drinks manufacturing plant (fruit juice) in Savli, Vadodara is approximately INR1400 – 1600 million.

Project capacity: 50,000 boxes per day. Average capacity of a box which contains 24-27 bottles is around 9 litres. Total capacity – 450,000 litres.

Project cost (Estimates - 2016)

Project components & specifications	Cost (INR million)
Fixed assets	
Land (Area: 16200 sq. meters) Rate: (INR1,400 per sq. mtr.)	22
Site development expenses	9.2
Building and civil works	281.6
Plant and machinery <ul style="list-style-type: none"> ▶ For PET bottles production line ▶ For Tetra pak production line ▶ Common (for PET bottle and Tetra pack production line) ▶ For carbonated fruits drink production line ▶ Preoperative expenses 	1068.8
Miscellaneous fixed assets (furniture, computer equipment and vehicles)	43.8
Contingency expenses	29.9
Total Project cost	1455.3

Cost of raw material

Raw material required for juice-based manufacturing unit constitutes ~60% of revenues.

Key components	Cost as a % of total cost of raw materials
Fruit pulp and juice concentrate	15%
Sugar	21%
Packaging material	39%

Approvals & Incentives



Approvals

Setting up and Environmental approvals	Authority
License under Food Safety and Standards Act 2006 for facility at GIDC, Vadodara	Designated Officer, Food Safety and Standards Authority of India, Western Region, Mumbai
<ul style="list-style-type: none"> ▶ Consolidated consent and authorization under Water (Prevention and Control of Pollution) Act, 1974 and rules thereunder ▶ Air (Prevention and Control of Pollution) Act 1981 and rules thereunder ▶ Hazardous Wastes (Management and Handling) Rules, 1989 	Environmental Engineer, Gujarat Pollution Control Board, Gandhinagar, Gujarat
Application for factory licence for the unit	Joint Director, Industrial Safety & Health, Vadodara
Tax and other approvals	Authority
Importer Exporter Code	The Foreign Trade Development Officer, Vadodara
Certificate of registration with the Central Excise Department for Service Tax Registration as per Finance Act, 1994 r/w Service Tax Rules, 1994.	Superintendent, Central Excise, Customs and Service Tax, STU-I, Div.-I, Vadodara
Central excise registration certificate for the unit	Assistant Commissioner of Central Excise, Central Excise and Customs Dn-I, Vadodara-I
Certificate of registration under Central Sales Tax Act, 1956 for the state of Gujarat.	Department of Commercial Tax, Vadodara, Gujarat
Certificate of registration under Gujarat Value Added Tax Act, 2003 for the state of Gujarat.	Commercial Tax Department, Government of Gujarat
Labor related approvals	Authority
Certificate of registration under Employees' Provident Funds and Miscellaneous Provisions Act, 1952 and schemes framed thereunder	Assistant PF Commissioner, Vadodara
Intellectual property related approvals	Authority
Certificate of registration of trademark "product name"	Trade Marks Registry, Ahmedabad

Government incentives from Government of India

Following are the key incentives provided to the proposed juice manufacturing plant:

▶ **Special Tax Benefits:**

- ▶ Entitled to claim deduction under Section 80 (IB) of the IT Act.
- ▶ Entitled to claim deductions of 100% for the first five years and 30% for the next five years.

- ▶ **Excise duty** on machinery for the manufacture of fruit juices or similar beverages has been reduced from 10% to 6% (July 2014)

- ▶ **NABARD Loan for Food Processing Industry:** In the 2015 Budget, the Finance Minister had announced the setting up of an INR2000 crore fund in NABARD for providing loans to entrepreneurs setting up food processing businesses in designated food parks. Beverages, non-alcoholic drinks, energy drinks, carbonated drinks, packaged drinking water, soft drinks are Activities Eligible Under the Scheme.

- ▶ In order to promote food processing industry, the Government has given following concessions in **Central Excise Duty** from time to time -
 - ▶ Nil excise duty in milk, milk products.
 - ▶ Soya Milk Drinks, Flavoured Milk of Animal origin also carry a duty of 2% without CENVAT or 6% with CENVAT.

Incentives/ Initiatives from Government of Gujarat

Gujarat Comprehensive Agro Business Policy – 2016 - 2021

- ▶ Capital Subsidy on investment to agro and food processing industries
- ▶ Assistance of Back Ended Interest Subsidy on the Term Loan for Agro and Food Processing Units
- ▶ Freight Subsidy will be available to Micro, Small and Medium Enterprises (MSME)
- ▶ Assistance in Sample Testing
- ▶ Assistance for 'Quality Certification Mark'
- ▶ Financial Assistance for Skill Enhancement
- ▶ Reimbursement of VAT and Sales Tax
- ▶ Encouragement in Electricity Rate and Duty
- ▶ Refund on Registration Fee and Stamp Duty

APEDA – Agricultural & Processed Food Products Export Development Authority

<http://apeda.gov.in/apedawebsite/>

Food Safety and Standards Authority of India

<http://www.fssai.gov.in/>

Gujarat Pollution Control Board

<http://gpcb.gov.in/>

Director Industrial Safety & Health

<https://dish.gujarat.gov.in/>

Agriculture and Co-operation Department

www.agri.gujarat.gov.in/index.htm

Gujarat Industrial Development Corporation

www.gidc.gov.in/

Industries Commissionerate

www.ic.gujarat.gov.in

This project profile is based on preliminary study to facilitate prospective entrepreneurs to assess a prima facie scope. It is, however, advisable to get a detailed feasibility study prepared before taking a final investment decision.

For further details:

iNDEXTb
INDUSTRIAL EXTENSION BUREAU
(A GOVT. OF GUJARAT ORGANISATION)
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