

## COMMITTEES/PANELS

1. **McKinsey Report:** Pertains to the merger of seven associate banks with the SBI.
2. **Malhotra Committee:** Laid down the broad framework of the insurance sector .
3. **R.V. Gupta Committee:** Pertains to small Savings.
4. **G.V. Ramakrishna Committee or Disinvestment Commission:** Oversees the disinvestments in Sick Public Sector Undertakings.
5. **Deepak Parekh Committee:** Was set up to suggest remedies to revive UTI.
6. **Raja Chelliah Committee:** Tax reforms
7. **Abid Hussian Committee:** Committee on Small scale Industries
8. **Narasimhan and Verma Committee:** Banking Reforms
9. **Vasudev Committee:** Committee constituted to recommend changes in NBFC (Non Banking Financial Companies) Sector.
10. **Committee on Capital Account Convertibility:** S.S. Tarapore.
11. **Mrityunjaya Athreya :** Report on the restructuring of DBI
12. **J.R. Varma Committee:** is instituted to look into the current carry forward or badla system practised in some security exchanges in India.
13. **Kumarmangalam Birla Report:** Concerns with corporate governance.
14. **S.P. Talwar :Committee** on Restructuring of Weak Public Sector Banks.
15. **The S.L. Guru Expert Committee** has been constituted to devise ways for "Strengthening and Developing of Agricultural Marketing".
16. **I.Y. V. Reddy Committee** on Contractual Savings:  
The Y.V. Reddy Committee on Contractual Savings has made three major recommendations.
  1. Interest rates on small savings should be benchmarked against the interest rates on government borrowings of like maturities in the previous year;
  2. Tax incentives should be retained only on savings with maturities in excess of six years and
  3. Small savings collections should be transferred in their entirety to the State Governments.
17. **The BASEL Committee** is on Banking Supervision.
18. **The Malegam Committee** which had been appointed to suggest a repositioning for UTI, has recommended the privatization of India's largest mutual fund. It has recommended that UTI should be converted into an Asset Management Company (AMC)
19. **Tarapore Committee:** The Tarapore Committee has been set up by the government to examine and recommend a revamp of Unit Trust of India (UTI).
20. **Udesh Kohli Committee:** The Udesh Kohli commit-

tee set up by the government to analyse fund requirement in the power sector has said that the country would need Rs.8,00,000 crore in the next ten years to build the required capacity.. The committee which was set up by the Power Ministry has said that in order to achieve power on demand by 2012, an estimated installed capacity of approximately 207,266 MW would be required. This requires an addition of about 100,000 MW by March 2012".

21. **Prasad Panel:** The Committee on International Trade and Services, is headed by HAC Prasad, Economic Advisor to the Commerce Minister.

22. **Vohra Committee:** Politicians – Criminals nexus

23. **Raja Mannar Committee** on Central State Relation which was constituted by the then DMK government in 1967.

The **Sarkaria Commission** on Central state Commission was **set up in 1983**.

## DANCES OF INDIA

**BHARATANATYAM:** Bharatanatyam is poetry in motion, a solo dance originating in the temples of south India. It is based on the principles of "Natyashastra", written by the great sage, Bharata, around 4000 BC. Earlier, it was variedly known as "Dasi Attam" and "Sadia". It is a highly traditional dance performed to a repertory of carnatic music and comprises items such as the alarippu, varnam, padam, thillana and so on. Its present form was evolve in Tanjore by Ponniah Pillai and brothers. Smt. Rukmini Devi gave it a new life and respectability. On par with her was T. Bala Saraswathi, the queen of Bharatanatyam.

**ODISSI:** Odissi is a dance form developed in Orissa during second century BC when the Jain King Kharavela ruled. He himself was an expert dancer. It is also based on the principles of 'Natyashastra'. Themes from Jayadeva's 'Gita Govinda', poems in praise of Krishna written around the AD12 Century dominate the contents. First performed by women called 'Maharis' in the Jagannath Temple (Puri) and then by young boys attired as women called 'gotipuas', Odissi is woven around the basic tribhanga pose typical of Indian Sculpture. It has gained great popularity today and the credit goes to Smt. Samjukta Panigrahi who gave it an universal appeal. The name of Guru Kelucharan Mahapatra is at the forefront of the greatest exponents of odissi.

**CHAKIARKOOTHU:** This dance form is believed to have been introduced to Kerala by the earlier Aryan immigrants. Its performance is restricted to the members of Chakiar caste. It is a highly orthodox form of entertainment which is performed inside the temples and is witnessed by Hindus of the Higher castes only.

**MANIPURI:** Manipuri is a dance form, mostly ritualistic, popular in the 'north-east'. The ragas comprise five different types of ballets based on Radha-Krishna-Gopis theme. The other form of this dance is the "Sankirtanas", usually

performed by men carrying drums called 'pung'. It is a highly lyrical dance but lacks dramatic facial and gestural expression.

**KUCHIPUDI:** It is a solo dance popular in Andhra Pradesh. It originated in a place called "Kuchelapur". Tirtha Narayana and Siddendra Yogi evolved this style. Traditionally performed by men attired like women, it has a style which corresponds with the Bhagavata Mela Natak of Tamil Nadu. Except for the emphasis on animation, it draws upon the principles of the Natya Sastra and in all other aspects it is akin to Bharatanatyam. Vedantham Satyanarayana is the doyen of Kuchipudi. China Satyam is a renowned guru of this dance form.

**KATHAK:** This dance form originated in U.P., Rajasthan. It has its roots in "Katha" meaning story. The story tellers who were attached to the temples in North India, narrated stories from the Epics, in the form of Radha and Krishnalilas. With the advent of Muslim rule, it came out of the temples in the form of a sophisticated dance of the Mughal courts. The Nawabs of the erstwhile small kingdoms patronised this dance form into erotics. Binda Din Maharaj, Kalkadin, Achchan Maharaj, Gopi Krishna, and Birju Maharaj are some of the greatest exponents of Kathak.

**KATHAKALI:** This dance form is from Kerala, which is more dramatic than narrative in form. It has its origin in the courts of the kings of Kerala and is considered to be the most scientific and elaborately defined dance Form. The body gestures, hand movements and eye/eyeball movements comprise its language. It is not a folk dance but is highly classical, though not very old. Poet Vallathol revived Kathakali in its present form.

**MOHINIATTAM:** A solo dance form from Kerala, Mohiniattam is also the heir to Devadasi dance heritage like Bharatanatyam, Odissi and Kuchipudi. In the 19<sup>th</sup> Century, the king of Travancore, Swati Tirunal encouraged this dance form. Poet Vallathol revived it through Kerala Kalamandalam founded by him in 1930 along with Kalamandalam Kalyaniamma, the first dance teacher of Kalamandalam.

**OTTAM THULLAL:** It is also a solo dance form of Kerala, known as poor man's Kathakali. This dialogue is in simple Malayalam and therefore has a mass appeal. Kunjan Nambiar evolved it to bring out the social conditions of his time, the distinctions of class, and the whims and weaknesses of the rich.

**YAKSHAGANA:** It is a dance-drama from Karnataka which is of rural origin. The language is Kannada and theme based on the Hindu epics. It is about 400 years old. It was revived by Dr. Shivaram Karanth.

## FOLK AND TRIBAL DANCES:

DANCE	STATE
Ankia Nat	Assam
Bahaka Wata	Orissa
Bhangra	Punjab
Bhavai	Gujarat, Rajasthan
Bidesie	Bihar
Bihu	Assam
Chakiarkoothu	Kerala
Chakri	Jammu and Kashmir
Chamar Givad	Rajasthan
Chappeli	Uttar Pradesh
Chhau	West Bengal
Chavittu Natakam	Kerala
Chiraw	Mizoram
Dahikala	Maharashtra
Dandanate	Orissa
Dandiya Ras	Gujarat
Gangore	Rajasthan
Garba	Gujarat
Gidda	Punjab
Gidda Parhaun	Himachal Pradesh
Hikat	Jammu and Kashmir
Jata-Jatin	Bihar
Jatra	West Bengal
Jhular Leela	Rajasthan
Jhumar or Ghumar	Rajasthan
Kaitotti Kalli	Kerala
Kummi	Tamilnadu
Kajri	Uttar Pradesh
Kayanga	Himachal Pradesh
Karan	Uttar Pradesh
Kathi	West Bengal
Kayanga Bajavanga	Rajasthan
Khayal	Rajasthan
Kolattam	Tamil Nadu
Kottam	Andhra Pradesh
Krishnavattam	Kerala
Kumaon	Uttar Pradesh

Lai Haroba	Manipur	Largest Electorate	India
Lavani	Maharashtra	Largest Forest	Coniferous forest of Northern CIS
Lezim	Maharashtra		Lake
Lota	Madhya Pradesh	Largest Lake (Fresh Water)	Superior (Canada)
Luddi	Himachal Pradesh		Caspian Sea
Macha	Madhya Pradesh	Largest Lake (Salt Water)	
Maha Rassa	Manipur		Jama Masjid, Delhi (India)
Mudivettu	Kerala	Largest Mosque	Arabia
Munzra	Himachal Pradesh	Largest Peninsula	(Area – 3,250,000 sq.km)
Nautanki	Uttar Pradesh		Kharagpur, West Bengal, (India)
Ojapali	Assam	Longest Railway Platform	(833 m long)
Pandvani	Madhya Pradesh		South China Sea
Rasila	Gujarat		Albatross
Rauf	Jammu and Kashmir	Largest Sea	Angkor Vat (Cambodia)
Swang	Haryana	Largest Sea-bird	Etosha Reserve (South West Africa)
Tamasha	Maharashtra	Largest Temple	Mahabharata (1,00,000 verses)
Tappatri Kali	Kerala	Largest Zoo	Great Wall of China
Therukkoothu	Tamil Nadu		Humming Bird
Theyyam	Kerala	Longest Epic	Giraffe
Tippani	Gujarat		Fountain Hills (Arizona)
Veethi Bhagavatan	Andhra Pradesh	Longest Wall	Qutab Minar, Delhi (239 ft.)
Wangala Laho	Meghalaya	Smallest Bird	The Peregrine Falcon

## SUPERLATIVES-WORLD

Biggest Dam	Three Gorges (China)	Tallest Animal	Giraffe
Biggest Dome	Gol Gumbaz (India)	Tallest Fountain	Fountain Hills (Arizona)
Biggest Museum	American Museum of Natural History, New York	Tallest Minaret (Free standing)	Qutab Minar, Delhi (239 ft.)
Biggest Palace	Vatican	Fastest Animal	The Peregrine Falcon
Highest Airport	Lhasa (Tibet)	Fastest Bird	Swift
Highest Waterfall	Angel (Venezuela)	Coldest Place	Polyus Nedostupnosti (Antarctica)
Largest Archipelago	Indonesia (3,000 islands)	Driest Place	Death Valley (California)
Largest Bird	Ostrich	Hottest Place	Azizia (Libya)
Largest City (Population)	Tokyo (Japan)	Wettest Place	Cherrapunji (India)
Largest Creature	Blue Whale	Brightest Planet	Venus
Largest Dam	Grand Coulee-Concrete Dam (USA)	Brightest Star	Sirius (also called the Dog Star)
Largest Delta	Sunderbans (India)		

## SUPERLATIVES - INDIA

Busiest Airport	Santa Cruz (domestic) Chhatrapati Shivaji International Airport (Mumbai)	Bangabandhu Bapu Chacha C.R. Desert Fox Deshbandhu Father of English Poetry	Sheikh Mujibur Rehman Mahatma Gandhi Jawaharlal Nehru C. Rajagopalachari gen. Rommel C.R.Das Geoffrey Chaucer
Heaviest Rainfall	Mausynram (Meghalaya)	Frontier Gandhi	Khan Abdul Ghafter Khan
Highest Dam	Bhakra Nangal dam (226m high)	Fuehrer	Adolf Hitler
Highest Waterfall	Jog Falls (Gersoppa Falls, Karnataka)	'G.B.S'.	George Bernard Shaw
Largest Cave Temple	Ellora	Grand Old Man Of India	Dadabhai Naoroji
Largest District	Ladakh	Gurudev	Rabindranath Tagore
Largest Mosque	Jama Masjid, Delhi	Iron Duke	Duke of Wellington
Largest State	Rajasthan (3,43,239 sq.km)	Iron Man of India "J.P."	Sardar Vallabhai Patel Jayaprakash Narayan
Longest Canal	Indira Gandhi Canal 9959 km	Lady with the Lamp	Florence Nightingale
Most Populous City	Mumbai (12.7 million)	Lal, Bal, Pal Gangadhar Tilak, Bipin Chander pal	Lala Lajpat Rai, Bal
Longest Dam	Hirakud Dam on Mahanadi in Orissa	Lion of Punjab (Sher-e-Punjab)	Lala Lajpat Rai
Largest Desert	Thar Desert (Rajasthan)	Little Corporal	Napoleon
Largest Delta	Sunderbans (75,000 sq.km)	Lokmanya Mahatma	Bala Gangadhar Tilak Mahatma Gandhi
Largest Gurudwara	Golden Temple, Amritsar	Maiden Queen	Elizabeth I
Largest Lake	Wular Lake, Kashmir	Maid of Orleans	Joan of Arc
Largest Museum	Indian Museum, Kolkata	Man of Blood And Iron	Bismarck
Largest Planetarium	Birla Planetarium, Kolkata	Man of Destiny	Napoleon
Railway Platform	Kharagpur (W.B.) (833 m)	Mysore Tiger	Tipu Sultan
Longest River	Ganga (2,640 km long)	Netaji	Subhas Chandra Bose
Largest Zoo	Zoological Gardens, Kolkata	Nightingale of India	Sarojini Naidu
Smallest District	Mahe ( 9 Sq.km)	Punjab Kesari	Lala Lajpat Rai
Tallest Minaret	Qutab Minar, Delhi (239 ft)	Saint of the Gutters	Mother Teresa
<b>SOBRIQUET</b>	<b>ORIGINAL NAME</b>	Sparrow	Maj-Gen, Rajjinder Singh
Andhra Kesari	Tanguturi	Strong Man of India	Sardar Vallabhai Patel
Prakasam			
Badshah Khan	Khan Abdul		
Ghafter Khan			

<b>SOBRIQUET</b>	<b>PRIMARY NAME</b>		
Bengal's Sorrow	River Damodar	Land of the Long	New Zealand
Blue Mountains	Nilgiri Hills	White Cloud	
City of Golden Gate	San Francisco	Land of Golden Fleece	Australia
City of Golden Temple	Amritsar	Pearl of the Antilles	Cuba
City of the	Oxford, UK	Pillar of Hercules	Gibraltar
Dreaming Spires		Pink City	Jaipur
City of Magnificent Distances	Washington	Playground of Europe	Switzerland
City of Seven-Hills/	Rome, Italy	Queen of the Adriatic	Venice, Italy
Eternal City		Queen of the Arabian Sea	Kochi, India
Cockpit of Europe	Belgium	Roof of the World	Pamirs
Dark Continent	Africa	Sick Man of Europe	Turkey
Emerald Island	Ireland	Sorrow of China/	Hwang Ho
Empire City/	New York	Yellow River	
City of Skyscrapers		Spice Garden of India	Kerala
Garden of England	Kent, England	Sugar Bowl of the World	Cuba
Gate of Tears	Bal-el-Mandab	Venice of the East	Alappuzha
Gateway of India	Bombay	Venice of the North	Stockholm, Sweden
Gift of the Nile	Egypt	White City	Belgrade
Granite City	Aberdeen, Scotland	Wold's Breadbasket	Prairies of N. America
Great White Way	Broadway, New York	World's Loneliest Island	Tristan da Cunha
Herring Pond	Atlantic Ocean	Britain of the South	New Zealand
Holy Land	Palestine	Battle Field of Europe	Belgium
Hermit Kingdom	Korea	City of Palaces	Kolkata
Island of Cloves	Zanzibar	City of Popes	Rome
Island of Pearls	Bahrain	City of Skyscrapers'	New York
Key to the Mediterranean	Gibraltar	City of Arabian Nights	Baghdab
Land of Cakes	Scotland	Dark Continent	Africa
Land of Kangaroos	Australia	Dairy of Northern Europe	Denmark
Land of Golden Pagoda	Myanmar (Burma)	Forbidden City	Lhasa (Tibet)
Land of the Lillies/	Canada	Garden City of India	Bangalore
Land of Maple		Gibraltar of India Ocean	Aden
Land of Morning Calm	Korea	Island Continent	Australia
Land of Midnight Sun	Norway	The Isle of Spring	Jamaica
Land of Rising Sun	Japan	Workshop of Europe	Belgium.
Land of Thousand Lakes	Finland		
Land of Thunderbolt	Bhutan		
Land of the White	Thailand		
Elephants			

**FAMOUS SITES – INDIA**

<b>SITE</b>	<b>LOCATION</b>		
Akbar's Tomb	Sikandra, Agra	Malabar Hill	Mumbai
Amarnath Cave	Kashmir	Man Mandir Palace	Gwalior (MP)
Amber Palace	Jaipur	Marina Beach	Chennai
Anand Bhavan	Allahabad	Nagin Lake	Srinagar
Birla Planetarium	Kolkata	Meenakshi Temple	Madurai
Black Pagoda	Konar (Orissa)	Mt.Gimar Jain Temple	Junagadh,
Brihadeswara Temple	Thanjavur (TN)	Nataraja Temple	Chidambaram
Buland Darwaza	Fatehpur Sikri (Raj)	Nishat Bagh	Srinagar (J & K)
Bhakra Nangal Dam	Punjab	Padmanabha Temple	Thiruvananthapuram
Bibi-ka-maqbara	Aurangabad (Mah)	Palitana	Gujarat
Chaminal	Hyderabad	Panch Mahal	Fatehpur Sikri
Chenna Kesava Temple	Belur (Kar)	Pichola Lake	Udaipur
Chilka Lake	Orissa	Prince of Wales Museum	Mumbai
Dal Lake	Srinagar	Qutab Minar	Delhi
Dilwara Temples	Mt. Abu (Raj)	Raj Ghat	Delhi
Elephanta caves	Mumbai	Rashtrapati Bhawan	Delhi
Gateway of India	Mumbai	Red Fort	Delhi
Golden temple	Amritsar	Sanchi Stupa	Sanchi
Gol Gumbaz	Bijapur (Kar)	Sarnath	Varanasi
Hanging Gardens	Mumbai	Sidi Sayyid Mosque	Ahmedabad
Hawa Mahal	Jaipur	Shalimar Bagh	Srinagar
Howrah Bridge	Kolkata	Shahi Chashma	Srinagar
Itmad-ud-Daulah's Tomb	Agra	Shanti Van	Delhi
Jagannath Temple	Puri (Orissa)	Shore Temple	Mahabalipuram
Jahaz Mahal	Mandu (MP)	Somnathpur Temple	Mysore
Jai Stambha	Chittorgrah (Faj0	Statue of	Sravana belgola
Jama Masjid	Delhi	Gomateswara	(Kar)
Jantar Mantar	New Delhi	Sunderbans	West Bengal
Jog (Gersoppa) Falls	Karnataka	Sun Temple	Konark
Kailasa Temple	Ellora (Mah)	Taj Mahal	Agra
Khajuraho Temples	Khajuraho	Tower of Silence	Mumbai
Lakshmililas Palace	Baroda (Guj)	Victoria Memorial	Kolkata
Lal Bagh Garden	Bangalore	Victoria Garden	Mumbai
Lalgarh Palace	Bikaner	Vijay Ghat	Delhi
Lingaraj Temple	Ujjain		
Maheshmurti	Elephanta Caves		
(Trimurti)	Mumbai		

NAME	COUNTRY
Blue Book	Any official report of the British Government
Green Book	Official publication of Italy and Iran
Grey Book	Official reports of the Japanese and Belgium Governments
Orange Book	Official Publication of the Netherlands
White Book	Official publication of Germany, China and Portugal
Yellow Book	Official book of France
White Paper	Short pamphlet giving authoritative detail of facts issued by the Indian Government stating its view on a particular issue for the knowledge of general public

## IMPORTANT AWARDS

**THE NOBEL PRIZES:** Alfred Bernhard Nobel who died in 1896. He was a noted **Swedish chemist and engineer** who discovered **Nitro-glycerine** and its use in the manufacture of dynamite.

These prizes are given each year in **six fields**. The Nobel Prizes for peace, physics, chemistry, medicine and literature were started in **1901**. The Nobel Prize for economics was instituted in **1967** by the Swedish Bank (Sveriges Riksbank), in celebration of its **300<sup>th</sup>** anniversary and was given for the first time in 1969. These prizes are the most prestigious awards in the world.

**BOOKER PRIZE:** The Booker Prize, instituted in **1968**, is Britain's most important literary award.

**CARNEGIE MEDAL:** British Library Association every year. children's literature's equivalent of the **Booker Prize**.

**ELLA AWARD:** singers whose musical careers are paralleled by contributions to humanitarian causes.

**EMMY AWARDS:** Television programmes.

**GOLDEN BEAR AWARD:** The '**Best Film**' at the International **Berlin** Film Festival.

**GOLDEN LION AWARD:** The Golden Lion Award is given to the '**Best Film**' at the **Venice** Film Festival.

**GRAMMY AWARDS:** **Oscars of the music world.**  
**JESSE OWENS AWARD:** most outstanding amateur athlete.

**KALINGA PRIZE:** 1951 by UNESCO, the Kalinga Prize - popularisation of science and technology.

**ORDER OF FRIENDSHIP AWARD:** The Order of Friendship Award is Russia's most prestigious award for foreign nationals.

**ORDER OF THE SACRED TREASURE, GOLDEN RAYS WITH NECK RIBBON:** The Order of the Sacred Treasure, Golden Rays with Neck Ribbon is Japan's most prestigious civilian award.

**POLAR MUSIC PRIZE:** The Polar Music Prize is given to persons, groups or organisations who have made a decisive contribution in the music field.

**PRESIDENTIAL MEDAL OF FREEDOM:** The Presidential Medal of Freedom is America's highest civilian honour.

**PULITZER PRIZES:** The Pulitzer Prizes are bestowed on distinguished people who excel in the field of journalism and other print media. The prize is given for best novel, best drama, best poetry, best breaking news, best photography, best general non-fiction international reporting, best music, etc.

**PYRAMID GOLD AWARD:** The Pyramid Gold Award is presented to the '**Best Film**' at the Cairo Film Festival.

**RAMON MAGSAYSAY AWARDS:** on distinguished people and organisations who have excelled in and made contributions into the fields of

- (1) Community Leadership;
- (2) Emergent Leadership'
- (3) Journalism, Literature and Creative Communication.
- (4) Public service
- (5) Government service
- (6) International peace and Understanding.

**TEMPLETON PRIZE:** The Templeton Prize for Progress in Religion is given for making an outstanding contribution to the promotion of religion and religious harmony.

**WOLF PRIZE:** Israel's **equivalent of the Oscars**, is given annually for outstanding contribution made in the field of **physics, agriculture research, mathematics and music**.

## IMPORTANT AWARDS (INDIAN)

**BHARAT RATNA:** The award is given for exceptional work of the advancement of art, literature and science, and in recognition of **public service of the highest order**. The decoration is in the form of a **peepal leaf**, about 5.8 cm long, 4.7 cm wide and 3.1 mm thick. It is of **toned bronze**. On its obverse is embossed a replica of the Sun, 1.6 cm in diameter, below which the words, "**Bharat Ratna**" are embossed in Hindi. On the reverse are the State emblem and the motto, also in Hindi. The emblem, the Sun and the rim are of platinum. The inscriptions are in burnished bronze.

**PADMA VIBHUSHAN:** The award is given for exceptional and distinguished service in any field including service rendered by government servants. The decoration is circular in design, with a geometrical pattern superimposed on the circle. The diameter of the circular portion is 4.4 cm and the thickness about 0.6 mm. On the obverse, there is a lotus flower embossed on the circular space. The word "Padma" is embossed in Hindi above and the word 'Vibhushan' below the lotus flower. On the reverse are the state emblem and the motto in Hindi. It is of toned bronze.

**PADMA BHUSHAN:** The award is given for distinguished service of a high order in any field, including service rendered by government servants. It has the same design as the "Padma Vibhushan". On its obverse the word "Bhushan" below the lotus flower.

**PADMA SHRI:** The award is given for distinguished service in any field including service rendered by government servants. The name of the decoration is embossed in Hindi with the word "Padma" above and the word "Shri" below the lotus flower on the obverse.

In pursuance of the Supreme Court's Judgement, the Government had constituted a High Level Review Committee chaired by the Vice-President of India, to go into the guidelines for the Padma Awards and certain aspects. The Review Committee submitted its report in November 1996 and the same has been accepted by the Government. The institution of these awards has been revived since 1997.

### BHARAT RATNA

The following are the recipients of Bharat Ratna so far. C. Rajagopalachari (1954); S.Radha Krishnan(1954). C. V. Raman(1954); Jawahalar Nehru (1955); Bhagwan Das (1955); M. Visweswariyya (1955); Govind Ballabh Pant (1957); D.K. Karve (1958); B.C. Roy (1961); P.D. Tandon (1961); Rajendra Prasad (1962), Zakir Hussain (1963); P.V. Kane (1963); Lal Bahadur Shastri (posthumous, 1966); Indira Gandhi (1971); V.V. Giri (1975) Kkamaraj (Posthumous 1976) Mother Teresa (1980), Vinoba Bhave (1983), 'Frontier Gandhi' Khan Abdul Ghafar Khan(1987), M.G.

Ramachandran (Posthumous, 1988), Dr. B.R. Ambedkar (posthumous, 1990); Dr. B.R. Ambedkar (posthumous, 1990); Dr. Nelson Mandela(1990); Rajiv Gandhi (Posthumous, 1991) Sardar Vallabhai Patel (posthumous,1991); Morarjee Desai (1991); J.R.D. Tata, Satyajit Ray, (posthumous), Maulana Abul Kalam Azad, (1992); Aruna Asaf Ali (Posthumous); Gulzarilal Nanda (1997); APJ Abdul Kalam, M.S. Subbalakshmi, C. Subra-maniam (1998); Jaipra-kash Narayan (posthumous); Amartya Sen, Ravi Shankar, Gopinath Bordoloi (posthumous) (1999), Ustad Bismillah Khan and Lata Mankeshkar(2001)

### NOBEL LAUREATES

RABINDRANATH TAGORE	Literature	1913
CHANDRASHEKAR VENKATARAMAN	Physics	1930
HARGOBIND KHORANA	Medicine	1968
MOTHER TERESA SUBRAMANIAN	Peace	1979
CHANDRASHEKAR	Physics	1983
AMARTYASEN	Economics	1998

**AVANTIKA NATIONAL AWARD:** The Avantika National Award for social service is presented to a distinguished person for his/her contribution in the field of education, environment, conservation and development of Indian culture, and development of children.

**CHANDRASEKHARENDRA SARASWATI NATIONAL EMINENCE AWARD:** The award is instituted by the South Indian Education Society (SIES) Mumbai, and is named after the 68<sup>th</sup> Sankaracharya of the Kanchi Kammakoti Peetham, Sri Chandrasekharendra Saraswati. It is given for public leadership, community service, science and technology and 'pravachana katha'.

**G.D. BIRLA AWARD:** The G.D. Birla Awards are given in the field of social and cultural excellence. The awards carry a cash prize of Rs.2 lakh and a citation.

**JAMNALAL BAJAJ AWARDS:** The Jamnalal Bajaj Awards instituted by the Bajaj Foundation, are given in the fields of constructive work, application of science and technology, outstanding work for upliftment and welfare of children and for promoting Gandhian values outside India.

### JRD TATA CORPORATE EXCELLENCE AWARD:

The JRD Tata Corporate Excellence Award is presented by the Tatachem Golden Jubilee Foundation to a corporation leader for his/her contribution to the society and the nation at large with a strong commitment to globalisation of the Indian economy and achievement of high standards of excellence in professional management and industry.



**KALIDAS SAMMAN:** The Kalidas Samman instituted by the Madhya Pradesh Government is given to eminent personalities for their outstanding contributions in the field of classical music, classical dance, visual arts and theatre.

**LATA MANGESHKAR AWARD:** The Lata Mangeshkar Award, instituted by the Madhya Pradesh Government, is presented to eminent personalities for their outstanding contributions to the promotion of music and cinema.

**M.A. THOMAS NATIONAL HUMAN RIGHTS AWARD:** Instituted by Vigil India Movement in the memory of its founder President, Rev. Dr. M.A. Thomas, a leading human right activist, the award honours and recognises individuals or organisations who have made significant contributions in the field of human rights.

**MAHAVIR AWARDS :** promotion of non-violence vegetarianism, education, medicine and social service.

**SARASWATI SAMMAN AWARDS:** India's highest literary honour instituted by the K.K. Birla Foundation in 1991. the languages mentioned in Schedule VIII.

**SHANKAR PURASKAR:** The Shankar Puraskar, instituted by K.K.Birla Foundation, is presented for outstanding work in Hindi in Indian philosophy, art and culture.

**TANSEN SAMMAN:** The highest award in the field of classical music instituted by the M.P. Government.

**VACHASPATI PURASKAR:** Instituted by the K.K. Birla Foundation, the Vachaspati Puraskar is conferred on the best Sanskrit.

**VYAS SAMMAN:** is given to an outstanding literary work in Hindi authored by an Indian citizen.

**GANDHI PEACE PRIZE:** The Award carries a cash amount of Rs. 1 crore or its equivalent in foreign currency.

**INDIRA GANDHI PRIZE FOR PEACE, DISARMAMENT AND DEVELOPMENT:**

**JAWAHARLAL NEHRU AWARD FOR INTERNATIONAL UNDERSTANDING:** international understanding, goodwill and friendship among the people of the world.

#### GALLANTRY AWARDS

**PARAM VIR CHAKRA:** The highest decoration

**MAHAVIR CHAKRA:** second highest decoration

**VIR CHAKRA:** third in the order of awards

**ASHOKA CHAKRA:** The Ashok Chakra is the highest peace-time gallantry award.

**KIRTI CHAKRA:** The second highest peace-time gallantry award.

**SHAURYA CHAKRA:** The decoration is awarded for an act of gallantry. It is exactly like Ashok Chakra, except that it is made of bronze.

#### MAJOR NATURAL DISASTERS SINCE 1975

YEAR	DISASTER	PLACE	DEATH TOLL
1976	Earth quake	Tangshan, China	242,419
1977	Cyclone	AP, India	10,000
1985	Volcanic Eruption	Nevado-del-Ruiz, Columbia	23,000
1991	Cyclone	Bangladesh	1,38,000
1999	Earth quake	Izmit, Turkey	17,000
2001	Earth quake	Bhuj, Gujarat	13,805
2003	Earth quake	Bam, Iran	26,271
2004	Tsunami	South & South East Asia	2,75,000
2005	Earth quake	Kashmir	39,304

#### EARTH DATA

Surface area	500 100 500 sq km
Land surface (29.1%)	148 950 800 sq km
Ocean surface (70.9%)	361 149 700 sq km
Total water area	382 672 000 sq.km
Type of water	97%=salt & 3% fresh
Equatorial circumference	40 066 km
Polar circumference	39 992 km
Equatorial diameter	12 753 km
Polar diameter	12 710 km
Equatorial radius	6 376 km
Polar radius	6 355 km
Mass (estimated weight)	5 940 000 000 000 000 000 000 metric tons
Mean distance from the sun	149 407 000 km*
Earth's Orbit Speed (around Sun)	107 320 kmph
Period of Revolution (round the sun)	365 days 5 hrs. 48 min. 45.51 sec.
Time of Rotation (on its own axis )	23 hrs. 56 min. 4.09 sec.

Inclination of the axis (from the plane of the ecliptic)	66° 30'
Speed of Rockets (i.e., velocity required to counter earth's gravity and to rise up into the atmosphere)	8 km/sec approx
Escape Velocity (i.e. speed necessary to break away from the Earth into outer space)	11 km/second

**COMPOSITION OF THE EARTH:**

Aluminium (0.4%), Sulphur (2.7%), Silicon (13%), Oxygen (28%), Calcium (1.2%), Nickel (2.7%), Magnesium (17%), Iron (35%).

**THE BIGGEST STATE (COUNTRIES):**

Russia, Canada, China, U.S.A., Brazil, Australia, India, Argentina, Kazakhstan, Sudan.

**MOST POPULATION STATES:**

China, India, USA, Indonesia, Brazil, Pakistan, Bangladesh, Russia, Nigeria, Japan.

**MEMBER-STATES OF THE UNO**

The total number of the members of the United Nations is 192 after admitting **Montenegro** as the 192<sup>nd</sup> member on June 28, 2006.

To become a member of the UN, the country (i) must be peace loving and willing to accept the aims, objectives and rules of the UN Charter, (ii) must be judged by the UN as being able to carry out these aims and objects (iii) must be recommended by the UN Security Council for the membership and (iv) the membership must be confirmed by the UN General Assembly by a two-thirds majority vote.

The name 'United Nations' was devised by United States **President Franklin D. Roosevelt** and was first used in the Declaration by United Nations of 1 Jan, 1942, during the Second World War, when representatives of 26 nations pledged their Government to continue fighting together against the Axis Powers.

**East Timor** (190) was admitted as a member of the UN in September, 2002. **Switzerland** (191) joined the world Organisation in the same month, **Montenegro** (192) became a UN member on 28 June, 2006.

**Vatican is a permanent observer.**

Official languages of the UN are: **Arabic, Chinese, English, French, Russian and Spanish.**

**Principal Organs** of the UN are: General Assembly, Secretariat, Security Council, Trusteeship Council, Economic and Social Council and International Court of Justice.

**GENERALASSEMBLY:**

The Assembly consists of the representatives of all the member states. Each state has one vote, but may send 5 representatives. The General Assembly meets at least once in a year. It elects its own President and Vice Presidents every year.

**SECURITY COUNCIL:**

Security Council consists of 15 members, each of which has one vote. There are five permanent and 10 non-permanent members elected for a 2 year term by a two-thirds majority of the General Assembly. The permanent members have the power to veto any move. Retiring members are not eligible for immediate re-election.

**PERMANENT MEMBERS: China, France, Russia, UK, USA.**

**ECONOMIC AND SOCIAL COUNCIL:**

The Economic and Social Council (54 members) is responsible under the General Assembly for carrying out the functions of the United Nations with regard to international economic, social, cultural, educational, health and related matters. The Council's Regional Economic Commissions: ECE (Economic Commission for Europe, Geneva); ESCAP (Economic and Social Commission for Asia and the Pacific, Bangkok); ECLAC (Economic Commission for Latin America and the Caribbean, Santiago, Chile); ECA (Economic Commission for Africa Addis Ababa). ESCWA (Economic Commission for Western Asia, Amman, Jordan).

**TRUSTEESHIP COUNCIL:**

The Charter provides for an international trusteeship system to safeguard the interests of the inhabitants of territories which are not yet fully self-governing and which may be placed there under by individual trusteeship agreements. These are called trust territories.

All of the original 11 trust territories have become independent or joined independent countries.

**Members: China, France, Russia, UK, USA.**

**INTERNATIONAL COURT:**

There are 15 judges. **Hague**, Netherlands.

The 15 judges are elected for 9 year terms by the General Assembly and the Security Council. Retiring judges are eligible for re-election. The court remains permanently in session, except during nations. All questions are decided by majority.

**Languages: French and English.**

## UN SECRETARIES GENERAL

YEAR	NAME	NATION
1946	Trygve Lie	Norway
1953	Dag Hammarskjold	Sweden
1961	U Thant	Burma
1972	Kurt Waldheim	Austria
1982	Javier Peres De Cuellar	Peru
1992	Dr. Boutros Boutros Ghali	Egypt
1997	Kofi Annan	Ghana
2007	Ban-Ki-moon	S. Korea

## INTERNATIONAL ORGANIZATIONS

Amnesty International	1961	London
Asian Development Bank (ADB)	1966	Manila
Caribbean Community and Common Market (CARICOM)		George Town
Economic and Social Commission for Asia and the Pacific (ESCAP)	1947	Bangkok
Economic and Social Commission for Western Asia (ESCWA)	1973	Amman
Economic Commission for Africa (ECA)	1958	Addis Ababa
Economic Commission for Europe (ECE)	1947	Geneva
Economic Commission for Latin America and the Caribbean (ECLAC)	1948	Santiago
Food and Agriculture Organisation (FAO)	1945	Rome
International Atomic Energy Agency (IAEA)	1957	Vienna.
International Bank for Reconstruction and Development (IBRD)	1945	Washington
International Civil Aviation Organisation (ICAO)	1947	Montreal
International Development Association (IDA) –Administered by the World Bank.	1960	Washington
International Fund for Agricultural Development (IFAD)	1977	Rome
International Labour Organisation (ILO)	1919	Geneva

International Maritime Organisation (IMO)	1958	London
International Maritime Organisation (IMO)		London.
International Monetary Fund (IMF)	1945	Washington.
International Telecommunication Union (ITU)		Geneva
United Nations Educational, Scientific and Cultural Organisation (UNESCO)	1946	Paris
United Nations Centre for Human Settlements (UNCHS)	1978	New York
United Nations Children's Fund (UNICEF)	1946	New York
United Nations Conference on Trade and Development (UNCTAD)	1964	Geneva
United Nations Development Fund for Women (UNIFEM)	1976	New York
United Nations Development Programme (UNDP)	1965	New York
United Nations Environment Programme (UNEP)	1972	Nairobi
United Nations High Commissioner for Refugees (UNHCR)	1950	Geneva
United Nations Industrial Development Organisation (UNIDO)	1967	Vienna
United Nations Industrial Development Organisation (UNIDO)	1966	Vienna
United Nations Institute for Training and Research (UNITAR)	1965	Geneva
United Nations Organisations (UNO) October 24 1945.	1945	New York
United Nations Population Fund for Population Activities (UNFPA)	1969	New York
United Nations Research Institute for Social Development (UNRISD)	1964	Geneva
Universal Postal Union (UPU)	1875	Berne
World Food Programme (WFP)	1963	Rome
World Health Organisation (WHO)	1948	Geneva
World Intellectual Property Organisation (WIPO)	1967	Geneva

World Meteorological Organisation (WMO)	1951	Geneva
World Trade Organisation (WTO)	1995	Geneva

## HUMAN RIGHTS & RELIEF ORGANISATIONS

Action aid	1972	Somerset,UK
Amnesty International	1961	London
CARE International	1946	Brussels
Human Rights Watch	1978	New York
Red Cross	1964	Geneva
International Committee of the Red Cross (ICRC)	1863	Geneva
Medecins Sans Frontieres International (MSF)	1971	Brussels
Oxfam	1942	Oxford
Save the Children Fund	1919	London
Survival International Voluntary Service	1969	London
Overseas (VSO)	1958	London
WomenAid International	1988	London

### WTO: FACT FILE

**Location:** Geneva, Switzerland

**Established:** 1 January 1995

**Created by:** Uruguay Round negotiations (1986-94)

**Membership:** 149 countries (on 11 December 2005)

**Official Languages:** English, French and Spanish.

**Head:** Pascal Lamy (Director-General)

**Functions:**

- Administering WTO trade agreements
- Forum for trade negotiations
- Handling trade disputes
- Monitoring national trade policies
- Tech. assistance and training for developing countries
- Cooperation with other international organizations

**MINISTERIAL CONFERENCES:**

1<sup>st</sup> Ministerial conference, **Singapore** (1996)

2<sup>nd</sup> Ministerial conference, **Geneva** (1998)

3<sup>rd</sup> Ministerial conference, **Seattle** (1999)

4<sup>th</sup> Ministerial conference, **Doha** (2001)

5<sup>th</sup> Ministerial conference, **Cancun** (2003)

6<sup>th</sup> Ministerial conference, **Hong Kong** (2005)

## ENVIRONMENTAL CONVENTIONS YEAR

<b>Montreal Protocol</b>	<b>1987</b>
<b>Helsinki Declaration</b>	<b>1989</b>
<b>London Conference</b>	<b>1990</b>
<b>Rio Earth Summit</b>	<b>1992</b>
<b>Kyoto Conference</b>	<b>1997</b>

### THE ASSOCIATION OF SOUTH EAST ASIAN NATIONS

The Association of South East Asian Nations (ASEAN) is a regional Organisation formed by the governments of Indonesia, Malaysia, the Philippines, Singapore and Thailand through the Bangkok Declaration which was signed by the Foreign Ministers of ASEAN countries on 8<sup>th</sup> Aug., 1967. – HQ: **Jakarta**.

### THE COMMONWEALTH

The Commonwealth, originally called the British Commonwealth of Nations, is an association of 53 nations and dependencies joined by a common link based on having been parts of the old British empire.

Commonwealth Heads of Government Meet – Founded: 1931  
Members: 53 states – **London**.

**COMMONWEALTH OF INDEPENDENT STATES – CIS** created Dec. 1991 upon the disbanding of the Soviet Union. It is made up of 12 of the 15 former Soviet constituent republics. Members in 1995 were Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. The capital of the commonwealth is **Minsk, Belarus**.

### THE NON-ALIGNED MOVEMENT (NAM)

The NAM, which is movement of the Third World countries, is an alternate bloc of nations which aimed at keeping these countries away from the Super Power rivalry. Based on the principles of Panchsheel as enunciated by the late Indian Prime Minister, Jawaharlal Nehru, at a conference at Bandung (Indonesia) in April 1955, the Non Aligned Movement was born in **September 1961** with the first summit meeting of the non-aligned countries at **Belgrade in Yugoslavia**. **President Tito of Yugoslavia, Prime Minister Nehru of India and President Nasser of Egypt** were the founding fathers of the movement. Among the other founder members of the NAM were **Archbishop Makarios of Cyprus, U Nu of Burma, President Sukarno of Indonesia, Kwame Nkrumah of Ghana, Emperor Haile Sellasie of Ethiopia and King Mahendra Bir Bikram Shah of Nepal**.

### SAARC

The first South Asian summit held in **Dhaka** (Bangladesh) in December 1985, culminated in the formation of the South Asian Association for Regional Cooperation.

**Asia-Pacific Economic Cooperation APEC:** is a trade group comprising 12 Pacific Asian countries when formed in November 1989 to promote multilateral trade and eco-

conomic cooperation between member states. Its present **21 members** are **Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, Malaysia, Mexico, New Zealand, the Philippines, Papua New Guinea, Russia, Peru, Singapore, South Korea, Taiwan, Thailand, the United States and Vietnam.**

The 14<sup>th</sup> Annual Summit of APEC was held in Hanoi (Vietnam) on November 18-19, 2006. The theme of the summit was **“Towards One Dynamic Community for Sustainable. Development and Prosperity:.** The leaders of APEC national unanimously endorsed UN sanctions imposed on North Korea after Pyongyang’s nuclear test in October 2006.

**DEVELOPING 8 OR D-8:** This new Association of 8 Muslim nations – **Pakistan, Egypt, Iran, Nigeria, Indonesia, Malaysia, Bangladesh and Turkey** – constituted in Turkey in June 1997 is intended as a complementary to other regional groupings.

**G-15:** an economic grouping of **developing countries of Asian, African and Latin American** countries, was formed in **Malaysia in 1990.** The number of G-15 member countries has now swelled to **18,** which include: **Algeria, Argentina, Brazil, Colombia, Egypt, India, Indonesia, Iran, Jamaica, Kenya, Malaysia, Mexico, Nigeria, Peru, Senegal, Venezuela, Yugoslavia and Zambabwe.**

**Indian Ocean Rim Association for Regional Cooperation (IOR-ARC):** The 14 member association, aimed at regional economic cooperation comprising members of Indian Ocean Rim Countries such as India, Indonesia, Malaysia, Singapore, Sri Lanka, Australia, Mauritius, Oman, Mozambique, Tanzania, Yemen, South Africa, Madagascar and Kenya, adopted the association’s charter and plan of action in its meeting in **Port Louis (Mauritius)** in March 1997.

Apart from the 14 members, **several countries** such as Pakistan, Bangladesh, Iran, Seychelles, Thailand, Egypt and France are queuing up to join the new bloc.

**European Union Known as the European Community.**

European Union was known as the European Community (EC) until 1994. The name covers 3 organisations with common membership; the **European Economic Community (Common Market), European Coal and Steel Community, and European Atomic Energy Community (Euratom).** The European Union covers a large part of the continent of Europe. In 2004, its membership increased from 15 to 25. The ten new countries which joined the EU in 2004 are: **Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.** When two more countries join in 2007, the EU will have a population of nearly half a billion. HQ: **Brussels, Belgium.**

**European Economic Area (EEA)** came into existence from Jan. 1, 1994 as a preliminary step of a proposed merger of EFTA and EC over the coming decade.

**European Space Research Organisation (ESRO)** was formally established in 1964. The members are Belgium, Denmark, France, West Germany, Italy, the Netherlands, Spain, Sweden, Switzerland and UK, Austria, Ireland and Norway participate as observers. – HQ: **Paris.**

**Gulf Co-operation Council (GCC) - Riyadh (Saudi Arabia)**  
**INTERPOL – Lyon France**

**Organisation of American States (OAS) – Washington D.C.**

**Organisation of Arab Petroleum Exporting Countries (OAPEC) – Kuwait.**

**Organisation of African Unity – Addis Ababa, Ethiopia.**  
**Organisation for Economic Co-operation and Development – Paris**

**Organisation of Islamic Conference (OIC) – Jeddah, Saudi Arabia.**

**The Arab League – Cairo, Egypt**

**Amnesty International – London**

**The Association of South East Asian Nations (ASEAN)**  
Member Countries (**10**); Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia Myanmar, Philippines Singapore, Thailand, Vietnam.

**European Union (EU)**

Member Countries (**25**) **Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, The Netherlands, United Kingdom.**

**North Atlantic Treaty Organisation (NATO) –** Member Bulgaria, Canada, Czech Republic, Denmark, Estonia, Finance Germany, Greece Hungary, Iceland, Italy, Latvia, Lutuania, Lux-embourg Netherlands, Norway Poland, Portugal, Slovakia, Slovenia, Spain, Turkey, United Kingdom, United States. **Brussels, Belgium.**

**Organisation of Petroleum Exporting Countries (OPEC)**

Member Countries (**13**): **Iran, Iraq, Kuwait, Saudi Arabia, Venezuela, Qatar, Indonesia, Libya, United Arab Emirates, Algeria, Nigeria, Ecuador and Gabon.**

H.Q: **Vienna, Austria.**

**The Economic Community of West African States (ECOWAS)** is a regional group initially of sixteen countries, founded on May 28, **1975** when sixteen West African countries signed the Treaty of Lagos. Its mission is to promote economic integration. In 2000 Mauritania withdrew its membership from ECOWAS.

ECOWAS is one of the pillars of the African Economic Community.

Member states of ECOWAS are **Benin, Burkina Faso, Cape Verde, Côte d’Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo.**

## WORLD RELIGIONS

RELIGION	WORLD POPULATION
Christians	2,069,883,000
Roman Catholics	1,092,853,000
Protestants	364,530,000
Orthodox	217,030,000
Anglicans	79,988,000
Muslims	1,254,222,000
Hindus	837,262,000
Chinese fold religionists	398,106,300
Buddhists	372,974,000
Ethnic religionists	238,096,000
New-Religionists	105,106,100
Sikhs	24,295,200
Jews	14,551,000
Spiritists	12,732,600
Baha'is	7,503,000
Confucians	6,425,300
Jains	4,413,700
Shintoists	2,680,300
Zoroastrians	2,733,900
Other religionists	1,118,000
Non-religious	784,269,000
Atheists	148,660,000

## IMPORTANT MOUNTAIN PEAKS

1. K2*	8,611
2. Kanchenjunga	8,598
3. Nanga Parbat	8,126
4. Gasher Brum*	8,068
5. Broad Peak*	8,047
6. Disteghil Sard*	7,885
7. Masher Brum E	7,821
8. Nanda Devi	7,817
9. Masher Brum W*	7,806
10. Rakaposhi*	7,788

\* in Pak-occupied Territory or Kashmir (PoK).

## CAUVERY WATER SHARING

Total availability 740 tmcft

419 tmcft Tamil Nadu's share

270 tmcft Karnataka 's share

30 tmcft Kerala's share

7 tmcft Puducherry's share

10 tmcft Reserved for environmental protection

4 tmcft Inevitable escapage into sea.

Water to be released by Karnataka at Bitigundtu on the border with Tamil Nadu 192 tmcft

**TMCft: Thousand Million Cubic feet.**

**RACES:** According to **Dr. B.S. Guha**, the population of India is derived from 6 main ethnic groups: **1. Negro; 2. Proto-Australoids or Austrics; 3. Mongoloids; 4. Mediterranean or Dravidian; 5. Rongpa-Sikkim; Lushais Western Brachycephals and; 6. Nordic Aryans.**

**The Major Tribes:** Who inhabit in India are Abors-Arunachal Pradesh, Assam, Ao-Nagaland, Badagas-Tamil Nadu, Baiga-MP, Rajasthan, Gujarat, Bhils-MP, Gujarat, Rajasthan, Gujarat, Bhils-MP, Gujarat, Rajasthan, Bhotias-UP (Garhwal and Kumaon); Bhutias-sikkim, Birhor-Bihar, Bodos-Assam, Chenchus-AP, Orissa, AP, Great Andamanese-Andaman Is; Irulas-TamilNadu; Jaintias-Meghalaya; Jarawas-Little Andamans; Kanis-Kerala; Kacharis, Karbi-Assam; Khampti-Arunachal Pradesh; Khasis-Meghalaya, Assam; Khonds-Orissa; Kol-MP; Kotas-Tamil Nadu; Kuki-Manipur, Lepchas or Rongpa-Sikkim; Lushais-Tripura; Meiteis-Manipur, Nagaland, Mina-Rajasthan; Miri-Arunachal Pradesh; Mishin-Assam; Murias-MP; Mikirs-Assam; Mundas-Oorons-Bihar, Orissa; Onges-Little Andamans; Rabhas-Assam; Rengma-Nagaland; Sanhals-W. Bengal, Bihar; Sema-Nagaland, Sentineles-Andaman & Nicobar Is; Shompens-Great Nicobar Is; Tagin-Arunachal Pradesh; Todas -Tamil Nadu; Uralis - Kerala; Zeliang-Nagaland.

## RELIGIOUS OF INDIA

Religious Group	2001 Number (millions)	Per cent
Hindus	827.5	80.44
Muslims	138.2	13.42
Christians	24.1	2.33
Sikhs	19.2	1.84
Buddhists	7.9	0.68
Jains	4.2	0.38
Others	7.3	0.65
Total	1028.4	100.0

Agricultural Universities, ICAR and CSIR Institutes, Kishi Vigyan Kendras, Fertilizer Companies, State Departments of Agriculture and farmers' Associations and Panchayati Raj Institutions should commemorate 2006-07 as the Year of **Soil Health Enhancement**. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) located at Hyderabad may be actively associated in this programme. ICRISAT has very valuable information on the soil health status in dry farming areas, ICRISAT, CRIDA, CAZRI at Jodhpur and the National Bureau of Soil Survey and Land Use Planning of ICAR can provide technical support and assist in monitoring. The following steps need to be taken to launch a Soil Health Care movement in the country.

The General Bank of India was the first joint Stock Bank to be established in the year 1786.

India we have the Planning Commission (constituted in March 1950), National Planning Council (established in 1965), and National Development Council.

The Five Year Plans are drawn by the Planning Commission. Besides there have been three Annual Plans – (a) 1966-67 to 1968-69 (Plan holiday during War with China and Pakistan); (b) 1978-79 to 1979-80 (during Janata Government); and 1990-91 to 1991-92 (to bring about maximum employment and social transformation).

5 year Plan	Period
1. First Plan	1951-56
2. Second Plan	1956-61
3. Third Plan	1961-66
4. Fourth Plan	1969-74
5. Fifth Plan	1974-79
6. Sixth Plan	1980-85
7. Seventh Plan	1985-90
8. Eight Plan	1992-97
9. Ninth Plan	1997-2002
10. Tenth Plan	2002-07
11. Eleventh Plan	2007-2012

**COAL AND LIGNITE:** India ranks third in the world after China and USA in coal production. Coal occurs in rock sequences mainly of two geological ages, namely, Gondwana, little over 200 million years in age and in Tertiary deposits which were found at a much later geological epoch (about 55 million years). The major resources of Gondwana coal are located in coalfields occupying the Indian heartland in the states of West Bengal, Jharkhand, Orissa, Chhattisgarh, Madhya Pradesh, Maharashtra, Uttar Pradesh and Andhra Pradesh, Tertiary coals occur in Assam, Arunachal Pradesh, Meghalaya and Nagaland. Besides, brown coal or lignite occurs in coastal areas of Tamil Nadu, Gujarat and inland basin of Rajasthan.

**BAUXITE:** Orissa, Andhra Pradesh, Chhattisgarh, Gujarat, Maharashtra and Jharkhand are the principal states where bauxite deposits are located. Major reserves are concentrated in the East Coast Bauxite deposits of Orissa and Andhra Pradesh.

**CHROMITE:** The largest share (about 96 per cent) in the total geological resources is accounted by Cutak district in Orissa. Deposits of economic significance occur in Orissa, Karnataka, Maharashtra, Jharkhand, Madhya Pradesh, Chhattisgarh, Tamil Nadu and Manipur.

**COPPER:** Important copper ore deposits are located in Singhbhum district (Jharkhand), Balagat district (Madhya Pradesh) and Jhunjhunu and Alwar districts (Rajasthan).

**GOLD:** There are 3 important gold fields in the country, namely, Kolar Gold Field, Kolar district, Hutti Gold Field in Raichur district (both in Karnataka) and Ramgiri Gold Field in Anantpur district (Andhra Pradesh).

**IRON ORE:** The resources of very high grade ore are limited and are restricted mainly in Bailadila sector of Chhattisgarh and to a lesser extent in Bellary-Hospet area of Karnataka and Barajamda sector in Jharkhand and Orissa. Haematite resources are located in Orissa in Jharkhand, Chhattisgarh, Karnataka, Goa, Maharashtra, Andhra Pradesh and Rajasthan. Magnetite resources are located in Karnataka, Andhra Pradesh, Goa, Kerala, Jharkhand, Rajasthan, and Tamil Nadu.

**NICKEL:** Orissa (174.48 million tonnes) and Jharkhand (9 million tonnes).

**TUNGSTEN:** The main reserves are at Degana, Rajasthan. It also occurs in Maharashtra, Haryana, West Bengal and Andhra Pradesh.

**DIAMOND:** The main diamond bearing areas in India are Panna belt in Madhya Pradesh, Munimadugu-Banganapalle conglomerate in Kurnool district and the gravels of Krishna river basin in Andhra Pradesh.

**GYPSUM:** Rajasthan is the main producer of gypsum followed by Jammu and Kashmir.

**MICA:** India is the world's leading producer of sheet mica and accounts for about 60 per cent of global mica trade. Important mica bearing pegmatite occurs in Andhra Pradesh, Jharkhand, Bihar, Rajasthan.

Power development in India started at the end of the 19th century with the commissioning of electricity supply in Darjeeling during 1897. It was soon followed by the commissioning of a power station at **Sivasamudram** in Karnataka during 1902.

**WIND POWER ENERGY IN INDIA:  
Capacity as on March 31, 2006 in MW:**

Tamil Nadu	2893
Maharashtra	1001
Karnataka	585
Rajasthan	358
Gujarat	338
Andhra Pradesh	121
Madhya Pradesh	40
Others (Kerala, West Bengal, Orissa)	4
<b>Total</b>	<b>5340</b>

(In 2004-05 it was 3595).

**Tamil Nadu** accounts for **more than half** of the total installed wind power capacity in the country.

India now ranks **fifth** in the world in wind power capacity after **Germany, USA, Denmark and Spain**.

**RAILWAY ZONES**

ZONE (16)	HEADQUARTERS
Southern	Chennai
Western	Mumbai (Church Gate)
Central	Mumbai CST
Northern	New Delhi
Eastern	Kolkata
South-Eastern	Kolkata
North-Eastern	Gorakhpur
South-Central	Secunderabad
North-East Frontier	Maligaon (Guwahati)
North-Central	Allahabad
East-Central	Hajipur
North-Western	Jaipur
East-Coast	Bhubaneswar
South-Western	Hubli
West-Central	Jabalpur
South-East Central	Bilaspur

**DEFENCE INSTITUTES**

National Defence Academy (NDA)	Khadakwasta,
The Indian Military Academy (IMA)	Dehradun,
The Officers' Training Academy (OTA)	Chennai
Rashtriya Indian Military College	Dehradun
The National Defence College (NDC) Army Cadet College (a wing of IMA) Army School of Physical Training (ASPT)	Pune
The College of Combat College of Military Engg.	Mhow Kirkee (Pune)
The Military College of Tele-communication Engg.	Mhow
The Armoured Corps Centre and School	Ahmednagar
The School of Artillery	Deolali
The Air Defence Guided Missiles School	Gopalpur-on-sea.
The High Altitude Warfare School	Gulmarg and Sonmarg
The Counter Insurgency and General Warfare School	Vairengate
The College of Materials Management	Jabalpur

There are **7 Central Police Forces** under the Union Government, namely

- 1) Assam Rifles (AR)
- 2) Border Security Force (BSF)
- 3) Indo-Tibetan Border Police (ITBP)
- 4) Central Reserve Police Force (CRPF)
- 5) Central Industrial Security Force (CISF)
- 6) Sashashtra Seema Bal (SSB)
- 7) National Security Guard (NSG).



**SOME OF THE FAMOUS INSTRUMENTALISTS**

**Sarod:** Ali Akbar Khan, Allauddin Khan, Amjad Ali Khan, Buddhadev Des Gupta, Bahadur Khan, Sharan Rani, Zarin S. Sharma.

**Tabla:** Baluswamy Dikshitar, Gajanan Rao Jishi, Lalgudi G. Jayaraman, M.S. Gopalakrishnan, Mysore T. Chowdiah, T.N. Krishnan

**Shehnai:** Bismillah Khan

**Sitar:** Nikhil Banerjee, Ravi Shankar, Vilayat Khan, Hara Shankar Bhattacharya.

**Flute:** Hari Prasad Chaurasia, Pannalal Ghose, T.R. Mahalingam.

**Veena:** K.R. Kumaraswamy Iyer, Doraiawamy Iyengar.

**SOME OF THE FAMOUS DANCERS**

**Bharatnatyam:** Bala Saraswati, C.V. Chandrasekhar, Leela Samson, Mrinalini Sarabhai, Padma Subramanyam, Rukmini Devi, Sanyukta Panigrahi, Sonal Mansingh, Yamini Krishnamurthi.

**Kathak:** Bharati Gupta, Birju Maharaj, Damayanti Joshi, Durga Das, Gopi Krishna, Kidini Lakhia, Sambhu Maharaj, Sitara Devi

**Kuchipudi:** Josyula Seetharamaiah, Vempathi Chinna Sathyam.

**Mnipuri:** Guru Bipin Sinha, Jhaveri sisters, Nayana Jhaveri, Nirmla Mehta, Savita Mehta.

**Odissi:** Debaprasad Das, Dharendra Nath Pattnaik, Indrani Rahman, Kelucharan Mahapatra, Priyambada Mohanty, Sonal Mansingh.

**PART A states**, which were the former provinces, were ruled by an elected governor and state legislature.

Part A states (**nine**) were Assam, West Benhal, Bihar, Bombay, Madhya Pradesh (formerly United Provinces).

**The PART B states (eight)** were former princely states or groups of princely states, governed by a Rajpramukh. They were Hyderabad, Saurashtra, Mysore, Travavcore-Cochin, Madhya Bharat, Vindhya Pradesh, Patiala and Rajasthan.

The **PART C states (ten)** (included both former princely states and provinces. They were governed by a chief commissioner. The Part C states included Delhi, Kutch, Himachal Pradesh, Bilaspur, Coorg, Bhopal, Manipur, Ajmer, and Tripura.

J & K had special status until 1957.

Then French enclaves of Pondicherry, Yanam, Karaikal, and Mahe, were administered by India after 1954, formally becoming a Union Territory in 1962. Dadra and Nagar Haveli was occupied by India in 1954, and Goa, Daman, and Diu in 1961, and they subsequently became UTS.

In 1953, the Telugu-speaking portion of Madras state voted to become the new state of Andhra Pradesh, the first of India's linguistic states.

British India had 15 provinces: Ajmer-Merwara, Assam, Baluchistan, Bengal, Bihar, Bombay, Central Provinces and Berar, Coorg, Delhi, Madras, Northwest Frontier, Orissa, Punjab, Sind, and United Provinces.

**RANK OF STATES (CATEGORYWISE)**

Rank	Pop ulation	Area	Den sity	Lite racy	SC	ST
1.	UP	Raj	Delhi	Ker	UP	MP
2.	Mah	MP	Chan	Mizo	WB	Mah
3.	Bih	Mah	Pudu	Laksh	Bih	Oris
4.	WB	AP	Laksh	Goa	AP	Guj
5.	AP	UP	D&D	Chand	TN	Raj
6.	TN	J&K	WB	Delhi	Mah	Jhar
7.	MP	Guj	Bih	A&N Is	Raj	Chhati
8.	Raj	Kar	Ker	Pudu	MP	AP
9.	Kar	Oris	UP	D&D	Kar	WB
10.	Guj	Chh	Pun	Mah	Pun	Kar

The Prince (1532) by Niccolo Machiavelli.

An Area of Darkness (1964) by V.S. Naipaul.

Small is Beautiful (1973) by E F Schumacher

A Brief History of Time (1988) by Stephen Hawking.

The Argumentative Indian (2005) by Amartya Sen.

The Interpretation of Dreams (1900) by Sigmund Freud.

Nature's Numbers (1995) by Ian Stewart.

White Mughals (2002) by William Dalrymple.

First Indian to win Booker Prize – Arundhati Roy. For The God of Small Things" (1997)

First Indian Oscar winner - Bhanu Athaiya, For Best Costume Design for the film 'Gandhi (1982).

First India Oscar nominatiin for Best Foreign Language Film- Mother India (1957)

**URBAN AREAS:**

The unit of classification is 'town' for urban areas. In the Census of India 2001, the definition of urban Area adopted is as follows : (a) All statutory places with a municipality, corporation, cantonment board or notified town area committee, etc. (b) A place satisfying the following three criteria simultaneously.

i) a minimum population of 5,000

ii) at least 75 per cent of male working population engaged in nonagricultural pursuits; and

iii) a density of population of at least 400 per sq.km. (1,000 per sq.mile).

**CITY:** Towns with population of 1,00,000 and above are called cities

## SCIENCE & TECHNOLOGY

➤ **PLUTO**: discovered in 1930 by the American **Clyde Tombaugh**, will be referred to as a "dwarf planet".

➤ The scientists agree that for a celestial body to qualify as a planet:

➤ It must be in **ORBIT** around the **SUN**.

➤ It must be large enough that it takes on a nearly **round shape**.

➤ It has cleared its orbit of other objects.

Pluto was automatically disqualified because its highly elliptical orbit overlaps with that of Neptune. It will now join a new category of dwarf planets. **2003 UB313** will now join Pluto in the dwarf category, along with the biggest asteroid in the Solar System, Ceres. An unmanned U.S. spacecraft, **New Horizons**, is due to fly by Pluto and the **Kuiper Belt** in 2015.

➤ **CHINA** successfully tests an advanced version of its new generation fighter plane, the **Xiaolong/FC-4**. It is equipped with advanced electronics and weapons system.

➤ **TGV POS TRAINSET NUMBER 4402** sets a new world speed record for railed vehicles at 574.8 km/h (357 mph) during test runs conducted in Champagne, France.

➤ **VIKRAM SARABHAI**: He founded the Physical Research Laboratory, the Space Science Research Institute, the Department of Space, and the Indian Space Research Organisation (ISRO). In 1962, Sarabhai organized space research as chairman of Indian **NATIONAL COMMITTEE FOR SPACE RESEARCH (INCOSPAR)**. He set up of the Thumba Equatorial Rocket Launching Station and began manufacturing sounding rockets in India. He drew up plans to transmit education to remote villages across India with the **SATELLITE INSTRUCTIONAL TELEVISION EXPERIMENT (SITE)**.

After Sarabhai died in 1971, the **VIKRAM SARABHAI SPACE CENTER (VSSC)** in Tiruvananthapuram was named after him.

➤ **LAPAN-TUBSAT** was launched under commercial agreements. LAPAN-TUBSAT is a cooperative venture between Indonesian Space Agency, LAPAN and Technical University of Berlin. It is an earth observation satellite besides a technical demonstrator in control systems. The 56 kg, LAPAN-TUBSAT carries two Charge Coupled Device (CCD) cameras with ground resolutions of 5 m and 200 m respectively. It also carries an experiment for message store and forward system.

➤ **PEHUENSAT-1** is a 6 kg Argentinean nano-satellite meant to serve educational, technological and scientific fields. PEHUENSAT-1, developed by **UNIVERSITY OF COMAHUE**

**OF ARGENTINA, AMSAT (AMATEUR SATELLITE ASSOCIATION OF ARGENTINA)** and Argentina Association for Space Technology, is intended to provide an experiment platform to perform amateur radio experiments between colleges and universities of Argentina.

➤ **DISCOVERY'S STS-116** mission successfully reconfigured the International Space Station's power and cooling systems from a temporary setup to a permanent mode and added a new piece to the station's backbone. Discovery's Commander **MR. MARK POLANSKY**, Pilot Mr. Bill Oefelein and mission specialists Mr. Nicholas Patrick, Mr. Bob Curbeam, Ms. Joan Higginbotha, Mr. Thomas Reiter, and Mr. Christer Fuglesang of European Space Agency astronauts. The newest resident of the International Space Station also traveled aboard Discovery. Astronaut Ms. Sunita Williams joined the crew of Expedition 14. She is scheduled to spend six months on the station. She is the second woman of Indian origin after Kalpana Chawla, to venture into space on the U.S. shuttle Discovery.

➤ Work for second green revolution, **THE PRIME MINISTER, MANMOHAN SINGH**, tells scientists at the inaugural of the 93<sup>rd</sup> session of the **INDIAN SCIENCE CONGRESS** in Hyderabad.

➤ **HARRIET**, a 178 year old giant tortoise credited with helping **CHARLES DARWIN PIONEER** the theory of evolution dies in Australia.

➤ Pluto loses its seven decade status as the ninth and outermost planet of the solar system following a decision at an assembly of the **INTERNATIONAL ASTRONOMICAL UNION IN PRAGUE (CZECH REPUBLIC), HQ : PARIS**

➤ A team of U.S. scientists reverses advanced **MELANOMA A FORM OF SKIN CANCER** by manipulating the cells of **WHITE BLOOD CELLS**.

➤ **SMART-1, EUROPE'S** first spacecraft to the moon, launched in 2003, ends its mission with a planned crash on the lunar surface.

➤ Three Indian Universities, including Indian Institute of Technology (IIT), Indian Institute of Management (IIM) and Jawaharlal Nehru University (JNU) have found place among top 200 universities in the world in 2006. The Times Higher Education Supplement (THES), in partnership with the research resources of Quacquarelli Symonds (QS) the international education and career development group, has recently published the list of top **200 WORLD'S UNIVERSITY RANKING** for the year. From India, IIT, IIM and JNU are ranked at 57, 68 and 183 positions, respectively.

- Space shuttle Atlantis blasts off from **CAPE CANAVERAL** with six astronauts on board on 9-9-06.
- **JAPAN LAUNCHES** its **M-V ROCKET** to put a sun observation satellite in orbit.
- **DIABETES: POPULATION HIGHEST IN INDIA**  
The **INTERNATIONAL DIABETES FEDERATION'S (IDF)** Diabetes Atlas released in December 2006 in South Africa confirmed that India has the largest number of people living with diabetes. It is in the pre-diabetic phase, Impaired glucose Tolerance, that China overtakes India, both in the prevalence and projections.  
The Atlas, third in a series that began in 2000, reveals that India has 40.9 million people with diabetes in India, and China follows right behind at 39.8 million diabetics. As for the projections in 2025, India will still top the list, with 69.9 million diabetics but it is estimated that China will meanwhile put some distance between itself and India. China will have 59.3 million diabetics in 2025.
- **AN ARTIFICIAL STOMACH MODEL:** British scientists have built the world's first artificial stomach, a shiny, high tech box that physically simulates human digestion.  
Constructed from **SOPHISTICATED PLASTICS AND METALS** able to withstand the corrosive acids and enzymes found in the human gut, it may ultimately help in the development of super-nutrients, such as obesity fighting foods that could fool the stomach into thinking it is full.  
➤ The model gut's focus on the physical and chemical reactions that take place in the stomach promises to provide a more detailed understanding of food structure and its impact on digestion.
- Scientists at an English university have grown a miniature **ARTIFICIAL HUMAN LIVER** in a major medical breakthrough. The organ was grown using stem cells in blood taken from umbilical cords.  
It is hoped mini-livers could be used to test drugs reducing the need for animal experiments, help repair damaged livers and eventually produce entire organs for life-saving transplants.
- Perched at 4,600 meters on a cold, spent volcano, the **LARGE MILLIMETRE TELESCOPE (LMT)** will scan microwaves to look into the dawn of the universe, when it began a two year testing period on November 22.  
Eight years in the making, the German designed LMT will be the most precise radio telescope of its kind in the world and will be used to study the composition of comets, the atmospheres to planets beyond our solar system, and the origins of the universe.
- Google has added historic map overlays to its free interactive online-globe of the world to provide views of how places have changed with time.  
Google Earth engineers digitised one of the largest US map collections and integrated the information into its programme, which lets users virtually navigate the planet and swoop in for closer looks. The collection of **DAVID RUMSEY HISTORICAL MAPS** dated from 1680 to 1892 and included Cassini's Globe of 1790. Africa in 1787, and a map of Asia from 1710.
- **RARE PLANT FOUND IN ARUNACHAL:** Scientists have found in a tropical forest in northeastern India a medicinal plant *Begonia tessaricarpa* last seen 115 years ago.
- A team of international scientists claimed a world first on November 13, saying they had constructed a '**VIRTUAL MAP**' of the sheep genome which would help farmers produce better wool and meat.
- Scientists have unravelled the **GENETIC CODE** of the honey bee, uncovering clues about its complex social behaviour, heightened sense of smell and African origins. It is the third insect to have its genome mapped and joins the fruit fly and mosquito in the exclusive club. The honey bee, or *Apis mellifera*, evolved more slowly than the other insects but has more genes related to smell.
- **AN INTERNATIONAL YEAR OF ASTRONOMY** will unfold in **2009**, marking the fourth centenary of discoveries by Galileo that changed perceptions of the cosmos, the International Astronomical Union (IAU) announced on October 30, in Paris.
- **THE WORLD'S FISH AND SEAFOOD POPULATIONS** will collapse by **2048** if current trends in habitat destruction and over fishing continue, resulting in less food for humans, say researchers, in an analysis of scientific data going back to the 1960s and historical records over a thousand years. Marine biodiversity – the variety of ocean fish, shellfish, birds, plants and micro-organisms – has declined dramatically, with 29 per cent of species already in collapse.
- Researchers have found a new legless amphibian species. The significant discovery at Keri village, 20 km from the **MHADEI DAM SITE IN GOA**, highlights the wealth of biodiversity in the Western Ghats. The earthworm-like creature has been named **GENEOPHIS GENESIS**. It is the first species to be named after Goa. It adds to the existing seven species of the genus *Geniophis* that is endemic to the **WESTERN GHATS**.
- The tiny woman dubbed the Hobbit who lived 18,000 years ago on a remote Indonesian Island deserves to be deemed a new human species and not a deformed modern human as aseptically asserted, researchers announced in last week of January.
- **CHINESE SCIENTISTS** successfully conducted their first test of an experimental **THERMONUCLEAR** fusion reactor, which replicates the energy generating process of the sun.

The **EXPERIMENTAL ADVANCED SUPERCONDUCTING TOKAMAK (EAST)** fusion reactor, nick-named “artificial sun”, was tested at the Institute of Plasma Physics under the **CHINESE ACADEMY OF SCIENCES (CAS)** in Hefei.

➤ **PRESIDENT GEORGE W. BUSH** used his first-ever veto to block legislation that would have expanded US funding for embryonic stem cell research.

➤ **ERIS** is the new permanent name for the solar body formerly known as Xena.

➤ **THE INDIAN SPACE RESEARCH ORGANISATION (ISRO)** has begun work on setting up the **INDIAN REGIONAL NAVIGATIONAL SATELLITE SYSTEM (IRNSS)**

➤ The **ORBITING CASSINI** spacecraft has spotted what appear to be water geysers on one of Saturn’s icy moons, raising the tantalising possibility that the celestial object harbours life.

➤ First there was **GOOGLE EARTH, THEN GOOGLE MOON. GOOGLE INC.** expanded its galactic reach by launching Google mars, a Web browser-based mapping tool that gives users an up-close, the interactive view of the Red Planet with the click of a mouse.

➤ A space capsule ferrying the first comet dust samples to Earth parachuted to a predawn landing in the **UTAH DESERT** drawing cheers from elated scientists.

➤ **INDIAN-BORN US-based AMATCUR ASTRONOMER VISHNU REDDY** has co-discovered a rare bright supernova, 2006E, in a spiral galaxy called **NGC 3558**, located in the constellation of Virgo.

➤ **NASA** launched the first space mission to **PLUTO** as a powerful rocket hurled the New Horizons spacecraft on a nine-year, 4.5 billion km journey to the edge of the solar system.

Scientists at the **CENTRE FOR CELLULAR AND MOLECULAR BIOLOGY (CCMB)** in Hyderabad have created the first gene knockout mouse, which lacks one of the milk protein genes, kappa-ca-sein, required for lactation.

➤ A **CALTECH NANOTECHNOLOGIST** has created the world’s smallest and most plentiful Smiley. The tiny face measuring a few billionths of a metre across, is assembled from strands of DNA, in a process that can be equated with the Japanese art of Origami.

➤ Scientists have found what they believe are traces of the lost Indonesian civilisation of Tabora, which was wiped out in 1815 by the **BIGGEST VOLCANIC** eruption in recorded history.

➤ The United States Ambassador, **DAVID C MULFORD**, and **WORLD HEALTH ORGANISATION (WHO)** representative to India, Salim Habayeb, signed an agreement for tuberculosis control in India.

➤ **RANBAXY** will be able to launch the generic version of blockbuster cholesterol-lowering drug Lipitor, by March 2010, almost 15 months before Pfizer’s patent on the drug expires, in the wake of an US court decision.

➤ A British girl is thought to have become the **FIRST HEART TRANSPLANT PATIENT IN THE UK** and possibly the world to have had her donor organ removed and her own heart re-started.

➤ **THE OZONE LAYER** is showing signs of recovering, thanks to a drop in ozone-depleting chemicals, but it is unlikely to stabilise at pre-1980 levels, researchers said.

➤ **EARTH’S ATMOSPHERE** is warming faster over the subtropics than anywhere else, which could mean bigger deserts and more drought from Africa to Australia to the **MIDDLE EAST** researchers said.

➤ Evidence of the existence in India of the **DAKINIYANA SCHOOL OF BUDDHISM** in the second century A.D. has been found at **KANTAMANENIVARIGUEDEM**, close to **GUNTUPALLI CAVES IN WEST GODAVARI**, Andhra Pradesh.

➤ The recent discovery of two human burial sites belonging to the **PAINTED GREYWARE CULTURE (PGW)** dating back to 1,100 BC at Abhampur village in Uttar Pradesh throws new light on the later-Vedic PGW culture as a whole.

➤ In dusty Yamunanagar, the **HARYANA ARCHAEOLOGICAL DEPARTMENT (HAD)** has unearthed what it claims to be a 2,200 years old **Buddhist stupa**.

➤ A Neolithic stone with the Indus Valley script has been discovered by a school teacher, **V. SHANMUGANATHAN**, in a village called **SEMBIAN-KANDIYUR** near Mayiladuthurai in Nagapattinam district, Tamil Nadu.

➤ The Rs.250,000 crore **ITER Project** will attempt to produce energy on the same principle as the Sun does, by using fusion, a process by which sub atomic particles combine to produce a huge burst of energy. However reactions are unstable and difficult to simulate in a lab under controlled conditions. US, EU, Russia, Japan, South Korea, China and India are partners in the project.

➤ **ISABELLE DINOIRE** of France received the world’s first partial face transplant.

➤ The \$3bn Fab City project is being promoted by **SEMINDIA**, near Hyderabad. The project, to manufacture semiconductors used in computers, mobile handsets and several other digital devices, will be the first of its kind in India.

➤ **FINLAND** is building the **WORLD'S BIGGEST NUCLEAR REACTOR**. Just three years from completion, the **OLKILUOTO-3** nuclear power station is the first to be built anywhere in Europe in a decade.

➤ **INDIA AND CANADA** signed a strategic agreement that strives to enhance skills of Indian scientific manpower to match international standards, promote collaborative research in high-tech areas, and help in commercialization of indigenous technologies. Under the agreement, India and Canada will collaborate in the field of nano-medicine technology to develop "**MAGIC BULLET**" that can revolutionize.

➤ Discovery lit up the sky late on December 10, 2006, blazing off for the first night-time space shuttle launch in four years—the latest step in **NASA'S** ambitious schedule to complete the International Space Station.

➤ The mission was one of the legs of a three-year race to finish construction on the orbiting outpost before shuttles are retired in 2010. After Discovery's mission, 13 more shuttle flights are needed to complete the space lab.

➤ During their 12-day mission, Discovery's crew rewired the space station, delivered an \$11 million addition to the space lab and brought home one of the space station's three crew members, **GERMAN ASTRONAUT THOMAS REITER** of the European Space Agency. American astronaut Sunita 'Sunni' Williams replaced him for a six-month stay.

➤ **SUNITA WILLIAMS** became second person of Indian origin to go into space aboard the Discovery after **KALPANA CHAWLA**. She took her first walk in space to compete the requiring of her new home, the International Space Station, with some help from a veteran spacemaker. Space shuttle Discovery and its seven astronauts safely returned to Earth on December 23, 2006, after some last-minute suspense over which landing site to use, closing out a year in which NASA finally got construction of the **ISS** back on track.

➤ On January 10, 2007, India added yet another feather to its cap in space technology when its 10<sup>th</sup> Polar Satellite Launch Vehicle put four satellites into orbit. The **PSLV-C7** blasted off majestically into space at 9.24 a.m. from the spaceport at the **SATISH DHAWAN SPACE CENTRE** in Sriharikota, 160 km from Chennai. The successful launch came six months after **GSLV-FO2** broke up, deviating from its path 65 seconds after take off. PSLV C-7 carried four satellites – the 680 kg. Indian Remote Sensing Satellite **CARTOSAT-2**, **SPACE CAPSULE RECOVERY EQUIPMENT (SRE-1)**, Indonesia's **LLALPAN-TUBSAT** and Argentina's 6 kg nano-satellite, **PEHUENSAT-1**.

➤ **CARTOSAT-2** is the 12<sup>th</sup> in the 12<sup>th</sup> in the Indian Remote

Sensing Satellite series and carries a state-of-the-art panchromatic camera, with a spatial resolution of 1 mt and a solid state recorder with a 64 giga byte storage capacity.

Data from this satellite will find application in cartography at the cadastral level, urban and rural infrastructure development and management, apart from land Information System and Geographical Information System. **CARTOSAT-2** was placed in a 635 km high polar Sun Synchronous Orbit.

➤ **SRE-1, A JOINT EFFORT BETWEEN THE** Vikram Sarabhai Space Centre and **ISRO** Satellite Centre, is intended to demonstrate the technology of orbiting platform for performing experiments in microgravity conditions and recovering the same after completion of the experiments. The **SRE-1** takes India into an elite club of countries that have satellite re-entry technology. The space flight will stay in orbit for between 13 and 30 days and is expected to splash down into the Bay of Bengal for recovery. It will provide important technology inputs in navigation, guidance and control during the re-entry phase, hypersonic aero-thermodynamics for reusable thermal protection system, recovery through deceleration and floatation, besides acquisition of basic technology for reusable launch vehicles.

In a crucial operation that lasted barely an hour, scientists of the **INDIAN SPACE RESEARCH ORGANIZATION (ISRO)** on January 23, 2007, successfully guided an orbiting 550kg space capsule, **SRE-1 (Space Capsule Recovery Experiment-1)**, back to Earth. The re-entry of the **SRE-1** and its splashdown into the Bay of Bengal, 140 km east of Sriharikota, marks a new milestone in India's space programme and sets the stage for future launches with reusable vehicles and manned missions to space. The **SRE-1**, which was launched into space by the **PSLV-C7** rocket on January 10 from the Satish Dhawan Space Centre, **SRIHARIKOTA**, had been going round the Earth in a circular polar orbit at an altitude of 637 km. On January 19, commands issued from the **SPACECRAFT CONTROL CENTRE (SCC)** at Bangalore got the **SRE-1** ready for re-entry, putting it into an elliptical orbit with a perigee (nearest point to earth) of 485 km and an apogee (farthest point to earth) of 639 km.

➤ **LAPAN- TUBSAT** is an Indonesian earth observation satellite and a technology demonstrator for control systems. It carries two Charge Coupled Device cameras with a ground resolution of 5m and 200m, respectively.

➤ The latest **US CONGRESSIONAL RESEARCH SERVICE'S** report on "**CONVENTIONAL ARMS TRANSFERS TO DEVELOPING NATIONS**" says India bought more weapon systems than any other country in the developing world in 2005, just as it did in 2004. The 'value' of arms transfer agreements inked by India in 2005 stood at \$5.4 billion (it was \$5.7 billion in 2004). Saudi Arabia was second with \$3.4 billion (\$2.9 billion in 2004), while China ranked third (\$2.8 billion in 2005 against \$2.2 billion in 2004). Pakistan came sixth with defence deals worth \$1.7 billion in 2005. India's lead among developing countries in procuring weapon

systems is, of course, likely to continue. The defence ministry projections for the 11<sup>th</sup> Plan itself show India will spend well over \$50 billion for importing weapon platforms and capabilities during 2007-2012. At the same time, India still continues to spend a little less than 2.5% of its GDP on defence, a trend witnessed since 1991- 92 despite the armed forces consistently demanding that it be raised to at least 3% . According to the report India has also been the largest arms purchaser in the developing world for the period from 1998 to 2005, notching up deals worth \$20.7 billion. In this time frame, **UAE** climbed to the second rank with \$17.6 billion, while China was placed third with \$16.7 billion, Pakistan, in turn stood 10<sup>th</sup> with \$5.9 billion. With several mega deals in the pipeline, India will maintain its lead in the coming years. There are over 500 procurement proposals of the armed forces big and small, in the planning or negotiating stage.

➤ Perched at 4,600 meters on a cold, spent volcano, the **LARGE MILLIMETRE TELESCOPE (LMT)** will scan micro-waves to look into the dawn of the universe, when it began a two-year testing period. At 2,000 tonnes and \$115 million, its 50-m dish is the result of a joint effort of Mexico's National Institute of Astrophysics. **OPTICS AND ELECTRONICS (INAOE)** and the U.S. University of Massachusetts.

➤ A massive dish shaped antenna with a diameter of 18 meters has been erected near **BYALALU** village, about 40 kms from Bangalore, to send commands, receive data and track ISRO's **CHANDRAYAAN-I** spacecraft to the Moon. The device forms part of the **INDIAN SPACE RESEARCH ORGANIZATION'S** ambitious plans to establish a **DEEP SPACE NETWORK (DSN)** of big antennae that will track not only ISRO's Chandrayaan-I and Chandrayaan-II spacecrafts to the Moon but also its mission to Mars.

➤ Presently 70% of our energy needs are met by imports. The production of crude oil in our country is about 40 million tonnes and the demand is 127 million tonnes. Based on the present GDP growth rate of 6% per annum on an average, it is estimated that the demand for crude oil will be 190 million tonnes by 2011-12 which will result in 81% import dependence.

➤ The vast stretches of degraded land in Indian can be used for **JATROPHA CULTIVATION**. It is estimated that such an initiative can generate a minimum of 12 million jobs.

➤ **GLOBAL WARMING** is defined as the increase in the average temperature of the Earth's atmosphere and oceans in recent decades and its projected continuation. Inter governmental **PANEL ON CLIMATE CHANGE (IPCC)** predict that global temperatures are likely to increase by 1.1 to 6.4° C between 1990 and 2100.

Since 1979, land temperatures have increased about twice as fast as ocean temperatures. Estimates prepared by the World Meteorological Organisation and the UK Climatic Re-

search Unit concluded that 2005 was the second warmest year, behind 1998.

➤ The major natural greenhouse gases are **WATER VAPOUR, CO<sub>2</sub>, METHANE AND OZONE**.

➤ Greenhouse gases are transparent to shortwave radiation from the Sun, the main source of heat on the Earth. However, they absorb some of the longer infrared radiation emitted by the Earth, thereby reducing radiational cooling and hence raising the temperature of the Earth.

➤ **"FUGITIVE FUEL"** (fuel consumed in the production and transport of fuel).

➤ **JAPAN** launched its fourth spy satellite from the southern island of Tanegashima, stepping up its ability to monitor potential threats.

➤ A meeting of **EU ENERGY MINISTERS** held in Brussels agreed to increase the share of biofuels used in transport to 10% by 2020.

➤ **BIOCHEMICAL OXYGEN DEMAND (BOD)** is a measure of the contamination caused by the totality of organic and inorganic compounds contained in polluted water. Clean water would have a BOD value of less than 55ppm where as highly polluted river water could have a BOD value of 17 ppm or more. BOD measurement takes a few days (generally five days) so another parameter called the chemical oxygen demand (COD) is sometimes measured.

➤ The ability of plant cells to regenerate into complete plant is called **totipotency**. **GOTTLIEB HABERLANDT** started the technique of plant tissue culture in 1902.

➤ By using micro organisms, animals or plant cells, or their components to generate products and services useful to human beings is called **BIOTECHNOLOGY**. The technique of recombinant DNA technology was developed during 1970's with the discovery of restriction enzymes which led to the development of a variety of gene technologies. In 1973 Stanley Cohen of Stanford University and Herbert-Boyer of California University produced World's first recombinant DNA organism. Recombinant DNA technology is popularly known as **GENETIC ENGINEERING**. Transgenic micro organisms are produced to obtain new pharmaceutical proteins. Eg: Human insulin is being commercially produced from a transgenic E-coli bacteria that contains and express the human insulin producing gene. Such proteins produced by the transgenic are called **RECOMBINANT PROTEINS**.

➤ A gene that is transferred into an organism by genetic engineering is called **TRANSGENE**. An organism that contains and expresses a transgenic is known as transgenic organism.

➤ Former **US PRESIDENT BILL CLINTON** and big-city mayors from around the globe have announced an initiative to combat climate change and increase energy efficiency in everything, from street lights to building material. The partnership brings together Clinton and resources of his Presidential Foundation with the Large Cities Climate Leadership Group, an alliance of Rome, Delhi, London, Berlin, Beijing, Mexico City, Toronto, Los Angeles and other cities that have pledged to cut greenhouse gas emissions. The aim is to pool technology and resources to slash the pollutants that contribute to global warming, while promoting clean-burning fuels and energy conservation. The pact is similar to one signed by California and Britain, which will share information, and technology to cut pollutants linked to climate change. The partnership with the foundation began with the participation of 22 cities: Berlin, Buenos Aires, Cairo, Caracas, Chicago, New Delhi, Dhaka, Istanbul, Johannesburg, London, Los Angeles, Madrid, Melbourne, Mexico City, New York, Paris, Philadelphia, Rome, Sao Paulo, Seoul, Toronto and Warsaw.

➤ More than 150 nations agreed to launch formal talks on mandatory post 2012 reductions in greenhouse gases-talks that will exclude an unwilling United States. For its part, the administration of **US PRESIDENT GEORGE W. BUSH**, which rejects the emissions cutbacks of the current Kyoto protocol, accepted only a watered-down proposal to enter an exploratory global "dialogue" on future steps to combat climate change. That proposal specifically rules out "negotiations leading to new commitments". The parallel tracks represented to mixed result for the two-week conference, doing little to close the climate gap between Washington on one side, and Europe, Japan and other supporters of the Kyoto Protocol on the other. A broad scientific consensus agrees that these gases accumulating in the atmosphere, by products of automobile engines, power plants and other fossil fuel-burning industries, contributed significantly to the past century's global temperature rise of 1 degree Fahrenheit.

➤ Australia kick started a climate change pact of six of the world's biggest polluters by committing \$75 million for a clean-energy fund to tackle global warming. The inaugural Asia Pacific partnership on Clean Development and Climate meeting aimed to cut greenhouse gas emissions with the support of industry and without hindering economic growth. But, it set no targets on members to cut emissions of carbon dioxide and other gases released by burning fossil fuels. Critics say the partnership is short sighted and doomed to fail because it imposes no targets on members-the US, Australia, Japan, China, South Korea and India.

➤ **SCRAMJET SCREAMS AT 6000 MPH:** British scientists completed a test flight on March 26, 2006, of a jet engine that could eventually turn long haul flights to Australia or Japan into two-hour hops. The Hyshot craft reached speeds

of 6000 mph-mach 8, or eight times the speed of sound – over the outback in south Australia. The craft, which was just 4 ft. 6 in. long, was testing a revolutionary scramjet engine designed by Qinetiq, formerly the government's defence research agency.

➤ Scientists believe that the scramjet could one day be used to power **SUPERFAST INTER-CONTINENTAL PASSENGER PLANES**. The big advantage of such craft is that they do not need to carry tanks loaded with a source of oxygen as well as fuel, meaning they have much more space for payload.

➤ Earth's north magnetic pole is drifting away from North America and toward Siberia at such a clip that Alaska might lose its spectacular Northern Lights in the next 50 years. Despite accelerated movement over the past century, the possibility that Earth's modestly fading magnetic field will collapse is remote. But the shift could mean Alaska may no longer see the sky lights known as auroras which might then be more visible in more southerly areas of Siberia and Europe.

➤ The magnetic poles are part of the magnetic field generated by liquid iron in Earth's core and are different from the geographic poles, the surface points marking the axis of the planet's rotation.

➤ The world's smallest heart support system, a 4 mm wide heart pump, holds the greatest promise for patients with a heart too weak to even pump blood. Once installed inside a **diseased or damaged heart, THE IMPELLA PUMPS** up to 5 litres of blood every minute. Interestingly, installing the Impella does not require surgery. The device is inserted through the artery at the top of the groin in the same manner as conventional heart catheterization procedure is carried out. It is passed into the heart where it helps pump blood. The pump works for seven days after which the weak heart starts to pump blood normally on its own.

➤ On September 9, 2006, space shuttle Atlantis thundered into orbit with a \$372 million solar power module for the international space station, leaving behind two weeks of nagging technical and weather delays. The faulty fuel gauge and electricity-generating fuel cell problems that forced two launch delays did not interfere. Atlantis and its six astronauts returned September 21, 2006 concluding the 12-day successfully mission to resume construction of the International Space Station by installing the P3/P4 integrated truss and solar arrays.

➤ During the space flight Atlantis was hit by a **MMOD** (micrometeoroid/orbiting debris), which NASA described as the **"SECOND LARGEST HIT"** in the history of the Shuttle program. The debris hit a starboard radiator panel on the cargo bay doors and was large enough to have penetrated Atlantis' heat shield.

- **THE EUROPEAN UNION** launched its first Galileo navigation satellite Russian space agency Roskosmos said the 600 kg satellite, named **GIOVE-A** (Galileo In-Orbit Validation Element), went into its orbit 23,000 km from the earth after its launch on a Soyuz rocket from the Baikonur cosmodrome. The \$ 4.27 billion Galileo programme, due to go into service in 2008, and eventually deploy 30 satellites, may end Europe's reliance on the GPS and offer a commercial alternative to the GPS system run by the US military.
- The first mission to distant planet Pluto went under way after the successful launch of NASA's New Horizons spacecraft from Cape Canaveral Air Force Station, on January 19, 2006. It will take 9 years to reach the farthest planet. The 1,054 pound, piano-sized spacecraft is the fastest ever launched, speeding away from Earth at approximately 36,000 miles per hour, on a trajectory that will take it more than 3 billion miles toward its primary science target. New Horizons will zip past **JUPITER FOR A GRAVITY ASSIST** and science studies in February 2007, and conduct the first close-up, in-depth study of Pluto and its moons in summer of 2015. As part of a potential extended mission, the spacecraft would then examine one or more additional objects in the Kuiper Belt, the region of ancient, icy, rocky bodies (including Pluto), for beyond Neptune's orbit.
- Decks have been cleared for two US payloads to be carried by **INDIA'S FIRST-LUNAR MISSION CHANDRAYAAN-1**, with both governments firming up the crucial technical assistance agreement for this purpose. This will be the first time that US payloads will be carried on an Indian satellite slated for launch in 2007 or early 2008. One of the two US instruments, the miniature synthetic aperture radar, will for the first time ever look for traces of water on the lunar surface. It will explore the "**POLAR SECTIONS**" of the moon which have so far not been examined and where scientists believe there could be some traces of water or moisture.
- Dengue is a viral infection that leads to fever and in some cases bleeding. When a person starts bleeding, he is said to suffer from **DENGUE HAEMORRHAGIC FEVER (DGF)**. The infection is caused by four different but related strains of the dengue virus. Hence, a person who contracts dengue more than once as an infection by one strain of virus gives no immunity against infection from another strain. Dengue fever is spread by the *Aedes aegypti* mosquito.
- The "**BACKSCATTER**" machine is a new full body X-ray machine tested at a US airport which has raised concerns about privacy issues with some rights advocates saying the technology amounts to a virtual strip search. The "Backscatter" machine will enable screeners to detect non-metallic devices and objects as well as weapons on a person's body.
- On November 27, 2006, India successfully test fired two nuclear-capable **PRITHVI-II MISSILES** against each other from different military test ranges on the Orissa coast to test their effectiveness. While one missile was test fired from the shore-based **INTEGRATED TEST RANGE (ITR)** at Chandipur-on-sea from a mobile launcher at launch complex No.3, the second one went off over a minute later from another mobile launcher at launch complex No.4 in the Inner Wheeler Island. The missiles collided in the sky over the Bay of Bengal about 70 km from the Chandipur range. The aim of the exercise is to test the missile's ability to provide an air-shield cover to important Indian metros against hostile attacks. The exercise was undertaken under the **PRITHVI AIR DEFENCE EXERCISE (PADE)** being undertaken for the first time to validate its operational effectiveness. The Prithvi is one of the five missiles being developed under the Integrated Guided Missile Development Programme of the **DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION (DRDO)**.
- First tested in 1988, Prithvi-I has a range of 150 km and can carry conventional or low-yield nuclear warheads for use against troops or armoured formations. Its two variants, Prithvi-II and Prithvi-III, have a range of 250 km and 350 km, respectively.
- **NASA** has announced plans for a permanent base on the Moon, to be started soon after astronauts return there around 2020. US would develop rockets and spacecraft to get people to the Moon and establish a rudimentary base. Then, other countries and commercial enterprises could expand the outpost to develop scientific and other interests.
- The agency envisions a base at one of the lunar poles, to take advantage of the near-constant sunlight for solar power generation. It would have an "**OPEN ARCHITECTURE**" design to which others could add the capabilities they want.
- As more equipment is set up, human stays would eventually grow to 180 days, and become permanent by 2024. By 2027 a pressurized roving vehicle on the surface would take people on expeditions far from the base.
- **THE AMERICAN MILITARY'S** new weapon is a ray gun that shoots a beam that makes people feel as if they will catch fire. The technology is supposed to be harmless—a non-lethal way to get enemies to drop their weapons.
- Non-lethal weapons are important for the escalation of force, especially in the environments our forces are operating in". The system uses millimeter waves, which can penetrate only 1/64<sup>th</sup> of an inch of skin, just enough to cause discomfort. By comparison, common kitchen microwaves penetrate several inches of skin.