







Contents

Global nutraceticals market witnessing growth of 6.3%

Global demand for nutraceutial ingredients to touch \$30 bn by 2017

Global Regulatory Scenario

• Indian nutra industry to cross \$2 bn mark by 2014

Printed and Published by

Jagdish Patankar on behalf of MM Activ Sci-Tech Communications, UNI Building, Thimmaiah Road, Millers Tank Bund, Vasanth Nagar, Bangalore - 560 052

Global nutraceticals market witnessing growth of 6.3%

	Country	Given Label	Definition	Regulating Body
		Dietary Supplements	Any of the following which have a beneficial nutritional effect	Food and Drug Authority
	United		✓ Vitamins	
	States		✓ Minerals	
	of America		✓ Botanicals and their extracts	
			✓ Amino Acids	
			✓ Concentrates and Extract	
	European	Food Supplements	✓ Concentrated Sources of Nutrients	European Food Safety Authority
	Union		✓ Other substances with a beneficial nutritional effect	
		Foods for Specific Health Use	Any food that can provide and/or supplement any of the following	Japan Health and Nutrition Food Association
Jap	Japan		✓ Nutrition	
			✓ Sensory Satisfaction	
			✓ Beneficial Physiological Effect	
C	China	Health Foods	Any food that	State Food
			✓ should be suitable for specific group(s) of people	
			✓ should also be able to adjust body functions and	and Drug Administration
			✓ should not aim at curing diseases or cause acute, sub acute or chronic harm to the body	

Source: Frost & Sullivan

utraceutical, a portmanteau the words "nutrition" and "pharmaceutical", is a food or food product that provides health and medical benefits, including the prevention and treatment of disease. The term nutraceutical was originally defined by Dr. Stephen L. DeFelice, founder and chairman of the Foundation of Innovation Medicine (FIM), Crawford, New Jersey. Nutraceutical foods are not subject to the same testing and regulations as pharmaceutical drugs.

In addition, many botanical and herbal extracts such as ginseng, garlic oil, etc. have been developed as nutraceuticals. Nutraceuticals are often used in nutrient premixes or nutrient systems in the food and pharmaceutical industries. There is minimal regulation over which products are allowed to display the nutraceutical term on their labels. Because of this, the term is often used to market products with varying uses and effectiveness.

The definition of nutraceuticals and related products often depend on the source. Members of the medical community desire that the nutraceutical term be more clearly established in order to distinguish between the wide varieties of products out there.

The preference for the discovery and production of nutraceuticals over pharmaceuticals is well seen in pharmaceutical and biotech companies. Some of the pharmaceutical and biotech companies, which commit major resources to the discovery of nutraceuticals include Monsanto, American Home Products, Dupont, Abbott Laboratories, Warner-Lambert, Johnson & Johnson, Novartis, Metabolex, Genzyme Transgenic, PPL Therapeutics, and Interneuron.

Functional foods are designed to allow consumers to eat enriched foods close to their natural state, rather than by taking dietary supplements manufactured in liquid or capsule form.

Functional foods have been either enriched or fortified, a process called nutrification. This practice restores the nutrient content in a food back to similar levels from before the food was processed. Sometimes, additional complementary nutrients are added, such as vitamin D to milk.

According to news-medical.net, medical foods aren't available as an over-the-counter product to consumers. The FDA considers medical foods to be "formulated to be consumed or administered internally under the supervision of a physician, and which is intended for the specific dietary management of a disease or condition for which distinctive nutritional requirements, on the basis of recognized scientific principles, are established by medical evaluation."





Dietary Supplements

- Proteins & Peptides
- Vitamins & Minerals
- Herbals
- Non-Herbals
- Others



Functional Food & Beverages

- Probiotics
- Omega Fatty Acid
- Branded Ionized Salt
- Branded Wheat Floor Market
- Fruit & Vegetable Juices and Drinks
- Dairy & Dairy Alternative Drinks
- Noncarbonated Drinks
- Others

Global market scenario

Nutraceuticals provides health benefits and helps in prevention and healing of diseases. The global nutraceuticals product market is primarily categorized on the basis of functional food, functional beverages and dietary supplements. The global market of nutraceutical is a growing on account of growth in dietary supplement segment. Some of the factors driving nutraceutical market are the increase in disposable income and conscious about one's health. The spending on purchase of healthy and organic foods is on a rise thus giving a boost to the overall nutraceutical market. Some of the factors restraining the market growth are the lack of knowledge about the benefits of nutraceutical products and high prices of nutraceutical products.

According to a new market report published by Transparency Market Research "Nutraceuticals Product Market: Global Market Size, Segment and Country Analysis & Forecasts (2007-2017)", Global Nutraceutical Product market reached \$142.1 billion in 2011 and is expected to reach \$204.8 billion by 2017, growing at a CAGR of 6.3% from 2012 to 2017. Asia Pacific (including Japan) is expected to have the second largest market share after North America by 2017. In 2011, the Functional food and Beverage market reached \$93.0 billion, registering a growth rate of 6.0% from 2007 to 2011. North America enjoyed the highest market share for nutraceutical products at \$56.4 billion in 2011.

Among all the geographies North America has the largest consumer base for Nutraceutical products. Although the market is at a mature stage in this region, it has witnessed a growth rate of more than 6% during 2007-2011. Developing countries like China and India possess huge potential both in terms of value and volume for Nutraceutical products, as the population and disposable income is on a rise in these countries.

Functional Food remained the fastest growing segment of North America nutraceutical market at 6.5% CAGR during 2007 – 2011. Non Herbals segment was the fastest growing segment of North America dietary supplement market during 2007 – 2011 whereas proteins and peptides market segment has the largest share of revenue of North America dietary supplement market in 2011. The fact that the entire nutraceutical market is currently learning about the consumer range of choices, which has no limit, which is giving rise to rapid product introduction in the region. The functional beverage market in US is expected to have the moderate growing rate as compared to dietary supplement market in the region.

Dietary Supplement market remained the fastest growing segment of Middle East and Africa (MEA) nutraceutical market at 30.8% CAGR during 2007 – 2011. Non Herbals segment was

the fastest growing segment of MEA dietary supplement market during 2007 – 2011 whereas Proteins & Peptides market segment has the largest share of revenue of MEA dietary supplement market in 2011.

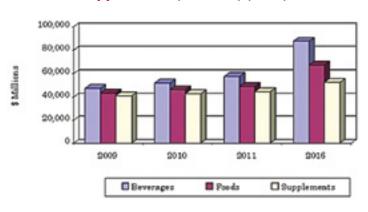
The Global Nutraceutical market is estimated to have a growth rate of 6.6% during period of 2012-2017 in protein and peptides segment of dietary supplement market. The non herbal segment of dietary supplement market will have a growth rate of 6.3% from 2012 to 2017. The omega fatty acid fortified food segment of functional food market will have a growth rate of 6.7% during the forecasted period. The North America and Asia Pacific nutraceutical market is expected to have a market share of 39.2% and 30.4% respectively in 2017. The dietary supplement market will be the fastest growing market from 2012 to 2017 as it helps in improving the body ability to heal and protect itself.

The Asia Pacific Nutraceutical product market is an emerging market in dietary supplements and functional food segment. Japan is the largest consumer of nutraceuticals. China is second largest consumers of nutraceutical product as people are more conscious about their food habits and they have the largest population in the world. The functional food market in India is expected to have the moderate growing rate as compared to dietary supplement in the region. The functional food and beverage market in India is expected to have 70.74% as compared to the dietary supplement in 2017.

The Eastern Europe Nutraceutical product is growing on account of high growth in functional food, and dietary supplement supplements segments. Russia is the largest consumer of nutraceuticals in the region. The growth in nutraceutical products taking place due to increasing made age population in the region. The Russia and Hungary nutraceutical market is expected to have a market share of 24.4% and 20.2% in 2017. The increase in disposable income of Eastern European consumer over the evaluation period 2012-2017 would also help in faster adoption of nutraceuticals product adoption in the region.

According to Research and Markets: Global Nutraceuticals Market 2014-2018 report, the Global Nutraceutical market to grow at a CAGR of 6.3% over the period 2013-2018. One of the key factors contributing to this market growth is the increasing global ageing population. The Global Nutraceutical market has also been witnessing the increase in the nutraceutical product development. However, the threat of ingredients and raw material contamination could pose a challenge to the growth of this market. Some of the leading names in this market include Archer Daniels Midland Co., BASF SE, GlaxoSmithKline plc., and Nestlé S.A. Bactolac Pharmaceutical, Bayer Healthcare AG, NBTY Inc., and Perrigo Co.

Global nutraceutical market - Foods, Beverages and Supplements (2009-16) (\$mn)



Source: BCC Research

The report noted that Global Nutraceutical market is highly competitive and has numerous local and international vendors prevailing in it. To compete in the market, vendors are introducing numerous new and innovative nutraceutical food products in the market. Companies are trying to introduce new innovative products on the basis of ingredients, packaging, and serving ability. As consumers are also increasingly interested in tasting new products, new flavors, and recipes, foods that have been developed using several cultural cuisines are also continuously being launched in the market. For instance, large food corporations, such as Kellogg Co., General Mills Inc., and Procter & Gamble Hygiene and Health Care Ltd., are at the forefront of nutrition research. They are trying to gain advantage from nutraceuticals and are fortifying their existing products (e.g., orange juice with calcium), repositioning products, or are supporting sales with new marketing approaches and research that highlights the benefits of their core products and new products. Therefore, the increase in innovative nutraceutical food product launches is one of the key trends that is expected to propel the growth of the Global Nutraceutical market during the forecast period.

According to the report, one of the major drivers in the market is the increasing aging population in the globe. With the increase in the aging population and as it contains potential and primary consumers, the consumption level of nutraceutical products has increased. The majority of the demand for nutraceutical products is from the APAC region; the APAC region is densely populated, with changing consumer lifestyles and increasing disposable income among consumers.

Global demand for nutraceutial ingredients to touch \$30 bn by 2017



The global demand for nutraceutical ingredients is forecast to rise 7.2% annually to \$30 billion in 2017, serving end product markets totaling \$369 billion, according to report released by Reportlinker. The best growth prospects will exist

in substances with clinically supported health benefits and broad applications in foods, beverages, dietary supplements, and adult and pediatric nutritional preparations. Included in this group are soy proteins; oat bran, psyllium, and soy fibers; Bifidobacterium and Lactobacillus probiotics; omega fatty acids; cranberry and garlic extracts; calcium, magnesium, and zinc minerals; and vitamins A and C.

Emerging market to witness fastest growth



Countries such as Brazil, China, India, Mexico and Turkey will be among the fastest growing consumers and producers of nutraceutical ingredients worldwide. Increasing economic prosperity will enable these countries to expand and diversify their food and beverage, processing, and pharmaceutical industries. In

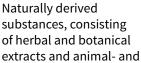
2017 China, alone, will absorb more than 16 percent of the value of global nutraceutical ingredient demand and will account for over 18 percent of the value of related world shipments.

Because of maturing markets, the supply and demand of nutraceutical ingredients in the United States, Western Europe, and other developed economies will increase more slowly than the average worldwide pace. Nonetheless, food, beverage, and pharmaceutical companies in these economies will continue to pursue opportunities in conventional and specialty nutritional products and natural medicines. As a result, they will remain key customers for nutraceutical ingredients.

Nutrients to remain top-selling ingredients

Nutrients, including proteins, fibers, and various specialized functional additives, will remain the top-selling group of nutraceutical ingredients worldwide. Proteins will post the fastest demand gains as food and beverage makers throughout the world introduce new high value-added nutritional preparations. Functional additives and fiber nutrients will also fare well in the global marketplace. Demand for these ingredients will gain upward momentum from increasing clinical evidence of health benefits and expanding applications in specialty foods and beverages.

Herbal & other extracts to be fastest growing products





marine-based derivatives, will command the fastest growth among the three major groups of nutraceutical ingredients. Among these substances, omega fatty acids derived from fish oils and other marine sources will lead gains, reflecting clinically proven cardiovascular benefits and expanding use in dietary supplements and nutritional therapies.

The rising popularity of homeopathic remedies, coupled with widespread trends promoting preventive medicine and selftreatment, will impact favorably on global demand for numerous other natural extracts and derivatives, including cranberry, garlic, ginkgo biloba, ginseng; and glucosamine and chondroitin.

Well established applications in food and beverage fortification; infant, adult, and pediatric nutritionals; and dietary supplements will continue to underlie a large global market for mineral and vitamin ingredients. Within this group, essential minerals such as calcium, along with vitamin A and vitamin C substances, will post the fastest gains in world demand.

Global Regulatory Scenario

lobally the nutraceutical regulatory environment is evolving and remains murky as products related to nutraceuticals continues to expand internationally and local agencies, working with international trade associations, struggle to harmonize regulations across different jurisdictions to ensure consumer safety while also creating a level playing field for competition. The global nutraceutical companies have been finding it

difficult to sale through wide range of different local regulatory requirements.

The aim of nutraceutical regulation is largely to ensure products are safe and properly labeled. It's important to note that nutraceuticals do not face the same level of scrutiny as pharmaceuticals in regards to product claims and intended use. There is a perception that this lack of oversight leads to products of variable quality and with claims of questionable merit according to Bourne Partners.



USA

The USFDA regulates dietary supplements under its own set of unique regulations that differ from those covering "conventional" foods and drug products. Under the Dietary Supplement Health and Education Act of 1994 (DSHEA): The manufacturer of a dietary supplement or dietary ingredient is responsible for ensuring that the product is safe before it is marketed; and The Food and Drug Administration (FDA) is responsible for taking action against any unsafe dietary supplement product after it reaches the market.

With the introduction of the federal Good Manufacturing Practice (GMP) regulations (21 CFR, Part 111) in 2007, the FDA and Department of Health and Human Services (HHS) assumed oversight of GMP enforcement. Under the rule, all domestic and foreign companies that manufacture, package, label or hold nutraceuticals, including those involved with testing, quality control, and nutraceutical distribution in the US, have safety-related responsibilities, including, but not limited, to the following:assuring the safety of the ingredients used in their products, both before and after introduction to the market;evaluating the identity, purity, quality, strength, and composition of dietary supplements; preparing, packaging and holding products in compliance with FDA's current good manufacturing practice (cGMP) regulations; and submitting reports to FDA of serious adverse events.



European Union

The European Food and Safety Authority (EFSA) regulates the food legislation in European Union. The legislation focuses on "food supplements", which the Europeans define as concentrated sources of nutrients (e.g., proteins, vitamins and minerals) and other substances that have a beneficial nutritional effect. The EU legislation is Directive 2002/46/EC related to food supplements. The EU maintains a list of permitted vitamin or mineral substances which may be added to food supplements for specific nutritional purposes.

According to Bourne Partners, Europe also enforces stricter rules for product claims. The European market is driven on the basis of these health claims since they are harder to get. Still, there is variability from country-to-country within the EU when it comes to product claims and recommended daily allowances (RDAs). As a result, a coalition of Europe's nutraceutical companies, formed the Food Supplements Europe (FSE) to work with regulators to ensure quality and "to shape a positive regulatory environment for the future."



Japan

In Japan, the nutraceuticals industry is categorized into two segments. The first segment, "Foods with Nutrient Function Claims," satisfy the standards for the minimum and maximum daily levels of twelve vitamins and five minerals. Aside from these daily standards, the labels are not heavily regulated. The second segment is "Foods for Specified Health Uses," (FOSHU). They contain dietary ingredients that have reported beneficial physiological effects and promote health. Like any other nations disease risk reduction claims are not allowed in Japan. FOSHU requires pre-marketing approval. The Japanese government created the Consumer Affairs Agency (CAA), which assumed the Ministry of Health, Labour and Welfare's (MHLW) responsibility for the implementation of laws relating to nutrition labeling and health claims approval.



China

China Health Care Association (CHCA), a government-appointed association that oversees the nutraceutical industry. There are three main entities involved in policing the industry. The first is the China's State Food and Drug Administration (SFDA), which is in charge of dietary supplements and issuing the "blue hat" registration. Next is the Ministry of Health (MOH), which actually oversees SFDA, but its main influence in the dietary supplement industry is overseeing the approval of new novel food ingredients; and finally, the Administration of Quality Supervision Inspection and Quarantine (AQSIQ) controls all of the imports and exports passing across China's borders.



Other International Agencies

The introduction of GMP regulations in the US (21 CFR Part 111) ushered in a new era of regulation focused on safety and quality with the goal of identifying non-compliant suppliers, distributors and marketers through more active enforcement. According to Bourne Partners, the global regulatory bodies are becoming increasingly influential within the industry. Such bodies include Codex Alimentarius, the World Health Organization (WHO) and the Food and Agriculture Organization (FAO). From the industry side, the International Alliance of Dietary/Food Supplement Associations (IADSA) works closely with international and local bodies to ensure that the views of the food supplement industry are considered in the development of policy.

Indian nutra industry to cross \$2 bn mark by 2014





15 leading risk factors in developing nations with high mortality rates

Rank Risk factors pt state of the property of
2 Unsafe sex 10 10 3 Blood pressure 7 2 4 Unsafe water, sanitation and hygine 6 6 5 Cholestrol 5 2 6 Tobacco 5 2 7 Indoor smoke from solid fuels 4 4 8 Low fruit and vegetable intake 10 10
3 Blood pressure 7 2 4 Unsafe water, sanitation and hygine 6 6 5 Cholestrol 5 2 6 Tobacco 5 2 7 Indoor smoke from solid fuels 8 Low fruit and vegetable intake 4 1
4 Unsafe water, sanitation and hygine 6 6 5 Cholestrol 5 2 6 Tobacco 5 2 7 Indoor smoke from solid fuels 4 4 8 Low fruit and vegetable intake 4 1
and hygine 5 Cholestrol 5 2 6 Tobacco 5 2 7 Indoor smoke from solid fuels 8 Low fruit and vegetable intake 4 1
6 Tobacco 5 2 7 Indoor smoke from solid 4 4 8 Low fruit and vegetable intake 4 1
7 Indoor smoke from solid fuels 8 Low fruit and vegetable intake 4 1
fuels 8 Low fruit and vegetable intake 4 1
intake 4
9 Zinc deficiency 3 3
10 Vitamin A deficiency 3 3
11 Iron deficiency 3 3
12 Physical inactivity 2 1
13 Alcohol 2 2
14 Overweight 2 1
Unsafe healthcare 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Source: World health Report 2002 (WHO)

Nutrition related risk factors

he Indian nutraceuticals market has grown from \$1 billion in 2008 to \$1,820 billion in 2013. With the passage of time and due to many international and local players in this segment the percentage share rose with a steady speed. The market is expected to cross \$2 billion by 2014.

The Indian nutraceuticals market valued at \$1,480 million in 2011 is expected to grow to \$2,731 million in 2016.

Dietary supplements were the largest category accounting for 64% of the nutraceuticals market, driven primarily by the pharmaceutical sector in the form of Vitamin and Mineral supplements. Functional foods will be the quickest growing category until 2015 followed by Dietary Supplements. However, dietary supplements, specifically herbal and dietetic supplements, will form the greatest opportunity areas for nutraceutical manufacturers, driven by growing demand from an evolving consumer base.

Most of the leading pharmaceuticals companies have ventured into nutrition and nutraceuticals space and have a growing portfolio of such products which targets various therapeutic segments. This trend is increasingly on the rise and will continue to grow to large extent in turn adding to the growth of the nutraceuticals industry.

The pharmaceutical and fast-moving consumer goods (FMCG)

Leading names in nutraceuticals space in India

- Abbott Nutrition
- ACG Worldwide
- → ADM
- Advanced Enzyme Technologies
- → Alkem Laboratories
- Amway India Enterprises
- Ariun Naturals
- Avesthagen
- Ayuherb Healthcare
- Ayurpark Health Care
- Baidyanath Group
- → BASF
- → BeneoOrafti
- → Bio-gen Extracts
- → Bio-plus
- → Bliss GVS Pharma
- → BoehringerIngelheim India
- ➡ Britannia Industries
- → British Biologicals
- Cadila Health care
- Dabur India
- Danisco
- DSM Nutritional Products India
- ➡ Elder Pharmaceuticals
- **→** Emami
- Energya Nutrition
- Enhance Proteins
- → Evolva Biotech
- → GCI Nutrients India
- → Geltec
- → GlanbiaPlc.
- GlaxoSmithkline Consumer Healthcare
- Gujarat Co-operative
 Milk Marketing
 Federation
- → Heinz India
- → Herbalife
- Hexagon Nutrition
- Himalaya Herbal Health Care
- ➡ Hindustan Unilever
- Indigene

Pharmaceuticals

- → ITC
- → Kancor Ingredients
- ➤ KatraPhytochem
- → Kellogg India
- → Lonza
- → Lvcored
- → Marico
- Merck Pharmaceuticals
- Mission Vivacare
- National Dairy Development Board
- → Natural Remedies
- Nestle India
- Novozymes
- Olive Life Sciences
- Omniactive Health Technologies
- Parry Nutraceuticals
- → Pfizer
- → Piramal Healthcare
- PlethicoPharmaceuticals
- → Ranbaxy Laboratories
- Raptakos Brett & Co.
- Rasoya Proteins
- Reckitt Benckiser India
- → R ROomerbhov
- Sami Direct
- → Sami Labs
- Sanzyme
- → Sensus
- Shree
- Dhootapapeshwar
- Solae (DuPont)
- Themis Medicare
- Universal Medicare
- UTH Healthcare
- Vihaan Naturals
- → Virdis
- Vital Neutraceuticals
- Wipro Consumer Care
- Wockhardt
- Yakult Danone
- Zandu Pharmaceuticals
- Zeon Lifesciences
- Zydus Wellness

giants dominate the Indian nutraceutical market. While dietary supplements such as vitamin and mineral supplements have been captured by pharmaceutical companies, FMCG companies are now bringing functional food and beverages to the market. However, certain segments like dietetic supplements are now being catered to by pure-play nutraceutical companies, apart from their pharmaceutical and FMCG counterparts.

There are many multinationals investing in nutraceuticals in India and there are reasons for popularity of these supplemented foods. These include Monsanto, American Home Products, DuPont, BioCorrex, Abbott Laboratories, Warner-Lambert, GlaxoSmithKline Consumer Healthcare, Johnson & Johnson, Nestle, Novartis, Metabolex, Yakult-Danone India, Herbalifeetc. These players provide major resources for the discovery of nutraceuticals and related dietary supplements. Besides, India has many local players such as Dabur India, Cadila Healthcare, British Biologicals, Himalaya Global Holdings, Sami Labs, Sami Direct, Parry Nutraceuticals, Wockhardt etc.

During the early 2000, when companies started introducing nutraceuticals in India, most of the industry captains wondered if nutritional supplements would gain acceptability in the Indian prescription driven health and wellness industry. Contrary to their concern, nutraceuticals were well accepted, particularly by the upper-middle segment of the Indian population.



The size of the global nutraceuticals market is pegged at \$117 billion. According to a study published recently India's share of this is minuscule at \$1 billion, but the growth pattern is impressive. While the global market is growing at 7%, the Indian market has been growing by over 18% for many years. Of the three broad categories within nutraceuticals–functional foods, functional beverages and dietary supplements– the last is growing the fastest globally, with a CAGR of 11%. In India, functional foods are the fastest growing with a 54% market share, while dietary supplements have a 32% share followed by functional beverages at 14%.

KV Venugopalan,

President, Indian Analytical Industry Association





The Indian Nutraceutical market valued at \$1480 million in 2011, with dietary supplements being the largest category accounting for 64% of the Nutraceutical market, driven primarily by vitamin and mineral supplements.

"The nutraceutical market in India is estimated to grow to \$2,731 million in 2016 at a CAGR of 13%" according to Frost & Sullivan 2012 report. Functional foods will be the quickest growing category till 2015 followed by Dietary Supplements. However, Dietary supplements will be the greatest opportunity area for Nutraceutical manufacturers, driven by a growing demand from an evolving consumer base.

As per the study, the global nutraceutical market was estimated to be \$149.5 billion in 2011 with US, Europe and Japan being the largest regional markets, accounting for nearly 93% of the global nutraceutical demand.

Sandeep Gupta,

Chief Founder, RCON - Royal Club Of NewtraceutiX, Chief Advisor - Nutra Industry Development Advisory Committee (NIDAG); Task Force Member for Nutraceuticals, Federation of *Indian Chambers of Commerce & Industry (FICCI)*

Combination dietary supplement sector is leading the nutraceutical industry now and would be largest growth in coming years. Multiherbs therapy for disease prevention and control is also a new area where Indian natural medicine industries are focussing now.

-Dr Ghosh,

Director, Nutriconnect, Sydney, Australia

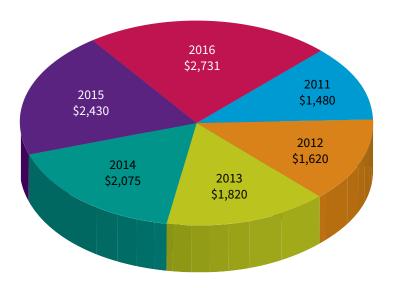
In food supplement category, the majority share is held by herbal food products and supplements, closely following functional digestives

- Dr Baidyanath Mishra,

Vice President, Product Development, Regulatory and Medical affairs, KatraPhytochem, Bangalore



Indian nutraceuticals market (in millions)



However, the industry is still in a nascent stage and holds ample opportunity to grow in future.

Over 40 % of deaths and 30% of overall disease burden in developing countries including India are due to imbalance in nutrition, a fundamental need of all human beings. Eight of the top 15 risk factors of these deaths are related to nutrition. In India, nearly 20% of the total population and 44% of young children (below 5 years of age) are undernourished, numbers which are significantly higher than even the poorer sub-Saharan African countries.

Iron deficiency anemia during pregnancy accounts for one –fifth of maternal deaths in India and the prevalence of this deficiency in women has alarming increased from 52% in 1998 to 56% in 2006. Iodine and vitamin A deficiencies in India are still above the World Health Organisation (WHO) specified desired levels. Annually as many as 3 lakh million children succumb to vitamin A deficiency related diseases. The impact of these deficiencies is a productivity loss of around one percentage point of India's Gross Domestic Product (GDP) and so improvement in nutrition status is a critical part of the country's agenda for economic growth, according to Federation of Indian Chambers of Commerce and Industry (FICCI) and Ernst & Young report 2012.

The risk factors are opening up opportunities for both multinationals and local companies, who are keen on entering and expanding their operations in nutraceuticals and nutritionals space in the country. Last couple of years witnessed



a significant rise in Indian nutraceuticals market. According to recent survey there are more than 8000 registered and non-registered nutraceuticals, herbs and related companies in India but most of them are Small and Medium Enterprises. Increasing need for additional nutrition and food security concerns in India has resulted in government to introduce schemes for vitamin fortification.

The industry has been witnessing increasing awareness among the rising affluent middle class about health and wellness. Nearly 400 million people in India belong to the middle class and have the disposable income which made them capable to buy nutraceuticals and dietary supplements. It is an inevitable fact that affluence is one of the causes of lifestyle diseases, which nutraceuticals and dietary supplements often address. The above facts support the double digit growth of the industry in the coming few years. The industry will cross \$4 billion by 2018.

Overall, the Indian nutraceutical market is emerging with strong growth potential. With increasing health awareness, and the shift towards preventative health care and increased regulatory clarity, India's future in nutraceuticals industry looks promising, for both manufacturers and consumers. And there is a strong need of developing customized products, affordable pricing and distribution strategy.



Indian nutraceutical market is approx \$1,700 million (2012) and growth rate being 13%. The three major sectors of the nutraceuticals industry include Dietary supplements: 64%, Functional foods: 24% and Functional beverages: 12%

— **Dr R K Sanghavi,**Chairman, Regulatory and Medical
Sub-Committees of Indian Drug Manufacturers'
Association (IDMA)

In year 2008, the estimated Nutraceutical industry worldwide was worth \$200 billion and India's sharewas approximately 0.2 %. With the passage of time and due to the presence of many international and local players in this segment, the share rose steadily. The Indian Nutraceutical market valued at \$1,480 million last year is now slated to grow to \$2,731 million in 2016 (according to Frost & Sullivan report). It is estimated that functional foods will be the quickest growing category followed by dietary supplements until 2015.

— **V S Reddy**, Founder and Managing Director, British Biologicals

The Indian nutraceutical market is mainly dominated by pharmaceuticals and FMCG companies with very few companies that only specialize in nutraceutical products, this creates an untapped opportunity for Sami Labs to grow in the market. Increasing health consciousness and improved incomes and standard of living has boosted the growth of the Nutraceutical markets in India, making it one of the fastest growing segments.

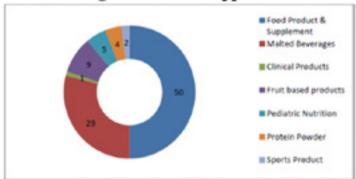
Neeraja Shetty,
 Director and President - Strategy & Business
 Development, Sami Labs



Indian nutraceutical market consists of two major segments

- **a. Food supplements:** Constituting of 60% of the market Marketed & distributed like FMGC's, as the general awareness level still low.
- b. Vitamins & Mineral supplements:
 Constituting of 40% of the market –
 Marketed & distributed like the prescription drugs in India, as the general awareness level still low.

Categories of food Supplements



DIETARY SUPPLEMENTS MARKET



For nutraceuticals, marketers follow end user demographic market segmentation (like infants, children, youngsters, women, men, senior citizens etc) and the products are positioned for each of these segments and the marketing messages revolve around addressing the health concern markers & benefits to the end users (like boosting energy, body health – bones, joints, weight management).

CONTRIBUTING TO INDIAN SCIENCE & TECHNOLOGY



MM Activ Sci-Tech Communications

Office Network: India - Bangalore | Chennai | Hyderabad | Kochi | Mumbai | Nagpur | New Delhi | Pune Email: connect@mmactiv.in | Web: www.mmactiv.in International - Singapore | Altanta, USA