

## 3.0 Market Analysis

Mineral water consumption has grown exponentially over the past ten to fifteen years. This growth is due to the efforts of many corporations to promote the need to drink "healthy" mineral water rather than packaged drinking water. Across the globe many Multinational companies are raking in billions of dollars with very little effort. Now, due to the increase in awareness brought about by advertising, consumers have started differentiating between mineral water and packaged drinking water and are ready to pay the higher prices mineral water commands over ordinary packaged drinking water. Thus, "all bottled water are same" concept in India and other Asian countries is going away to establish clear cut market segments of packaged drinking water, spring water, mineral water or carbonated water. Each sector will serve a different category of customers.

Mineral water is somewhat less likely to be found in developing countries, while packaged drinking water is available in huge quantity. Packaged drinking water, which is nothing but treated tap water, is the largest segment of the bottled water market and includes brands such as Parle's Bisleri, Coca-Cola's Kinley and PepsiCo's Aquafina. They are priced in the range of Rs. 10 - Rs. 12 a litre in India.

With a clear distinction between packaged drinking water and mineral water now established, preference for mineral water over ordinary packaged drinking water will become more pronounced. The unique characteristics of mineral water including its health benefits, have literally created its own culture in developed nations. These factors will fuel double-digit growth rate in coming years.

Premium natural mineral water brands in the world market are Masafi, Evian, San Pellegrino, Nestle Perrier, and Hildon, which are priced between US \$ 3 to US \$ 4 a litre. Natural mineral water brands such as, Himalayan and Catch, are priced around Rs.20 to Rs.25 a litre in India, which is the largest market in the neighborhood of Bhutan.

### 3.1 Market Scenario – World (Statistics for top consuming countries)

About 75% of mineral water originates from protected sources such as underground aquifers and springs. Western and European consumers believe that natural mineral waters have medicinal or other health properties. Thus, the long term demand supply positions will be more market and segment driven with brand and segments playing a bigger role in consumer's choice of water. The other factors such as the health effect of specific minerals, place of origin of water, and the brand perception attached with its purity will play major roles in consumer choices.

The mineral water market is increasing at a compound average growth rate of 10% in the world. The biggest markets for mineral water were, in the year 2005, worth US \$ \$9.8 billion in the United States, US \$ 7.4 billion in Germany and US \$ 3.4 billion in Italy.

World mineral water market structure:

Year	Value ( US \$ Billion )	Volume ( Billion Litres )
2005	58.00	120.2
2006	63.80	132.22
2007 (Projected)	73.37	145.44
2008 (Projected)	84.38	159.99
2009 (Projected)	97.03	175.98
2010 (Projected)	111.59	193.58
Growth per year	10%	12.32%

Table 3.1: World Mineral Water Market Structure Projections

Mineral water product categories in the world:

- **Middle category products:**  
It is peculiar to the widest range of mineral water, with wide differences in consumer prices within this category. Most of the domestic branded products belong to this category.
- **Premium category products:**  
The international mineral water brands are the most expensive, their reputation is the greatest and their appearance is high standard (Evian, Perrier and Vittel).

Mineral water is sold globally in bottles of 200 ml to 1000 ml. Distributing small bottles of water is much easier than distributing large bulk storages of water. Further, large water storage containers are more liable to contamination and are not recommended in the Standards.

The main brands available in different countries (by numbers) are given in the following table:

S.No.	Country	No.of Brands	S.No.	Country	No.of Brands
1	USA	175	11	Nepal	5
2	United Kingdom	152	12	Sri Lanka	2
3	Russia	43	13	New Zealand	18
4	South Africa	46	14	Spain	168
5	Canada	87	15	Norway	11
6	Australia	52	16	Poland	55
7	Germany	489	17	Algeria	10
8	China	64	18	Bulgaria	12
9	India	36	19	Romania	22
10	Pakistan	16	20	Indonesia	12

Table 3.2: Main Country-wise Mineral Water Brands Availability

### 3.1.1 Global Bottled Water Market

Leading Countries' Consumption and Compound Annual Growth Rates (1999 – 2004)				
Rank 2004	Countries	Millions of Gallons		CAGR
		1999	2004	1999-2004
1	United States	4,579.90	6,806.70	8.20%
2	Mexico	3,056.90	4,668.30	8.80%
3	China	1,217.00	3,140.10	20.90%
4	Brazil	1,493.80	3,062.00	15.40%
5	Italy	2,356.10	2,814.40	3.60%
6	Germany	2,194.60	2,722.60	4.40%
7	France	1,834.10	2,257.30	4.20%
8	Indonesia	907.10	1,943.50	16.50%
9	Spain	1,076.40	1,453.50	6.20%
10	India	444.00	1,353.30	25.0%
<b>Top 10 Subtotal</b>		<b>19,159.80</b>	<b>30,221.60</b>	<b>9.50%</b>
<b>All Others</b>		<b>6,833.50</b>	<b>10,535.00</b>	<b>9.00%</b>
<b>Total</b>		<b>25,993.30</b>	<b>40,756.60</b>	<b>9.40%</b>

Table 3.3: Global Bottled Water Market

### 3.1.2 Mineral Water Market in Germany

The per capita consumption of mineral water in Germany has risen constantly over the last couple of years, but the saturation of the market is evident, from the slow rate of increase.

S. No.	Year	Consumption (Million litres per year )
1	1970	12.50
2	1980	39.60
3	1990	82.70
4	1995	91.90
5	2000	98.60
6	2005	99.10
7	2006	101.80

Table 3.4: Per- capita Consumption of Mineral Water (million litres/year) - Germany

S. No.	Year	Total Market Volume (Million litres per year )
1	1990	6930.10
2	2000	10153.00
3	2005	10345.00
4	2006	10410.00
5	2007	10589.00
6	2008	10670.00
7	2009	10880.00
8	2010	10985.00

Table 3.5: Total Market Volume (mio litres) - Germany

### 3.1.3 Mineral Water Market in Taiwan

Sale of Bottled Drinking Water in Taiwan:

S. No.	Year	Sale of Bottled Drinking Water (Million litres per year)	
		Sparkling	Still
1	1994	27	118
2	1997	29.80	139.0
3	2000	33.50	163.50
4	2005	37.80	188

Table 3.6: Sale of Bottled Water in Taiwan  
(Source: Euromonitor, Soft Drinks in South East Asia, October 2006 (Units mio/l))

Sale of Mineral Water in Taiwan:

S. No.	Year	Sale of Bottled Mineral Water (Million USD)	
		Sparkling	Still
1	1994	101.80	99.50
2	1997	117.20	122.30
3	2000	130.10	142.00
4	2005	147.70	164.30

Table 3.7: Sale of Mineral Water in Taiwan (Million USD)  
(Source: Euromonitor, Soft Drinks in South East Asia, October 2006)

### 3.1.4 Mineral Water Market in Switzerland

The per capita consumption of mineral water in Switzerland has risen constantly over the last couple of years.

S. No.	Year	Consumption (Million litres per year)
1	1970	8.50
2	1980	23.60
3	1990	65.20
4	1995	97.30
5	2000	103.10

Table 3.8: Per- capita Consumption of Mineral Water (in Switzerland)  
(Source: Verband Schweizerischer Mineralquellen und Soft Drink-Produzenten (SMS))

### 3.1.5 Mineral Water Market in the USA

S. No.	Year	Non-sparkling	Sparkling	Imports	Total Consumption (Million litres per year)
1	2005	6129.00	142.00	170.20	6441.20
2	2000	4349.00	146.00	151.10	4646.10
3	1995	2906.20	164.20	97.10	3167.50
4	1990	1987.70	176.00	73.90	2237.60

Table 3.9: Production and Consumption of Mineral Waters (in the U.S.A.)  
(Source: Beverage Marketing Corporation USA)

### 3.1.6 Mineral Water Market in Japan

The mineral water market of Japan grew 3.5 times in the 10-year period up to 2005. The market expanded 9.3% to 14.6 billion litres, of which foreign products accounted for 22.6% in 2005. Shipments amounted to 100.4 billion yen (about US \$ 880.7 million), while imports on a CIF basis totaled 22.3 billion yen (US \$ 195.5 million).

S. No.	Year	Consumption (Million litres per year)	
		Imported	Domestic
1	2001	110.00	95.00
2	2002	105.00	90.00
3	2003	125.00	105.00
4	2004	130.00	110.00
5	2005	145.00	115.00

Table 3.10: Consumption of Mineral Water in Japan  
(Source: Mineral Water Association of Japan (The import value figure is from the Ministry of Finance))

Mineral water is now an indispensable commodity in Japan, where the mineral water consumption per person compares with other countries, as follows:

S. No.	Country	Mineral Water Consumption 2005 (litres per person )
1	Japan	11.50
2	USA	85.50
3	Germany	103.80
4	France	141.60
5	Italy	149.70

Table 3.11: Mineral Water Consumption per person -2005  
(Source: Mineral Water Association of Japan)

S. No.	Product Name	Country of Origin
1	Minami-arupusu-no-tennensui	Japan
2	Mori-no-mizu-dayori	Japan
3	Roko-no-oishii-mizu	Japan
4	Volvic	France
5	Evian	France
6	Arukari-ion-no-mizu	Japan
7	Crystal Geyser	U.S.A
8	Konkon-wakimizu	Japan
9	Nihon-meizan-no-tennensui	Japan
10	Vittel	Switzerland

Table 3.12: The Top Ten Mineral Water Brands in Japan

France is the leading mineral water exporter to Japan. The share held by France for imported mineral water reached an overwhelming 88.6% in 2006. France accounts for such a high share because it is a home for the largest number of brands familiar in Japan. Other significant mineral water exporters to Japan are the United States, Belgium and Canada.

Consumers seek not only safety and reliability but also fashion appeal in imported mineral water, hence their preference for the big names appears unlikely to weaken any time soon. Any importer wishing to enter the market must understand that it will take time before it will turn a profit, considering the high rising of cost of shipping and advertising.

### 3.1.7 Mineral Water Market in Romania

Romania is one of the richest countries in hydro-mineral resources, and has 60% of Europe's mineral water resources. Its resources distinguish themselves by having large flows and remarkable quality. The Romanian mineral water market is very dynamic and constantly growing. 2000 was the year of the best natural mineral water production for the last 10 years (558 million litres), 22% more than in 1998 and 166% more than in 1990. For the period 2005 to 2010, the forecasted growth is 46%, markedly higher than for the period 2001 to 2005.

The potential market for mineral water as an alimentary product consists of Romania's entire population and also of the foreign tourists who visit/transit the country. As a result, the approximate number of potential customers is 23 million persons.

### 3.1.8 Mineral Water Market in Indonesia

Indonesian mineral water began to enter the export market in 1987, when the domestic demand for this kind of water became saturated and price competition started to get increasingly tougher. To sustain production, a number of mineral water companies began to seek opportunities to export their mineral water. In the following years, the export of Indonesian mineral water continued to increase at impressive rates @ 18%, both in volume and in value.



Fig. 1: Mineral Water Lifestyle World Wide

### 3.2 Market Scenario - India

India has one of the biggest and most attractive water markets in the world. In 2004, it was the tenth largest bottled water consumer in the world with a turnover of Rs.10 billion (Rs.1,000 crores). Between 1999 and 2004, the Indian bottled water market grew at a compound annual growth rate (CAGR) of 25 percent – (highest in the world).

Today it is one of India's fastest growing industrial sectors. Many multi-national companies (MNCs) are looking forward to India as the next big market with a lot of potential and growth possibility. Several MNCs are waiting in the wings to expand a \$ 287 billion global water market into India.

Not too long ago in the pre-liberalization era, the mineral water market in India was a miniscule market catering to only the upper strata of society, travelers and conference meetings in five star hotels. But over the last ten years, it has witnessed tremendous growth, and now caters to the middle strata as well as the traveling public.

With over a thousand bottled water producers, there are more than 200 brands, nearly 80 per cent of which are local, meeting local demands. Despite the large number of small producers, the industry is dominated by big players. In the forefront are Parle (Bisleri), Coca-Cola (Kinley), PepsiCo (Aquafina), Mohan Meakins, SKN Breweries (Yes), G.C. Beverage (Natural Fresh) and D.S. Foods (Catch) etc. Parle was the first major Indian company to enter the bottled water market in the country when it introduced Bisleri in India, 25 years ago.

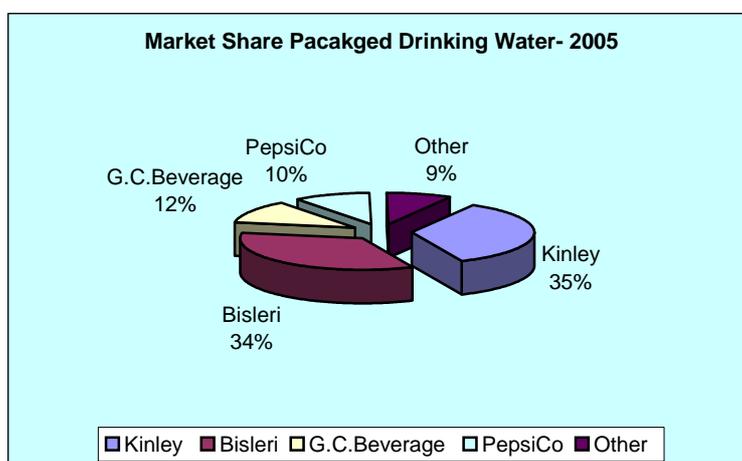


Fig .2: Market Share Packaged Drinking Water-2005

Most of the small-scale producers sell non-branded products and serve small markets. In fact, making of bottled water is coming up as a cottage industry in the country. Leave alone the metrocities, where a bottled-water manufacturer can be found even in a one-room shop, in every medium and small city and even some prosperous rural areas there are bottled water manufacturers. The top players in the packaged drinking water industry are as follows:

- Anqet Mineral Water
- Aqua Plus Mineral Water
- Bailey Mineral Water
- Bisleri
- Brilliant Wholesome Water
- Dasani Mineral Water
- D.S. Foods (Catch)
- Evian Mineral Water
- Ganga Mineral Water
- Gangotri Pure Ganga Jal
- GEO Mineral Water
- Godrej Pure Aqua
- Golden Eagle Pure Water
- Golden Valley Mineral Water
- H<sub>2</sub>O Mineral Water
- Himalayan Natural Water
- Kinley Mineral Water
- Leo Springz Mineral Water
- Madhu Spa Mineral Water
- Mount Everest Mineral Water Ltd.
- Nestle Mineral Water
- Propel Water
- Purita Mineral Water
- Rim Zim Mineral Water
- Sanjeevani Mineral Water
- Sip Mineral Water
- Trupathi Mineral Aqua-fina Water
- Yes Mineral Water

Premium Natural mineral water brands such as Evian, San Pellegrino and Perrier are also available in Indian market with their own proclaimed differentiation, priced at between Rs. 80 to Rs. 110. Indian natural mineral water such as, Himalayan and Catch are very popular and are priced around Rs. 20 to Rs. 25 a litre.

"HIMALAYAN (Natural mineral water) " is the only internationally accepted quality natural mineral water which is, graded equivalent to "Evian" and "Vittel" from France, and is regularly exported to USA where it is sold in "MARSH" supermarkets and pharmacies.

The demand of natural mineral water in 2005-06 was 180 million litres per year and is increasing at the rate of 12 % per year.

Himalayan and Catch brands of mineral water are supplying on average 9 million litres per year (7.5 lakh litres per month) with their full production capacity. Approximately 1% to 1.5% of the demand is met by import from other countries – (mostly from Europe). New mineral water brands are being launched and existing industries are expanding their production capacity, but the significant demand supply gap in the market is likely to remain.

The huge Indian market has few indigenous suppliers of natural mineral water who are covering barely 5% of the demand. The official statistics of mineral water import in India was Rs. 66.00 million in 2005-06.

HS Code	Commodity	2005-2006	Share Percent ( % )	2006-2007 (April-Jun)
220110	Mineral Waters & Aerated Waters	1,609.22	0.0024	338.86
<b>India's Total Import (Rs. Lacs)</b>		<b>6,60,40,888.00</b>		<b>1,86,13,496.00</b>

Table 3.13: Import of Mineral Water in India as on 01.04.2007  
(Source: Department of Commerce, Export Import Data Bank)

Corporate control over packaged drinking water and its distribution in India is growing rapidly. As globalization opens up opportunities for private players, investing in mineral water makes good business sense for corporations. Around 35 brands are battling over the packaged drinking water market and for that they are hard selling their products in every possible way by offering better margins to dealers, aggressive advertising, catchy slogans etc.

According to industry estimates, the main consumers of mineral water are not only the upper class but also middle class families. Tourists and travelers are currently dominating the 'rural' bottled water market, as packaged water is now beginning to be seen as an essential appendage to any form of travel. Consumers have begun to equate clean water with good health, so the task is now to make them aware of natural mineral water's positive effect on their health. Brand awareness is also growing and the other thing is to leverage the brand name to generate a preference.

The mineral water demand and supply trend in India is shown in the following table:

Year	Demand (Million Litre)	Supply				Total		Demand Supply Gap	
		Domestic Supply		Import		%	Million litre per year	%	Million litre per year
		%	Million litre per year	%	Million litre per year				
2005-06	180.00	5.00	9	1.00	1.80	6.00	10.80	94.00	169.20
2006-07	201.60	4.96	10	1.50	3.02	6.46	13.02	93.54	188.58
2007-08	225.79	5.31	12	2.00	4.52	7.31	16.52	92.69	209.28
2008-09	252.89	5.14	13	2.00	5.06	7.14	18.06	92.86	234.83
2009-10	283.23	5.30	15	2.50	7.08	7.80	22.08	92.20	261.15
2010-11	317.22	5.04	16	2.50	7.93	7.54	23.93	92.46	293.29

Table 3.14: Mineral Water Demand & Supply Trend Projections in India

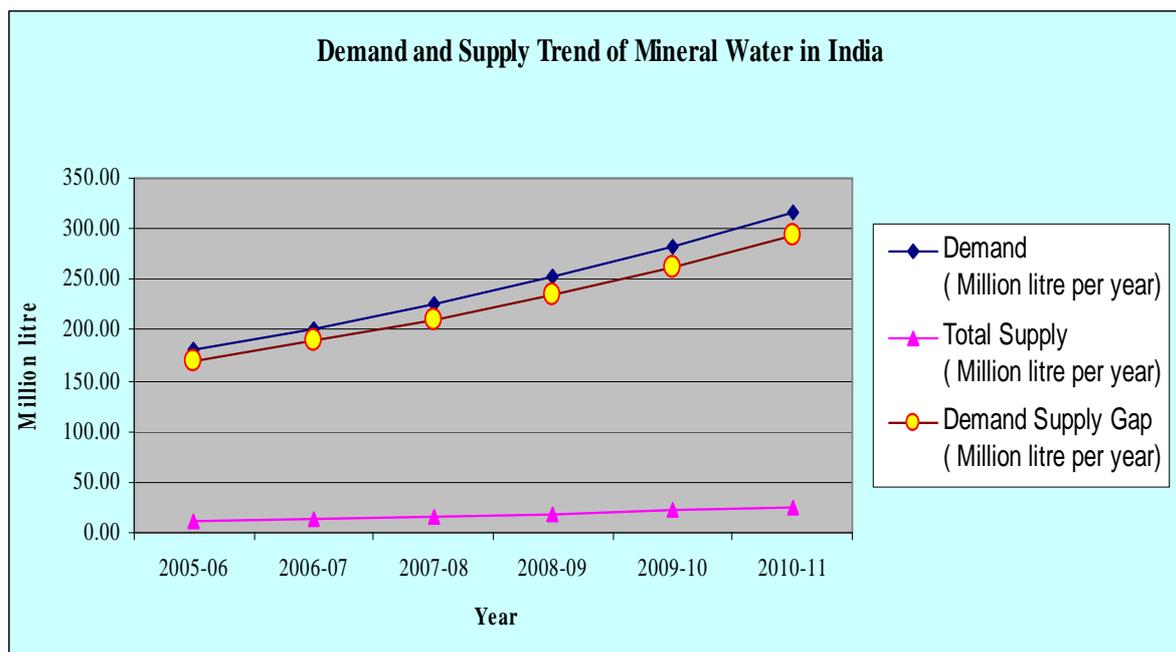


Fig.3: Demand & Supply Trend of Mineral Water India

Apart from home and commercial consumption of mineral water, the Indian railways, roadways and airlines represent the other potential market for it. The one litre bottle is a fast mover among the traveling population. It accounts for 5% of mineral water market share.

Thus, there is a ready market for mineral water in India. With its introduction and proper marketing, the “Paro” brand mineral water will find increasing acceptance in the Indian market, which can absorb its entire production.

### 3.3 Market Scenario -Bangladesh

One of the important market for Bhutan Mineral Water is neighboring Bangladesh. Sales of bottled water in the country are rising by 20 percent a year mainly due to consumers' lack of confidence in public water service facilities.

The major brands of bottled water are Super Fresh and Mum, which control over 60 percent of the market followed by Jibon, Acme, Pran and Spa. The Dhaka Water Supply and Sewerage Authority (WASA) launched its bottled water under the brand name 'Shanti' in 2005. It is available in 500 ml, 1 liter, 2 liter PET bottles and 5 litre and 20 litre PET Jars.

ACI Limited has recently launched mineral water in the brand name of "Pure" in 600ml, 1500ml and 5 litre jar. This drinking water is purified through world-class technology like high pressure reverse osmosis, ultra violet ray-treatment, ozonisation and micro filtration.

The local market size is estimated in the range of Tk.70- 100 crore, out of which mineral water constitute 10% of the total market volumes.

A 600 ml packaged drinking water bottle that sells at Tk.10 in retail, costs between Tk.6.25 and Tk.7.90 in wholesale. The one litre bottle sales at Tk.18-20, costs between Tk.12.00 to Tk.15.00

The only local mineral water “Pure” is available in 600ml, 1.5 litre and 5 liter, is selling at Tk.24.00, Tk.52 and Tk.155 respectively, which is equivalent to Nu.14.15 for 600 ml, Nu.30.75 for 1.5 litre and Nu.92 for 5 litre.

Mineral water from Bhutan in 500ml and 1000ml bottles can be priced at Tk.22 and Tk.40 respectively, which translates a price of approx. Nu.12.00 per litre FOB at Bhutan + transportation & import duty in Bangladesh and distribution expenses as given below:

- FOB Price at Bhutan Nu.12.00 or Tk.20.34
- Transportation cost by road Nu.2.00 or Tk.3.40
- Import duty @5% Nu.0.70 or Tk.1.19
- Add CIF cost @2% Nu.0.30 or Tk.0.50
- The arrival cost at importer: Tk.25.43
- Add Margin @25% for Importer & Distributor: Tk.6.36
- Add retailers margin @25% Tk.7.95
- The retail selling price: Tk.39.74

Note - The currency exchange rate considered is 1Nu. = 1.70 Tk.(Taka).

Thus, Mineral water from Bhutan can easily find the market in Bangladesh due to ease of transportation and cost competitiveness.

### 3.4 Market Scenario -Thailand

In Thailand, total market value of the bottled and mineral water segment is around US\$ 250 million. Around 90 percent of the market value or US\$ 225 million belongs to bottled drinking water and the remaining US\$ 25 million is mineral water.

The numerous bottled water companies competing in this market are extremely different. There are three major categories of bottled-water companies:

- Smaller or larger firms created to market one special brand of bottled water,
- Soft drink companies that have entered the growing bottled water market, and
- Companies providing tap water with extensive know-how in water purification.

Major players in the market are Singha of Boon Rawd Brewery, Crystal of Serm Suk, Namthip of Thai Pure, Siam of TTC Siam Drinking Water, Sprinkle of M Water, Minere and Neptune of Nestle, and Aura of Dharaniphathat. Imports previously composed the majority of mineral water available in the market until the late 1990's when local production decimated a once sizeable import market.

Singha is the market leader with around 60 percent market share; followed by Crystal at around eight percent and Namthip at five percent. Siam drinking water claims fourth position in the market with a share of around five percent or US\$ 11.3 million. Remaining market shares belong to other small local players including vending machine companies that offer an alternative way for consumers to save on the cost of drinking water by selling refills at conveniently located self-service vending machines.

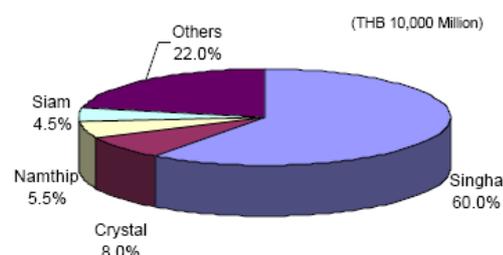


Fig 4: Thailand Drinking Water Market 2006

Bottled water has become a significant item in daily life due to the changing lifestyles of Thai consumers with increasing health perceptions. Sealed and well-packaged bottled water has become an essential item for many of these health conscious consumers.

Thai consumers want safe and hygienic bottled drinking water. Consumers buy bottled water because it is perceived as a healthy alternative to other beverages. Bottled water with good packaging will increase in popularity. Increasing numbers of convenience stores and consumers' health consciousness will drive up sales of bottled water with expected growth around 7-9 percent during 2008-2010.

The Mineral water from Bhutan can easily find ready local market in Thailand.

The mineral water segment, which is at present around 10% of the total bottled water segment in the country is steadily rising as consumers prefer to buy mineral water compared to bottled water in most of the retail stores. The cost of Mineral water from Bhutan will be cheaper compared to other imported mineral water brands from Europe or elsewhere.

The present retail price of mineral water ranges from THB32 to THB100.00 per litre depending on the brand. Thus, Bhutan Mineral Water can be priced competitively at THB32 to THB35 getting a price realization of Nu.20.00 to Nu.22.00 (exchange value considered is 1 THB= 1.28 Nu.) per litre at home excluding the transportation cost, import duty and local distribution expenses.

The importer and retailers margins are explained below for one litre bottle:

- FOB Price at Bhutan Nu.20.00 or THB15.60
- Transportation cost by road and sea Nu.5.00 or THB3.90
- Import duty @4% Nu.1.00 or THB0.78
- Add CIF cost @2% Nu.0.50 or THB0.40
- The arrival cost at importer : THB20.68
- Add Margin @25% for Importer & Distributor: THB5.20
- Add retailers margin @25% THB6.47
- The retail selling price: THB32.35

Note-The currency exchange rate considered is 1Nu. = 0.78 THB
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Thailand could be the most attractive and easy export market for Bhutan Mineral water.

There are several ways for Bhutanese Mineral water suppliers to enter the Thai market. Probably the most effective way is to appoint a reputable and experienced local importer or distributor. Local firms will have a good understanding of the market and know how to make direct contact with importers, end users, government officials and other key contacts. A good local importer/distributor can also provide valuable support in arranging meetings and promotional events, translating technical information, placing advertisements in local trade publications and other marketing and sales activities.

### 3.5 Market Scenario - Bhutan

The local demand for bottled spring water is partly served by the existing company, Bhutan Agro Industries Limited, Thimphu, with its flagship brand “Mountain Spring Water”. About 90 percent of the product is marketed in Bhutan itself, while the rest is marketed to India and Bangladesh and finds a good response, because it is the only water available to these markets in the form of natural water. Locally bottled water users feel the difference while drinking “Mountain Spring Water” from the Himalayan mountain range, harvested at over 9,000 feet in a pristine environment.

The sale of bottled water (Mountain Spring Water) hit a record of 2,10,000 bottles in the month of May 2007 alone compared with 1,40,000 bottles sold in May 2006. On an average the company was selling 1,50,000 bottles of bottled water in a month so far this year. Last year, for the first five months the sale of bottled water was about 5,00,000 bottles. This year it had increased to 7,00,000 bottles.

The spread of its market outside Bhutan is mostly confined to the border areas in India and Bangladesh. An estimated 30,000 litres of packaged drinking water is imported from India, in the border regions.

In the short term, the mineral water from Bhutan has to compete with packaged drinking water in neighbouring countries like India, which has a volume market. The price has to be very competitive and almost at parity or little higher than the local brands for positioning. The consumers who taste this Natural Mineral Water will become habituated with its good taste and will start recognizing and demanding the brand.

In the medium term, with recognition of its quality and purity, the positioning of Eusuna water will be in the premium category.

### 3.6 Potential in the Domestic & Export (Target) Markets

Market analysis of major world markets reveals that ‘Made in Bhutan’ Mineral water can find ready markets in Japan, South Korea, Taiwan, Thailand, Indonesia, Bangladesh and India. The Middle East is also a promising market provided the logistics of transportation is established.

Awareness is increasing all over the world for the beneficial effects of mineral water. Though various standards do not permit display of any medical advantage of drinking natural mineral water, its beneficial effects are actually experienced by people and they are willingly switching over to drinking more mineral water than ever before. There is a 208% increase reported in bottled water consumption in the USA, which imports a huge volume of water from Europe (viz. Perrier, Schweppes, Tyrol etc.).

There is huge market in five star hotels, airlines, upper class stores and the modern retail chains, which are coming in India. The positioning of this water will be in between the locally produced Mineral water and the imported brands (mostly from Europe, which are very costly.) Thus, the Bhutan water will be positioned above the local Indian mineral water brands and below the European imported brands, as an initial penetration strategy. The first step in the equation of demand and supply for Bhutan before and after the start of this project is shown below:

**a. Packaged Drinking Water Certified to IS 14543:2004**

Existing Volume in litres/month			After Project Implementation (litres/month)			
Mountain Spring Water	Import from India (approx.)	Total Availability	Mountain Spring	Import from India	Paro Mineral Water	Total Availability
70,000	30,000	100,000	70,000	10,000	20,000	100,000

Table 3.15: Packaged Drinking Water Certified to IS: 14543:2004  
(Note: Mountain Spring Water does not bear any certification.)

**b. Packaged Natural Mineral Water certified to IS 13428:2005**

Existing Volume in litres/month			After Project Implementation (litre/month)			
Produce of Bhutan	Import from India	Import from other countries	Paro Mineral Water	Import from India	Import from other countries	Paro MW available for export
Nil	No data available		10,000	Nil	Nil	570,000

Table 3.16: Packaged Natural Mineral Water Certified to IS 13428:2005

After its launch and local publicity as “Bhutan’s Premier Natural Mineral Water”, it will be ready for the export market. The next step would be the supply to Druk Air and other international airlines operating out of the Kolkata and New Delhi, so that brand awareness is generated. Being better priced than the imported water, it will also attract a new market segment of discerning consumers who would switch over from ordinary packaged drinking water to Natural Mineral Water.

The Demand Supply Gap trends in India are as follows:

Year	Demand Supply Gap Trends India (Million litres per year)
2005-06	169.20
2006-07 (Projected)	188.58
2007-08 (Projected)	209.28
2008-09 (Projected)	234.83
2009-10 (Projected)	261.15
2010-11 (Projected)	293.29

Table 3.17: Demand Supply Gap - India

**a. Projected Supply Data for Eusuna Natural Mineral Water are as Follows:**

Production Capacity: 7.20 million litre per year

Year	Production Capacity (%)	Production (million litre per year)	Expected Export to India	Domestic Consumption	Expected Export to other Countries (Excluding India)
1 <sup>st</sup>	60	4.32	3.00	0.30	1.02
2 <sup>nd</sup>	70	5.04	3.50	0.30	1.24
3 <sup>rd</sup>	80	5.76	4.00	0.35	1.41
4 <sup>th</sup>	80	5.76	4.00	0.35	1.41
5 <sup>th</sup>	80	5.76	4.00	0.35	1.41
6 <sup>th</sup>	80	5.76	4.00	0.35	1.41
7 <sup>th</sup>	80	5.76	4.00	0.35	1.41

Table 3.18: Eusuna Natural Mineral Water Production and Supply

### b. Total Mineral Water Production & Supply Trend – Bhutan

Production Capacity: 36 million litre per year

Year	Production Capacity (%)	Production (million litre per year)	Expected Export to India	Domestic Consumption	Expected Export to other Countries (Excluding India)
1 <sup>st</sup>	60	21.60	13.00	0.80	7.80
2 <sup>nd</sup>	70	25.20	13.50	0.80	10.90
3 <sup>rd</sup>	80	28.80	15.00	0.95	12.85
4 <sup>th</sup>	80	28.80	15.00	0.95	12.85
5 <sup>th</sup>	80	28.80	16.00	0.95	11.85
6 <sup>th</sup>	80	28.80	16.00	0.95	11.85
7 <sup>th</sup>	80	28.80	16.00	0.95	11.68

Table 3.19: Total Mineral Water Production & Supply – Bhutan

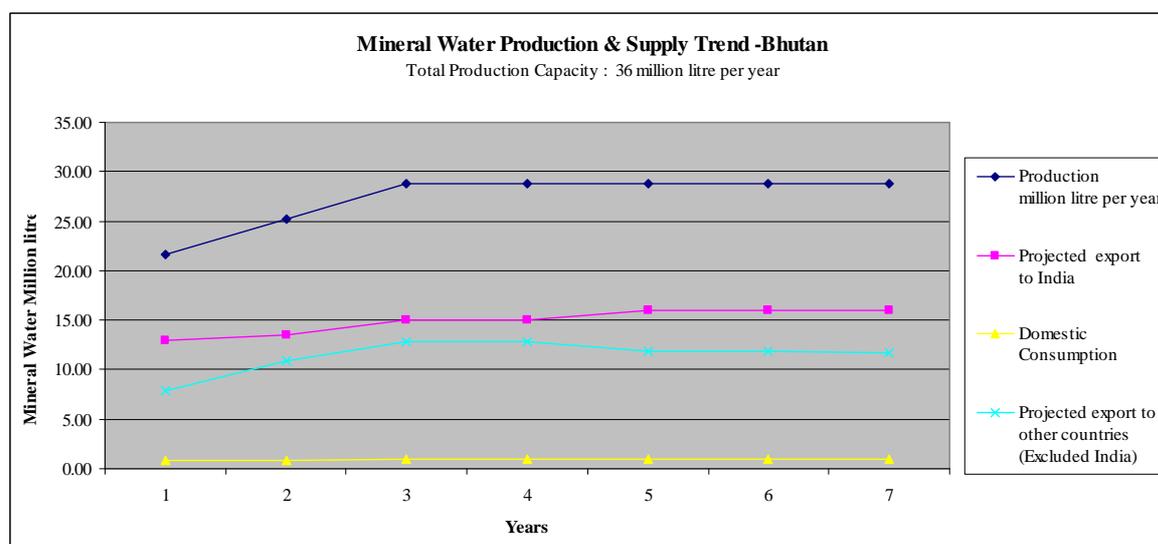


Fig.5: Projected Mineral Water Production & Supply Trend – Bhutan

In view of the increasing inflow of high spending tourists who discriminate between packaged bottled water and mineral water, the future of the project at Eusuna is assured.

### 3.7 Demand and Supply - Pricing Trends

The quality of the product, its price and its brand image are the basic issues for consumers. It often occurs that the consumer buying a product because he is satisfied with it does not change his preference even when its price increases. It is possible that his product choice is not the best and that there are other brands of mineral water more tasteful and cheaper, but his choice, once made to correspond to his needs, remains frozen.

The cost of producing one litre of packaged bottled water in India, certified to BIS standards, is given below:

S. No.	Costing Items (One Litre)	Cost (Rs.)
1	Cap Cost	0.25
2	Bottle Cost	1.25-2.25
3	Treatment Cost	0.10-0.25
4	Label Cost	0.15-0.25
5	Carton Cost	0.50
6	Transportation Cost	0.10-0.25
7	Other (tape and cases)	0.25
8	Total Cost (Excluding Labor, Marketing and Tax)	2.60-4.00
	<b>Selling Price</b>	<b>10.00-12.00</b>



Fig.6 One litre mineral water bottle

Table 3.20: Cost of Producing 1 litre Branded Bottled Drinking Water in India

The price trend will continue in the present bracket for the near future. However, when BIS regulations are enforced, only the serious players will survive in the market. In the mineral water segment, which is growing @ 25% in India, the pricing is in the range Rs.12.00 to Rs.25.00 per one litre of bottle. The imported mineral water sold in most of the five star hotels ranges between Rs.35.00 per 350 ml to Rs.125.00 per 700 ml bottle.

Estimated cost of one litre mineral water at Eusuna (Bhutan):

S. No.	Costing Items (One Litre)	Cost (Nu.)
1	PET Bottle	1.76
2	Corrugated Boxes	0.71
3	Cap Cost	0.25
4	Body Label	0.45
5	Shrink Holographic Cap Seals	0.19
6	BOPP Tape Roll	0.03
7	Consumables	0.17
8	Utilities	0.15
9	Wages & Salaries Incl. Benefits	1.00
10	Factory Overheads	0.15
11	Administrative Expenses	0.07
12	Interest & Depreciation	0.95
13	Selling & Distribution Expenses	0.67
14	Freight Cost	0.67
<b>Total Unit Cost of Production</b>		<b>7.22</b>
<b>Ex-works Price</b>		<b>9.00</b>
<b>Selling Price</b>		<b>Nu. 18/- to Nu. 20/-</b>

Table 3.21: Estimated cost of one litre mineral water - Eusuna (Bhutan)

The ex-works price worked out for a one litre “PARO” Mineral Water bottle is Nu.9.00, which can be sold in India after covering Bhutan Sales tax, Indian VAT, transportation and distribution chain costs, at Rs18/- to Rs.20/-all over the country, from North to South and East to West, at par in MRP with local Mineral Water like “Ganga” and the recently launched “Bisleri Mineral”. The big retail chains like Reliance, Spencers, Big Bazar will be tied up for volume offtake and taking advantage of the retail shelf. Thus, Paro mineral water can penetrate the Indian market and cut into the share of imported mineral water from Europe.

The prices of mineral water in selected European countries are given in the following table 3.22, against which Eusuna mineral water can be competitively priced.

### 3.8 Technological Changes and Impact on Costs and Sales

The technology selected for this project is based on the latest trends accepted worldwide. Technological changes are not envisaged in this project. However, the flow rate of the water from the source may affect the cost of the production and sales competitiveness. The PET bottles making technology is also based on the latest trends and in it is unlikely to change in near future.

S. No.	Country	Price per litre (Euros)	Price per litre (US \$)	*Price per litre (Nu.)
1	Sweden	1.63	2.31	92.15
2	Finland	1.48	2.09	83.67
3	Demark	1.33	1.88	75.19
4	UK	1.04	1.47	58.79
5	Ireland	1.03	1.46	58.23
6	Switzerland	0.76	1.08	42.97
7	Austria	0.75	1.06	42.40
8	Belgium	0.72	1.02	40.70

S. No.	Country	Price per litre (Euros)	Price per litre (US \$)	*Price per litre (Nu.)
9	Germany	0.70	0.99	39.57
10	Netherlands	0.68	0.96	38.44
11	Western Europe	0.67	0.95	37.88
12	Portugal	0.65	0.92	36.75
13	Italy	0.65	0.92	36.75
14	France	0.64	0.91	36.18
15	Spain	0.64	0.91	36.18
16	Greece	0.62	0.88	35.05
17	Others	0.60	0.85	33.92

Table 3.22: Prices of European Mineral Water in their Respective Countries

\*Price shown in Nu. for comparison in respective countries.

However, the price of the raw material of PET granules may change due to global effects and thus the cost of producing the bottle may change affecting the cost and sales. The PET bottle cost share is 24% and raw granule cost share is only 5%. Thus, changes in the raw material cost will affect only 5% of the cost of one litre mineral water bottle, and this can be easily compensated, particularly when all other bottling units will be similarly affected.

### 3.9 Special Characteristics, Quality and Standards and Target Consumer Group

There is a growing awareness about drinking water globally. In India, which has one of the biggest markets, with the bottled water industry touching Rs.1,500.00 crore marks, the distinction between ordinary bottled drinking water and mineral water was not clear till BIS came out with the IS 13428:2005 which made the distinction very clear. Nearly 95% of bottled water available was earlier being called ‘mineral water’ and sold as mineral water. With the change in the situation now, all the bottlers are now forced to change their advertisement and labeling to ‘Packaged / Bottled Drinking Water’ from ‘Mineral Water’. The consumer today is well versed on the difference between mineral water and packaged treated drinking water.

When the price differential between packaged drinking water and mineral water is not much, the educated consumer is willing to pay a little extra for the mineral water, provided it is available in the store.

### 3.10 Assessment of Tariff / Taxes and Comparative Advantages of the Project vis-à-vis Competitors (India and the Region)

In Bhutan, the Mineral water will not attract any production and/or sales tax and the raw material import from India or other countries, of PET bottles and caps, PVC labels, cartons, shrink film etc. will not be subject to import duties. There is a further advantage of Bhutan over India in terms of excise duty and electricity tariff. The only disadvantage of the project vis-a-vis India and the region is the higher transportation cost. With all the factors considered, the overall analysis reveals the overwhelming competitive advantage that ‘Paro’ water will have.

### 3.11 Method of Packaging and Mode of Transportation

The other factors such as the health effect of specific minerals, place or origin of water, packaging and brand perception attached with water purity, will play major roles in creating the demand from consumers.

Bottled water is sold in a variety of packages, pouches and glasses, 330 ml bottles, 500 ml bottles, one litre bottles and even 20 to 50 litre bulk water packs. Paro mineral water will be available in 200ml, 500ml, 1,000ml and 2,000ml bottles.

Method of packaging adopted is based upon safety of the products, their hygiene and their undamaged delivery to the end user. For this purpose it is planned to manufacture the bottles on site so that there is no question of external contamination. The materials selected for the bottle making are from the most reliable manufacturers, who comply with international standards for food grade plastics. The bottle packaging design is kept so as to withstand the rough handling and jerks during transportation over rough terrain. A factor of safety has been built into the carton construction by providing higher wall thickness.



Fig. 7: Corrugated Box for Mineral Water Packaging

To ensure greater protection in transit, cardboard cartons (five ply) have been selected for packaging 12 bottles, against the option of shrink wrapping, with due consideration being given to international standards of packaging.

For indigenous consignments dispatch by truck, simple stacking of the cartons will be done within the truck body enclosure. For Indian and other overland export markets, trucks will be routed through Phuentsholing trade route from where regular distribution channels will be used. For export to other countries, palletizing will be done. The pallets will be shrink wrapped and strapped for security. Looking to the present limitations on container movement in Bhutan, the pallet will be sent by regular truck to Phuentsholing from where containerizing will be done for ocean shipments from Kolkata and other Ports. For air shipment from Paro International airport, palletizing will be done for individual pallet loads of 100 kgs.

### 3.12 Marketing Strategy including Market Promotion and Distribution Network Strategies to Penetrate the Market

The biggest market for Paro Mineral water is going to be India and for comparison, the only brands found were ‘Catch’, ‘Himalayan’ and the recently launched ‘Bisleri Mineral’ from Parle. In India, mineral water is presently sold only in up market stores, five star hotel chains and international airlines. The shelf availability in the average grocery store or corner store is still not there even in metropolitan cities such as Delhi, Kolkata, Mumbai and Chennai. However, with the increasing economic purchasing power of the middle class in India, there is a great market for mineral water from Bhutan.

The strategy to be adopted in getting the distributors attracted to invest more in pushing Paro brand sales will focus on

- a. The higher margins which the distributor will get per bottle.
- b. The access to large and institutional markets like star hotels, the corporate world, airlines etc.
- c. Various brand promotional schemes launched during the tourist seasons.

For geographically very big markets like India, the distributor channel has to be in each metropolitan city to cover the entire Indian market. The Indian states have different VAT structure and the final MRP has to be arrived at based on the distribution cost for the target market and local VAT.

For hard currency export markets the company will meet the concerning Standardization and Proper Labeling norms first and then the product will be offered for distribution to leading importers in the respective countries.

The figure illustrates the proposed distribution channels for export markets for Bhutan:

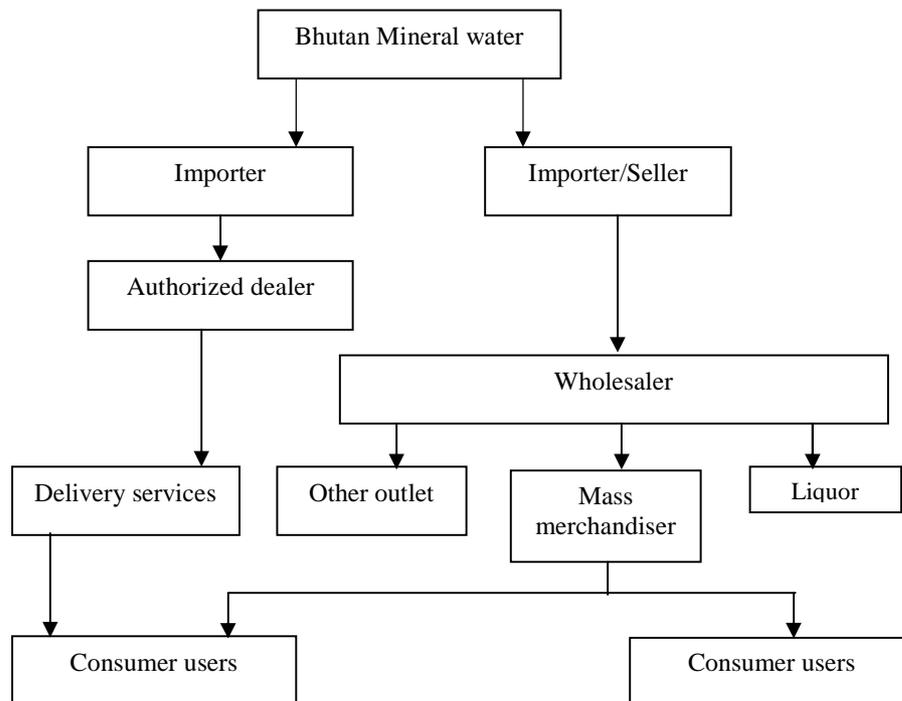


Fig. 8: Proposed Distribution Channels for Export Markets

It is suggested to adopt a two-fold strategy for establishing the brand and determining the distribution channels. For local (Bhutanese markets) existing channel of distribution will be used for expediency to reduce the time taken to establish a new market channel. These distributors are belong mostly to Phuentsholing and Thimphu, and do not have any brand preference, as their customers are not demanding specific brands, and their business dictates are to get the highest margins or incentives.

It is also proposed to have brand building in the target markets by advertising in international airlines magazines, FMCG events and other brand building exercises. Tie-ups with international retails chains such as Walmart, Carrefour, K-Mart, Costco will follow. For Indian retail markets suitable tie-ups with Reliance, Big Bazar and Spencers are proposed. “Paro” Mineral Water should follow the country specific strategy in establishing the specific markets.

### **3.13 Collaboration with Outside Firm for Marketing**

Suitable marketing tie-ups for accessing niche markets will have to be investigated as the brand is established and the plant capacity is fully sold. The idea is of progressively finding the more lucrative markets, so that the water can be moved up into the higher premium segments.

For markets such as Japan, South Korea, Taiwan and Thailand, the entry strategy will be the identification of local importers of mineral water who have a thorough understanding of the local markets. Once located, a suitable collaboration will be worked out for distributors in different segments.

The export marketing strategy will therefore be based upon country and segment specific collaborations. This can be done only after the brand name and its image of excellence is established.