

# India

*“Truth alone triumphs”*



सत्यमेव जयते

सत्यमेव जयते



- 5,000 year old ancient civilization
- 325 languages spoken – 1,652 dialects
- 18 official languages
- 29 states, 5 union territories
- 3.28 million sq. kilometers - Area
- 7,516 kilometers - Coastline
- 1.3 Billion population.
- 5600 dailies, 15000 weeklies and 20000 periodicals in 21 languages with a combined circulation of 142 million.
- GDP \$576 Billion. (GDP rate 8%)
- Parliamentary form of Government
- World's largest democracy.
- World's 4th largest economy.
- World-class recognition in IT, bio-technology and space.
- Largest English speaking nation in the world.
- 3<sup>rd</sup> largest standing army force, over 1.5 Million strong.
- 2<sup>nd</sup> largest pool of scientists and engineers in the World.

- Bharat Forge has the world's largest single-location forging facility, its clients include Honda, Toyota and Volvo amongst others.
- Hero Honda with 1.7M motorcycles a year is now the largest motorcycle manufacturer in the world.
- India is the 2nd largest tractor manufacturer in the world.
- India is the 5th largest commercial vehicle manufacturer in the world.
- Ford has just presented its Gold World Excellence Award to India's Cooper Tyres.
- Suzuki, which makes Maruti in India has decided to make India its manufacturing, export and research hub outside Japan.
- Hyundai India is set to become the global small car hub for the Korean giant and will produce 25k Santros to start with.
- By 2010 it is set to supply half a million cars to Hyundai Korea. HMI and Ford.
- The prestigious UK automaker, MG Rover is marketing 100,000 Indica cars made by Tata in Europe, under its own name.
- Aston Martin contracted prototyping its latest luxury sports car, AM V8 Vantage, to an Indian-based designer and is set to produce the cheapest Aston Martin ever.

# India: Technology Superpower

- Geneva-based STMicroelectronics is one of the largest semiconductor companies to develop integrated circuits and software in India.
- **Texas Instruments** was the first to open operations in Bangalore, followed by **Motorola, Intel**, Cadence Design Systems and several others.
- 80 of the World's 117 SEI CMM Level-5 companies are based in India.
- 5 Indian companies recently received the globally acclaimed **Deming prize**. This prize is given to an organization for rigorous total quality management (TQM) practices.
- 15 of the world's major Automobile makers are obtaining components from Indian companies.
- This business fetched India \$1.5 Billion in 2003, and will reach \$15 Billion by 2007.
- New emerging industries areas include, **Bio-Informatics**, **Bio-Technology**, **Genomics**, **Clinical Research** and Trials.
- World-renowned TQM expert Yasutoshi Washio predicts that Indian manufacturing quality will overtake that of Japan in 2013.
- McKinsey believes India's revenues from the IT industry will reach \$87 Billion by 2008.
- Flextronics, the \$14 billion global major in Electronic Manufacturing Services, has announced that it will make India a global competence centre for telecom software development.

# India: Trade

- Tata Motors paid \$ 118 million to buy Daewoo commercial vehicle Company of Korea.
- Ranbaxy, the largest Indian pharmaceutical company, gets 70% of its \$1 billion revenue from overseas operations and 40% from USA.
- Tata Tea has bought Tetley of UK for £260M.
- India is one of the world's largest diamond cutting and polishing centres, its exports were worth \$6 Billion in 1999.
- About 9 out of 10 diamond stones sold anywhere in the world, pass through India.
- Garment exports are expected to increase from the current level of \$6 billion to \$25 billion by 2010.
- The country's **foreign exchange** reserves stand at an all-time high of **\$120 Billion**.
- India's trade with China grew by 104% in 2002 and in the first 5 months of 2003, India has amassed a surplus in trade close to \$0.5M.
- Mobile phones are growing by about 1.5 Million a month. Long distance rates are down by two-thirds in five years and by 80% for data transmission.
- **Wal-Mart sources \$1 Billion worth of goods from India** - half its apparel. **Wal-Mart expects this to increase to \$10 Billion in the next couple of years.**
- GAP sources about \$600 million and Hilfiger \$100 million worth of apparel from India.

# India: Self-Reliance

- India is among six countries that launch satellites and do so even for Germany, Belgium, South Korea, Singapore and EU countries.
- India's INSAT is among the world's largest domestic satellite communication systems.
- India's Geosynchronous Satellite Launch Vehicle (GSLV) was indigenously manufactured with most of the components like motor cases, inter-stages, heat shield, cryogenic engine, electronic modules all manufactured by public and private Indian industry.
- Kalpana Chawla was one of the seven astronauts in the Columbia space shuttle when it disintegrated over Texas skies just 16 minutes before its scheduled landing on Feb 1st 2003, she was the second Indian in space.
- Back in 1968, India imported 9M tonnes of food-grains to support its people, through a grand programme of national self-sufficiency which started in 1971, today, it now has a food grain surplus stock of 60M.
- India is among the 3 countries in the World that have built Supercomputers on their own. The other two countries being USA and Japan.
- India built its own Supercomputer after the USA denied India purchasing a Cray computer back in 1987.
- India's new 'PARAM Padma' Terascale Supercomputer (1 Trillion processes per sec.) is also amongst only 4 nations in the world to have this capability.
- India is providing aid to 11 countries, writing-off their debt and loaning the IMF \$300M.
- It has also prepaid \$3Billion owed to the World Bank and Asian Development Bank.

# India: Pharmaceuticals

- The **Indian pharmaceutical** industry at \$6.5 billion and growing at 8-10% annually, is the 4th largest pharmaceutical industry in the world, and is expected to be worth \$12 billion by 2008.
- Its exports are over \$2 billion. India is among the top five bulk drug makers and at home, the local industry has edged out the Multi-National companies whose share of 75% in the market is down to 35%.
- Trade of medicinal plants has crossed \$900M already.
- There are **170 biotechnology companies** in India, involved in the development and manufacture of genomic drugs, whose business is growing exponentially.
- **Sequencing genes** and **delivering genomic information** for big Pharmaceutical companies is the next boom industry in India.

# India: Foreign Multi-National Companies

---









## Top 5 American employers in India:

General Electric:	: 17,800 employees
Hewlett-Packard	: 11,000 employees
IBM	: 6,000 employees
American Express	: 4,000 employees
Dell	: 3,800 employees

- General Electric (GE) with \$80 Million invested in India employs 16,000 staff, 1,600 R&D staff who are qualified with PhD's and Master's degrees.
- The number of patents filed in USA by the Indian entities of some of the MNCs (upto September, 2002) are as follows: Texas Instruments - 225, Intel - 125, Cisco Systems - 120, IBM - 120, Phillips - 102, GE - 95.
- Staff at the offices of **Intel (India)** has gone up from 10 to 1,000 in 4 years, and will reach 2000 staff by 2006.
- GE's R&D centre in Bangalore is the company's largest research outfit outside the United States. The centre also devotes 20% of its resources on 5 to 10 year fundamental research in areas such as nanotechnology, hydrogen energy, photonics, and advanced propulsion.
- It is estimated that there are 150,000 IT professionals in Bangalore as against 120,000 in Silicon Valley.



# India: R&D Labs

R&D Centre	Highlights
 <p>R&amp;D Centre, Bangalore</p>	Established in 1984. The centre started with just 20 people, now has 900 people working on VLSI and embedded software, which goes along with a chip or into the chip.
 <p>India Development Centre, Bangalore, Hyderabad.</p>	The Bangalore centre was established in 1994; the Hyderabad one in 1999. Oracle's largest development centre outside the US currently has 6,000 staff. Does work on Oracle's database products, applications, business intelligence products and application development tools, besides other activities.
 <p>India Engineering Centre, Bangalore</p>	Established in mid-1999 with 20 people, has scaled up to 500 people today. Does work mainly on Sun's software which includes Solaris and Sun One.
 <p>R&amp;D Centre, Bangalore and Mumbai.</p>	Established in 1988 with 20 people, has scaled up to 1,000 today. Drives nearly 60 percent of the company's global development delivery.
 <p>Software Lab, Bangalore, Pune.</p>	Established in 2001. Works on all IBM software like WebSphere, DB2, Lotus, Tivoli and Rational. The centre has added many new areas of activities such as middleware and business intelligence.
 <p>Labs India, Bangalore.</p>	Established in November 1998 with 100 people, the Lab will be scaled up to 1500 by the end of 2004. That will double 3000 staff by middle of 2006. It is the largest single-location R&D lab for SAP outside Walldorf, Germany. Nearly 10 percent of SAP's total R&D work is carried out from the Indian lab.
 <p>Innovation Campus, Bangalore.</p>	Established in 1996 with 10 people, has scaled up to 895 people today, and will be further scaled up to 1,000 before the end of 2003. Works on developing software for Philips products. Almost all Philips products that use software have some contribution from this centre. It is the largest software centre for Philips outside Holland.
 <p>Bangalore.</p>	Established in 2002 with just two people, has scaled up to 20 specialists today. Plans exist to double its headcount by the beginning of 2004. Is totally dedicated to high-level research on futuristic technologies, with special focus on emerging markets.

# India: BPO

- The domestic BPO sector is projected to increase to \$4 billion in 2004 and reach \$65 billion by 2010. (McKinsey & Co.).
- The outsourcing includes a wide range of services including design, architecture, management, legal services, accounting and drug development and the Indian BPOs are moving up in the value chain.
- There are about 200 call centers in India with a turnover of \$2 billion and a workforce of 150,000.
- 100 of the Fortune 500 are now present in India compared to 33 in China.
- Cummins of USA uses its R&D Centre in Pune to develop the sophisticated computer models needed to design upgrades and prototypes electronically and introduce 5 or 6 new engine models a year.
- Business Week of 8th December 2003 has said *"Quietly but with breathtaking speed, India and its millions of world-class engineering, business and medical graduates are becoming enmeshed in America's New Economy in ways most of us barely imagine"*.



**William H. Gates, Chairman and Chief  
Software Architect Microsoft  
Corporation  
(b-1955):**

**“...after the Chinese, South Indians are the smartest people in  
the world.”**

# India: Technology Superpower

---

- Over 100 MNCs have set up R&D facilities in India in the past five years. These include GE, Bell Labs, Du Pont, Daimler Chrysler, Eli Lilly, Intel, Monsanto, Texas Instruments, Caterpillar, Cummins, GM, Microsoft and IBM.
- India's telecom infrastructure between Chennai, Mumbai and Singapore, provides the **largest bandwidth capacity in the world**, with well over **8.5 Terabits (8.5Tbs) per second**.
- With more than 250 universities, 1,500 research institutions and 10,428 higher-education institutes, **India produces 200,000 engineering graduates** and another 300,000 technically trained graduates every year.
- Besides, another 2 million other graduates qualify out in India annually.
- The Indian Institute of Technology (IIT) is **among the top three universities** from which **McKinsey & Company**, the world's biggest consulting firm, hires most.

# Indians abroad

## A snapshot of Indians at the helm of leading Global businesses

The Co-founder of **Sun Microsystems** (Vinod Khosla),  
Creator of **Pentium Chip** (Vinod Dahm),  
Founder and creator of **Hotmail** (Sabeer Bhatia),  
Chief Executive of **McKinsey & Co.** (Rajat Gupta)  
President and CFO of **Pepsi Cola** (Indra Nooyi)  
President of **United Airlines** (Rono Dutta)  
GM of **Hewlett Packard** (Rajiv Gupta)  
President and CEO of **US Airways** (Rakesh Gangwal)  
Chief Executive of **CitiBank** (Victor Menezes),  
Chief Executives of **Standard Chartered Bank** (Rana Talwar)  
Chief Executive officer of **Vodafone** (Arun Sarin)  
President of **AT & T-Bell Labs** (Arun Netravali)  
Vice-Chairman and founder of **Juniper Networks** (Pradeep Sindhu)  
Founder of **Bose Audio** (Amar Bose)  
Founder, chip designer **Cirrus Logic** (Suhas Patil )  
Chairman and CEO of **Computer Associates** (Sanjay Kumar)  
Head of (HPC WorldWide) of **Unilever Plc.** (Keki Dadiseth)  
Chief Executive Officer of **HSBC** (Aman Mehta)  
Director and member of Executive Board of **Goldman Sachs** (Girish Reddy)  
Chief Economist of the **International Monetary Fund** (Raghuram Rajan)  
Former CTO of **Novell Networks** (Kanwal Rekhi)

# Indians in the USA.



Statistics that show:

38% of doctors in the USA,  
12% of scientists in the USA,  
36% of NASA scientists,  
34% of Microsoft employees,  
28% of IBM employees,  
17% of INTEL scientists,  
13% of XEROX employees,

... are Indians.

## US H1-B Visa applicants country of origin

1. India 44%
2. China 9%
3. Britain 5%
4. Philippines 3%
5. Canada 3%
6. Taiwan 2%
7. Japan 2%
8. Germany 2%
9. Pakistan 2%
10. France 2%

- Of the 1.5M Indians living in the USA, 1/5<sup>th</sup> of them live in the Silicon Valley.
- 35% of Silicon Valley start-ups are by Indians.
- Indian students are the largest in number among foreign students in USA.



# “IIT = Harvard + MIT + Princeton”

“IIT = Harvard + MIT + Princeton” , says CBS ‘60 Minutes’.

CBS' highly-regarded ‘60 Minutes’, the most widely watched news programme in the US, told its audience of more than 10 Million viewers that **“IIT may be the most important university you've never heard of.”**

"The United States imports **oil from Saudi Arabia, cars from Japan, TVs from Korea and Whiskey from Scotland.** So what do we import from India? We import people, really smart people," co-host Leslie Stahl began while introducing the segment on IIT.

“...the smartest, the most successful, most influential Indians who've migrated to the US seem to share a common credential: They are graduates of the IIT.”

“...in science and technology, IIT undergraduates leave their American counterparts in the dust.”

“**Think about that for a minute:** A kid from India using an Ivy League university as a safety school. That's how smart these guys are.”

There are “cases where students who couldn't get into computer science at IIT, they have gotten scholarships at MIT, at Princeton, at Caltech.”

# Mahatma Gandhi

(1869-1948):

Gandhi was once asked what he thought about Western Civilization. His response was: *"I think it would be a good idea."*

*"The greatness of a nation and its moral progress can be judged by the way its animals are treated."*



*"You must not lose faith in humanity. Humanity is an ocean; if a few drops of the ocean are dirty, the ocean does not become dirty."*

*"The only devils in this world are those running around inside our own hearts, and that is where all our battles should be fought."*

*"If all Christians acted like Christ, the whole world would be Christian."*

*"Woman, I hold, is the personification of self-sacrifice, but unfortunately today she does not realize what tremendous advantage she has over man."*

*"Indians, will stagger humanity without shedding a drop of blood."*

*"An eye for an eye makes the whole world blind."*





## **Sir C.V. Raman, (1888 – 1970)**

**1930 - Nobel Laureate in Physics** for work on scattering of light and Raman effect.



## **Sir Jagdish Chandra Bose, (1858 – 1937)**

**USA based IEEE** has proved what has been a century old suspicion amongst academics that the pioneer of **wireless-radio communication** was **Professor Jagdish Chandra Bose** and not Guglielmo Marconi.



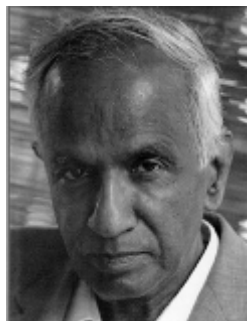
## **Satyendranath Bose, (1894-1974)**

**Indian Physicist**, who solved one of the mysteries of quantum mechanics, showing that in the quantum world some particles are indistinguishable. His collaborations with **Albert Einstein** led to a new branch on statistical mechanics now commonly known as the “Einstein-Bose” statistics.



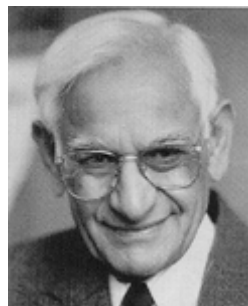
## **Srinivasa Ramanujam, (1887 – 1920):**

**Great Indian Mathematician**, whose interest from academics at Trinity, College, Cambridge, led him to collaborate there and postulate and prove well over 3,542 theorems.



## **Subramanyan Chandrasekhar, (1910-1995):**

**1983 Nobel Laureate in Physics.** His many contributions to physics, on the structure and evolution of stars including rotational figures of equilibrium, stellar interiors, black holes, radiative transfer, hydromagnetic stability, stellar dynamics.



## **Har Gobind Khorana, (b-1922 ):**

**1968 - Nobel Laureate in Medicine** for work on interpretation of the genetic code . Currently residing as professor at MIT.



## **Amartya Sen, (b-1933):**

**1998 - The Nobel Prize for Economics** for his redefining work on ethical welfare economics. Currently residing as Lamont University Professor Emeritus at Harvard, after stepping down from the prestigious post of Master of Trinity College, Cambridge.

*Civilized Past*

# India

*It is the only society in the world  
which has never known slavery.*

*India never invaded any country in her  
last 10,000 years of history.*

*India was the richest country on Earth until the  
time of the British in the early 17th Century*

*Robert Clive's personal wealth amassed from the blunder of  
Bengal during 1750's was estimated at around £401,102*

*It has been estimated that the total amount of treasure that the British looted  
from India had already reached £1,000,000,000 (£1Billion) by 1901.*

*Taking into consideration interest rates and inflation this would be worth close  
to \$1,000,000,000,000 (\$1Trillion) in real-terms today.*

# *A Brief History of Time*

*Vedic Civilization*

*Indus & Saraswati Civilizations*

*Rise of Jainism and Buddhism*

*Mauryan Period*

*Golden Age of Indian Arts & Sciences*

*Muslim Invasions*

*The Mughal Empire*

*Portuguese Invasion*

*The British East-India Company*

*The British Empire*

*India's Freedom Struggle*

*Independence*

*Modern India 2020 Vision*

# India

- India invented the Number System. Zero was invented by **Aryabhata**. The place value system, the decimal system was developed in India in 100 BC.
- **Aryabhata** was the first to explain spherical shape, size, diameter, rotation and correct speed of Earth in 499 AD.
- The World's first university was established in Takshila in 700 BC. Students from all over the World studied more than 60 subjects.
- The University of Nalanda built in the 4th century was one of the greatest achievements of ancient India in the field of education.
- **Sanskrit** is considered the mother of all higher languages. Sanskrit is the most precise, and therefore suitable language for computer software - a report in **Forbes magazine**, July 1987.
- **Ayurveda** is the earliest school of medicine known to humans. Charaka, the father of medicine consolidated Ayurveda **2500 years** ago.
- Today Ayurveda is fast regaining its rightful place in civilization.
- Christopher Columbus was attracted India's wealth and was looking for route to India when he discovered the American continent by mistake.
- The art of Navigation was born in the river Sindh 6000 years ago. The word 'Navigation' is derived from the Sanskrit word NAVGATIH. The word navy is also derived from Sanskrit 'Nau'.
- In Siddhanta Siromani (Bhuvanakosam 6) **Bhaskaracharya II** described about gravity of earth about 400 years before Sir Isaac Newton. He also had some clear notions on differential calculus, and the Theory of Continued Fraction.

# *Languages of India*

*Urdu*

*Punjabi*

*Hindi*

*Rajasthani*

*Oriya*

*Gujarati*

*Sanskrit*

*Bengali*

*Assamese*

*Marathi*

*Konkani*

*Telegu*

*Kannada*

*Malayalam*

*Tamil*

# The Ancient Vedic Hymns

*Rig Veda - Knowledge of Hymns, 10,859 verses*

*“There is only one truth, only men describe it in different ways.”*

*Yajur Veda - Knowledge of Liturgy, 3,988 verses*

*Sama Veda - Knowledge of Classical Music, 1,549 verses*

*Ayur Veda - Knowledge of Medicine, over 100,000 verses*

## *Upanishads*

*Jyotisha – Astrology and Astronomy.*

*Kalpa – Rituals and Legal matters.*

*Siksha – Phonetics.*

*Aitareya – Creation of the Universe, Man and Evolution.*

*Chandogya – Reincarnation, Soul.*

*Kaushitaki – Karma.*

*Kena – Austerity, Work, and Restraint.*

*Dharnur Veda – Science of Archery and War.*

*Mundaka – Discipline, Faith and warning of Ignorance.*

*Sulba Sutra – Knowledge of Mathematics*

*Yoga Sutra - Knowledge of Meditation*

*Kama Sutra - Knowledge of Love and Sex*



# *Sanskrit* (संस्कृत )

*Sanskrit was the classical language of India, older than Hebrew and Latin. It is the oldest, most scientific, systematic language in the world. It became the language of all cultured people in India and in the countries that were influenced by India.*

***Sanskrit*** literally means “**refined**” or “**perfected**”

Sanskrit word	English meaning	Sanskrit meaning
matar	mother	
pitar	papa / father	
bhratar	brother	
svasar	sister	
gyaamti	geometry	'measuring the earth'
trikonamiti	trigonometry	'measuring triangular forms'
dvaar	door	
ma	me	'first person pronoun'
naman	name	
smi	smile	
eka	equal	'the same'

# India

- **Madhavacharya** discovered Taylor series of Sine and Cosine function about 250 years before Taylor.
- Madhavacharya discovered Newton Power series.
- Madhavacharya discovered Gregory Leibnitz series for the Inverse Tangent about 280 years before Gregory.
- Madhavacharya discovered Leibnitz power series for pi about 300 years before Leibnitz.
- **Bhaskaracharya** calculated the time taken by the earth to orbit the sun hundreds of years before the astronomer Smart. Time taken by earth to orbit the sun: (5th century) **365.258756484 days**
- **Infinity** was well known for ancient Indians. Bhaskaracharya II in Beejaganitha(stanza-20) has given clear explanation with examples for infinity
- **Theory of Continued Fraction** was discovered by Bhaskaracharya II.
- Indians discovered **Arithmetic and Geometric progression**. Arithmetic progression is explained in Yajurveda.
- Govindaswamin discovered **Newton Gauss Interpolation** formula about 1800 years before Newton.
- Vateswaracharya discovered **Newton Gauss Backward Interpolation** formula about 1000 years before Newton.
- Parameswaracharya discovered Lhuiler's formula about 400 years before Lhuiler.
- Nilakanta discovered **Newton's Infinite Geometric Progression** convergent series.
- Positive and Negative numbers and their calculations were explained first by **Brahmagupta** in his book Brahmasputa Siddhanta.
- **Aryabhatta** also propounded the **Heliocentric theory of gravitation**, thus predating Copernicus by almost one thousand years.

# ***The Surya Siddhanta,***

*A textbook on astronomy of ancient India,  
last compiled in 1000 BC, believed to be handed down from 3000 BC by aid of  
complex mnemonic recital methods still known today.*

*Showed the Earth's diameter to be 7,840 miles,  
compared to modern measurements of 7,926.7 miles.*

*Showed the distance between the Earth and the Moon as 253,000 miles,  
Compared to modern measurements of 252,710 miles.*

# India

- The value of "**pi**" was first calculated by **Boudhayana**, and he explained the concept of what is known as the Pythagorean Theorem. He discovered this in the 6th century long before the European mathematicians. This was 'validated' by British scholars in 1999.
- **Algebra, trigonometry and calculus** came from India. Quadratic equations were propounded by **Sridharacharya** in the 11th century.
- The largest numbers the Greeks and the Romans used were 10<sup>6</sup> whereas Hindus used numbers as big as 10<sup>53</sup> with specific names as early as 5000 BC during the Vedic period. Even today, the largest used number is Tera: 10<sup>12</sup>.
- **Maharshi Sushruta** is the father of surgery. 2600 years ago he and health scientists of his time conducted complicated surgeries like caesareans, cataract, artificial limbs, fractures, urinary stones and even plastic surgery.
- Usage of **anaesthesia** was well known in ancient India. Over 125 surgical equipments were used.
- Detailed knowledge of anatomy, physiology, aetiology, embryology, digestion, metabolism, genetics and immunity is also found in many texts.
- When many cultures were only nomadic forest dwellers over 5000 years ago, Indians established Harappan culture in the Sindhu Valley Civilization.

# *Kalarippayat - Origin of Martial arts – 200 BC*

Kerala, South India, guardians of the origins of modern martial-arts, influenced by Yoga and connected to the ancient Indian sciences of war (dhanur-veda) and medicine (ayur-veda).

The origin of kung-fu begins with the legend of a monk named Bodhidharma (also known as Ta Mo) who travelled from India to China around 500 A.D.

## The Encyclopaedia Britannica says:

*"Man must have an original cradle land whence the peopling of the earth was brought about by migration.*

*As to man's cradle land, there have been many theories but the weight of evidence is in favour of Indo-Malaysia."*

***"If there is a country on earth which can justly claim the honour of having been the cradle of the Human race or at least the scene of primitive civilization, the successive developments of which carried into all parts of the ancient world and even beyond, the blessings of knowledge which is the second life of man, **that country is assuredly India.**"***

*Future*

# Secular Tolerance

*"In India today,  
we have a lady born a Catholic (Sonia Gandhi)  
stepping aside so a Sikh (Manmohan Singh)  
could be sworn in by a Muslim president (Abdul Kalam)  
to lead a nation that's 82% Hindu.*

*I defy anyone to cite another country with such diversity and  
tolerance to its political leadership."*



# Goldman Sachs Report of 1 October, 2003 – "Dreaming with BRICs: The path to 2050"

India's GDP will reach \$ 1 trillion by 2011,  
\$ 2 trillion by 2020,  
\$ 3 trillion by 2025,  
\$ 6 trillion by 2032,  
\$ 10 trillion by 2038, and  
\$ 27 trillion by 2050,  
becoming the 3<sup>rd</sup> largest economy after USA and China.

In terms of GDP, India will overtake Italy by the year 2016,  
France by 2019, UK by 2022,  
Germany by 2023, and Japan by 2032.

# Progress during the last 20 years

## Poverty (incidence)

1980s	1990s	2000
44%	36%	26%

## Education (literacy rate)

1980s	1990s	2000
44%	52%	65%

## Health (life expectancy)

1980s	1990s	2000
56	60	69



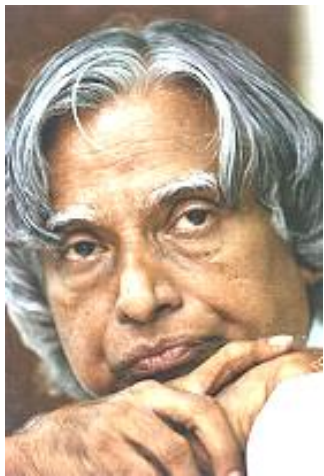
# Ex-Prime Minister, Sri Atal Bihari Vajpayee

A treaty was signed on 6 January, 2004, establishing a South Asian Free Trade Area among the seven SAARC countries (India, Pakistan, Bangladesh, Bhutan, Nepal, Sri Lanka and Maldives) in the region.

India committed to a South Asian Union as the ultimate objective, with mutual security cooperation, open borders and a single currency in Southern Asia in the long run.

*"The bonds of ethnicity and culture which hold together the peoples of this region are more enduring than the barriers of political prejudice that have been erected quite recently."*

*"....Friends, India is ready to do everything that is necessary, to walk as many extra miles as may be required, to make this vision a reality."*



# **Dr Abdul Kalam, President of India, father of India's space, missile and satellite programme and author of "India 2020 Vision".**

"I have three visions for India."

## **1.**

" In 3000 years of our history people from all over the world have come and invaded us, captured our lands, conquered our minds. From Alexander onwards. The Greeks, the Turks, the Moguls, the Portuguese, the British, the French, the Dutch, all of them came and looted us, took over what was ours.

Yet we have not done this to any other nation. We have not conquered anyone. We have not grabbed their land, their culture, their history and tried to enforce our way of life on them.

Why?

Because we respect the freedom of others. That is why my first vision is that of FREEDOM.

I believe that India got its first vision of this in 1857, when we started the war of independence. It is this freedom that we must protect and nurture and build on. If we are not free, no one will respect us. "

## **2.**

My second vision for India is DEVELOPMENT. For fifty years we have been a developing nation. It is time we see ourselves as a developed nation. We are among top 5 nations of the world in terms of GDP. We have 10% growth rate in most areas. Our poverty levels are falling. Our achievements are being globally recognized today. Yet we lack the self-confidence to see ourselves as

a developed nation, self-reliant and self-assured.

## **3.**

I have a THIRD vision. India must stand up to the world. Because I believe that unless India stands up to the world, no one will respect us. Only strength respects strength. We must be strong not only as a military power but also as an economic power. Both must go hand-in-hand."

# India's population to be the largest in the world

India is set to overtake China as the world's most populous nation by 2050.

India's population is expected to grow from 1.08bn to 1.63bn people, overtaking China, which is forecast to reach 1.44bn from 1.3bn currently.

India, will also have the highest working population in the World — 700 million people out of 1.1 billion people are young; the young population will continue till 2050.