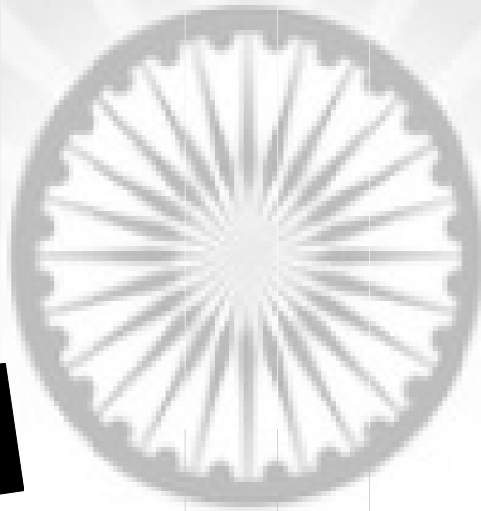


GS SCORE



Gist of

INDIA

Year Book

VOLUME - I

For Civil Services Examination

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1

NATIONAL SYMBOLS

The Republic of India has several official national symbols. These symbols are intrinsic to the Indian identity and heritage. These are discussed as follows:

A. National Flag

Features

- The National Flag is a horizontal tricolor of deep saffron (kesaria) at the top, white in the middle and dark green at the bottom in equal proportion.
- The ratio of width of the flag to its length is 2:3. In the centre of the white band is a navy-blue wheel which represents the chakra.
- Its design is that of the wheel which appears on the abacus of the Sarnath Lion Capital of Ashoka. Its diameter approximates to the width of the white band and it has 24 spokes.
- The design of the National Flag was adopted by the Constituent Assembly of India on July 22, 1947.
- The flag is based on the Swaraj flag, a flag of the Indian National Congress designed by Pingali Venkayya.
- The flag, by law, is to be made of khadi, a special type of hand-spun cloth, or silk made popular by Mahatma Gandhi.
- The manufacturing process and specifications for the flag are laid out by the Bureau of Indian Standards. The right to manufacture the flag is held by the Khadi Development and Village Industries Commission



Constitutional & Statutory Provisions Related To National Flag

Art 51A(a) - To abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.

Statutes Governing Use of Flag

- Emblems and Names (Prevention of Improper Use) Act, 1950
- Prevention of Insults to National Honor Act, 1971
- Flag Code of India, 2002

Half-mast: The flag should be flown at half-mast as a sign of mourning. The decision to do so lies with the President of India, who also decides the period of such mourning.

Sarvepalli Radhakrishnan, who later became India's first Vice President and second President, clarified the adopted flag and described its significance as follows:

- ### B. State Emblem

- It is an adaptation from the Sarnath Lion Capitol of Ashoka. Carved out of a single block of polished sandstone, the Capitol is crowned by the Wheel of the Law (Dharma Chakra).

- 

- The song Jana-gana-mana, composed originally in Bengali by Rabindranath Tagore, was adopted in its Hindi version as the National Anthem of India on January 24, 1950.
- It was first sung on December 27, 1911 at the Kolkata Session of the Indian National Congress.
- It has five stanzas with first stanza containing the full version of the National Anthem

- The duration of the National Anthem is approximately 52 seconds. A short version consisting of the first and last lines of the stanza (playing time approximately 20 seconds) is also played on certain occasions.

D. National Song

- The song Vande Mataram, composed in Sanskrit by Bankimchandra Chatterji, was a source of inspiration to the people in their struggle for freedom.
- It has an equal status with Jana-gana-mana. It was first sung at the 1896 session of the Indian National Congress.

E. National Calendar

- The National Calendar based on the Saka Era, with Chitra as its first month and a normal year of 365 days was adopted from March 22, 1957 along with the Gregorian calendar for :
 - Gazette of India,
 - News broadcast by All India Radio,
 - Calendars issued by the Government of India
 - Government communications addressed to the public.
- Dates of the National Calendar have a permanent correspondence with dates of the Gregorian calendar, 1 Chitra falling on March 22 normally and on March 21 in leap year.

F. National Flower: Indian lotus

Lotus (*Nelumbo nucifera*) is a sacred flower and occupies a unique position in the art and mythology of ancient India and has been an auspicious symbol of Indian culture.

G. National Fruit: Mango

Mango (*Mangifera indica*) originated in India and the country is home to more than 100 varieties of the fruit.

H. National river: Ganga

Ganga is the longest river of India with the most heavily populated river basin in the world. The river is revered by Hindus as the most sacred river on earth.

I. National Tree: Indian Banyan

Indian banyan (*Ficus bengalensis*) root themselves to form new trees and grow over large areas. Because of this characteristic and its longevity, this tree is considered immortal and is an integral part of the myths and legends of India.

J. National animal: Royal Bengal Tiger

Bengal tiger (*Panthera tigris tigris*), the largest carnivore is found only in the Indian subcontinent and can be found in most regions of the country.

K. National Aquatic Animal: River Dolphin

Gangetic dolphin (*Platanista gangetica*) is said to represent the purity of the holy Ganga River as it can only survive in pure and fresh water.

L. National Bird: Indian Peacock

Indian peacock (*Pavo cristatus*) is designated as the national bird of India. A bird indigenous to the subcontinent, peacock represents the unity of vivid colors and finds references in Indian culture.

M. National Currency: Indian Rupee

Indian Rupee (ISO code: INR) is the official currency of the Republic of India. The issuance of the currency is controlled by the Reserve Bank of India. The Indian rupee symbol is derived from the Devanagari consonant "ॠ" (ra) and the Latin letter "R" was adopted in 2010.

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2

AGRICULTURE

Nearly 55 per cent of the population is engaged in agriculture and allied activities (census 2011) and it contributes 17.4 per cent to the country's GVA.

Steps have been taken to improve soil fertility on a sustainable basis through the soil health card scheme, to provide improved access to irrigation and enhanced water efficiency through Pradhan Mantri Gram Sinchai Yojana, to support organic farming through Paramparagat Krishi Vikas Yojana (PKVY) and to support for creation of a unified National Agriculture Market to boost the incomes of farmers (eNAM).

Production

Due to the deficient rainfall as well as unseasonal rains and hailstorms, agricultural production in 2014-15 was lower than that in 2013-14, a year of record production.

2014-15	2013-14
Rice : 104.8 million tonnes	106.65 million tonnes
Wheat: 88.94 million tonnes	95.85 million tonnes
Total food grains: 252.68 million tonnes	265.04 million tonnes
Pulses: 17.20 mt	19.25 mt
Oilseeds: 26.68 mt	32.75 mt

The production of coarse cereals is estimated at 41.75 million tonnes which is lower than the production of coarse cereals during 2013-14.

National Policy for Farmers (2007)

The Policy provisions, inter alia, include asset reforms in respect of land, water, livestock, fisheries, and bio-resources; support services and inputs like application of frontier technologies; agricultural bio-security systems; supply of good quality seeds and disease-free planting material, improving soil fertility and health, and integrated pest management systems; support services for women like crèches, child care centres, nutrition, health and training; timely institutional credit at reasonable interest rates, and farmer-friendly insurance instruments; use of ICT tools and revitalize agricultural extension; effective implementation of MSP across the country, development of agricultural market infrastructure, and rural non-farm employment initiatives for farm households; integrated approach for rural energy, etc.

Many of the provisions of these are already covered under various schemes and programmes; rests are to be covered under an Action Plan through ministries and departments concerned along with an inter-ministerial committee to monitor its progress.

Major Programmes

- **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY):**

Outlay of 50,000 crore for a period of 5 years (2015-16 to 2019-20).

The objective is to achieve convergence of investments in irrigation at the field level, expand cultivable area under irrigation, improve on-farm water use efficiency, enhance the adoption of precision irrigation and other water saving technologies (more crop per drop), enhance recharge of aquifers and introduce sustainable water conservation practices, etc. Department of Agriculture & Cooperation, Department of Land Resources and Ministry of Water Resources, River Development & Ganga Rejuvenation are involved in this.

- **Agricultural Credit:**

Annual target for agriculture credit is fixed in the budget. Agricultural credit has been more than the target every year. Target for the year 2015-16 was fixed at 8,50,000 crore and the achievement was 6,30,243.87 crore upto December 31, 2015.

- **Kisan Credit Card:**

It is implemented by Commercial Banks, Cooperative Banks and Regional Rural Banks. Its scope includes term credit and consumption needs. New changes like ATM enabled debit card, one-time documentation, any number of withdrawals within the limit, which eliminates the need for disbursement through camps and mitigates the vulnerability of farmers to middlemen.

Crop Insurance

Issue of crop failure due to natural calamities, pests and diseases, weather conditions is always there. For that we have National Crop Insurance Programme (NCIP) with component schemes of Modified National Agricultural Scheme (MNAIS), Weather Based Crop Insurance Scheme (WBCIS) and Coconut Palm Insurance Scheme (CPIS). In addition, National Agricultural Insurance Scheme (NAIS) which was to be withdrawn after implementation of NCIP from rabi 2013-14 has been extended further upto 2015-16.

Modified National Agricultural Insurance Scheme (MNAIS): actuarial premium rates are charged with a provision of subsidy upto 75%, which is shared by the Central and State Governments on 50 : 50 basis;

Weather Based Crop Insurance Scheme (WBCIS) : Provide coverage against weather deviation from the notified standards on the basis of weather data received from the notified Automatic Weather Stations (AWSs) and Automatic Rain-gauges (ARGs);

As a result of the review of these schemes, a new scheme **Pradhan Mantri Fasal Bima Yojana (PMFBY)** has been introduced along with pilot Unified Package Insurance Scheme (UPIS) and restructured Weather Based Crop Insurance Scheme (WBCIS). Under the PMFBY, a uniform maximum premium of only 2 per cent will be paid by farmers for all kharif crops and 1.5 per cent for all rabi crops. In case of annual commercial and horticultural crops, the maximum premium to be paid by farmers will be only 5 per cent. Balance premium will be paid by the Government.

Special Rehabilitation Package for Distressed Farmers

- For 31 suicide prone districts in the four states, namely, Andhra Pradesh, Maharashtra, Karnataka and Kerala was implemented. The package has stabilized the situation.
- As part of above, two packages were approved for Kerala suggested by the M.S. Swaminathan Research Foundation in 2008: (i) development of Kuanad Wetland Ecosystem (ii) mitigation of Agrarian Distress in Idukki district.

The Government of Kerala has been advised to implement the schemes and to improve the conditions of farmers under Rashtriya Krishi Vikas Yojana and other schemes/programmes.

Commission for Agricultural Costs and Prices

It is set up for a balanced and integrated price structure by advising on the price policy (MSP) of 23 crops. These include seven cereal crops (paddy, wheat, jowar, bajra, maize, ragi and barley), five pulse crops (gram, tur, moong, urad and lentil), seven oilseeds (groundnut, sunflower seed, soyabean, rapeseed-mustard, niger seed and sesamum), copra (dried coconut), coon, raw jute and sugarcane fair and remunerative prices (FRP) instead of MSPA.

CACP ensures that the production patterns are broadly in line with the overall needs (demand) of the economy. CACP submits five price policy reports every year, separately for kharif crops, rabi crops, sugarcane, raw jute and copra by seeking the views of state governments, concerned national organizations and ministries.

Determinants of MSP:

Commission keeps in mind demand and supply, cost of production (the most important one), price trends in the market, both domestic and international, inter-crop price parity, terms of trade between agricultural and non-agricultural sectors, likely implications of MSP on consumers, besides ensuring optimal utilization of natural resources like land and water.

Indian Council of Agricultural Research

An autonomous organization under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers' Welfare.

It is mandated for coordinating, guiding and managing research and education in agriculture and allied activities with largest network of agricultural research and education in the world with 109 institutes, 78 all India coordinated projects/networks, 642 Krishi Vigyan Kendras (KVKs), 71 state agricultural/veterinary/horticultural/fishery universities and four general universities.

ICAR institutes developed a number of cost-effective technologies, techniques and products, to enhance the productivity and quality of produce. The partnerships within the National Agricultural Research and Education System (NARES) as well as outside, with several organizations were the hallmark of R&D efforts during the year. Its recent initiatives are Farmers FIRST, Student READY, Attracting Retaining Youth in Agriculture (ARYA), Agri-Tech Foresight Centre (ATFC) and Mera Gaon, Mera Gaurav, for building entrepreneurship amongst the agricultural graduates and improving technology delivery as well as knowledge empowerment of farmers.

Indian Institute of Agricultural Biotechnology (IIAB), Ranchi and National Research Centre on Integrated Farming at Motihari, Bihar were established. The ICAR formulated the Vision-2050 documents and revised the mandates of all the

Institutes keeping in mind changing needs of agricultural research, growing population and consequent increase in food demand, natural resources, climate change, commercialization of agriculture, global trade regime.

Recently several areas in the northern states were impacted by hailstorms that caused damage to ready-to-harvest wheat crop; the monsoon was delayed with a 14 per cent deficient rainfall resulting in loss to rainfed farming in some parts of the country. Agricultural research can be an answer to this.

Soil and Water Productivity

Land resource inventory on 1:10,000 scale was prepared while bio-climatic map of India was revised. Electronic atlas of water resources developed for Odisha and Himachal Pradesh, is a useful tool for catch

assessment and developing GIS based Decision Support System. The information will help planners to concentrate efforts, allocate resources and deploy manpower according to the distribution of fishery resources. Bamboo plantation-based bio-engineering interventions were found promising for reclamation and productive utilization of major ravines namely, Mahi ravines at Vasad (Gujarat), Chambal ravines at Kota (Rajasthan), and Yamuna ravines at Agra (Uttar Pradesh).

These interventions could absorb more than 80 per cent of rainfall and reduce the soil and nutrient losses by 90 and 70 per cent, respectively. Foliar sprays with various chemicals were evaluated to mitigate dry spells during crop growing season across diverse rainfed agroecologies.

A soil nitrogen test based fertilizer prediction model for targeted yield in Nagpur Mandarin was developed. Integrated farming system (1 ha) model comprising cropping systems (0.52 ha) + horticulture (0.32ha) + dairy including bio-gas and vermin compost unit (0.08ha) + fish-cum-poultry (0.1 ha) + mushroom developed in western Himalayas, provided round the year improved production, profit and employment.

Climate Change

The Cool Farm Tool model used to estimate emission of GHGs, integrates several globally determined empirical GHG quantification models. Using the tool, GHG fluxes (carbon-dioxide and methane), moisture and heat in the soil-plant-atmosphere systems were measured in rice-wheat rotation. Maize-wheat cropping registered highest carbon management index. The cumulative seasonal methane emission was reduced by 75 per cent in aerobic rice as compared to continuously flooded rice and the seasonal emissions were lower in slow-release N fertilizer.

Livestock Improvement

India is the leading milk producing nation in the world with sustainable increase in the annual milk production. Under Conservation and Genetic Improvement of Indigenous Cattle Breeds, the milk yield showed an increasing trend among the progenies of different sets. Semen doses of Gir, Kankrej, Sahiwal were produced and utilized for insemination. Cloning of the only alive wild-buffalo of Chhattisgarh has led to cloning technology application in conservation of endangered species.

Agricultural Education

HRD programmes/ activities facilitated promotion and execution of ICAR sponsored schemes that include centralized admissions in UG/PG; award and distribution of fellowships to attract talent and promote merit, admission of foreign students for globalization of agriculture education, capacity building of faculty through summer-winter schools and Centre of Advanced Faculty training, National Professorial Chairs and National Fellow Scheme for promotion of excellence, Emeritus Scientist Scheme as a structural method of utilizing skill bank of the outstanding superannuated professionals.

Technology Assessment

Women specific income generation technologies (205) related to technological empowerment of rural women were assessed. Technological interventions through trials on livestock, poultry and fisheries under the thematic areas, viz., disease management, feed and fodder management, nutrition management and production and management. Bio-agents, bio-pesticides, bio-fertilizers, vermi-compost, mineral mixture, etc. were produced and supplied. Kisan Mobile Advisory (KMA), an initiative by the ICAR through short text messages, voice messages benefit farmers on various aspects of agriculture based on input provided by 557 KVKs.

National Agricultural Science Fund

It was established to support basic and strategic research in Agriculture. During the year 2015-16, the NASF delivered five patents and 38 technologies.

Some of the important projects are: Phenomics of moisture deficit and low temperature in rice-double herbicide tolerant transgenic rice for weed management; development of transgenic pigeonpea and chickpea; development of genetically engineered vaccines against poultry viral disease.

Animal Husbandry, Dairying and Fisheries

The Department of Animal Husbandry, Dairying and Fisheries is responsible for matters relating to livestock production, dairy development, matters relating to the Delhi Milk Scheme and the National Dairy Development Board. It also looks after fisheries, which includes inland and marine sectors and National Fisheries Development Board.

Functions

It advises the state governments in the formulation of policies and programmes.

The main focus of the activities is on :

- (a) Development of requisite infrastructure in states for improving animal productivity;
- (b) Promoting infrastructure for milk and milk products;
- (c) Preservation and protection of livestock
- (d) Strengthening of central livestock farms
- (e) Expansion of aquaculture in fresh and brackish water, development of marine fisheries and post harvest operations and welfare of Fisher folk.

These activities have contributed to the food basket, nutrition security, household income of the farmers and employment in the rural areas, particularly among the landless, small and marginal farmers and women. Livestock are the best insurance for farmers against vagaries of nature .

Population of Livestock

Starting from 1919 so far 19 such censuses have been conducted. 2012 census says

Cattle - 190.90 millions ;

Buffaloes - 108.70 millions;

Total Bovines - 300 millions

Total Livestock - 512 millions

Total Poultry - 730 millions

Estimated Production in 2014-15 : Milk - 146.3 million tonnes

Dairy Development

India ranks first among the world's milk producing nations, recording a growth of 5.32 per cent from 2013-14 to 2014-15. The anticipated milk production for 2015-16 is about 148 million tonnes.

Dairying has become an important secondary source of income for millions of rural families particularly for women and marginal farmers. The per capita availability of milk was 302 grams per day during 2013-14, more than the world average of 294 grams per day. Most is produced by small, marginal farmers and landless labours.

The efforts of the Department have emphasis on building up cooperative infrastructure, revitalization of sick dairy cooperative milk unions and creation of infrastructure in the states for production of quality milk and milk products. The National Dairy Development Board (NDDB) continues its activities for overall development of the sector in Operation Flood areas.

National Programme for Bovine Breeding and Dairy Development (2014)

The Scheme has two components: (a) National Programme for Bovine Breeding (NPBB); (b) National Programme for Dairy Development (NPDD).

The NPBB will focus on extension of field AI Network through MAITRI (Multi Purpose AI Technician in Rural India) and to encourage conservation and development of recognized indigenous breeds of the country.

The NPDD will focus on creating infrastructure related to production, procurement, processing and marketing of milk and milk products by the State Implementing Agency (SIA), State Milk Marketing Federations/ District Cooperative Milk Producers' Union and training of milk producers associated to dairy cooperative societies.

National Dairy Plan Phase-I (2013)

Its objective was to increase productivity of milch animals and providing rural producers greater access to organized milkprocessing sector and was implemented NDDB.

Dairy Entrepreneurship Development (2010)

It has objective for promotion of private investment in dairy sector to increase the milk production and helping in poverty reduction through self employment opportunities; implemented through NABARD which provides financial Assistance.

National Livestock Mission (2014-15)

It has the objectives of sustainable development of livestock sector, focusing on improving availability of quality feed and fodder, risk coverage, effective extension, skill development, improved flow of credit and organization of livestock farmers/rearers.

Also supporting BPL families to encourage rearing of backyard poultry and community-led breed improvement programmes and provision for number of small ruminants, piggery and poultry farming and allied activities wherein back-ended capital subsidy is provided to the farmers.

Sub-Mission on Livestock Development

- **Sheep and Goat Development**

Central Sheep Breeding Farm, Hisar is mandated to produce acclimatized exotic/ cross bred superior quality rams.

- **Conservation of Threatened Breeds**

The population of purebred animals of some breed of small ruminants, equines, pigs and pack animal has come down as 'threatened breeds' .A Centrally Sponsored Scheme for their conservation started during 10th Five Year Plan. The conservation projects are being implemented by state governments, universities and NGOs.

- **Integrated Development of Small Ruminants and Rabbits(2009)**

The scheme envisages setting up of intensive small ruminant development clusters with venture capital through NABARD as well as infrastructure development and institutional restructuring through state implementing agency. During 2014-15, it was subsumed under National Livestock Mission (Component [III]).

- **Meat and Pig Development**

Meant for rural poor belonging to the lowest socio-economic strata having no means to undertake scientific pig farming. Therefore, suitable schemes are necessary to modernise the Indian pig industry and to improve the productivity of small sized rural pig farms. National Livestock Mission (NLM) encourages commercial rearing of pigs by adopting scientific methods and creation of infrastructure, also supports state pig breeding farms.

- **Risk Management(under NLM)**

It provides for protection mechanism to the farmers against any eventual loss of their animals due to death. Benefit of subsidy is to be restricted to 5 animals per beneficiary per household for all animals in general. This envisages payments from Central funds as grants - in -aid : (a) subsidy; (b) 100 percent payments of honorarium to the veterinary practitioners; and (c) 100 per cent publicity. Department of Animal Husbandry Dairy and Fishers(DADF) is implementing the centrally sponsored 'Risk Management and Insurance' component.

- **Poultry Development**

One of the fastest growing subsectors with annual growth rates of eggs of around 6%, despite the ingress of avian influenza showing timely interventions by the government. A general guideline of preventive measures have been issued.

Central Poultry Development Organizations

Located at four regions viz., Chandigarh, Bhubaneswar, Mumbai and Hessarghatta. The mandate is to focus on improved birds, and have vastly improved feed conversion ratio. Training is also imparted to the farmers. Analytical livestock and poultry feed testing is also conducted. It also gives valuable information relating to different genetic stock.

Interventions towards Productivity Enhancement

- **Rural Backyard Poultry Development**

Objective -To cover beneficiaries from Backyard Poultry Development (BPD) families to enable them to gain supplementary income and nutritional support. Due to persistent demand from the north-eastern states the pig development is being implemented there as a part of NLM.

Under 'Fodder Seed Procurement and Distribution', after producing the foundation seeds the same is being offered to the states for further multiplication preferably through milk federations, dairy co-operatives and progressive farmers, etc.

Fisheries

India is the 2nd largest producer of fish with 5.68 per cent of global production; ranks second in the world after China in aquaculture. It has an overall growth rate of 6 per cent projected during the 12th Five year Plan. About 24.7 % of our fish species live in warm fresh water and 65.5 % in the sea. Inland Fisheries and Aquaculture has an annual growth of around 7 per cent.

Global production of fish from marine capture fisheries in the last decade has stagnated gradually.

On-going Schemes

- i. Development of Inland Fisheries and Aquaculture;
- ii. Development of Marine Fisheries, Infrastructure and Post Harvest Operations;
- iii. National Scheme of Welfare of Fishermen;
- iv. Strengthening of Database and Geographical Information System for the Fisheries Sector;
- v. Assistance to Fisheries Institutes;
- vi. National Fisheries Development Board; and
- vii. Issuance of Biometric Identity Cards to Coastal Fishermen.

Blue Revolution

It refers to an integrated and holistic approach towards the development and management of the fisheries and aquaculture sector in the country for increased production and productivity.

Livestock Health

The biggest impediment to growth is the animal diseases like foot and mouth disease (FMD), Peste des Petits Ruminants, brucellosis, avian influenza, etc. Government of India supplements the efforts of State Governments for

prevention and control of animal diseases by providing assistance under various components of a Centrally Sponsored Scheme as 'Veterinary Services and Animal Health'.

An online system of animal disease reporting in a time bound manner is being implemented. Under this each taluka/district and state headquarter is linked with a Central Disease Monitoring Unit in DADF at New Delhi.

India was declared Contagious Bovine Pleuropneumonia (CBPP) infection free, classified as a country having negligible risk for Bovine Spongiform Encephalopathy (BSE). Foot and Mouth Disease Control Programme (FMD-CP) is being implemented. Peste des Petits Ruminants Control Programme (PPR-CP) has also been expanded to whole of the country.

Prevention of ingress of exotic diseases through import of various livestock and livestock products by strengthening quarantine set up in the country is also being ensured. To strengthen laboratory infrastructure, the department has established four pre-fabricated Bio-Safety Level-III (BSL-III) laboratories.

3

CULTURE AND TOURISM

Culture refers to a human-made environment which includes all the material and non-material products of group life that are transmitted from one generation to the next. These may be transmitted through symbols, constituting the distinctive achievements of human groups, including their embodiment as artifacts. The essential core of culture thus lies in those finer ideas, by means of which people communicate, perpetuate and develop their knowledge about and express their attitudes toward life.

The Ministry of Culture

- The **Ministry of Culture** preserves and conserves ancient cultural heritage and promotes art and culture, both **tangible and intangible**.
- It also nurtures **Gandhian Heritage** and is responsible for commemoration of important historical events and centenaries of great personalities.

Intangible Cultural Heritage

It includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.(UNESCO)

Institutes protecting intangible heritage

A. Lalit Kala Akademi

- It has been established to promote and propagate understanding of Indian art, both within and outside the country.
- It was established on August 5, 1954 at New Delhi, The Academy has regional centres called Rashtriya Lalit Kala Kendra at Lucknow, Kolkata, Chennai, Garhi in New Delhi, Shimla and Bhubaneswar
- **Working Area**
 - a) The Academy has been organizing national exhibition of contemporary Indian art with 15 national awards.
 - b) Once in every three years, the Academy also organizes Triennial international exhibition of contemporary art in New Delhi.
 - c) The Academy honors eminent artists and art historians every year by electing them as Fellows of the Academy.
 - d) In order to foster contacts with artists from outside, it sponsors exchange of artists with other countries under the various Cultural Exchange Programmes .
- The Lalit Kala Academy accords recognition to art institutions/associations and extends financial assistance.

- It also gives scholarships to deserving young artists belonging to its regional centres.

B. Sangeet Natak Akademi

- Sangeet Natak Akademi, India's National Academy of Music, Dance and Drama, is a pioneer in creation of modern India that led politically to India's freedom in 1947.
- In 1961, the Sangeet Natak Akademi was reconstituted by the Government as a society and registered under the Societies Registration Act, 1860.
- **Working Area**
 - a) The festivals of music, dance and drama presented or promoted by the Akademi are held all over India.
 - b) The great masters of the performing arts have been elected as Fellows of the Akademi.
 - c) The Sangeet Natak Akademi Awards conferred annually on eminent artists and scholars.
 - d) Financial assistance to artists for their work from the Akademi
 - e) It has a large archive of audio and video tapes and remains the single most important resource for researchers in the field of performing arts
 - f) The Akademi establishes and looks after institutions and projects of national importance in the field of performing arts.. In 1959, the Akademi established the National School of Drama and in 1964, the Kathak Kendra)
 - g) Being the apex body, the Akademi also advises and assists the Government of India in formulating and implementing policies and projects in the field.

C. Sahitya Akademi

- Sahitya Akademi is the Indian National Academy of Letters, to promote Indian literature through publications, translations, seminars, workshops, cultural exchange programmes and literary meets organized all over the country.
- The Akademi was founded in March 1954 as an autonomous body fully funded by the Department of Culture.
- It was registered as a Society in 1956 under the Societies Registration Act, 1860. The Akademi has recognized 24 languages.
- It has an Office at Shillong for promotion of oral and tribal literature and an Archive of Indian literature in Delhi.
- The three fellowships by Sahitya Akademi are:-
 1. Sahitya Akademi Honorary Fellowship
 2. Anand Fellowship
 3. Premchand Fellowship
- Every year since its inception in 1954, the Sahitya Akademi awards prizes to the most outstanding books of literary merit published in any of the major Indian languages.

- Certain special projects like the Ancient Indian Literature, Medieval Indian Literature and Modern Indian Literature together.
- It has also launched a new project Encyclopedia of Indian Poetics.

D. National School of Drama

- The National School of Drama (NSD)-one of the foremost theatre institutions in the world and the only one of its kind in India was set up by Sangeet Natak Akademi in 1959. Later in 1975, it became an autonomous organization.
- **Objective/Working area of the NSD**
 - a) To train students in all aspects of theatre, including theatre history, production, scene design, costume design, lighting, make-up, etc
 - b) The school has a performing wing, a Repertory Company to establish professional theatre and regular experimental work.
 - c) The NSD has promoted children's theatre. The Theatre-in-Education Company (renamed as Sanskar Rang Toli) was founded in 1989 and has been actively involved in production of plays for children, organizing summer theatre workshops in
 - d) The first ever National Theatre Festival christened Bharat Rang Mahotsav was held in 1999 .

E. Indira Gandhi National Centre for Arts

- The Indira Gandhi National Centre for Arts (IGNCA) is an autonomous centre under the Ministry of Culture.
- The IGNCA's view of the arts encompasses wide areas such as creative and critical literature, written and oral; the visual arts, architecture, sculpture, painting, graphics, photography and film.
- The centre aims at exploring, studying and reviving the dialogue between India and her neighbours, in areas pertaining to the arts, and between communities in India and the world.
- It focuses on schools and educational institutions and complements its research by cross disciplinary landscape studies.

F. Centre for Cultural Resources and Training

- The Centre for Cultural Resources and Training (CCRT) is one of the premier institutions working in the field of linking education with culture.
- The centre was set up in May, 1979 as an autonomous organization by the Government of India. With headquarters in New Delhi, it has three regional centres at Udaipur, Hyderabad and Guwahati.
- The broad objectives of CCRT have been to revitalize the education system by creating an understanding and awareness among students about the plurality of the regional cultures of India and integrating this knowledge with education.
- It conducts a variety of training programmes for in-service teachers drawn from all parts of the country.
- This training also stresses the role of culture in science and technology, housing, agriculture, sports, etc.

- It creates awareness amongst students and teachers of their role in solving environmental pollution problems and conservation and preservation of the natural and cultural heritage.
- The CCRT organizes educational tours to monuments, museums, art galleries, craft centres, zoological parks and gardens, camps on conservation of natural and cultural heritage, camps on learning crafts using low cost locally

G. Zonal Cultural Centres

- Zonal Cultural Centres (ZCCs) aim to arouse awareness of the local cultures and to show how these merge into zonal identities and eventually into the rich diversity of India's composite culture.
- The seven zonal cultural centres were established under this scheme during 1985-86 at Patiala, Kolkata, Thanjavur, Udaipur, Nagpur.
- Master craftsmen and artisans from various ZCCs participate in Crafts Fair. Documentation of various rare folk and tribal art forms is one of the main thrust areas of the ZCCs.
- Under the National Cultural Exchange Programme (NCEP), exchanges of artists, musicologists, performers and scholars between different regions within the country take place
- The ZCCs promote craftsmen through Shilpgrams.

Performing Arts

1. Dance

- Dance in India has an unbroken tradition of over 2,000 years. Its themes are derived from mythology, legends and classical literature, two main divisions being classical and folk.
- In traditional Indian culture the function of dance was to give symbolic expression to religious ideas. The figure of Lord Shiva as Nataraja represents the creation and destruction of the cosmic cycle.

Classical dance forms are based on ancient dance discipline and have rigid rules of presentation. Important among them are Bharata Natyam, Kathakali, Kathak, Manipuri, Kuchipudi and Odissi.

Features

- Mudra or hand gestures are used by the artists as a short-hand sign language to narrate a story and to demonstrate certain concepts .
- Many classical dances include facial expressions as an integral part of the dance form.
- **Nartanam:** Dances performed inside the sanctum of the temple according to the rituals .
- **Carnatakam** Dances performed in royal courts

A. Bharata Natyam (Tamil Nadu)

- The Abhinaya Darpana by Nandikesvara is one of the main sources of textual material, for the study of the technique and grammar of body movement in Bharata natyam Dance.
- The style was kept alive by the devadasis, who were young girls 'gifted' by their parents to the temples and who were married to the gods.
- The dance movements are characterized by bent legs, while feet keep rhythm. Hands may be used in a series of mudra.

- Instruments used in Bharat natyam are Mridangam, Violin, Veena, Flute and Talam.

B. Kathakali (Kerala)

- The word Kathakali literally means "Story-Play".
- Kathakali is known for its heavy, elaborate makeup and costumes.
- The dancers wear large head dresses, and the different colors of the face are extended with moulded lime.
- Kathakali dance presents themes derived from the Ramayana, the Mahabharata and other Hindu epics, mythologies and legends.
- Kathakali is traditionally performed by boys and men, even for female roles
- Instruments used in Kathakali are Chenda, Maddalam, Cymbals and Elataalam.

C. Kathak (North India)-

- Katha, meaning "the art of storytelling."
- It is performed by both men and women.
- The movements include intricate footwork accented by bells worn around the ankles and stylized gestures adapted from normal body language.
- The advent of Islamic rule in the 13th century greatly influenced the Indian culture, having a direct impact on Kathak. (It was introduced as a form of entertainment in the courts and developed its own distinct and individualistic style). Lucknow, Banaras and Jaipur are recognized as the three schools.
- Instruments used in Kathak are Pakwaj, Tabla, Harmonium, Sarengi and Talam (cymbals).

D. Manipuri (Manipur)

- The most striking part of Manipuri dance is its colorful decoration, lightness of dancing foot, delicacy of abhinaya (drama), smooth and graceful movements.
- The Manipuri dance form is mostly ritualistic and draws heavily from the rich culture of the state of Manipur.
- Among the important features of the Manipuri repertoire are the Sankirtana and the RaasLeela, based on the devotional theme of Krishna and Radha.
- Another vibrant feature of Manipuri is the Pung Cholam or Drum dance, in which dancers play on the drum known as Pung .
- The Lai Haroba, a ritualistic dance depicting the Creation, is considered the precursor of Manipuri as seen today.
- Instruments used in Manipuri are Pung and cymbals.

E. Kuchipudi (Andhra Pradesh)

- Kuchipudi exhibits scenes from the Hindu Epics, legends and mythological tales through a combination of music, dance and acting.
- Traditionally the dance was performed by men, even the female roles, although now it is predominantly performed by women.

- Taranagam is the main unique piece of kuchpudi repertoire, also known as plate (made by brass) dance. In that the dancer must dance upon a brass plate, placing the feet upon the raised edges.
- Instruments used in Kuchipudi Mridangam, Violin, Veena, Flute and Talam.

F. Odissi (Odisha)

- Originating in the Devadasi tradition, It is predominantly a dance for women, with postures that replicate those found in temple sculptures.
- Like other Indian classical dance forms, Odissi has two major facets:
 - i. Nritya, in which ornamental patterns are created using body movements in space and time
 - ii. Abhinaya, or facial expressions are used to interpret a story or theme.
- Tribhangi, (thrice deflected posture) in which the body is bent in three places, the shape of a helix.
- Instruments use in Odissi are Pakwaj, table, harmonium, flute and cymbals.

G. Sattriya (Assam)

- Sattriya Nritya was usually performed in the Sattras (Assam monasteries) in a highly ritualistic manner by male dancers alone.
- The core of Sattriya Nritya has usually been mythological stories.
- Dressed in white costumes and turbans, head gears, they include khol -patital, boratal-cymbals playing, performing dance, creating soundscapes, floor patterns and choreographic designs.
- Both solo and group numbers enrich its presentation. The dresses are usually made of pat, a type of silk produced in Assam.

2. Music

Two main schools of classical music-Hindustani and Carnatic continue to survive through oral tradition being passed on by teachers to disciples. This has led to the existence of family traditions called gharanas and sampradayas.

A. Hindustani Music

- Hindustani Sangeet is usually considered to be a mixture of traditional Hindu musical concepts and Persian performance practice.
- Hindustani music is based on the raga system.
- A raga is a melodic scale, consisting of notes from the basic seven known as sa, re, ga, ma pa, dha, and ni.
- Khyal and Dhrupad are two major types of compositions within the Hindustani genre.
- There are many musical instruments that are associated with Hindustani sangeet. The most famous are the tabla and sitar, sarangi, santur, and the sarod.

Types of Hindustani Music and its meaning

Dhrupad - Effort from vocal chords and lungs

Dhamar - Play of Krishna during holy

Khayal - Delicate, romantic and based on imagination.

Thumri - Romantic religious literature

Tappa - Quick turn of phase

Bhajan - Religious devotional songs

Tarana - Syllables strung together to set a rhythm

Sabadas - Sikh religious songs

Qawali - Indo- Muslim repertoires of songs in groups.

Ghazal - Independent couplets on love and devotion

B. Carnatic Music

- Carnatic Sangeet is found in the south Indian states of Kerala, Tamil Nadu, Karnataka, and Andhra Pradesh.
- Purandardas is considered as the father of Carnatic Music.
- Carnatic music acquired its present form in the 18th century under the "trinity" of Carnatic music, Thyagaraja, Shamashastri, and Muthuswami composed their famous songs.
- It is also based upon a system of ragam (rag) and thalam (tal).
- Musical instruments veena, violin, mridangam, nadaswaram, and the tavil.
- Kritis are a dominant element.

Types of Carnatic Music and its meaning Ragam

Tanam- Pallavi - Elaborate rhythmic and melodic variation in unmeasured sense.

Kriti-Kirthanai - Most popular type which refers to devotional music laced with poetic beauty.

Varnam - Performed at the beginning of a concert ; a completely composed piece.

Pa dam - Slower tempoed love songs referring to the human yearning for the adored god head.

Javalis - Faster tempoed love songs with direct description of human love.

Tillana - Meaningful phrases are interspersed with variety of meaningless syllables.

3. Theatre

- Folk theatre can be seen in its regional variants practically in every region. There are also professional theatre, mainly city-oriented.
- Besides, India has a rich tradition of puppet theatre, prevalent forms being puppets, rod puppets, glove puppets and leather puppets (shadow theatre).

Organisations related to Culture

A. Archaeological Survey of India

- The Archaeological Survey of India (ASI) was established in 1861. It functions as an attached office of the Department of Culture.

Branches of ASI

- Underwater branch
- Science branch
- Horticulture branch
- Epigraphy Branch
- Expedition Abroad

- **Major activities**

- Survey of archaeological remains and excavations;
 - Maintenance and conservation of Centrally protected monuments, sites and remains;
 - Chemical preservation of monuments and antiquarian remains;
 - Architectural survey of monuments;
 - Development of epigraphically research and numismatic studies;
 - Expeditions abroad;
 - Training in archaeology;
 - Publication of technical reports and research works.
- Under the Ancient Monuments and Archaeological Sites and Remains Act, 1958, the ASI has declared 3,675 monuments/sites to be of national importance in the country which includes twenty one properties that are inscribed on the World Heritage List by UNESCO.

National Mission on Monuments and Antiquities

- It prepares a National Register for Built Heritage, Sites and Antiques and setting up of a state level database on Built Heritage(time frame -5 years)

National Mission for Manuscripts

- IGNCA as the nodal agency to reclaim India's inheritance of knowledge contained in the vast treasure of manuscripts.
- Documentation of manuscripts through survey, preventive and curative conservation, conducting training courses and workshops on conservation, documentation through digitization, research and publication and public outreach programmes.

B. National Museum

- Works under the Ministry of Culture since 1960.
- **Main activities:** Exhibitions, Reorganization/Modernization of Galleries, Educational Activities and Outreach Programmes, Public Relations, Publications, Photo Documentation, Summer Holiday Programmes.

C. National Library

- The National Library, Kolkata was established in 1948. It enjoys the status of an institution of national importance.

- Functions are : (i) Acquisition and conservation of all significant printed material as well as of manuscripts of national importance; (ii) Collection of printed material concerning the country, no matter where this is published; (iii) Rendering of bibliographical and documentary services of current and retrospective material

D. Anthropological Survey of India:

- Researches in the area of bio-cultural aspects of Indian population in general and on those who are referred to as the 'Weakest of the Weak' in particular. Documentation and study of ethnographic materials as well as ancient human skeletal remains.

E. National Archives of India:

- Making public records accessible to various Government agencies and research scholars.
- Preparation of reference material.
- Preservation and maintenance of records and conducting of scientific investigations for the said purpose.
- Evolving records management programmes.

F. Centre for Cultural Resources and Training

- The Centre for Cultural Resources and Training (CCRT) is one of the premier institutions working in the field of linking education with culture.
- The Centre was set up in May, 1979 as an autonomous organization by the Government of India.
- The broad objectives of CCRT have been to revitalize the education system by creating an understanding and awareness among students about the plurality of the regional cultures of India and integrating this knowledge with education.
- It creates awareness amongst students and teachers of their role in solving environmental pollution problems and conservation and preservation of the natural and cultural heritage.

G. Zonal Cultural Centres

- Zonal Cultural Centres have been conceptualised with the aim of projecting cultural kinship which transcend territorial boundaries. The idea is to arouse awareness of the local cultures and to show how these merge into zonal identities and eventually into the rich diversity of India's composite culture.

The Seven ZCCs with Headquarters and States, they cover are as follows:

Zonal Centres	Head Quarters	Component States
North Central Zone Cultural Centre	Allahabad	Madhya Pradesh, Rajasthan, Haryana, Bihar, Uttar Pradesh, Uttaranchal & Delhi
North Zone Cultural Centre	Patiala	Himachal Pradesh, Jammu & Kashmir, Rajasthan, Haryana, Punjab & Union Territory of Chandigarh
West Zone Cultural Centre	Udaipur	Goa, Gujarat, Rajasthan, Maharashtra, Union Territory of Daman, Diu and Dadra, Nagar Haveli
North East Zone Cultural Centre	Dimapur	Assam, Tripura, Manipur, Arunachal Pradesh, Nagaland & Meghalaya

Eastern Zone Cultural Centre	Kolkata	Bihar, West Bengal, Orissa, Assam, Tripura, Manipur, Sikkim & Union Territory of Andaman & Nicobar Islands
South Zone Cultural Centre	Thanjavur	Kerala, Tamil nadu, Andhra Pradesh, Karnataka & Union Territory of Andaman & Nicobar Islands, Lakshadweep, Pondicherry
South Central Zone Cultural Centre	Nagpur	Madhya Pradesh, Maharashtra, Karnataka & Andhra Pradesh

- The main objectives of the ZCCs are the preservation, promotion and dissemination of the traditional folk arts and culture of the various States/Union Territories. The ZCCs have been carrying out various activities and programmes at the national, zonal and local levels in accordance with their aims and objectives implemented through various schemes.
- They have been implementing the following schemes to preserve and promote traditional art and culture:

These are: National Cultural Exchange Programme; Guru Shishya Parampara Scheme; Young Talented Artistes Scheme; Documentation of Vanishing Art Forms; Theatre Rejuvenation Scheme; Shilpagram Activities and Loktarang - National Folk Dance Festival and Octave.

- The Government organizes various cultural programmes through its organizations like Zonal Culture Centres (ZCCs), Akademies etc. to promote Indian culture for all walks of people including youth. The various social media platforms like Facebook, Twitter, You Tube and Mobile Apps are being used for providing regular updates about the cultural programmes/events being organized by various organizations.

ASSISTANCE SCHEMES

- Scholarship and Fellowship Division: Monetary assistance to individuals for cultural activities.**
- Scholarships to Young Artistes in different Cultural Fields**
- Award of Fellowships to Outstanding Persons in the fields of Culture.**
- Financial Assistance to Ramakrishna Mission Institute of Culture, Kolkata**
- Scheme for Visiting Fellows in Art, Culture and Heritage**

Tourism

Tourism plays an important role in employment generation and economic growth of the country. It is accepted as the potent engine for inclusive social economic progress at universal level through its forward and backward linkages and ability to create employment in the economy. Tourism sector has a very high employment potential with approximately 90 jobs creation per 10 lakh of investment.

There is high scope for profuse employment generation and related activities in the form of accommodation projects, food oriented projects, amusement parks and water sports, etc.

The Ministry of Tourism supported the initiative regarding the implementation of Tourist Visa on Arrival (VoA) enabled with Electronic Travel Authorisation (ETA) (renamed as e-Tourist Visa) strongly and committed all support to Ministry of Home Affairs and Ministry of External Affairs and Ministry of Civil Aviation for implementing the programme.

Niche Tourism Products

The Ministry of Tourism has taken the initiative of identifying, diversifying, developing and promoting niche products of the tourism industry. This is done in order to overcome the aspect of 'seasonality' and to promote India as a 365 days destination, attract tourists with specific interest and to ensure repeat visits for the unique products in which India has a comparative advantage. Identifying niche products is a dynamic process. Thus, new products may be added in due course. The Ministry of Tourism has constituted committees for promotion of Golf Tourism and Wellness Tourism. Guidelines have also been formulated by the Ministry to support golf, polo, medical and wellness tourism. Accordingly, the following niche products have been identified for development and promotion :-Cruise; Adventure; Medical; Wellness; Golf; Polo; Meetings Incentives Conferences and Exhibitions; Ecotourism; Film Tourism and Sustainable Tourism.

Medical Tourism

Medical Tourism (also called medical travel, health tourism or global healthcare) is a term used to describe the rapidly growing practice of travelling across international borders to obtain health care. Services typically sought by travellers include elective procedures as well as complex specialized surgeries such as joint replacement (knee/hip), cardiac surgery, dental surgery and cosmetic surgeries. However, virtually every type of healthcare, including psychiatry, alternative treatments and convalescent care is available in India.

The Medical Tourism activity is mainly driven by the private sector. The Ministry of Tourism has only the role of a facilitator in terms of marketing this concept and promoting this in the key markets. The Ministry of Tourism has taken several steps to promote India as a medical and health tourism destination.

Ek Bharat Shreshtha Bharat

Ek Bharat Shreshtha Bharat was announced on the occasion of the 140th birth anniversary of Sardar Vallabhbhai Patel.

Subsequently, the Finance Minister announced the initiative in his Budget Speech for 2016-17. Through this innovative measure, the knowledge of the culture, traditions and practices of different states & UTs will lead to an enhanced understanding and bonding between the states, thereby strengthening the unity and integrity of India.

The broad objectives of the initiative are :-

- (i) To celebrate the unity in diversity of our nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our country;
- (ii) To promote the spirit of national integration through a deep and structured engagement between all states and union territories through a year-long planned engagement between states;
- (iii) To showcase the rich heritage and culture, customs and traditions of either state for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity;
- (iv) To establish long term engagements; and
- (v) To create an environment which promotes learning between states by sharing best practices and experiences.

4

BASIC ECONOMIC DATA

The basic economic Data consists of calculation of GDP, Inflation, national income, etc. Various organizations have been designated the responsibility for carrying out of it. Some are discussed below:

A. Ministry of Statistics and Programme Implementation

- The Ministry of Statistics and Programme Implementation came into existence as an independent ministry on October 15, 1999 after the merger of the Department of Statistics and the Department of Programme Implementation.
- The ministry has two wings, one relating to Statistics and the other relating to Programme Implementation.
- The Statistics Wing re-designated as National Statistics Office (NSO) consists of the Central Statistical Office (CSO) and the National Sample Survey Office (NSSO).

B. Central Statistics Office

- The Central Statistics Office (CSO), an attached office of the ministry, coordinates the statistical activities in the country and evolves statistical standards.
- Its activities inter-alia, include compilation of National Accounts, Index of Industrial Production, Consumer Price Indices for Urban/Rural/ Combined, Human Development Statistics, including Gender Statistics in the states and union territories and disseminates Energy Statistics, Social and Environment Statistics and prepares the National Industrial Classification.
- The CSO, Ministry of Statistics and Programme Implementation releases Consumer Price Indices (CPI) for all-India and states/union territories separately for rural, urban and combined(rural plus urban) for the purpose of temporal price comparison with effect from January, 2011 with 2010 as the base year. The annual inflation rates based on this CPI series are available since January, 2012.
- The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation releases Consumer Price Indices (CPI) on base 2010 = 100 for all India and states/union territories separately for rural, urban and combined every month since January, 2011 and annual inflation rates from January 2012 onwards. The weighing diagram for this CPI series is based on the consumption pattern derived from the results of the NSS 61st round Consumer Expenditure Survey (2004-05).

C. The National Sample Survey Office (NSSO)

- The National Sample Survey Office (NSSO), in Ministry of Statistics and Programme Implementation, is responsible for conduct of large scale sample surveys, in diverse fields, on all India basis.
- Primary data is collected regularly through nationwide household surveys on various Socio Economic subjects, Annual Survey of Industries (ASI) under the Collection of Statistics Act and Enterprise surveys, as a follow up of the Economic Census.
- Besides these surveys, NSSO collects data on rural and urban prices; plays a significant role in the improvement of crop statistics through supervision of the area enumeration and crop estimation

surveys of the state agencies. It also maintains a frame of urban areal units for drawing samples for Socio-Economic Surveys in urban areas.

- The NSSO functions with requisite autonomy, in matters relating to data collection, processing and publication/dissemination of results/data based on its surveys, under overall guidance and supervision of National Statistical Commission (NSC) which appoints Working Groups/ Technical Committees comprising both official and non-official members on different subjects for finalization of survey instruments for its surveys and methodologies for the same.

Indexes

A. Index of Industrial Production

- The Index of Industrial Production (IIP) is an abstract number or ratio which measures the growth of various sectors in the economy.
- In India, IIP is a representative figure which measures the general level of Industrial activity in the country.
- Being an abstract number, it does not show volume of activity and only shows the magnitude which represents the status of production in the industrial sector for a given period of time as compared to a reference period of time.
- The eight Core Industries viz. Fertilizers, Electricity, Refinery Products, Natural Gas, Steel, Cement, Crude Oil and coal [remember this by mnemonic FERNS-C3] is nearly 38% in the IIP. This is shown in decreasing order as follows: Electricity 10.32; Steel (Alloy + Non-alloy) 6.68; Refinery Products 5.94; Crude Oil 5.22; Coal 4.38; Cement 2.41; Natural Gas 1.71; Fertilizers 1.25.

B. Annual Survey of Industries

- The Annual Survey of Industries (ASI) is the principal source of industrial statistics in India.
- It provides statistical information to access and evaluate, objectively and realistically, the change in the growth, composition and structure of the organized manufacturing sector comprising activities related to manufacturing processes, repair services, generation, transmission, etc., of electricity, gas and water supply and cold storage.
- The ASI extends to the entire country. The survey covers all factories registered under Sections 2m (i) and 2m (ii) of the Factories Act, 1948. The survey also covers bidi and cigar manufacturing establishments registered under the Bidi and Cigar Workers (Conditions of Employment) Act, 1966.
- All the electricity undertakings engaged in the generation, transmission and distribution of electricity registered with the Central Electricity Authority (CEA) were covered under ASI up to 1997-98 irrespective of their employment size. Certain services and activities like cold storage, water supply, repair of motor vehicles and of other consumer durables like watches, etc., are covered under the survey.
- Defence establishments, oil storage and distribution depots, restaurants, hotels, cafe and computer services and the technical training institutes are excluded from the purview of the survey.
- The electricity undertakings registered with the CEA are not being covered under ASI with effect from 1998-99. However, captive units not registered with CEA continued to be covered under ASI.

C. Rural Retail Price Collection (RPC):

- The Field Operation Division (FOD) regularly collects rural price data on monthly basis for the compilation of Consumer Price Index for agricultural and rural labourers covering 603 villages in 340 districts across the country, on behalf of the Labour Bureau, Ministry of Labour and Employment.
- Data on wage rates are also collected in respect of 12 Agricultural and 13 Non Agricultural occupations, as part of the scheme.
- Data on daily wage rates of important agricultural operations are reported by the State Governments on monthly basis.
- For providing an alternative series of wage-rates data, the Data Processing Division of NSSO is compiling and publishing occupation-wise wage rates, based on the data collected in Rural Prices schedule 3.01(R).
- The RPC bulletin called the 'Prices and Wages in Rural India' which is published for each quarter, provides price data only at national level and wage data at national and state level for 24 major states.

Twenty Point Programme

The thrust of the programme, restructured in 2006, is to eradicate poverty and improve the quality of life of the poor and the underprivileged people all over the country. The programme covers various socio-economic aspects like poverty, employment, education, housing, agriculture, drinking water, afforestation and environment protection, energy to rural areas, welfare of weaker sections of the society, etc.

The primary responsibility of implementation and monitoring of the programme lies with the agencies entrusted with the execution of the programme, which in this case are the state governments/union territory administrations and the Central Nodal Ministries. The Ministry of Statistics and Programme Implementation monitors the programmes/schemes covered under TPP-2006 on the basis of performance reports received from state governments/UT administrations and Central Nodal Ministries. The Ministry has developed a web based Management Information System to expeditiously collect information from the State Governments and the Central Nodal Ministries.

Members of Parliament Local area Development Scheme

The Members of Parliament Local Area Development Scheme (MPLADS) was launched on 23rd December, 1993. Initially, Ministry of Rural Development was the Nodal Ministry for this scheme. In October, 1994 this scheme was transferred to the Ministry of Statistics and Programme Implementation.

The salient features of the MPLAD Scheme include:

- MPLADS is a Central Plan Scheme fully funded by the Government of India under which funds are released in the form of grants-in-aid directly to the district authorities;
- The funds released under the Scheme are non-lapsable, i.e. the entitlement of funds not released in a particular year is carried forward to the subsequent years, subject to eligibility. At present, the annual entitlement per MP/constituency is 5 crore;
- Under MPLADS, the role of the Members of Parliament is limited to recommend works. Thereafter, it is the responsibility of the district authority to sanction, execute and complete the works recommended by Members of Parliament within the stipulated time period;
- The elected Lok Sabha Member can recommend works in their respective constituencies. The elected members of the Rajya Sabha can recommend works anywhere in the state from which they

are elected. Nominated members of the Lok Sabha and Rajya Sabha can recommend works for implementation, anywhere in the country.

- (v) MPLADS works can be implemented in areas affected by natural calamities like floods, cyclone, hailstorm, avalanche, cloudburst, pest attack, landslides, tornado, earthquake, drought, tsunami, fire and biological, chemical, radiological hazards, etc. MPs from the non affected areas of the state/UT can also recommend per missible works upto a maximum of 25 lakh per annum in the affected area(s) in that state/UT;
- (vi) In order to accord special attention to the development of areas inhabited by Scheduled Castes (SCs) and Scheduled Tribes (STs), 15 percent of MPLADS funds are to be utilized for areas inhabited by SC population and 7.5 per cent for areas inhabited by ST population;
- (vii) The MP can spend a maximum of 20 lakh per year for giving assistance to differently abled citizens for purchase of tricycles (including motorized tricycles), battery operated motorized wheel chair and artificial limbs; and aids for visually and hearing impaired;
- (viii) Funds released by the Government of India are deposited by the District administrations in nationalized banks (including IDBI Banks)/Regional Rural Banks (Gramin Banks) which are on Core Banking Platform with the Nationalized Bank as their sponsor, for each MP for the purpose of MPLAD scheme; and
- (ix) The roles of Central Government, state government, district authorities and implementing agencies have been clearly defined in the guidelines on MPLADS for implementation of MPLAD Scheme.

5

COMMERCE

The Department of Commerce formulates and implements the Foreign Trade Policy (FTP) which is periodically reviewed due to changes in the domestic and international economy. Department is responsible for multilateral and bilateral commercial relations, Special Economic Zones, state trading, export promotion and trade facilitation, and development and regulation of certain export oriented industries and commodities.

Current Trade Situation: Global and India

In the aftermath of financial crisis in 2008 the developed economies have been facing stagnant GDP growth rates, Emerging Market and Developing Economies (EMDEs) have seen recovery with divergent growth. In the current global economic situation, there are elements of risk, challenges and market volatility. This volatility is reflected in the impact of weakening commodity prices and difficult financial conditions, especially of oil exporters. As per the World Economic Outlook update of January, 2016, global growth, currently estimated at 3.1 per cent in 2015, is projected to be 3.4 per cent in 2016 and 3.6 per cent in 2017.

In advanced economies, a modest and uneven recovery is expected to continue. The picture for developing economies is diverse and challenging. The slowdown and rebalancing of the Chinese economy, lower commodity prices, and strains in some large emerging market economies will continue to weigh growth prospects in 2016-17. The projected pick-up in growth in the next two years - despite the ongoing slowdown in China is primarily based on forecasts of a gradual improvement of growth rates of countries such as

Brazil, Russia, and some countries in the Middle East, though even this projected partial recovery could be impeded by new economic or political shocks.

World Trade Organization (WTO) lowered their forecast for world trade growth for 2016 to 3.9 per cent from 4.0 per cent which is still below the average for the last 20 years (1995-2015) of 50 per cent. The downward revision by WTO is due to several factors including falling import demand in China, Brazil and other emerging economies; falling prices for oil and other primary commodities; significant exchange rate fluctuations, volatility in financial markets and uncertainty regarding monetary policy of the United States.

In the decade of 2000s, China accounted for half of all incremental world demand for commodities. Its rebalancing has caused the global demand for -and price of commodities to collapse. Oil is now under \$ 30/barrel, one-third of its rate in 2014. Commodity exporting economies are in dire straits. Brazil and Russia are in recession. Many

Asian manufacturing economies are part of global value chains using China as an assembler, and have also been hard hit by China's slowdown. India has been a resilient exception since it is a net commodity importer, and is not substantially a part of world value chains. But if the world falls into recession, India may also be affected.

Besides, since the global financial crisis, trade has been growing more slowly not only because world income growth is lower but also because trade itself has become much less responsive to income growth. Changes in the structure of trade associated with the expansion or contraction of global supply chains,

changes in the composition of world trade, such as the relative importance of goods versus services, changes in the composition of world income, such as the relative importance of investment and consumption and changes in the trade regime, including the rise of protectionism is leading to fragmentation of the global marketplace.

Integration with Global Economy

Global value chains (GVCs) are a prominent feature of the international trade landscape today. India participates in manufacturing GVCs, inter alia, in sectors such as chemicals, electrical equipment and jewellery, in general by way of sourcing intermediates from abroad. India also has a high participation in services sectors, in particular, business services, mainly driven by the use of Indian intermediates in the exports of other countries. The share of imported inputs and intermediate goods in exports is higher in mining, textiles, machinery, and services sectors such as distribution, transport and telecom. In general, inadequate infrastructure, sub-optimal connectivity with global transport networks, low transport capabilities and complicated administrative requirements that cause long delays at ports and customs, are some of the serious obstacles to participation by Indian producers in GVCs. In all these areas, they are at a disadvantage as compared to producers in the ASEAN countries and East Asia.

Needed Reforms: strengthen trade-related physical infrastructure, implement an appropriate regulatory regime for transport services, improve efficiency and predictability in border procedures, undertake policy reforms in logistics services markets and reduce coordination failures. Mega-regional trading arrangements go well beyond trade in goods and services into areas such as investment, competition (including state-owned enterprises), intellectual property, labour, environment, government procurement, transparency, regulatory coherence & dispute settlement.

12 Pacific Rim nations signed Trans Pacific Partnership (TPP), Transatlantic Trade and Investment Partnership (TTIP) between the US and the European Union, and the Regional Comprehensive Economic Partnership (RCEP) between the Association of Southeast Asian Nations and its six partners. TPP will erode existing preferences for Indian products in established traditional markets such as the US benefitting those who are partners to these agreements and develop a rules architecture which will place a greater burden of compliance on India's manufacturing and services standards.

Trade Scenario

India's merchandise exports reached US\$ 310.34 billion during 2014-15 registering a negative growth of 1.29 per cent with CAGR of 14.02 per cent from 2004-05 to 2014-15.

World Trade Scenario

IMF in its World Economic Outlook said the growth projection for India is 7.5 per cent for 2016 and 2017. The world output growth is projected at 3.4 per cent and 3.6 per cent for 2016 and 2017 respectively. The expected growth in world trade is expected to recover to 3.4 per cent in 2016 and 4.1 per cent in 2017. India is the 19th largest exporter in the world with a share of 1.7 per cent and the 12th largest importer with a share of 2.4 per cent in 2014.

Exports

Exports recorded a negative growth of 18.03 per cent during April-Dec 2015-16 and merchandise exports have reached US\$ 196.68 billion in April-Dec 2015-16 .

Import

Cumulative value of import during Apr-Dec 2015-16 (P) was US\$ 295.82 billion as against US \$ 351.61 billion during the corresponding period of the previous year registering a negative growth of 15.87 per cent in US\$.

Trade Balance

The Trade deficit in Apr-Dec 2015-16 (P) was estimated at US\$ 99.14 billion which was lower than the deficit of US\$ 111.69 billion during the corresponding period of the previous year.

Export by Principal Commodities in Apr-Dec2015 (US\$ million with growth rate)

Plantation : 1155.25 ; 3.45 %
 Agri & Allied Products : 18047 ; -21.45%
 Ores and Minerals : 1418; 22%
 Leather : 4220 ; -11.25%
 Gems & Jewellery : 28711; -8.15%
 Chemical : 23,932 ; 0.35%
 Textile and Allied Products : 26830 ; -1.73%
 Petroleum Products : 23987; -50.61%

Imports by Principal Commodities in Apr-Dec2015 (US\$ million with growth rate)

Plantation : 713; -14.77 %
 Agri & Allied Products : 15885 ; 6.87%
 Ores and Minerals : 15820; -21%
 Gems & Jewellery : 45000; -5.86%
 Chemical : 29,320 ; 3.5%
 Textile and Allied Products : 26830 ; -1.73%
 Petroleum Products : 68,189; -41.61%

Foreign Trade Policy

It spells out government strategy to address the structural and institutional mechanism important for foreign trade sector. It states the ways government would make trade and economic integration agreement with trade partners and would work better for Indian enterprises. It includes assistance that the Department of Commerce is providing to state to prepare exports strategies and setup 'Export Promotion Mission'.

It provides framework for increasing exports of goods and services as well as employment generation and greater value addition in line with the 'Make in India' programme. Measures have been taken for procurement of capital goods from indigenous manufacturers under the EPCG scheme by reducing specific export obligation to 75 per cent of the normal export obligation. Steps have been taken for encouraging manufacturing and exports under cent per cent EOU/EHTP/STPI/BTP schemes. Trade facilitation and enhancing the ease of doing business are the other major focus areas. It introduces two new schemes, namely "Merchandise Exports from India Schemes (MEIS)" for export of specified goods to specified markets and "Service Exports from India Scheme (SEIS)" for increasing exports of notified services via fully transferable and unconditional duty credit scrips.

Merchandise Exports From India Scheme (MEIS)

There were different schemes for Merchandise Exports which got merged this. e-Commerce exports of certain employment creating sectors have been supported under MEIS.

Service Exports From India Scheme (SEIS)

It replaced Served From India Scheme (SFIS). SEIS is available to 'Service Providers Located in India' instead of 'Indian Service Providers'.

Export through Courier or Foreign Post Offices

FTP incentivises exports of goods through courier or foreign post office using e-commerce under MEIS.

Advance Authorization Scheme

Under this scheme, duty free import of inputs (that are physically incorporated in the export product) are allowed, with minimum 15% value addition, meant for either a manufacturer exporter or merchant exporter tied to a supporting manufacturer(s).

Duty Free Import Authorization Scheme

It is issued to allow duty free import of inputs, with a minimum value addition of 20 %, exempted only from the payment of basic customs duty.

Export Promotion Capital Goods Scheme

Import of capital goods at zero customs duty is allowed for technology upgradation to enhance India's export competitiveness. Import under EPCG is subject to export obligation equivalent to six times of duty saved in six years.

Ease of doing Business and e-Governance Initiatives

- **Reduction of Documents**

For both export and import. The saving in terms of cost and time would improve Ease of Doing Business with India. Online filing of documents/applications and paperless trade in 24x7 Environment. The applications are received and processed electronically. Online filing has minimized the physical interface; debit/credit cards or online from linked banks;

- **Importer Exporter Code**

IEC is mandatory for exporters and is communicated online from DGFT to customs. E-BRC (Electronic Bank Realization Certificate) project launched in 2012 which has brought down the cost of doing business for Indian exporters and enhanced the productivity of banks, DGFT and other organizations.

- **Complaint Resolution System**

A Complaint Resolution System for Resolution of EDI related issues has been set up.

- **Online Concurrent Audit**

Conducting of online concurrent audit of DGFT schemes was implemented in Feb, 2015.

- **Social Media**

Mobile Application called "DGFT"

• **Creating Single Window for Trade**

India's trade happens through 12 major ports, 187 minor ports and many private notified ports. For clearance of air cargo, there are 36 functional international airports.

• **EDI Initiatives**

The customs EDI system (ICES) and its online interface (ICEGATE) connects customs with importers/exporters, customs house agents, airlines and shipping lines, air and sea custodians, banks, the Reserve Bank of India, and government departments. At present only a part of India's export and import data is captured through EDI mode at customs.

Initiatives are:

Like online filing of applications, message exchange with community partners, digital signatures and electronic fee payments. The process of applications filing secured with digital signature; it allows users to check and upon information relating to their shipping bills received from customs and (e-BRCs) receive from banks.

New Initiatives

(i) Online RTI: (ii) Online Inter-Ministerial Consultation:

NiryatBandhu Scheme

It is meant for mentoring first generation entrepreneurs by leveraging the knowledge base of DGFT officers and by providing timely and appropriate guidance through orientation programmes, counselling sessions, etc., implemented by DGFT in coordination with stakeholders, namely, export councils, industry associations, state governments departments, customs, excise, etc. 108 'MSME clusters' have been identified, based on the export potential the density of industries for focussed interventions to boost exports. In addition, 35 'Towns of Excellence' have been taken up for outreach interventions under this.

India's Engagement in Free Trade Agreements

India views FTAs as 'building blocks' towards the overall objective of trade liberalization as well as complementing the multilateral trading system.

The definition of the various terminologies (i) Preferential Trading Agreement (PTA): Tariff liberalization on a limited number of lines e.g. India-Mercosur PTA; (ii) Free Trade Agreement (FTA): Elimination of tariffs on items covering substantial bilateral trade between the partner countries e.g. India - Sri Lanka FTA; and (iii) Comprehensive Economic

Cooperation Agreement (CECA) / Comprehensive Economic Partnership Agreement (CEPA)/Broad Based Trade and Investment Agreement (BTIA): CECA or CEPA or BTIA terms are used to describe agreements which consist of an integrated package of Agreement on Goods, Services, Investment, Mutual Recognition, Intellectual Property, etc., e.g. India Korea CEPA.

Current India's FTAs in operation : Bhutan, Sri Lanka, SAFTA, Nepal, Thailand, Singapore (CECA), ASEAN, South Korea (CECA), Japan (CECA), Malaysia (CECA). Current PTAs in operation : APTA, GSTP, Afghanistan, Mercosur, Chile.

Trade with ASEAN

'Look East Policy' in 1991 for East Asian countries. A continuous dialogue is maintained with 10 ASEAN nations. The trade was US\$ 76.5 billion in 2014-15 and US\$ 26.7 billion in 2015-16 (April-

August). India's exports in region are Singapore, Indonesia, Malaysia, Vietnam and Thailand while the major sources of imports are Indonesia, Malaysia, Singapore, Thailand, Vietnam and Myanmar.

Agreements with ASEAN

India and the ASEAN have signed the agreement on Trade in Goods under CECA between India and the ASEAN 2009, fully operational between all the ASEAN member states and India from 2010. India and ASEAN member countries have signed the agreement of Trade in Services and Agreement on Investment.

Trade with North East Asia

India's trade stood at US\$ 131.60 billion during 2014-15, which is an increase of 5.12 per cent over the previous year. Exports to the NEA region were in 2014-15 registering a negative growth of 7.35 per cent over the last year. Imports from the region increased by 11.19 per cent in 2014-15. In 2014-15, India's trade deficit with NEA has widened to US\$ 55.99 billion on account of a decline in the export volume and simultaneous increase in the import volume.

Trade with North America Free Trade Agreement

NAFTA consists of United States of America, Canada and Mexico. Mechanisms to resolve issues of concern as follows:

Dispute Settlement

Since 1997, WTO members resort to Dispute Settlement Understanding (DSU). These negotiations are independent of the single undertaking under DDA. India and other developing countries stressed for developmental review of the dispute settlement procedures under the DDA safeguarding their own interest. Issues include facilitation of cross retaliation, inducement of effective compliance, setting up of Dispute Settlement Fund, etc. After the post Bali Ministerial meeting in Dec, 2013, DSU reform negotiations picked up momentum. However, on account of divergence of opinion and no consensus, the Chair has expressed willingness to continue discussion post Nairobi Ministerial Meet of December 2015.

Role of Standards in International Trade

In order to ensure supply of good quality, safe and environmentally-friendly products to our consumers, it is important that our industrial enterprises and business operators also adopt the concept of standards and technical regulations. Government needs to put in place a complete ecosystem for standards and technical regulations.

The WTO Agreement on 'Technical Barriers to Trade' and the Agreement on the 'Application of Sanitary and Phytosanitary Measures' are the mother agreements on standards and conformity assessment at the international level.

Standards in Services

Service standardization can be a great enable for India's expertise. The Indian trade portal (www.indiantradeportal.in) was upgraded and launched in December, 2014. It makes available important data like (i) MFN tariff, (ii) preferential tariff, (iii) rules of origin (RoO) and (iv) non-tariff measures and help our exporters to utilize the FTAs and capture export opportunities. This portal helps businesses to evaluate the competitiveness of their products in a particular market. Other information includes standards, technical regulations, conformity assessment procedures, sanitary and phytosanitary measures, otherwise we may start losing major export markets in the world.

Building the India Brand

Aim: In a highly competitive global environment to ensure high quality; branding and commercialisation of Geographical Indications and to promote their exports

Special Economic Zones

Asia's first EPZ set up in Kandlain 1965. To overcome the multiplicity of controls and clearances, absence of world- class infrastructure and an unstable fiscal regime and with a view to attract larger foreign investments , the Special Economic Zones (SEZs) Policy was announced in April 2000. From 2000 to 2006 the provisions of the Foreign Trade Policy and fiscal incentives were made effective.

Special Economic Zones Act, 2005 and Special Economic Zones Rules, 2006 Aimed at providing simplification of procedures and single window clearance. The main objectives of the SEZ Act are: generation of additional economic activity; promotion of exports of goods and services; promotion of investment from domestic and foreign sources; creation of employment opportunities; and development of infrastructure facilities.

Approvals for Setting Up of Special Economic Zones

7 Export Processing Zones at Kandla (Gujarat), Santa Cruz (Maharashtra), Kochi (Kerala), Noida (U.P.), Chennai (Tamil Nadu), Falta (West Bengal) & Vishakhapatnam (Andhra Pradesh), were converted to SEZs. Then 11 more SEZs were set up by the state governments/private sector. 412 formal approvals have been granted. Approved SEZs are spread over 19 states and 3 UTs. More concentration is in Andhra Pradesh, Gujrat, Karnataka, Maharashtra, etc.

6

COMMUNICATIONS AND INFORMATION TECHNOLOGY

Communications and information technology in the country are handled by the Ministry of Electronics and Information Technology and Ministry of Communications. The former promotes e-Governance and sustainable growth of the electronics, IT and ITeS industries, enhancing India's role in internet governance while the latter looks after the Department of Posts and Department of Telecommunications.

Posts

The modern postal system was set up by Lord Clive in 1766 which was further developed by Warren Hastings in 1774. These were regulated through an Act of 1837 on a uniform basis to unite all the post offices into one all-India Service.

Post Office Act of 1854 reformed the postal system when the first postage stamp valid across the country was issued at an affordable and uniform rate of postage, fixed by weight and not by distance. For the first time the common man could use postal facility, which was enjoyed only by heads of states and state officials.

The present statute is the Indian Post Office Act, 1898. Mail order services were introduced in 1877, while money order services in 1880, Post Office Savings Bank in 1882, by 1884 all Government employees were covered by the Postal Life Insurance (PLI).

Organization Overview

The Department of Posts comes under the Ministry of Communications. The Postal Service Board is the apex management body of the department.

India has the largest postal network in the world of which 89.86 percent are in rural areas with a seven-fold growth since Independence, mainly through opening of Gramin Dak Sevak Post Offices and by opening departmental post offices. In order to fulfill the Universal Service Obligation, subsidy is provided to all Branch Post Offices in rural.

Rural Business

Department of Posts deals with rural postal operations like technology induction, new business initiatives, leveraging rural postal network, marketing of services and monitoring quality of services provided by the rural Post Offices with a special focus on 'Financial Inclusion' by Rural Banking (RB) Division which deals with disbursement activities of various schemes like: MGNREGS; Indira Gandhi National Old Age Pension Scheme; Indira Gandhi National Widow Pension Scheme; Indira Gandhi National Disability Pension Scheme; and; Indira Gandhi Matritva Sahyog Yojana.

Initiatives in Service Quality Improvement

- **Project Arrow:** To enhance the working of post offices by improving and upgrading the core business areas with enriched quality of service and "Look and Feel" along with IT services.
- **Mail Network Optimization Project:** Meant to improve the quality of mail processing, transmission and delivery.

- **Automated Mail Processing Centres:** It is meant to expedite mail processing and is set up in major urban centres.
- **National Address Database Management System:** It involves creation of a comprehensive address database to expedite delivery of mail.
- **GPS Equipped Mail Vans:** Department has decided to equip its entire fleet of Mail carrying vehicles with GPS device so as to monitor mail transmission and delivery more effectively.
- **Development of Road Transport Network:** It is meant to ensure safe and secure transmission of Speed Post articles and parcels, particularly e-commerce articles.
- **Technology Upgradation:** IT Modernization Project (2012) is a Mission Mode e-governance Project for transforming the operational efficiency and improving service delivery. It will enable track and trace of all kinds of accountable mails and parcels besides providing real-time Information.

Premium Services

- **Speed Post(1986):** It provides time-bound and express delivery of letters and parcels weighing upto 35 kg across the country.
- **Business Post:** Department introduced 'Business Post' service in 1996 to offer a comprehensive solution to corporate/ government organizations / PSUs and other corporate houses for their pre-mailing services.
- **Express Parcel and Business Parcel:** Meant to address the increasing e-Commerce market which has given a boost to the parcel segment where Business to Customer (B2C) parcels are on rise along with the needs of the Customer to Customer (C2C) category parcels.
- **Cash on Delivery:** In order to cater to e-tailing (online shopping) department introduced Cash on Delivery (COD) facility as value addition to the parcel service.
- **Logistics Post:** It includes order processing, warehousing and door-to-door distribution.
- **e-Post:** Providing electronic transmission of messages like text messages, scanned images.
- **e-Payment:** Meant for businesses and organizations to collect their bills or other payments through the post office.
- **Direct Benefit Transfer:** Through Post Offices is a major initiative.
- **Philately:** Hobby of collecting stamps as well as the study of postal history and other related items. It is a mode of commemorating, celebrating and promoting national heritage, culture, events and eminent personalities.
- **Financial Services:** Department of Posts operates Small Savings Scheme on behalf of Ministry of Finance, Government of India. The Core Banking Solution (CBS) is part of the India Post IT Modernization project that aims to bring in various IT solutions.
- **Retailing of Mutual Funds:** It extends the reach of the capital market and provides the common man easy access to market based investment options with Mutual Fund products of UTI MF only.
- **International Money Transfer Service:** is result of the collaboration of Department of Posts with Western Union Financial Services and Money Gram International.

National Pension System

The Department is a point of presence for NPS. Any Indian citizen in the age group of 18 to 55 can join NPS and contribute till the age of 60. These pension contributions are invested in various schemes of different Pension Fund Managers appointed by PFRDA.

Atal Pension Yojana and Jan Suraksha Schemes viz., Pradhan Mantri Suraksha Bima Yojana and Pradhan Mantri Jeevan Jyoti Bima Yojana were launched from 2015 in all CBS post offices.

Postal Life Insurance (PLI) and Rural Postal Life Insurance (RPLI)

PLI now covers employees of Central and state governments, Central and state PSUs, universities, government-aided educational institutions, nationalized banks and local bodies. The objective of RPLI is to provide insurance cover to the rural public in general and to weaker sections and women workers of rural areas in particular and also to spread insurance awareness among the rural mass.

Information Technology

Ministry of Electronics and information technology (MeitY) deals with policy matters relating to information technology, electronics, internet (other than licensing of ISPs) and cyber security. The aim is to promote e-governance for empowering citizens, promoting the inclusive and sustainable growth of the electronics, IT & ITeS industries, enhancing India's role in internet governance, adopting a multi-pronged approach that includes development of human resources, promoting R&D and innovation, enhancing efficiency through digital services and ensuring a secure cyber space.

Digital India Programme has the vision to transform India into a digitally empowered society and knowledge economy. The programme has three vision areas namely, digital infrastructure as utility for every citizen, governance and services on demand and digital empowerment of citizens by bridging the digital divide in the country.

The Nine Pillars of growth viz., broadband highways, universal access to mobile connectivity, public internet access programme, e-governance-reforming government through technology, e-Kranti electronic delivery of services, information for all, electronics manufacturing, IT for jobs and early harvest programmes, are being promoted under Digital India Programme.

IT Act 2000 provides legal recognition to the transaction carried out by means of electronic data interchange and other means of electronic communication, commonly referred to as "electronic commerce", to facilitate electronic filing of documents with the Government agencies. It directs the establishment of Cyber Appellate Tribunal.

In order that various benefits and subsidies reach the targeted beneficiaries, the Government has made all efforts to leverage the Aadhaar platform. A statutory backing will help to ensure that benefits of various subsidies and programmes go to the truly deserving.

Under Digital India, MeitY has taken initiatives such as eKranti, policy on adoption of open source software in e-governance systems, email policy, etc. Major schemes such as e-Districts, Common Service centres and State Wide Area Network are also there.

Other policies in action

Policy on Adoption of Open Source Software; Policy on Collaborative Application Development by Opening the Source Code of Government Applications; Policy on use of IT Resources; e-mail policy; Policy on Open Application Programming Interfaces (APIs).

Another important initiative pertains to 'Jeevan Praman' is of providing an Aadhaar based Digital Life Certificate for pensioners. A 'Digital Locker system' has also been envisaged to serve as a platform to enable citizens to securely share their documents with service providers who can directly access them electronically. 'eSign' framework has been released, which would allow citizens to digitally sign a document online using Aadhaar authentication. National Scholarship Portal provides a centralized platform for application and disbursement of scholarship to students.

Initiatives are:

- **MobileSeva:** To integrate the delivery of government services (across various Departments)
- **Vikaspedia:** To provide information on health, education, agriculture, energy, social welfare and e-governance in more than 10 languages.
- **MyGov.in:** To ensure citizens' engagement in decision making by the government for the ultimate goal of "good governance" for building India.
- **Aadhaar-Enabled Biometric Attendance System:** In order to bring in efficiency in the Government, an Aadhaar enabled Biometric attendance system was implemented by MeitY.
- **e-Payment Framework:** All payments and receipts to be in electronic mode.
- **Common Services Centre:** Provides ICT enabled front-end service delivery outlets, across rural India covering six lakh villages. Jan Dhan Yojna and Digital Sakshartha Abhiyan (DISHA) are conducted through CSCs.
- **State Wide Area Network:** It has been identified as an element of the core infrastructure for supporting the e-governance initiatives.
- **GI Cloud:** In order to utilise and harness the benefits of Cloud Computing, MeitY has embarked upon an initiative - "GI Cloud" which has been coined as "MeghRaj".
- **Information Technology Investment Region (ITIR):** Meant to attract major investment by providing transparent and an investment friendly policy; help in exports and employment.
- **National Policy on Universal Electronic Accessibility:** It recognizes the need to eliminate discrimination on the basis of disabilities and to facilitate equal access to Electronics & ICT.
- **Promotion of Manufacturing of Electronics and IT-ITES:** It is estimated that demand for electronics products and systems in India would grow to about US\$ 400 billion by 2020.
- **Other minor initiatives:** Promotion of R&D and Innovation Technological Incubation and Development of Entrepreneurs (TIDE) ; Multiplier Grant Scheme (MSG); National Supercomputing Mission (NSM). National Digital Literacy Mission was approved in March, 2014. The Scheme aims to train 10 lakh persons. Digital Empowerment of citizens by providing Universal Digital Literacy is a part of 'Digital India' initiative.

Cyber Security

National Cyber Security Policy(2013) is aimed at building a secure and resilient cyberspace for citizens, businesses and Government, by way of actions to protect information and information infrastructure in cyberspace, build capabilities to prevent and respond to cyber threats, reduce vulnerabilities and minimize damage from cyber incidents.

National Cyber Co-ordination Centre is being set-up with an aim to generate cyber security situational awareness to anticipate and prepare for cyber attacks.

*Organizations related to it***A. Botnet Cleaning and Malware Analysis Centre**

- CERT-In is implementing this for detection of compromised systems in India and to notify, enable cleaning and securing systems of end users to prevent further malware infections.

B. National Informatics Centre (NIC)

- National Informatics Centre (NIC) is a premier IT organization of the country under the Department of Electronics and Information Technology.
- It was established in **1976**,
- NIC, through its ICT Network, 'NICNET', has institutional linkages with all the governments and governments departments at all levels.
- NIC services include Certifying Authority, Video-Conferencing, NIC e-MAIL (NICeMail) and SMS services across the country.
- **National Knowledge Network (NKN)** has been set up to connect institutions/ organizations carrying out research.
- **Open Technology Centre (OTC)** has been set up as a nodal agency for Open Technology related activities in e-Governance applications managed by NIC/NeGP and promotes the use and adoption of Open Source tools/software.
- It has established and maintains state data centers and other infrastructure related to NeGP.

C. Controller of Certifying Authorities (CCA)

- The IT Act promotes the use of Digital Signatures for e-Governance and e-Commerce through legal recognition to electronic records and treats digital signatures at par with hand written signatures.
- The CCA licenses Certifying Authorities (CA) to issue Digital Signature Certificates under the IT Act and also exercises supervision over the activities of these Certifying Authorities.
- The CCA certifies Public Keys of the CAs, lays down standards to be maintained by the CAs and performs other functions.
- These are being used in applications such as Real Time Cross settlement System & EFT of the RBI, e-mail, electronic funds transfer, e-Procurement, share trading; issue of import/export licenses by DGFT and filing of company returns with the Ministry of Company Affairs.

D. Cyber Appellate Tribunal

- The first and the only Cyber Court in the country has been established by the Central Government in accordance with the provisions contained under section 48(1) of the Information Technology Act, 2000. Provision has been made in the amended IT Act, 2009 for the Tribunal to comprise a Chairperson and many other members, as the Central Government may notify/appoint.

E. C-DAC

- Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Department of Electronics and Information Technology (DeitY for carrying out R&D in IT, Electronics and associated areas.

C-DAC is pursuing activities in the following thematic areas:

- High Performance Computing (HPC), Grid Computing and Cloud computing
- Computing Multilingual Computing (HPC), Grid Computing Professional Electronics including VLSI and Embedded Systems
- Software Technologies including FOSS
- Cyber Security and Cyber Forensics
- Health Informatics
- Education and Training

Some applications developed by C-DAC are:

- One of the significant achievements of the past year was upgradation of the compute power of **PARAM Yuva** system from 54 TF/s to 529 TF/s.
- In the area of Cloud Computing, C-DAC launched its cloud platform, **Meghdoot 1.0** during the Technology Conclave at Hyderabad in October, 2012.
- In the area of Professional Electronics, C-DAC completed the development of **WiTrac (Wireless Traffic Controller)** and made its first deployment this year.
- Several electronic devices and associated solutions were also built for **smart buildings**. These include LED Luminaire, **Human Occupancy Prediction System and Indoor Air Quality Monitoring System**.
- In the area of Software Technology, release of a new version of BOSS Linux operating system and its wider deployment were carried out during the year.
- Several e-Governance applications and frameworks including e-Praman with Andhaar,
- In Health Informatics area, C-DAC carried out larger deployment of C-DAC tele medicine solutions. C-DAC also initiated the development of health care services on mobile devices, m-Health and m-Swasthya are two such solutions. Wider deployment of e-Vision and e-Nose systems was carried out during the year.
- C-DAC is also involved in carrying out various activities in the **northeast** region through various Government supported initiatives.

F. National e-Governance Division

It was established as amalgamation of experts from the private sector and the Government for discharging the key tasks including programme management and technical support of various components of the Digital India Programme.

G. National Internet Exchange of India

NIXI is a not for profit organization set up under Companies Act, 1956 for peering of ISPs among themselves and routing the domestic traffic.

H. Unique Identification Authority of India(2009)

"To empower residents of India with a unique identity and a digital platform to authenticate anytime, anywhere".

I. National Institute of Electronics and Information Technology

Scientific Society of the MeitY, which is actively engaged in capacity building and skill development in the areas of Information Technology (IT).

J. Software Technology Parks of India

Autonomous society under MeitY, meant for promotion of software exports by acting as 'single-window' in providing services to the software exporters. Media Lab Asia :To bring the benefits of ICT to the common man, such as ICT for healthcare, education, livelihood and empowerment of disabled.

Department of Telecommunication

Indian Telecom Sector has grown exponentially and become 2nd largest network in the world, next to China. Number of telephones increased from 99.61 Cr to 103.6 Cr at the Dec, 2015.

Department is committed to provide secure, reliable, affordable and high quality converged telecommunication services anytime, anywhere; with special focus on underserved areas in North-Eastern Region and backward areas, especially the Left Wing Extremism areas.

While wireless voice and data services continued to grow, the landline provided remarkable support to high speed data services. Share of wireless telephones increased to 97.54% of total.

Public vs. Private: Share of private sector in the total number of connections increased to 89.88 % at the end of Dec, 2015, over public sector share of 10.12% during the same period.

Tele-density, which denotes the number of telephones per 100 population, which was 79.36 % in April 2015, increased to 81.85% at end of Dec, 2015. Himachal Pradesh (124.54 %) had the highest tele-density followed by Tamil Nadu (117.27 %). Bihar (52.55%) is lowest.

Unified Licence: In pursuance of NTP-2012 to create one nation-one license, Department of Telecommunication has issued guidelines on Unified Licence under which, the allocation of spectrum is delinked from licence and has to be obtained separately as per bidding process.

Foreign Direct Investment (FDI) Policy: Government raised FDI limit for the telecom services from 74 % to 100 %. RBI has expanded the existing definition for infrastructure sector for the purpose of availing External Commercial Borrowing (ECB).

Universal Service Obligation Fund: To give impetus to the rural telephony, the Government in June, 2002, established Universal Service Obligation Fund (USOF).

Bharatnet: To connect all 2.5 lakh gram panchayats in country, the Government approved a project called 'National Optical Fiber Network, now known as BharatNet.

Rural Wire-Line Broadband Scheme: USOF signed an agreement with BSNL for providing wire-line broadband connectivity up-to village level in rural and remote areas.

Regulatory Framework: Telecom Regulatory Authority of India has always endeavoured to encourage greater competition in the telecom sector together with better quality and affordable prices in order to meet the objectives of National Telecom Policy (NTP)-2012.

Research and Development

C-DOT is committed to providing a wide range of cost-effective, indigenously developed and state-of-the-art total telecom solutions.

DoT has the following PSUs a) BSNL b) MTNL c) ITI Limited; d) Telecommunications Consultants India Limited (TCIL); e) Bharat Broadband Network Limited (BBNL); f) Hemisphere Properties India Limited (HPIL).

Vision of Digital India

It aims to transform the country into a digitally empowered society and knowledge economy, implemented in phases till 2018, by DeitY. It would also bring in public accountability through mandated delivery of Government's services electronically; a Unique ID and e-Pramaan. The source of funding is through budgetary Provisions.

Scope of Digital India:

- a) To prepare India for a knowledge future;
- b) On being transformative that is to realize IT (Indian Talent)+ IT (Information Technology) =IT (India Tomorrow);
- c) Making technology central to enabling change;
- d) On being an Umbrella Programme covering many departments.

Initiatives under the Digital India Programme

- (i) **Legal Information and Management Based System** is an easy to access, web-based tool for comprehensive, regulatory and proactive monitoring of court cases.
- (ii) **NDSAP (National Data Sharing and Accessibility Programme)** is to facilitate the access to Government of India owned shareable data and information.
- (iii) **e-Office:** The main objective of e-office is to improve efficiency, consistency and effectiveness of government responses;

7

DEFENCE

India's landmass covers an area of 3.3 million square kilometers and is strategically located vis-a-vis both continental Asia and the Indian Ocean Region (IOR). Land borders extending more than 15,500 kms. and a coastline totalling over 7,500 kilometers make India a continental or maritime neighbour of 11 countries in Asia. India is not only centrally located in South Asia, but also abuts West Asia and South East Asia. The island territories provide India with a strategic presence at the entrance to the Strait of Malacca, through which more than 60,000 shipping vessels transit each year. The Lakshadweep and Minicoy Islands provide communication for the Persian Gulf and the Red Sea.

India's size, strategic location, trade links and EEZ links its security environment directly with the extended neighbourhood. The activities of terrorist groups, the menace of drug trafficking, the spread of small arms, the proliferation of weapons of mass destruction and the challenges to maritime security are the prevailing issues. Hence India continues to pursue a robust defence strategy that involves both, the strengthening of its own capabilities as well as engagement in regional and global efforts to promote peace and stability.

Regional and Global Security Environment

India's strategic location and its global interactions impact on national security. The need to enhance preparedness is the need of hour through stronger defence partnerships to enhance international peace and stability. In South Asian neighbourhood while there was an improvement in the security and political situation in some countries, political developments caused a worsening of the internal security situation in others. Terrorism, insurgency and sectarian conflict increasingly threaten the stability of the region. India is committed to build security cooperation with all of them.

The Indian Ocean Region (IOR) has strategic and economic imperatives for India. India's peninsular projection and India's ability to engage freely in maritime trade and commerce are the major concerns.

Major political and economic shifts with strategic implications in West Asia, Central Asia and the Asia Pacific have a direct bearing on India's interests.

The continuing economic slowdown in the West, Japan and China have depressed the global economic outlook.

Rising nationalism, increasing military spending and refugee flows due to man-made and natural crises, easy availability of weapons and intense competition for natural resources provide added volatility to existing fault lines.

The use of terrorism as an instrument of policy by a few States is a major issue with leveraged new technologies. Af-Pak region in India's neighbourhood continues to be the epicentre of international terrorism. Threat of nuclear terrorism continues to be a major international security concern.

Shifts in the global balance of power created newer issues like renewed maritime disputes, changes in military posture and great power rivalry, particularly over island territories in the Asia Pacific like North Korea conducting further nuclear and missile tests. India is also connected to the Asia Pacific region. India's view is that all countries must exercise restraint and resolve bilateral issues diplomatically and

without recourse to the use or threat of use of force. India supports freedom of navigation in international waters and the right of passage, in accordance with international law. India has been an active participant in East Asia Summit, ASEAN Defence Ministers' Meeting (ADMM) and ASEAN Regional Forum (ARF).

India has focussed on developing its political, economic and security partnerships with all Central Asian Republics which are targeted by radical terrorist groups. Central Asian countries are major energy producers, can be beneficial for India. There is also a mutuality of economic interest. The changes in Iran enables regional connectivity with Central Asia of natural resources..India has welcomed the Iran nuclear agreement (P5+1).

The West Asian embroiled in violence and instability in the wake of Arab Spring, accompanied by the mushrooming of a number of violent Non-State actors. India has vital stakes in the region, in terms of diaspora, trade, energy, remittances, and security which could impact India's diverse interests.

The fusing together of the Syrian conflict and the crisis in Iraq could pose a major challenge. India has expressed deep concern with firm support to Iraq in its fight against international terrorism. In Israel-Palestine case India supports a negotiated solution resulting in a sovereign, independent, viable and United State of Palestine, living within secure and recognised borders, side by side at peace with Israel as endorsed in the Quartet Roadmap and relevant UNSC resolutions.

Violent insurgencies and terrorist actions made their presence felt in North, East and West African countries. Though piracy in the Western Indian Ocean has diminished, it has resurfaced in the Gulf of Guinea. India sought to deepen its bilateral ties with African countries through the strategic initiative of the India-Africa Forum Summit (IAFS) mechanism.

Internal Security Environment

India's challenges are cross border terrorism in Jammu & Kashmir, militancy in the North East, Left Wing Extremism (LWE) in certain states and terrorism in the hinterland. Due to the Government's efforts, the internal security situation in the country is under control. However, developments in Jammu & Kashmir and Punjab have been a cause of concern, especially the cross- border terror attacks and trafficking of arms and narcotics.

This was primarily due to the protracted operations of the security forces in the hinterland and effectiveness of the counter infiltration grid on the Line of Control/International Border. External factors, including the changing situation in Pakistan and Afghanistan, may also impact the internal situation in Jammu & Kashmir.

The security situation in the North Eastern states has been gradually improving. Tripura, Mizoram and Sikkim are, by and large, peaceful. In Arunachal Pradesh, barring a few incidents, there is general atmosphere of peace. In Manipur and Nagaland there was increase in violence against security forces by the extremist groups in 2015 in the wake of unilateral abrogation of ceasefire by NSCN/K.

The signing of Framework for Peace between the Government of India and the National Socialist Council for Nagalim (Issac-Muviah) in August 2015 was a positive step towards ending the country's oldest insurgency. Talks are continuing with NDFB, Progressive (P) and Ranjan Diamary (RD) factions to resolve Bodo issues. However, LWE violence has been declining over the years due to the efforts of the Government such as greater presence of security forces across the LWE affected states, loss of cadres/ leaders on account of arrests, surrender and desertions, better monitoring of development schemes and insurgency fatigue among Maoist cadres.

Ministry and its Departments

The principal task of the Ministry is to frame policy directions on defence and security related matters and communicate them for implementation to the Services Headquarters, Inter-Service Organisations, Production Establishments and Research and Development Organisations.

The principal functions of the departments are as follows:

- **The Department of Defence** deals with the Integrated Defence Staff (IDS) and three Services and various Inter Service Organizations. It is also responsible for the Defence Budget, establishment matters, defence policy, matters relating to Parliament, defence co-operation with foreign countries and co-ordination of all defence related activities.
- **The Department of Defence Production** is headed by a Secretary and deals with matters pertaining to defence production, indigenization of imported stores, equipment and spares, planning and control of departmental production units of the Ordnance Factory Board and Defence Public Sector Undertakings (DPSUs).
- **The Department of Defence Research and Development** is headed by a Secretary, who is the Scientific Adviser to the Raksha Mantri. Its function is to advise the Government on scientific aspects of military equipment and logistics and the formulation of research, design and development plans for equipment required by the Services.
- **The Department of Ex-Servicemen Welfare** is headed by a Secretary and deals with all resettlement, welfare and pensionary matters of Ex-Servicemen.

Army

Indian Army is committed to the defence of the country from external and internal threats. In times of disaster/natural calamities, the Indian Army is in the forefront.

The present situation

- **Jammu and Kashmir:** The relentless efforts put in by security forces helped the general public gain confidence which led to a high voter turnout in elections with entrusted faith in the democratic system.
- **Ceasefire Violations (CFVs):** The ceasefire along the Actual Ground Position Line (AGPL), Line of Control and International Border (IB) Sectors in Jammu and Kashmir has generally held. Indian Army is to carry on retaliation to the CFVs initiated by Pakistan.
- **Infiltration:** Pakistan has left no stone unturned to internationalise the Kashmir issue. However, counter infiltration measures by the Army have been further strengthened to contain the situation.
- **Situation in the Hinterland:** During 2015, relentless and surgical people friendly operations resulted in the elimination of 67 terrorists in the hinterland. Social media and its blatant use by terrorists groups and separatists alike to target impressionable minds is emerging as a challenge and to provide an impetus to local recruitment, radicalisation and has been used extensively.
- **North East:** To effectively counter the development, Border Guarding & Counter Insurgency Posture in Nagaland and Manipur were strengthened. Resultantly, the morale of NDFB (Songbijit) cadres was adversely affected. In Nagaland security situation in the State deteriorated post abrogation of Ceasefire (CF) by NSCN (Khaplang) on March 27, 2015. There is also a growing public disenchantment against NSCN factions, increasing assertiveness of Against Corruption and Unabated Taxation

(ACAUT) and consolidation of Nagas of Nagaland under Naga Tribal Council (NTC) which are positive developments. Manipur continued to be the most disturbed one in North East region. Majority of the violence has been perpetrated by Valley based groups. Politics of Blockades and Bandhs continued with conflicts of Meiteis-Nagas-Kukis. Demands of Inner Line Permit and its opposition were the main factors for protests. Arunachal Pradesh is used as a transit route for illegal movement of weapons, ammunition, narcotics, etc. From Myanmar to Assam and Nagaland. In Meghalaya the violence remained largely confined to Garo hills perpetrated by the Garo groups.

- **Situation along the Border:** Policy of constructive engagement and maintaining peace and tranquility along the LAC is ensured along our Northern Borders. Relations between the two nations have improved over the past few years. Year 2015 has been declared as the 'Visit India Year' because of visit of leaders of each country.. The situation along India-China border continues to be peaceful. Specific cases of transgression by Chinese patrols into such areas across LAC are taken up with relevant Chinese authorities. Both countries have had wide ranging discussions on implementation of Border Defence Cooperation Agreement. The Fifth Joint Training Exercise was successfully conducted in Kunming (China) in October 2015 aimed at building and promoting positive military relations, inter-operability and undertaking joint operations in Counter Terrorism.

Navy

Guarantor of the country's maritime sovereignty through four roles-military, diplomatic, constabulary and benign. The Indian Navy has been playing a maritime leadership role in the Indian Ocean Region (IOR). Challenges require the Indian Navy to remain effective across the full spectrum of combat operations. India sits astride a very large number of busy International Shipping Lanes. Much of the trade is through sea routes. The Indian Navy works towards capability building of Navies of friendly countries in the IOR, which includes ships and aircraft for EEZ surveillance. Navy initiatives are contributing towards developing operational and technical skills of maritime practitioners.

Exercises with Foreign Navies

- **Malabar-15:** India and US have been regularly participating. Recently included participation by Japanese Maritime Self Defence Force (JMSDF).
- **Varuna-15:** Since 1993 Indo-French Naval Exercise 'VARUNA'
- **Simbex-15:** Singapore India Maritime Bilateral Exercise alternately in the Bay of Bengal and in South China Sea.
- **Konkan-15:** The annual bilateral naval exercise KONKAN with the Royal Navy, held in 2015 off the coast of the UK.
- **Ausindex-15:** Between IN and Royal Australian Navy (RAN)
- **Slinex-15:** First time in 2005 and in 2010 , in 2015 off Sri Lanka.
- **Indra-15:** Indo - Russia naval exercise named 'INDRA' is being conducted since 2003.

Indian Coast Guard (1977-78)

Under Coast Guard Act, 1978. It undertakes the assigned tasks during peace time and to supplement the efforts of Indian Navy during war. The duties are safety and protection of artificial islands and offshore terminals, installations and devices in maritime zones; protection & assistance to fishermen at sea while in distress; preservation and protection of marine environment; assistance to customs & other authorities in anti-smuggling operations. It has been entrusted the

- (i) Offshore security coordination authority;

- (ii) National maritime search and rescue coordinating authority;
- (iii) Lead intelligence agency for coastal and sea border;
- (iv) Coastal security in territorial waters

Air Force

The focus is on "Make in India" to give impetus to indigenous development and manufacturing, including participation of private sector in defence manufacturing, including fighters, transport aircraft, helicopters, combat support assets and air defence network. IAF's recently acquired airborne assets have been effectively utilised in Humanitarian Assistance and Disaster Relief missions, most noticeably in J&K, Nepal and Yemen.

Acquisitions and Upgrades

- **LCA:** Light Combat Aircrafts (LCA), Tejas is designed and developed by Aeronautical Development Agency ;
- **Rafale Aircraft:** Procurement of 36 Rafale Aircraft through Inter Governmental agreement between the Indian and French Government is being progressed ; Helicopters: The rotary wing capabilities of the IAF are poised to undergo a paradigm growth. IAF has already inducted some of the latest machines;
- **Attack Helicopters:** A contract was signed for Apache attack helicopter, critical combat assets utilised for employment in Anti-Tank Guided Missile role, Counter Insurgency Operations, Unmanned Aerial Vehicle neutralisation Operations, Combat Search and Rescue Operations ;
- **Heavy Lift Helicopters:** Required to conduct strategic and tactical airlift missions in support of the armed forces and undertake humanitarian assistance and disaster relief missions during calamities;
- **Microlight:** It will be used in IAF for enhancement of flight safety by monitoring bird activity in the vicinity of airfields and directing bird controlling measures.

National Cadet Corps

Under the NCC Act, 1948 to provide the youth of the country opportunities for all round development with a sense of commitment, dedication, self-discipline and moral values, so that they become useful citizens and can take their place in all walks of life in the service of the nation. The motto of NCC is 'Unity and Discipline'. The total sanctioned strength of NCC cadets is 15 lakh.

Training for Defence Services

- The Sainik Schools were established as a joint venture of the Central and state Governments. These are under the overall governance of Sainik Schools Society.
- The objectives of Sainik Schools include:
 - a) Bringing quality public school education within the reach of the common man.
 - b) All round development of a child's personality and to remove regional imbalance in the officer's cadre of the Armed Forces.

Other Training Institutions

- **Rashtriya Military Schools**
- **National Defence Academy**

- **Rashtriya Indian Military College**
- **Indian Military Academy, Dehradun**
- **College of Military Engineering, Pune**

Defence Undertakings

Hindustan Aeronautics Limited is a Navratna Company and a premier aeronautical complex of South Asia. HAL's expertise encompasses design, production, repair, overhaul and upgrade of aircrafts, helicopters, aero-engines, accessories, avionics & systems.

Bharat Electronics Limited (BEL), is a Navratna PSU, ranks 69th among the top 100 companies worldwide in defence revenues with core competencies in areas of radars and fire control systems, weapon systems, sonars, Communication.

Garden Reach Shipbuilders and Engineers Ltd. is a leading shipyard, has expertise of building a wide array of vessels, from world class Frigates to Fast Interceptor Boats.

Goa Shipyard Limited (GSL), is capable of designing and building high technology and sophisticated ships to meet the crucial maritime security needs of the country.

Hindustan Shipyard Ltd. (HSL), is located on the east coast of the country and is nation's premium shipbuilding and ship/submarine repair organisation.

Mazagaon Dock Limited (MDL), is the Mini Ratna company and is India's premier shipyard, specialised in construction of warships of various sizes and classes, submarines, other technologically advanced commercial vessels and offshore platforms/drilling rigs.

BEML Limited established in 1964, is a Mini Ratna Category-I multi-location, multi product engaged in design, manufacturing, marketing and after-sales service of a wide range of equipment to three distinct business segments i.e., Defence, Mining and Construction and Rail and Metro.

Different organizations

- **Ordnance Factories**

The Ordnance Factory Board has 39 factories with two more at Nalanda and Korwa. Ordnance Factories are divided into five operating groups: (i) ammunition and explosives, (ii) weapons, vehicles and equipments, (iii) materials and components, (iv) armoured vehicles and (v) clothing and equipments, each headed by Additional DGOF.

- **Directorate General of Quality Assurance (DGQA)**

It is an Inter-Service Organisation under the Department of Defence Production responsible for quality assurance of all defence equipment and stores for the Army and Navy (excluding Naval Armaments) as well as common use items for the Air Force.

The Directorate General of Aeronautical Quality Assurance is an organisation under the Department of Defence Production that is responsible for quality assurance and final acceptance of military aircraft, accessories and other aeronautical stores for military aviation.

- **Directorate of Standardisation**

The primary objective is to establish commonality in equipment and components among the three services so that the overall inventory of the Defence Services is reduced to the minimum.

- **Directorate of Planning and Coordination**

The Directorate of Planning & Coordination was set up in 1964 with the primary objective of preparing overall plans for the production of defence equipment in the country. The directorate functions as an attached office of the Department of Defence Production (DDP). It primarily deals with capital acquisition of various weapon systems and platforms of the armed forces of India viz., Air Force, Army, Navy and Coast Guard.

- **Defence Exhibition Organisation**

The main function of Defence Exhibition Organisation (DEO) is to organise and co-ordinate defence exhibitions in India and abroad, primarily with a view to promote the export potential of defence oriented products and services, developed and manufactured by the defence industry.

- **The National Institute for Research and Development in Defence Shipbuilding**

It was set-up as an autonomous society for India's futuristic shipbuilding programmes. This nerve centre will be responsible to collate and consolidate existing capabilities, create new capabilities and cover the gaps that exist.

- **Defence Research and Development Organisation (DRDO)**

It is the research and development arm to advise and assist the Defence Services on scientific problems and to undertake research in areas related to Defence. The mandate has been widened to support national cyber security architecture which includes testing capabilities, security solutions, networking systems and cyber defence tools.

- **The Department of Ex-Servicemen Welfare**

It formulates various policies and programmes for the welfare and resettlement of Ex-Servicemen (ESM) in the country. Armed Forces Flag Day is commemorated on 7th December every year across the country to commemorate the sacrifices made by the armed forces personnel for the country.

- **Director General (Resettlement)**

It has the main thrust on resettlement, rehabilitation and welfare of ESM. DGR is entrusted with the responsibility of preparing retiring/retired service personnel for a second career.

Pension Reforms

The Government has taken the historic decision to implement One Rank One Pension (OROP) for the Defence Force Personnel from July 01, 2014 and issued notification for its implementation. OROP implies that uniform pension be paid to the Defence Force Personnel retiring in the same rank with the same length of service, regardless of their date of retirement, to bridge the gap between the rates of pension of current and past pensioners at periodic intervals.

8

EDUCATION

The essence of Human Resource Development is education, which plays a significant and remedial role in balancing the socio-economic fabric of the country. Since citizens of India are its most valuable resource, our billion-strong nation needs the nurture and care in the form of basic education to achieve a better quality of life. This warrants an all-round development of our citizens, which can be achieved by building strong foundations in education. Good quality education is the foundation of new discoveries, new knowledge, innovation and entrepreneurship that trigger growth and prosperity of the individual as well as that of a nation. For this, we need to make our curriculum and pedagogy relevant to the needs of our society and economy and nurture qualities of problem solving and creative thinking, learning-by-doing, greater engagement with the live context, and confident self-expression from a young age.

To lay emphasis on the educational development of students of weaker sections of the society, a number of innovative initiatives have been taken by the ministry such as:

- (i) Setting up of National Monitoring Committee on Minorities
- (ii) Setting up of National Monitoring Committee for Education of SCs, STs and Persons with Disabilities
- (iii) Student Support Initiatives such as National Means-cum-Merit Scholarship Scheme (NMMSS), National Scheme of Incentive to Girls for Secondary Education (NSIGSE), Special Scholarship Scheme for Jammu and Kashmir, scheme of Interest Subsidy on Educational Loans
- (iv) Regulations on prevention of discrimination and Establishment of Ombudsman and
- (v) Development of an Anti-Ragging Web Portal.

The Ministry of Human Resource Development works through two departments -Department of School Education and Literacy and Department of Higher Education.

Ministry's focus has also been on balanced educational development of all regions including North-Eastern Regions (NER) and Jammu and Kashmir through its two departments-Department of School Education and Literacy and Department of Higher Education.

Elementary Education Progress:

2006-07 : VI-VIII - 44 lakhs ; I-V- 1337 lakhs

2013-14 : VI-VIII - 66lakhs ; I-V- 1324 lakhs

Initiatives in education sector
• Mid day Meal Scheme

It covers children of classes I-VIII studying in government local bodies, government aided schools, special training centres and madarsas-maqtab supported under Sarva Shiksha Abhiyan. It has helped in preventing classroom hunger, promoting school participation and fostering social equality and enhancing gender equality.

Norms for Mid Day Meal Scheme covers

- i) Calorific Value of Mid Day Meals and
- ii) Cooking cost under MDM Scheme

The cooking cost is shared between the Centre and the state.

The Department of School Education had developed a web based MiS portal for online collection of data on various indicators of the scheme , implemented through the states/UTs.

Mid Day Meal Rules, 2015 have been notified under National Food Security Act, 2013, which includes

- i) Strengthen quality by making testing of food samples mandatory;
- ii) Strengthen regularity by allowing temporary use of other funds in case of on-availability of MDM funds
- iii) Enhanced role of school management committees in supervision of MDM
- iv) Food security allowance to be paid by the state government

The Mid Day Meal guidelines for engagement of accredited labs by the state governments is put in place for testing of the meals served in the schools.

Department has issued detailed guidelines for conducting of social audit under Mid Day Meal Scheme. This means the process in which people collectively monitor and evaluate the planning and implementation of a programme or scheme.

- **Tithi Bhojan**

In order to bring in greater community participation, local communities are encouraged to celebrate important family events viz., birth of a child by contributing to the mid day meal.

- **National Institutional Ranking Framework Document and Web portal**

It would enable parents, students, teachers, educational institutions and others to rank institutions on the basis of a set of objective parameters and a transparent process. Parameters are

- (i) Teaching learning and resources;
- (ii) Research, consulting and collaborative performance;
- (iii) Graduation outcomes;
- (iv) Outreach and inclusivity and
- (v) Perception.

- **Sarva Shiksha Abhiyan**

Centrally sponsored scheme in partnership with states; in accordance with Right to Children to Free and Compulsory Education, 2009. It provides for a variety of interventions, including opening of new schools, construction of schools and additional classrooms, toilets and drinking water, provisioning for teachers, periodic teacher training and academic resource support, etc.

For implementing SSA, each state/UT has a State Project Office (SPO) and each district has a District Project Office (DPO). Each school has a School Management Committee (SMC) which includes

Headmaster, Teachers, Parents and Sarpanch etc. Section 7 of the RTE Act provides that the Central and state governments will have concurrent responsibility for providing funds for carrying out the provisions of the RTE Act.

Progress under SSA: Primary schools (92% completed); Upper primary schools(94% done)

The central government reviews and monitors implementation of the RTE Act periodically with the states, including the State Education Ministers' Conferences.

Impact of SSA and RTE

Universal Access: 98 per cent habitations have access to primary school and 97 per cent to upper primary school.

Increased Enrolment: In 2014-15 enrolment in elementary schools was 19.77 crore children as compared to enrolment of 18.79 crore children in 2009-10.

2014-15 : GER at primary level - 100.08 ; GER at upper primary level - 19.24 ; Retention rate at primary level - 83.74 ; Average Annual Dropout Rate at primary level - 4.34

2014-15: Primary Education - Girls (48.19%) ; SC(20%) ; ST(10.83%) ; Muslims (14.37%)

Upper Primary - Girls (48.63%) ; SC(19.5%) ; ST(9.76%) ; Muslims (12.60%)

SSA provides assistance to states/UTs for reimbursement of the expenditure incurred towards at least 25 % admissions of the children belonging to weaker section and disadvantaged group under the RTE Act, 2009.

The major interventions under SSA for the education of children with special needs (CWSN) are identification, functional and formal assessment, provision of aids and appliances, teacher training, and barrier free access.

- **Emphasis on Girl Education**

- Kasturba Gandhi Balika Vidyalayas:** opened in Educationally Backward Blocks where the female rural literacy is below the national average to provide for residential upper primary schools for girls.
- Gender Atlas:** to identify and ensure equitable education with a focus on vulnerable girls,
- 'Swachh Bharat:** Swachh Vidyalaya Initiative: to provide separate toilets for boys and girls in all government schools within a year.
- Rashtriya Aavishkar Abhiyan:** to motivate and encourage children of the age-group 6-18 years, in science, mathematics and technology.
- Padhe Bharat Badhe Bharat:** to ensure quality at the foundational years of schooling i.e., classes I and II. Through this programme it will be ensured that all children are able to read with comprehension as well as basic numeracy skills.

- **Saranch**

Saransh launched by CBSE Board which helps the schools to look at their performance at an aggregate level and at the level of each student.

- **Pandit Madan Mohan Malviya National Mission for Teachers' Training**

Umbrella scheme to create synergies among various ongoing initiatives on Teachers and Teaching which addresses all issues related to teachers, teaching, teacher preparation, professional development, curriculum design.

- **National Quality Renaissance Initiative**

Features of National Quality Renaissance Initiative are: (i) awareness building, popularisation and promotion of quality assurance mentors for higher education institutions, (ii) building collegium of assessors (iii) quality sustenance and enhancement initiatives.

- **Shaala Darpan**

To provide mobile access to parents of students of government and government aided schools. Using this parents can view updates on their child's progress.

- **School Report Card**

Report cards of schools across the country based on Unified District Information System for Education (UDISE), that is annually updated by states through its schools- covering all aspects of school and its functions.

- **GIS Mapping**

The focus has been to test the accuracy of state data and then to create a layer of school information (GIS) system over the platform

- **Swachh Vidyalaya Portal**

It a user-friendly web-portal launched to enable all process including selection of schools (without toilets), confirmation of their request and to further update the progress of construction .

- **Know Your College**

Portal developed for helping a prospective student make a valued judgement for selection of college providing the necessary information about the college.

- **Campus Connect**

National Mission on Education through Information and Communication Technology Scheme aims to leverage the potential of ICT for teaching and learning processes. Mission has two major components. (a) content generation, (b) providing connectivity along with provision for access devices to the institutions and learners.

- **National e-Library**

National Digital Library of India is envisaged as a National knowledge asset which will provide ubiquitous digital knowledge source. It will support and enhance education, research and innovation catering to the needs of all types of learner groups over the country.

- **Swayam**

Study Webs of Active -Learning for Young Aspiring Minds Swayam is a Massive Open Online Courses (MOOCs) initiative on a national platform with comprehensive academic structure. The integrated platform will offer courses covering engineering, humanities and social sciences etc., to be used by learners at large.

- **Global Initiative for Academic Network**

It aims at tapping the talent pool of scientists and entrepreneurs, internationally to encourage their engagement with the institutes of higher education in India.

- **Swachh Vidyalaya**

Government has approved 1.70 lakh toilets under SSA and RMSA.

- **Research Parks**

To create a knowledge and innovation ecosystem through collaboration between industry and academia to enable, encourage and develop cutting edge technology and innovation.

- **IIIT Initiative**

The IIIT Bill, became a law in 2014. Accordingly it grants statutory status to the four existing Indian Institutes of Information Technology (IIITs) to bring them under a single umbrella; declares them as Institutes of National Importance.

- **Bal Sansad**

The Ministry of Parliamentary Affairs, launched Youth Parliament Scheme in order to make the students understand parliamentary procedures and working of parliament and form opinion about public issues.

- **Sanskrit Week**

For enhancing the interest of students in Sanskrit language

- **Swachhata Abhiyaan - Bal Swachhata Mission**

CBSE initiated the Swachh Vidyalaya Abhiyan in its schools in 2014 by asking them to take up a programme for cleanliness.

- **Matribhasha Diwas**

To promote the dissemination of mother tongues and fuller awareness of linguistic and cultural traditions.

- **Growing Aptitude in Numerical Innovations and Training**

(GANIT) Week in the schools affiliated to CBSE was organized to commemorate the birth anniversary of Srinivasa Ramanujan and to actively promote interest of students in mathematics.

- **Shaala Utsav**

There are many schools in the country which were established more than 100 years ago. Shaala Utsav is an effort to celebrate the foundation day of such schools.

Skill development

- **Skills Assessment Matrix for Vocational Advancement of Youth:** Allows vertical and lateral mobility within vocational education system and between current education systems.
- **Education Sector Skill Council:** Education Sector Skill Council was constituted in 2014, to consider job roles other than academic faculties and teacher qualifications.
- **Kaushal Kendra:** 100 Deen Dayal Upadhyay Centres for Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood to be set up. Kendras will formulate courses at postgraduate level. Kaushal Kendra will work for coordination between the higher education system and industry to become Centre of excellence for skill development in specialized areas.
- **Unnat Bharat Abhiyaan:** IIT, IISER, NIT to adopt villages and develop appropriate rural technologies for sustainable development through peoples' participation.

- **Yukti - Yogya Kalakriti ki takneek:** It aims at skill development and upgradation of design and technologies enhancing the economic prospects of those engaged in traditional crafts and arts as a means of livelihood.

Schemes for maintaining equity

- **SAKSHAM** - Scholarship for Differently-Abled Children -Saksham Scheme of AICTE aims at providing encouragement and support to differently-abled children to pursue technical education.
- **Ishan Uday-** for Students of North East Region . The UGC has launched a special scholarship scheme for students of north east region, Ishan Uday .
- **Ishan Vikas** - Academic Exposure for North Eastern Students ; to bring selected college and school students from the north eastern states into close contact with IITs, NITs and IISERs
- **Udaan:** The scheme is dedicated to the development of girl child education, so as to promote the admission of girl students. It seeks to enhance the enrolment of girl students in prestigious technical education institutions through incentives & academic support.
- **Saakshar Bharat:** Initiatives have been taken under financial literacy to include certified adult literates under Jan Dhan Yojna and mobilize them to open bank accounts.
- **Pragati:** Scholarships for Girl Child for Technical education ; Pragati aims at providing encouragement and support to girl child to pursue technical education.
- **Swami Vivekananda Scholarship for Single Girl Child:** Keeping Swami Vivekananda's ideas of women education and to promote girls education, UGC has introduced this with an aim to compensate direct costs of higher education.

Copyright

Copyright comes into existence as soon as a work is created and no formality is required to be completed for acquiring it. However, as per Section 48 of the Act, certificate of registration of copyright and the entries made therein serve as prima facie evidence in a court of law with reference to dispute relating to ownership of copyright.

The Copyright Office was established in 1958 under Section 9(1) of the Copyright Act, 1957 has main function to undertake registration of copyright.

As provided under Section 13 of the Copyright Act, 1957, copyright subsists in the following classes or works: (a) original literary, software, musical, and artistic works; (b) cinematographic films; and (c) sound recording.

As per Section 45 of the Copyright Act, 1957 either the author or publisher or owner of copyright or any other person interested in the copyright of a work can make an application in the prescribed format along with prescribed fee to the Registrar of Copyright for entering particulars of the work in the Register of Copyrights.

Copyright Board: A quasi-judicial body entrusted with the task of adjudication of disputes pertaining to copyright registration and assignment of copyright, rectification of registration, grant of compulsory licences in respect of works withheld from public, unpublished Indian works, for benefit of physically disabled persons, production and publication of translations and works for certain specified purposes.

9

ENERGY

Energy is an essential input for economic development and improving the quality of life. Development of conventional energy at reasonable cost is the responsibility of Government. Development of non-conventional/alternate/new and renewable energy such as solar, wind and bio-energy, etc. are also getting growing attention. Nuclear energy development is also being geared up.

Power

Power development in India commenced with the commissioning of electricity supply in Darjeeling during 1897, followed by the commissioning of a hydro power station at Sivasamudram in Karnataka during 1902. In the pre-Independence era, the power supply was mainly in the private sector, that too restricted to the urban areas. With the formation of State Electricity Boards during Five-Year Plans, a systematic growth of power supply industry got developed through multi-purpose projects and setting up of thermal, hydro and nuclear power stations.

Ministry of Power is responsible for the development of electrical energy and perspective planning, policy formulation, processing of projects for investment decisions, monitoring of the implementation of power projects, training and manpower development and the administration and enactment of legislation with regard to thermal and hydro power generation, transmission and distribution. In all technical matters, the Ministry of Power is assisted by the Central Electricity Authority (CEA). The construction and operation of generation and transmission projects are bring done by PSUs like National Thermal Power Corporation (NTPC), National Hydroelectric Power Corporation (NHPC), North- Eastern Electric Power Corporation (NEEPCO) and Power Grid Corporation of India Limited (PGCIL). The Power Grid is responsible for all the existing and future transmission projects in the Central Sector and also for the formation of the National Power Grid. Bureau of Energy Efficiency (BEE) is also under its administrative control. Programmes of rural electrification are provided financial assistance by the Rural Electrification Corporation (REC). The Power Finance Corporation (PFC) provides term-finance to projects in the power sector. The Power Trading Corporation supports the Mega Power Projects in private sector through Power Purchase Agreements (PPAs).

Capacity Addition: All India installed power generation capacity by Nov,2015 is 2,82,023.78 MW comprising 1,96,204.44 MW thermal 42,623.42 MW hydro, 5.780 MW nuclear & 37,415.53 MW R.E.S.

Electricity Generation: The total electricity generation in the country increased from 420.6 billion unit during 1997-98 to 739.92 during April-November, 2015.

Ultra Mega Power Projects: Government launched an initiative for development of coal-based Ultra Mega Power Projects(UMPPs), each with a capacity of 4,000 MW with an objective of ensuring cheaper tariffs utilising economies of scale, catering to needs of states and to mitigate the risk relating to tie up of land fuel,water and other statutory clearances, etc. To tie-up for necessary inputs and clearances the project-specific shell companies (SPVs) are set up within Power Finance Corporation Ltd. Four UMPPs namely Sasan in M.P, Mundra in Gujarat,Krishnapatnam in Andhra and Talaiya in Jharkhand are at different stages of development.

Transmission: Transmission projects continue to be a high priority along with augmentation of National Grid.

National Grid

India's natural resources are unevenly distributed as, coal resources are abundant in Bihar/Jharkhand, Odisha, West Bengal and hydro resources are mainly concentrated in northern and North-Eastern Region, etc., far away from the demand centres, added to this is the problem of acquiring Right-of-Way (ROW) for constructing transmission system. Hence we need high capacity 'Transmission Highways' to remove constraints in RoW.

Power Grid is strengthening its transmission network to establish inter-state and inter-regional links for enhancing the capacity of National Grid.

Central Electricity Authority

The Central Electricity Authority (CEA) is a statutory organization constituted under Section 3 (1) of the repealed Electricity (Supply) Act, 1948 and continued under Section 70 of the Electricity Act, 2003. It was established as a part time body in 1951 and made a full time body in the year 1975. As per Section 70 (3) of the Electricity Act, 2003, the authority shall consist of not more than 14 members, including its chairperson of whom not more than eight shall be full time members to be appointed by the Central Government. The CEA is headed by a chairperson who, as the Chief Executive of the authority, oversees largely the development of power sector in the country.

Rural Electrification

In 1947, only 1,500 villages were electrified in India. The per capital consumption was 14 units.

- (i) **Rural Electrification under Minimum Needs Programme (MNP)** was started in Fifth Five Year Plan with rural electrification as one of the components of the programme, discontinued from 2004 onwards and merged with Rajiv Gandhi Grameen Vidyutikaran Yojana(RGGVY).
- (ii) **Pradhan Mantri Gramodaya Yojana (PMGY)** was launched in 2000-01 but rural electrification component was added in next year and has been discontinued from 2005-06 onwards.
- (iii) **Kutir Jyoti Scheme** was launched in 1988-89 to provide single point light connections to households of rural BPL families including harijans & adivasi and later on merged with RGGVY.
- (iv) **Accelerated Rural Electrification Programme** introduced in 2003-04 under which interest subsidy of 4 % was to be provided on loans availed by state governments/power utilities from financial institutions for carrying out rural electrification programme.
- (v) **Accelerated Electrification of One lakh villages and One crore** households in 2004-05 was launched by merging the interest subsidy Scheme-AREP and Kutir Jyoti Programme.
- (vi) **Rajiv Gandhi Grameen Vidyutikaran Yojana (2005)** for providing access to electricity to all rural households over 4 years, implemented by Rural Electrification Corporation (REC).

UDAY

UDAY(Ujwal DISCOM Assurance Yojana) provides for financial turnaround and revival of Power Distribution companies (DISCOMs) with a sustainable permanent solution.

Other historic improvements includes from fuel supply (highest coal production growth in over two decades), to generation (highest ever capacity addition), transmission (highest ever increase in transmission lines) and consumption (2.3 crore LED bulbs distributed).

UDAY's four initiatives for DISCOMS (i) improving operational efficiencies of DISCOMS; (ii) reduction of cost of power; (iii)/reduction in interest cost of DISCOMS; (iv) enforcing financial discipline on DISCOMS through state finances.

Operational efficiency improvements and energy efficiency measures will reduce the average AT&C loss from around 22 % to 15 %. Reduction in cost of power would be achieved through increased supply of cheaper domestic coal.

State shall take over the future losses of DISCOMS. State DISCOMS will comply with the Renewable Purchase Obligation. States accepting UDAY will be given additional funding through Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) or other such schemes.

Domestic Efficient Lighting Programme

Domestic Efficient Lighting Programme(2015) urged the people to use LED

bulbs in place of incandescent bulbs, tube lights and CFL bulbs as they are more efficient, long lasting and economical in their life cycle duration.

Public Sector Undertakings related to Power Sector

- **National Thermal Power Corporation Limited**, a Maha Ratna Company of the Government of India, is the largest power generator in India with comprehensive in-house capabilities in building and operating power projects.
- **National Hydro-electric Power Corporation Ltd** is a Schedule 'A' Mini-Ratna Enterprise and has become the largest organisation for hydro power development in the country with capabilities to undertake all the activities from conceptualization to commissioning of hydro projects.
- **Power Grid Corporation of India Limited** apart from providing transmission systems assigned to it for evacuation of power from central sector projects is also responsible for establishment of Regional and National Power Grids and to facilitate power transfer.
- **Power Finance Corporation** has an objective to provide financial resources and encourage flow of investments to the power & associated sectors and is a Schedule-A Navratna CPSE.
- **Rural Electrification Corporation Limited** has objective of financing rural electrification schemes in the country. REC is a 'Navratna' company.
- **Satluj Jal Vidyut Nigam Ltd.** was incorporated to plan, investigate, organise, execute, operate and maintain Hydro Electric Power Projects in Satluj basin in Himachal Pradesh
- **Bhakra Management Board** was constituted for the administration, maintenance and operation of Bhakra Nangal Project.
- **The National Power Training Institute** under the Ministry, is committed to the development of human resources in the power sector for the past four decades.
- **The Central Power Research Institute** under the Ministry of Power, serves as national laboratory to carry out applied research in electrical power engineering. It also Functions as independent national testing & certification authority for electrical equipment.
- With a need to develop the huge power potential, the **North Eastern Electric Power Corporation** was incorporated in 1976 under the Ministry to plan,promote,investigate, survey, design, construct, generate, operate and maintain power stations in the north-eastern region.

Petroleum and Natural Gas

Ministry of Petroleum & Natural Gas is concerned with exploration and production of oil and natural gas (including import of LNG), refining, distribution and marketing, import, export and conservation of petroleum products.

'Urja Sangam 2015' was held in New Delhi in March 2015 with an aim to showcase India's potential in the hydrocarbon sector to the world and create an investor-friendly atmosphere.

Ministry rolled out a plan to reassess hydrocarbon resources in India's sedimentary basins.

Some reforms include providing marketing and pricing freedom, permitting exploration throughout the contract period, being governed by a single license for exploration and production of all forms of hydrocarbons and adopting a simple and easy to administer revenue sharing model, in the line of Minimum Government, Maximum Governance and ease of doing business. Government has approved Hydrocarbon Exploration Licensing Policy (HELP) which is designed in such a way that it will usher a new era in the exploration and production of hydrocarbons in India.

Crude Oil and Natural Gas Production

The targeted crude oil production for 2015-16 is at 37.046 million metric tonnes (MMT) showing a decrease of about 1.11%. Production was affected mainly due to decline in onshore production from old and ageing fields and operational problems particularly in Gujarat, Rajasthan and North East, apart from prolonged bandhs and blockades in Assam. Shortfall in natural gas production of 2.76% during April-Dec 2015 is mainly attributed to lower production from Bassein & Satellite fields, KG-D6, M&S Tapti and Panna-Mukta, restricted production in Gujarat and Andhra Pradesh and lower off-take by potential customers particularly in Assam, Rajasthan and Tamil Nadu.

Oil and Natural Gas Corporation Ltd. engaged in exploration and production of crude oil, natural gas and value added products was incorporated on June 23, 1993.

Refining Capacity & Refinery Crude Throughput

There has been considerable increase in refining capacity in the country over the years. The refining capacity stood at 215.066 MMTPA by April, 2015. Crude throughput during April- December, 2015 is at 170.711 MMT, marginally higher by 2.41 % during April-Dec, 2014.

The production of petroleum products is targeted at 220.964 MMT in year 2015-16 as against 221.136 MMT achieved in 2014-15. During April-December, 2015, production of petroleum products was at 170.345 MMT i.e. an increase of 2.98 %.

Import of Crude Oil during April-December, 2015 was 149.416 MMT valued at 3,41,067 crore which marked an increase of 5.05 % in quantity terms and 41.37 % decrease in value terms over the same period of last year. The decline in value terms is related to reduced crude oil prices by around 70 per cent from June '14 to Dec' 15. Further, exploration of shale gas by countries like the USA and Canada to reduce their dependence on oil imports has led to lower demand. This has also resulted in reduced retail prices of diesel, domestic LPG and kerosene.

Imports and Exports of Petroleum Products

During April-December, 2015-16 imports of petroleum products shows an increase of 36.01 per cent in quantity terms and 12.52 per cent decrease in value terms, against the corresponding period of previous year. During April-December,

2015-16 the exports of petroleum products shows a decrease of 10.84 per cent in quantity terms and 42.52 % in value terms for the same period of last year.

In order to attract FDI , the FDI policy has been further liberalised, allowing with 49 per cent foreign equity under the automatic route instead of approval through FIPB. The highest FDI inflow was received in 2011-12. During the year 2014-15, FDI inflow contributed almost 3.44 per cent of total FDI inflow.

Public sector organizations in Petroleum sector

- **ONGC Videsh Ltd.** is engaged in exploration and production of oil and gas outside India.
- **Oil India Limited** is engaged in the business of exploration, production and transportation of crude oil and natural gas. OIL has been accorded 'Navaratna' status in 2010.
- Starting as a natural gas transmission company, GAIL is today an integrated energy company in the Natural Gas value chain with global footprints to acquire new expertise and resources through overseas tie-ups in resource rich countries.
- **Indian Oil Corporation** is India's flagship national oil company with business interests encompassing the entire hydrocarbon value chain- from refining, pipeline transportation and marketing of petroleum products to exploration and production of crude oil and gas, marketing of natural gas, petrochemicals, renewable energy and now into nuclear energy.
- **Hindustan Petroleum Corporation Limited (HPCL)** is a 'Navratna' PSU with two refineries in Mumbai and in Visakhapatnam.
- **Bharat Petroleum Corporation Limited** is an integrated oil company, in the downstream sector, engaged in refining of crude oil and marketing of petroleum products.

Pricing of Petroleum Products

In June 2006, based on the recommendations of the Rangarajan Committee, the Government changed the pricing mechanism for petrol and diesel from import parity to trade parity while the pricing of PDS kerosene and domestic LPG continues on import parity basis. The Government decided to make the price of diesel market determined, both at refinery gate and at retail level.

However Government continues to modulate the RSP of diesel to protect public interest.. Thus, the RSP of diesel is below the required market price.

Government is committed to make available the essential fuels, particularly the cooking fuels to the common man at affordable prices by subsidizing PDS kerosene and domestic LPG.

Coal

The Ministry of Coal has the responsibility of determining policies and strategies in respect of exploration and development of coal and lignite reserves, sanctioning of important projects of high value and for deciding all related issues.

Coal reserves have been estimated at 306.595 billion tonnes by the Geological Survey of India, found mainly in Jharkhand, Odisha, Chhattisgarh, West Bengal and Madhya Pradesh.

The Lignite reserves in the country have been estimated at around 44.11 billion tonnes by the Geological Survey of India , majorly located in Tamil Nadu, followed by Rajasthan, Gujarat, Kerala, West Bengal, Jammu & Kashmir.

Coal Production: During the period April to December 2015 the actual production was 447.48 Million tonnes showing a growth of 9.1 per cent from 2014-15.

Public sector organizations

- **Coal India Limited (CIL)** is a 'Maha Ratna' company and the single largest coal producing company in world and one of the largest corporate employers with manpower of 3,46,638.
- **Neyveli Lignite Corporation Limited** with 'Navratna' status is a pioneer among the public sector undertakings in the energy sector.

New and Renewable Energy

Ministry of New and Renewable Energy is the nodal Ministry , implementing programmes including harnessing renewable power, renewable energy to rural areas for lighting, cooking and motive power, use of renewable energy in urban, industrial and commercial applications and development of alternate fuels and applications.

Indian Renewable Energy Scenario

It has been realized that renewable energy has to play much deeper role in achieving energy security in the years ahead and be an integral part of the energy planning process.

Enlarging the scope of the Jawaharlal Nehru National Solar Mission encapsulates the vision and ambition for the future. In addition, the launching of Renewable Energy Certificate mechanism helps in the creation of a Pan-India renewable energy market. The other significant achievements are introduction of solar specific purchase obligations; launching of improved cook-stoves initiatives; initiating coordinated research and development activities in solar PV and thermal; second generation biofuels, hydrogen energy and fuel cells, etc.

Core Drivers for Development

- **Energy security:** At present around 69.5 per cent of India's power generation capacity is based on coal.
- **Electricity shortages:** Despite increase in installed capacity by more than 113 times in 65 years the peak power deficit during financial year 2001-02 was 12.2 per cent.
- **Energy Access:** Almost 85 per cent of rural households depend on solid fuel for their cooking needs and only 55 per cent of all rural households have access to electricity.
- **Climate change:** Commitment of reducing emission intensity of its GDP by 33-35 per cent from 2005 levels by 2030 and to achieve about 40 % cumulative electric power installed capacity from non- fossil fuel based energy resources by 2030

Renewable Energy Potential

India has an estimated renewable energy potential of about 900 GW from commercially exploitable sources viz. wind - 102 GW (at 80 metre mast height); small hydro - 20 GW; bio-energy - 25 GW; and 750 GW solar power, assuming 3% wasteland is available.

Highest Energy Potential: Gujrat in Wind; Karnataka in Small Hydro-Power; Punjab in Bio-Energy; Rajasthan in Solar.

Recent Schemes and Programmes (2015)

- (i) Scheme for setting up over 2,000 MW of grid-connected solar PV power projects with Viability Gap Funding
- (ii) Conversion of Solar Energy Corporation of India (SECI) as Renewable Energy Corporation of India (RECI);
- (iii) Creation of intra state transmission system in Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra and Rajasthan
- (iv) Scaling up of budget for grid connected rooftop and small solar power plants programme under National Solar Mission (NSM)
- (v) Scheme for setting up of over 5,000 MW grid-connected solar PV power projects Renewable Energy for Rural Applications
- (vi) National Biomass Cookstoves Initiative aims at deployment of improved biomass cookstoves for demonstration among domestic and large sized community.

Renewable Energy for Urban, Industrial & Commercial Applications: Government has amended the National Tariff Policy to make Distribution Licensees to procure power produced from WTE plants. Under Development of solar cities programme the Ministry assists municipal Corporations and urban local bodies in preparation of a Master Plan for increasing energy efficiency and renewable energy supply in the city. The energy efficient solar/green buildings programme for promoting GRIHA rating system continued under implementation.

10

ENVIRONMENT

The Ministry of Environment, Forest and Climate Change (MoEF&CC) started functioning in 1985.

Its main activities include:

- Protection of the environment;
- Conservation of existing forests, wildlife, aquatic bodies and water resources, biodiversity and other resources particularly in eco-sensitive areas, adaptation to and mitigation from climate change, and survey of various areas for identification of new species of flora and fauna;
- Afforestation and regeneration of degraded areas;
- Prevention and control of pollution (air, water, noise and industrial pollution), management of hazardous substances and better environmental governance;
- Ensuring welfare of animals;
- Capacity building, training and research in classical and molecular taxonomy; and
- International cooperation in forestry and environment.

It is nodal agency for United Nations Environment Programme (UNEP). International Centre for Integrated Mountain Development (ICIMOD) and Multilateral Environmental Agreements (MEAs).

The Ministry also coordinates with multilateral bodies such as:

- United Nations Convention to Combat Desertification (UNCCD),
- United Nations Framework Convention on Climate Change (UNFCCC),
- Convention on Biological Diversity (CBD).
- It is also focal point of the Global Environment Facility (GEF) and regional bodies such as Economic and Social Council for Asia and Pacific (ESCAP) and South Asian Association for Regional Cooperation (SAARC).

Environment related Institutions and organizations

A. Botanical Survey of India

- BSI is the apex research organization under MoEF&CC
- Functions:
 - a) Taxonomic and floristic studies on wild plant resources of the country through survey, documentation and conservation inventorying of endemic, rare and threatened plant species;
 - b) Evolving conservation strategies;
 - c) Studies on fragile ecosystems and protected areas;

- d) Multiplication and maintenance of EET plant species, wild ornamental in Botanic Gardens and Orchidarium;
- e) Documentation of traditional knowledge of plants and development of National Database on Herbarium (including type specimens) and live collections, plant distribution and nomenclature, botanical paintings/ illustrations, plant uses, etc.

B. Zoological Survey of India

- It is a premier research institution in the country, functioning under the Ministry since its inception in 1916
- Functions:
 - a) The environmental impact assessment with regard to fauna;
 - b) Survey of conservation areas; status survey of endangered species;
 - c) Computerization of data on faunal resources;
 - d) Environmental information system (ENVIS) on faunal diversity; identification and advisory services;
 - e) Care and management of the national designated repository of 'type' and voucher specimens;
 - f) Supporting enforcement of Wildlife (Protection) Act, 1972;
 - g) Establishment of marine aquaria and acting as the custodian of the National Zoological Collections. ZSI Kolkata and its 16 regional centres.

C. Forest Survey of India

- FSI, an organization under the Ministry is engaged in the assessment of the country's forest resources on a regular intervals.
- Established in 1981, the Forest Survey of India succeeded the 'Preinvestment Survey of Forest Resources' (PISFR), a project initiated in 1965 by Government of India with the sponsorship of FAO and UNDP.
- The main objective of PISFR was to ascertain the availability of raw material for establishment of wood based industries in selected areas of the country.

Major Activities

- The major activities of FSI are Biennial Forest Cover Assessment using remote sensing technology, inventory of forest and trees outside forests (rural and urban areas), data processing, methodology design for carrying out various types of survey and inventory, training and extension, and projects and consultancies.

Forests Cover Mapping

- FSI is involved in forest cover assessment of the country on biennial basis by interpretation of satellite data on a two-year cycle and presents the information in the form of '**India State of Forest Report**'.
- So far 14 cycles of such assessment have been completed since 1987 till 2015.
- Work for the 15th cycle is under progress.

- Assessment of tree cover of the country is also being carried out using the **trees outside forests (TOF)** inventory data.
- There is an increase of 3,775 sq km in the forest cover and 1,306 sq km in tree cover of the country as compared to 2013 assessment.

TOF inventory

- Inventory of forests and Trees Outside Forests (TOF) is the second major activity of FSI.
- FSI has been following a new sampling design for National Forest Inventory (NFI) since 2002.
- The country has been divided into 14 physiographic zones and 60 districts randomly selected from these zones on probability proportional to size for detailed inventory in two year cycle.
- About 7,000 sample plots are laid in forest areas distributed over the country in each cycle for field inventory.
- India State of Forest Report-2015 (ISFR-2015) was published in December 2015.

Conservation and Management of Mangroves and Coral Reefs

- The Ministry accords high priority to the conservation and management of mangroves and coral reefs in the country.
- Cent per cent central assistance extended to all the coastal states/union territories, who so request, for implementation of their approved Management Action Plans (MAPs) which comprise 'Core' and 'Ancillary' activities.
- The Ministry also supports R&D activities with emphasis on targeted research on mangrove and coral biodiversity, its management and various aspects of pollution in these areas. The Government has identified 38 mangrove and 4 coral reef sites throughout the country for intensive conservation and management of mangroves and coral reefs.

State/Union Territories	Mangrove Sites
West Bengal	1. Sunderbans
Odisha	1. Bhaitarkanika 2. Mahanadi 3. Subernarekha 4. Devi 5. Dhamra 6. Mangrove Genetic Resources Centre 7. Chilka
Andhra Pradesh	1. Coringa 2. East Godavari 3. Krishna
Tamil Nadu	1. Pichavaram

	2. Muthupet 3. Ramnad 4. Pulicat 5. Kazhuveli
Andaman & Nicobar	1. North Andamans 2. Nicobar
Kerala	1. Vembanad 2. Kannur(Northern Kerala)
Karnataka	1. Coondapur 2. Dakshin Kannada/Honnar 3. Karwar 4. Mangalore Forest Division
Goa	1. Goa
Maharashtra	1. Achra-Ratnagiri 2. Devgarj-Vijay Durg 3. Veldur 4. Kundalika-Revdanda 5. Mumbai-Diva 6. Vikhroli 7. Shreevardhan 8. Vaitarna 9. Vasai-Manori 10. Malvan
Gujarat	1. Gulf of Kutch 2. Gulf of Khambhat 3. Dumas-Ubhrat
Coral Reef Sites	
Gujarat	1. Gulf of Kutch
Tamil Nadu	1. Gulf of Mannar
Andaman & Nicobar	1. Andaman and Nicobar Coral Reef

Mangroves

- The mangroves cover in the country is 4,740 sq.km.
- Mangroves are plants that survive high salinity, tidal regimes, strong wind velocity, high temperature and muddy anaerobic soil-a combination of conditions hostile for other plants.
- These ecosystems constitute a symbiotic link or bridge between terrestrial and marine ecosystems.
- They are found in the inter-tidal zones of sheltered shores, estuaries, creeks, backwaters, lagoons, marshes and mud-flats.
- Mangrove vegetation has been reported in all the coastal states/UTs.
- India is home to some of the best mangroves in the world.
- West Bengal has the maximum mangrove cover in the country, followed by Gujarat and Andaman and Nicobar Islands.
- The Ministry provides financial assistance to the state forest departments for all identified mangrove areas for conservation and management.
- The Ministry also supports R&D activities with emphasis on targeted research on mangrove biodiversity, its management and various aspects of pollution in the identified areas.

Coral Reefs

- The Indian reef area is estimated to be 2,383.87 sq.km.
- Coral reefs are the skeletons of stony coral polyps cemented together.
- They form the most dynamic ecosystem, providing shelter and nourishment to marine flora and fauna.
- They are the protectors of the coastlines and the coastal populations mostly depend on the coral reef ecosystems wherever they are present.
- The term 'coral' has been used to describe a variety of invertebrate animals of the Phylum Cnidaria including hard and soft corals.
- However, 'coral' is most often used as the common name for hard corals of the Order Scleractinia.
- The four major coral reef areas identified for intensive conservation and management in India are: i) Gulf of Mannar; ii) Gulf of Kutch; iii) Lakshadweep; and iv) Andaman and Nicobar Islands.
- The emphasis is more on preventive aspects through monitoring and surveillance as the restoration work is both costly and time consuming.
- The Ministry provides financial assistance to the states for all the four identified coral reef areas for conservation and management of coral and associates.
- The Ministry also supports R&D activities with emphasis on targeted research on coral biodiversity, its management and various aspects of pollution in these areas.

India Integrated Coastal Zone Management Project

- To conserve, project and manage the coastal and marine environment, the Ministry is implementing the India ICZM Project with the World Bank assistance.

- For the implementation of the project the Ministry has established a Society of Integrated Coastal Management (SICOM) as nodal body under the Society Registration Act, in Delhi.
- The ICZM Project is being implemented as pilot investments in the coastal states of Gujarat, Odisha and West Bengal.
- National activities are implemented through SICOM along with monitoring of activities carried out by three selected states.
- The project has four implementing agencies-MoEF at the national level with lead responsibilities, and the Departments of Forests and Environment (DoEF) of the three participating states.

Biodiversity Conservation

The Convention on Biological Diversity (CBD) is one of the key agreements adopted during the Earth Summit held in Rio de Janeiro in 1992.

- The objectives of CBD are: conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of benefits arising out of the use of genetic resources.
- India enacted the Biological Diversity (BD) Act in 2002 to give effect to the provision of this CBD Convention
- India also prepared a National Biodiversity Action Plan (NBAP) in 2008, and an Addendum to NBAP in 2014 with 20 national targets on biodiversity.
- The Nagoya Protocol on access and benefit sharing (ABS) adopted under the aegis of CBD in 2010, is aimed at fair and equitable sharing of benefits arising from the utilization of genetic resources.
- Following the hosting of eleventh Conference of Parties (CoP-11) to the CBD by India in 2012, during India's Presidency of CoP, India facilitated ratifications by requisite number of parties to the CBD's Nagoya Protocol on ABS for its entry into force in 2014.
- The Nagoya Protocol on ABS is being implemented at the national level inter alia through the Biological Diversity Act.
- The BD Act is implemented through a three-tier institutional mechanism:
- National Biodiversity Authority (NBA), State Biodiversity Boards (SBBs) and Biodiversity Management Committees (BMCs).
- The NBA is an autonomous body that performs facilitative, regulatory and advisory functions for the Government on biodiversity related issues.
- A project proposal was developed on 'Capacity Development of Statutory Institutions for Effective Implementation of the Access and Benefit Sharing (ABS) Mechanism in India' under Indo-German Biodiversity Programme for Euro 3 million, which was approved in the 2015 Indo-German negotiations on development cooperation. The project will be implemented at the national level with NBA and in three pilot states of Maharashtra, Tamil Nadu and Uttarakhand with the respective State Biodiversity Boards.
- The Ministry joined UNDP managed global initiative on Biodiversity Finance Initiative (BIOFIN) in 2015. The initiative is hosted by NBA, and technical assistance is being provided by the Wildlife Institute of India and National Institute of Public Finance and Policy in Implementation of BIOFIN. The first National Stakeholder Consultation on BIOFIN-India was held in New Delhi in 2016.

- International Day for Biological Diversity (IDB) was celebrated all over the country on 22nd May, 2015. The theme for year 2015-16 was '**Biodiversity for Sustainable Development**'.

Biosphere Reserves

- The Indian National Man and Biosphere (MAB) Committee identifies and recommends potential sites for designation as biosphere reserves, following the UNESCO's guidelines and criteria.
- There are 18 designated Biosphere Reserves (BRs).
- Out of there 18, 9 have been included in the World Network of Biosphere Reserves of UNESCO.
- Its main objectives are:
 - To conserve the diversity and integrity of plants animals within natural ecosystems;
 - To safeguard genetic diversity of species on, which their continuing evaluation deplanes;
 - To provide facilities for education and training;
 - To provide areas for multi-faceted research and monitoring and to ensure sustainable use of natural resources through most appropriate technology for improvement of economic well being of the local people.

Biodiversity Conservation Scheme Relating to Bio-safety

A. Genetic Engineering Approval Committee (GEAC)

- Under the scheme, there are two main subcomponents namely biodiversity and biosafety.
- The biodiversity component includes activities relating to Convention on Biological Diversity (CBD) and support to National Biodiversity Authority (NBA).
- The biosafety component includes activities relating to Genetic Engineering Appraisal Committee/ Cartagena Protocol on Biosafety/ Nagoya Kuala Lumpur Supplementary Protocol on Liability and Redress.
- The Ministry under the Environment (Protection) Act, 1986 has notified the "Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells, 1989 (Rules, 1989).
- The rules also cover application of hazardous microorganisms which may not be genetically modified. Hazardous microorganisms include those which are pathogenic to animals as well as plants.

B. Cartagena Biosafety Protocol

- The CBP was negotiated under the aegis of the Convention on Biological Diversity (CBD) and adopted in 2000. India is a party to the Protocol.
- The Protocol came into force in 2003. As of date 170 countries are parties to the Protocol.
- The main objective of the Protocol is to ensure safe transfer, handling and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity, taking into account risk to human health.

C. Nagoya COP

- The Supplementary Protocol on Liability and Redress is a new international treaty adopted in the fifth meeting of the Conference of the Parties serving as the Meeting of the Parties (COP MOP) to the CPB at Nagoya, Japan in 2010 after six years of intense negotiations.
- The scheme helps in strengthening the biosafety management systems and awareness in India.

D. Genetic Engineering Appraisal Committee

- All GMOs and products thereof are regulated under Rules 1989 of EPA, 1986.
- Activities undertaken for implementation of Rules 1989 since inception till 2015 include: convene monthly Genetic Engineering Appraisal Committee (GEAC) meeting as per schedule for review of applications pertaining to GM technology.
- So far 126 meetings of the GEAC have been convened.
- Status of GEAC approvals is as given here: Bt cotton the first GM crop was approved in 2002.
- As of date, the GEAC has approved environmental release of Bt cotton expressing six events. Approvals for confined field trials of several GM crops for generation of biosafety data both from the private and public sector institutions.
- These include transgenic maize, rice, tomato, potato, castor, rubber, cotton, brinjal, mustard, groundnut, sorghum, wheat, watermelon, papaya, sugarcane, banana, pigeon pea, chickpea, artemisia.
- The biosafety guidelines prescribed by the GEAC include the following; recombinant, DNA safety guidelines, 1990 & 1994; revised guidelines for research in transgenic plants and guidelines for toxicity and allergenicity evaluation, 1998; guidelines and SOPs for the conduct of confined field trials of transgenic plant, 2008.
- GEAC has adopted the 'event based approval' mechanism wherein a new procedure for commercial release of Bt cotton hybrids expressing approved events has been put in place. Biology document for five crops namely cotton, brinjal, rice, okra and maize have been completed.

Forest Policy

- Forest Policy Division is Nodal Division for coordination of the USAID/ India Forest PLUS Programme signed under the Partnership Agreement between the Government of India (Department of Economic Affairs) and United States of America for the Sustainable Forests and Climate Adaptation Project in 2010.
- USAID's contribution is 27 million US\$ and Government of India's contribution is 9 m US\$.
- The programme focus is on REDD+ and enhanced carbon sequestration through afforestation, conservation and sustainable management of forests, enhancing climate resilience, capacity building, scientific/technical exchange programmes, etc.
- The Forest Plus Programme is being implemented in the four states i.e., Madhya Pradesh, Himachal Pradesh, Karnataka and Sikkim.

Policy & Acts

A. Indian Forest Act, 1927:

- The Indian Forest Act, 1927 (IFA), provides the legal framework for the protection and management of forest, transit of forest produce and timber, and the duty leviable on timber and other forest produce.

- IFA is an umbrella Act, which provides the basic architecture for the management of forests in the country including providing mechanism to ensure notification of reserved, protected and village forests, protection of forest resources, forest biodiversity and wildlife of the country.

B. The National Forest Policy, 1988:

- National Forest Policy aims to have a minimum of one third of the total land area has been prepared and circulated to the States/ UTs for their comments.

Wildlife Conservation

- The Protected Area network in India comprises 730 protected areas (103 national parks, 535 wildlife sanctuaries, 66 conservation reserves and 26 community reserves).
- Apart from providing support to protected areas the Scheme has also the following components- 'Protection of Wildlife outside the Protected Areas' and 'Recovery programmes for saving habitats'.
- Its objectives include:
 - To assist the states/UTs in the development and management of protected areas networks, protection of wildlife inside and outside protected areas;
 - To create facilities for better protection and management of PAs/High value biodiversity formations;
 - To provide financial and assistance for eco-development, training, capacity building and research studies; and
 - To provide for the voluntary relocation of villages falling within the PAs to outside area and settlement of rights.

Wildlife Crime Control Bureau

- WCCB is a statutory multi-disciplinary body to combat organized wildlife crime in the country.
- The Bureau has its headquarter in New Delhi.
- It is mandated under the Wildlife (Protection) Act, 1972, to collect and collate intelligence related to organized wildlife crime activities and to disseminate the same to state and other enforcement agencies for immediate action so as to apprehend the criminals.

Central Zoo Authority

- The main objective is to enforce minimum standards and norms for upkeep and healthcare of animals in the Indian zoos and to control the mushrooming of ill-conceived, ill planned zoos, to monitor and evaluate the existing zoos and to suggest ways and means for the improvement of zoos in the country so that they can be transferred into potent centers for ex-situ conservation of endangered wild fauna.
- Endorsement of London Declaration and Kasane Statement on illegal wildlife trade: Hon'ble Prime Minister Narendra Modi and Hon'ble Prime Minister David Cameron met in London on 12-13 November 2015 and issued a joint statement on wildlife conservation.
- They resolved to work together to combat the illegal wildlife trade and to improve protection for both captive and wild Asian elephants.

Project Elephant

- Launched in 1991-92 as a Centrally Sponsored Scheme
- Objectives: - to protect elephants, their habitat and corridors; to address issues of man-animal conflict; and welfare of domesticated elephants.
- Financial and technical support is being provided to major elephant bearing states in the country.
- Under the scheme, 100 per cent financial assistance is provided to the concerned state government for undertaking various activities for scientific management of elephant habitats.
- Presently the project is being mainly implemented in 22 states.
- There are 29 notified and 2 proposed Elephant Reserve in the country (Khasi Hills Elephant Reserve in Meghalaya and Lemru Elephant Reserve in Chhattisgarh).

Project Tiger/ National Tiger Conservation Authority (NTCA)

- The Centrally Sponsored Scheme Launched in 1973.
- Objective is "to ensure maintenance of a viable population of tigers in India for scientific, economic, aesthetic, cultural and ecological values, and to preserve for all times, areas of biological importance as a national heritage for the benefit, education and enjoyment of the people."

The Animal Welfare Board of India

- The mandate of the Animal Welfare Division is to prevent the infliction of unnecessary pain or suffering on animals, in terms of the provision of the Prevention of Cruelty to Animals (PCA) Act, 1960.
- General Animal Welfare covers the welfare of individual animals, mainly domesticated animals, as also wild animals in captivity, through Animal Welfare Board of India (AWBI), Chennai, Tamil Nadu.

Committee for Purpose of Control & Supervision of Experiments on Animals

- It was established under the Prevention of Cruelty to Animals Act, 1960.
- It is a statutory committee, which is duty bound to take all such measures as may be necessary to ensure that animals are not subjected to unnecessary pain or suffering before, during or after performance of experiments on them.

National Institute of Animal Welfare

- It has been set up as a subordinate office of the Ministry of Environment and Forests.
- The objective is to impart training and education in animal welfare on a diversified basis comprising, among other things, animal management, their behavior and ethics.
- The aim is to create an enabling environment for fulfillment of the statutory requirements as laid down in the Prevention of Cruelty to Animals Act, 1960.
- The mandate of NIAW covers the need to improve animal welfare through education, research and public outreach. The institute has been operational since January, 2006.

Environmental Impact Assessment

The EIA, 2006 and CRZ, 2011 have been amended from time to time to further streamline the clearance process.

- Environmental safeguard and measures are stipulated for their effective implementation during the construction and operation of the project.
- The safeguard measures are intended to minimize adverse impacts, inter alia, on (i) air quality, (ii) water quality, (iii) land degradation, (iv) bio-diversity, and (v) wildlife habitat. In addition, measures like rainwater harvesting, water conservation, greenbelt and plantation; wildlife conservation plan, etc., are also required to be implemented in the project.

Control of Pollution

- The National Air Quality Index (AQI) has been launched in 2015.
- AQI is a tool loaded in the web portal of Central Pollution Control Board (CPCB) for public information on the status of ambient air quality of selected cities considering eight Pollutants i.e., sulphur, dioxide, nitrogen dioxide, lead, ozone, PM10, PM2.5 carbon monoxide and ammonia for short term (upto 24 hourly) norms as prescribed in the National Ambient Air Quality Standards (NAAQs-2009).
- The aforesaid air pollutants are monitored by Continuous Ambient Air Quality Monitoring stations (CAAQMs) by CPCB and state pollution air Control Boards.
- There are six AQI categories, namely good, satisfactory, moderately polluted, poor, very poor, and severe.
- Each of these categories is decided based on ambient concentration values of air pollutants and their likely health impacts.
- The National AQI is a significant tool helping the country in decision supporting system as a part of e-Governance measures.

Auto Fuel Policy

- In order to simplify the procedure, it has been decided by the Ministry to discontinue the joint inspection and grant the recognition to the environmental laboratories subject to fulfilling the criteria which include such as that all environmental laboratories (private/NGOs) government/ autonomous/ public sector undertaking/educational institutes/state/central pollution control board laboratories should have either ISO 17025 (NABL Accreditation) or ISO 9001 along with OHSAS 180001 (Occupational Health and Safety Management System) certification before submission of application for consideration of recognition under Environmental (Protection) Act, 1986 duly authenticated by State Pollution Control Board.
- The applicant is required to submit an undertaking that all activities of laboratory in totality are being carried out as per ISO 17025 (NABL Accreditation) or ISO 9001 along with OHSAS 18001 (Occupational Health and Safety Management System).

Scheme of Common Effluent Treatment Plants

- The concept CETPs arose in order to make a cooperative movement for pollution control.
- The main objective is to reduce the treatment cost to be borne by an individual member unit to a minimum while protecting the environment to a maximum.

- Waste-water treatment and water conservation are the prime objectives of the CETP.
- The concept of CETPs was envisaged to treat the effluent emanating from the clusters of compatible small-scale industries.

Central Pollution Control Board

- Under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Central Government constituted the 'Central Board for the Prevention and Control of Water Pollution' in 1974.
- The name of the Central Board was amended to CPCB under the Water (Prevention and Control of Pollution) Amendment Act, 1988.
- The enactment of the Environment (Protection) Act, 1986, which is umbrella legislation for enforcement of measures for protection of environment and several notifications of rules under the Act widened the scope of activities of the Central Board.

Ambient Air Quality Monitoring Station

- The Ambient Air Quality monitors 8 parameter out of 12 as notified in NAAQS 2009 namely SO₂, NO₂, NH₃, O₃, CO, Benzene, PM₁₀ & PM_{2.5}.
- The Air Quality Index also being generated from 41 stations. The data is live on the website of CPCB.

Categorization of Industrial Sectors under Red, Orange, Green and White Category

- A 'Working Group' comprising the members from CPCB, APPCB, TNPCC, WBPCB, PPCB, MPPCB and Maharashtra PCB was constituted to revisit the criteria of categorization of industrial sectors.
- The Working Group has developed the criteria of the pollution index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources.
- Industrial sectors having pollution index score of 60 and above-Red category; 41 to 59- Orange category; 21 to 40-Green category; upto 20-white category.
- The newly introduced White category of industries pertains to those industrial sectors which are practically non-polluting. The salient features of the 'Recategorization' exercise are as follows:

Hazardous Substances Management

- The HSM Division (HSMD) is the nodal point within the Ministry for management of chemical emergencies and hazardous substances.
- The main objective of the programme is to promote safe management and use of hazardous substances including hazardous chemicals and hazardous wastes, in order to avoid damage to health and environment.
- The Division is also the nodal point for the following International Conventions/Agreements viz.,
 - a) Basel Convention on Control of Transboundary Movement of Hazardous Waste and their Disposal;
 - b) Rotterdam Convention on Prior Informed Consent Procedure for certain Chemicals and Pesticides in International Trade

- c) Stockholm Convention on Persistent Organic Pollutants;
- d) Strategic approach to International Chemicals Management; and
- e) Minamata Convention on Mercury.

Chemical Safety

- The Ministry notified the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 and the Chemical Accidents (Emergency Planning, Preparedness and Response) (CAEPPR) Rules, 1996 for ensuring chemical safety in the country.
- These rules delineate the criteria for identification of Major Accident Hazard (MAH) unit.
- As per the rules, Central crisis group, state crisis groups, district crisis groups and local crisis groups at Central, state, district and local level are required to be set up for the management of accidents due to handling of hazardous chemicals listed in the rules.
- An off-site emergency plan for a district having MAH unit (s) is required to be in place so as to mitigate the impact of chemical accidents.
- As per the information received from various States and Union Territories, there are 1,861 MAH units located in 303 districts.
- A sub-scheme titled "Industrial Pocket wise Hazard Analysis" has been in operation since the Eighth Five Year Plan.

Other Campaigns

National Green Corps Programme

- During financial year 2015-16, due to shortage of funds only 15,500/ eco-clubs were financially supported.
- Also in order to strengthen monitoring mechanism of NGC programme, MoEFCC is in process to establish Management Information system (MIS) which will open up vistas in sharing and accessing the information on NGC among all stakeholders.
- The MIS reporting and monitoring would be interactive and creative in ensuring NGC mobility and services.

National Nature Camping Programme

- It is an initiative of the Ministry in environment education which is aimed at creating greater awareness, understanding and empathy of children with and for the environment.
- Through this initiative it is hoped that every child who goes through middle school (classes VI-VIII) will get at least one opportunity for a 2-3 day camping experience during these years.

GLOBE

- Global Learning and Observation to Benefit the Environment (GLOBE) is a hands on international environmental science and education programme that brings students, teachers and scientists together to study the global environment.
- MoEFCC and US Government signed an agreement on 25th day of August 2000 to implement the Globe programme in India.

- Indian Environmental Society is an implementing agency for Globe in India.
- The goals of Globe are to enhance the environmental awareness of individuals throughout the world, to contribute to scientific understanding of the Earth and to help all students reach higher levels of achievement in science and mathematics.

National Museum of Natural History

- The National Museum of Natural History (NMNH), New Delhi is an institution devoted to environmental education and was opened to the public in 1978, on June 5, the World Environment Day.
- The museum undertakes environment education through the means of exhibition programmes and educational activities.
- It also arranges many local and national level competitions leading to Young Environmentalist of the Year Award (YEYA).

National Green Tribunal

- Established in 2010 under the NGT Act, 2010.
- The NGT has been established for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.
- It also hears cases relating to enforcement of any legal rights relating to environment and providing relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.
- It is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.
- The Tribunal is not bound by the procedure laid down under the Code of Civil Procedure, 1908, but is guided by principles of natural justice.
- The Tribunal is mandated to make an endeavor for disposal of applications or appeals finally within six months of filing.
- Presently, the Tribunal has five places of sitting, including Principal Bench at Delhi.
- Pune, Kolkata, Bhopal and Chennai are four zonal Benches of sitting of the Tribunal.
- In addition, the Tribunal holds three circuit Benches at Shimla, Shillong and Jodhpur.

Climate Change

- India submitted its Intended Nationally Determined Contribution (INDC) to the UNFCCC.
- A new online Management Information System (MIS) was launched by the National Clean Development Mechanism Authority (NCDMA).
- The National Designated Entity (NDE) for Reducing Emissions from Deforestation and Forest Degradation (REDD+) has been established in the climate change division along with the National Designated Entity for Climate Technology Centre and Network (CTCN) and Technology Executive Committee (TEC).

National Communication Submitted to the UNFCCC

- In pursuance of the reporting obligations under the United Nations Framework Convention on Climate Change (UNFCCC), India has undertaken to communicate information about the implementation of the Convention, taking into account the common but differentiated responsibilities and respective capabilities and specific regional and national development priorities, objectives and circumstances.
- India has submitted its second National Communication (NATCOM) to the UNFCCC in 2012.
- The second NATCOM provides information of the emissions of Green House Gases (GHG) for the years 2000 and 2007.
- The Ministry is currently preparing India's third National Communication (TNC) and in this connection a workshop on National Inventory Management System (NIMS) was organized in July 2015.
- The purpose of this workshop was to provide inputs for establishment of National Inventory Management System (NIMS) and increased accuracy of Green House Gas Inventory preparation with use of higher tier methods.
- The Biennial Update Reports (BURs) are new reporting obligation under the transparency arrangement of sharing information on implementation of the Convention.

National and State Action Plans on Climate Change

- The National Action Plan on Climate Change (NAPCC) coordinated by the Ministry of Environment, Forest & Climate Change (MoEF & CC) is being implemented through the Nodal Ministries in specific sectors/ areas.
- Eight national missions in the area of solar energy, enhanced energy efficiency, sustainable agriculture, sustainable habitat, water, Himalayan eco-system, Green India and strategic knowledge for climate change form the core of NAPCC.
- All National missions were approved by the Prime Minister's Council on Climate change (PMCCC)
- The Ministry has also motivated state governments to prepare State Action Plan on Climate Change (SAPCC).
- These SAPCCs aim to create institutional capacities and implement state level activities to address climate change.

National Adaptation Fund for Climate Change

- NAFCC was operationalised in 2015-16.
- The fund is meant to assist national and state level activities to meet the cost of adaptation measures in areas that are particularly vulnerable to the adverse effects of climate change.
- This scheme has been taken as Central Sector Scheme with the National Bank for Agriculture and Rural Development (NABARD) as National Implementing Entity (NIE).
- The overall aim of the fund is to support concrete adaptation activities which are not covered under ongoing schemes of State and National Government that reduce the adverse affects of climate change facing community sector and states.

Climate Change Action Programme

- The Ministry is implementing a scheme titled 'Climate Change Action Programme' (CCAP) since January, 2014, with an objective to create and strengthen the scientific and analytical capacity for assessment of climate change in the country, putting in place appropriate institutional framework for scientific and policy initiatives and implementation of climate change related actions in the context of sustainable development.
- Total budget for the scheme is 290 crore for the 12th Plan period.

Ozone Layer Protection

- Ozone, a triatomic molecule of oxygen is formed from oxygen naturally in the upper levels of the earth's atmosphere by high energy Ultraviolet (UV) radiation from the Sun.
- The UV radiation breaks down oxygen molecules, releasing free atoms, some of which bond with other oxygen molecule to form ozone. About 90 per cent of ozone formed in this way lies between 10 and 50 kilometers above the earth's surface, called the Stratosphere.
- The ozone found in the part of the atmosphere is called the ozone layer.
- The Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that Deplete the Ozone Layer are the international treaties specific for the protection of the Stratospheric Ozone (Ozone layer).

Implementation of phase-out of ODSs

- India has completely phased-out production and consumption of CFCs with 50 per cent phase-out by 2005, 85 per cent phase-out by 2007 and complete phase-out in 2008, 17 months ahead of the agreed phase-out schedule.
- India has successfully implemented the National Strategy for Transition to non-CFC Metered Dose Inhalers (MDIs) and plan for phase-out of CFCs in the manufacture of pharmaceutical MDIs.
- The implementation of National MDI Transition Strategy has resulted successful phase-out of pharmaceutical grade CFCs in manufacturing of MDIs as of December, 2012, 11 months prior to the schedule approved by the Executive Committee (Ex-Com) of the Multilateral Fund (MLF) for implementation of the Montreal Protocol.
- The production and consumption of virgin halons in India was phased out as early as in 2002.
- The use of CFCs and halons was prohibited in manufacturing of new equipment since 2003. India has completely phased-out production and consumption of CTC with 85 per cent phase-out as on January 1, 2010.

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CORPORATE AFFAIRS

The Ministry of Corporate Affairs (MCA) is primarily concerned with the administration of the Companies Act, 2013 and Companies Act, 1956. Limited Liability Partnership Act, 2008 and other related statutes like; (i) The Chartered Accountants Act, 1949; (ii) The Cost and Works Accounts Act, 1959; (iii) The Company Secretaries Act, 1980; (iv) The Partnership Act, 1932, and (v) The Competition Act, 2002 as amended by Competition (Amendment) Act, 2009.

Key Acts related to the Ministry

(a) Companies Act 2013

- The New Companies Act, 2013 (Act) replaced the Companies Act, 1956, by comprehensively revising the law incorporating international best practices as well as in keeping with the needs of the current economic environment.

Features of the Act

- The new Act seeks to bring corporate governance and regulation practices in the country at par with the global best practices.
- Under the new Act the corporate sector has been given more flexibility in regulating their affairs, subject to full disclosure and accountability of their actions, with minimal government interference by the process of approvals.
- The Act provides more opportunities for new entrepreneurs and enables wide application of information technology in the conduct of affairs by Corporates.

(b) Companies (Amendment) Act, 2015

Need for Amendment

- In the light of practical difficulties experienced by stakeholders in the implementation of the provisions of the Companies Act, 2013 so far brought in force and also with a view to further facilitate 'ease of doing business' and deal with certain difficulties in this behalf brought out by the World Bank in its Report 'Doing Business' 2015, the ministry has amended the relevant provisions of the Companies Act, 2013 to address such issues quickly.

Key provisions of the Amended act

- Accordingly, the Companies (Amendment) Act, 2015 inter-alia provides for doing away with minimum paid up share capital requirements for companies, making common seal of the company optional, enabling prescribing of a minimum threshold for reporting of frauds by auditors to Central Government, substitution of ordinary resolution for a special resolution in clearance of certain Related Party Transactions (RPTs) and liberalization of provisions for grant of bail except for the offences of fraud under the Companies Act.

Companies (Amendment) Bill, 2016

- The Bill amends the Companies Act, 2013 in relation to structuring, disclosure and compliance requirements for companies.
- The Act limits the number of intermediary companies through which investments can be made in a company. Similarly, the Act limits the number of layers of subsidiaries a company can have. The Bill removes these limits.
- The Act requires an individual who has a beneficial interest in the shares of a company to disclose the same. The Bill also requires a group of persons who exercise beneficial control (above 25%) in a company to disclose such interest.
- Under the Act, a separate offer letter should be issued to individuals to whom a private offer of shares has been made. The Bill removes the requirement of such offer letter, but retains the provision related to notifying the Registrar of the return of allotment.
- The Act permits the appointment of members at the level of Joint Secretary to the quasi-judicial tribunal. Under the Bill, a technical member must be at least of the level of an Additional Secretary.

Other recent steps

The Ministry has constituted the National Company Law Tribunal (NCLT) and National Company Law Appellate Tribunal (NCLAT) with benches at ten places. Justice (Retd.) S. J. Mukhopadhyaya has been appointed as Chairperson, NCLAT and Justice (Retd.) M. M. Kumar has been appointed as President, NCLT. On constitution of NCLT and NCLAT, the Company Law Board (CLB) has been dissolved and all the pending cases before the CLB have been transferred to NCLT.

The Ministry has constituted special courts for the purpose of trial of offences punishable under the Companies Act, 2013 with the imprisonment of two years or more having jurisdiction in accordance with Section 435(1) of the Companies Act, 2013.

(c) The Competition Act, 2002

- The Competition Commission of India (CCI) was established on October 14, 2003 under the Competition Act, 2002, with the objective of eliminating practices having an adverse effect on competition, promoting and sustaining competition, protecting the interest of consumers and ensuring freedom of trade in India.
- The provisions of the Competition Act relating to anticompetitive agreements and abuse of dominant position were brought into force w.e.f. May 20, 2009 and the commission has started dealing with cases under these provisions.
- The Act also provides for the establishment of a Competition Appellate Tribunal (COMPAT) to hear and dispose of appeals against the orders of the CCI and also adjudicate on the claims of compensation that may arise from the findings of the CCI or the orders of COMPAT.

(d) Limited Liability Partnership (LLP) Act

- In India, about 95 per cent of industrial units are micro, small and medium enterprises (MSMEs). The corporate form does not appear to be widely prevalent amongst MSMEs. The reason behind this was high compliance cost under the Companies Act, 1956 Which deterred the MSMEs from adopting the corporate form.

- The functioning of a proprietorship or a partnership firm is too opaque, making assessment of credit-worthiness by bankers difficult, and therefore, the MSME sector is at a comparative disadvantage vis-a-vis corporate bodies in accessing loan/credit facilities from banks and other financial institutions.
- To overcome this problem, the Limited Liability Partnership (LLP) Act was enacted in 2008. LLP is a form of business entity, which allows individual partners to be protected from the joint and several liabilities of partners in a partnership firm. The liability of partners incurred in the normal course of business does not extend to the personal assets of the partners. It is capable of entering into contracts and holding property in its own name. An LLP would be able to fulfill the compliance norms with much greater ease, coupled with limitation of liability. The corporate structure of LLP and the statutory disclosure requirements are expected to enable higher access to credit in the market.

Key Institutions related to Ministry of Corporate Affairs

(a) Serious Fraud Investigation Office

- The Serious Fraud Investigation Office (SFIO) was set up in the Ministry of Corporate Affairs. The main function of SFIO is to investigate corporate frauds of serious and complex nature. It takes up investigation of complex frauds, having inter-departmental and multi-disciplinary ramifications, substantial involvement of public interest to be judged by size of either monetary appropriation or the number of persons affected and the possibility of investigations leading to, or contributing towards a clear improvement in systems, laws or procedures.
- The Companies Act, 2013 has enlarged the scope of SFIO to a statutory recognition and SFIO has been vested with police power in their investigation.

(b) Indian corporate law Service

- Indian Corporate Law Service Ministry of Corporate Affairs is the Cadre Controlling Authority of the Indian Corporate Law Service (ICLS). The erstwhile Indian Company Law Service was rechristened in November, 2008 as the Indian Corporate Law Service.
- The training of ICLS officers inculcates skills to enforce Corporate Law efficiently including incorporation, regulation, investor protection and implementation of corporate governance in the country.

(c) Indian Institute of Corporate Affairs

- The Ministry set up the Indian Institute of Corporate Affairs (IICA), a registered society under Societies Registration Act, 1860 to serve as a 'Holistic Think-Tank', and a 'Capacity Building, Service Delivery Institution' to help corporate growth, reforms through synergized knowledge management, partnerships and problem solving in a one-stop-shop mode.
- The institute fulfils the training needs of the officers of the Indian Corporate Law Service (ICLS), and other officials working for the ministry through its network of various schools/centres

(d) Competition Commission

The Competition Commission of India (CCI) was established in 2003 under the Competition Act, 2002, with the objective of eliminating practices having an adverse effect on competition, promoting and sustaining competition, protecting the interest of consumers and ensuring freedom of trade in India.

Recent initiatives

- **Launch of Single Integrated Incorporation Form**

The Ministry has introduced a new form christened INC-29, which provides three services in one single form, which were hitherto available in different forms. With the introduction of this form, stakeholders are able to obtain the name of the company, Director Identification No. (DIN) and incorporate a Company in one single step and single form. This has greatly speeded up and eased the process of incorporation of a new company in the country now.

- **Investor Education and Protection Fund**

The Companies Act provides for establishment of Investor Education and Protection Fund (IEPF) for promoting investor awareness and protecting their interests.

GS SCORE

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FOOD & CIVIL SUPPLIES

Department of Food & Public Distribution is responsible for the management of the food economy of the nation. To ensure food security for the country, the Department has adopted missions such as efficient procurement at Minimum Support Price (MSP), storage and distribution of food grains; ensuring availability of food grains sugar and edible oils ; including maintenance of Buffer Stocks ; and making food grains accessible at reasonable prices, especially to the weaker and vulnerable sections under a Targeted Public Distribution System The main instruments of the Department's food management policy are procurement, storage and movement of food grains, public distribution and maintenance of buffer stocks.

Procurement of Food Grains

FCI an autonomous organisation of the Department, with the help of state government agencies, procures wheat, paddy and coarse grains. Before each Rabi / Kharif crop season. Government of India announces the MSP based on recommendations of Commission for Agricultural Costs and Prices which takes into consideration the cost of various agricultural inputs and the reasonable margin for farmers .Sufficient numbers of procurement centres are opened by FCI/ State government agencies.

State governments are encouraged to adopt decentralised procurement system to maximise procurement, reduce transportation and increase the reach of MSP operations. A balanced policy approach for procurement, distribution and disposal of food grains is adopted to provide price support to farmers, to have optimum level of procurement needed for TPDS.

2015-16 : Rabi Marketing Season - 280.88 lakh tonnes wheat ; Kharif Marketing Season - 338.84 lakh tonnes rice

Foodgrains in Central Pool

Stock of food grains (rice & wheat) in Central Pool as on July1,2016 was 495.95 lakh tonnes (194.14 lakh tonnes of rice and 301.81 lakh tonnes of wheat).The stock as on July 1, 2016 was 9.12 per cent lower than the stock of 545.75 lakh tonnes as on July 1, 2015.

Schemes for allocation of foodgrains

- **National Food Security Act, 2013**

The Act provides for food and nutritional security by ensuring access to adequate quantity of quality food at affordable prices with a coverage of upto 75 % of rural population and upto 50% of urban population for receiving subsidised food grains under (TPDS), about two-thirds of the population. Antyodaya Anna Yojana households, which constitute the poorest of the poor, will continue to receive 35 kg of food grains per household per month.

- **Antyodaya Anna Yojana**

To make TPDS more focused and targeted towards poorest section of population, the "Antyodaya Anna Yojana" (AAY) was launched in Dec, 2000 for one crore poor families.

• **End-To-End Computerization of TPDS**

The Department is implementing a Plan Scheme on this on cost sharing basis with states/UTs. The key activities in the first phase are: (i) digitisation of beneficiary database (ii) computerisation of supply chain management (iii) setting up of grievance redressal mechanism & transparency portal

For checking leakage & diversions, Department is also pursuing for Direct Benefit Transfer which requires complete digitisation of beneficiary data and seeding of their bank account.

To share the initiatives and best practices as well as the latest development & achievements, the Department has launched the quarterly newsletter namely 'Khadya Suraksha'.

Other Welfare Schemes

Mid-Day Meal Scheme

- The Mid-Day Meal Scheme launched on August 15, 1995 by the Ministry of Human Resource Development with a view to enhance enrolment, retention, attendance and simultaneously improve nutritional levels among students in primary schools initially in 2,408 blocks in country, was extended to all the blocks in 1997-98.
- The scheme presently covers students of Class I-VIII of Government and Government aided schools, Education Guarantee Scheme/ Alternative and Innovative Education Centres (EGS/AIE).
- The Department of Food and Public Distribution allocates annual requirement of food grains under the Scheme to Department of School Education and Literacy, Ministry of Human Resource Development, which further allocates food grains to states/union territories and FCI releases food grains to states/union territories at BPL rates as per allocation.

Wheat Based Nutrition Programme

- Under Wheat Based Nutrition programme (WBNP) implemented by the Ministry of Women and Child Development, food grains are allotted to states/union territories under the Integrated Child Development Scheme (ICDS) for providing nutritious/ energy food to children below six years of age and expectant/lactating women.

Rajiv Gandhi Scheme for Empowerment of Adolescent Girls - 'SABLA'

- The SABLA Scheme was launched on November 19, 2010 by the Ministry of Woman and Child Development by merging two schemes namely Nutrition Programme for Adolescent Girls (NPAG) and Kishori Shakti Yojana (KSY) into a single scheme to be implemented in 200 selected districts across the country.
- The scheme aims at empowering adolescent girls of 11-18 years by improving their nutritional and health status and upgrading various skills like home skills, life skills and vocational skills.
- It also aims at equipping the girls on family welfare, health hygiene, etc., and information and guidance on existing public services along with aiming to mainstream out of school girls into formal or non-formal education.
- The requirement of food grains under the scheme for nutrition is @ 100 gm. of grains per beneficiary per day for 300 days in a year.

Scheme for Supply of Food Grains to Welfare Institutions

- With a view to meeting the requirement of welfare Institutions viz. charitable institutions such as Beggar Homes, Nari Niketans and other similar welfare institutions not covered under TPDS or under any other welfare scheme, an additional allocation of food grains (rice and wheat) not exceeding 5 per cent of the BPL allocation, is made to states/union territories at BPL prices by the Department of Food and Public Distribution.

Scheme for Supply of Food grains for SC/ST/OBC Hostels

- This scheme was introduced in October, 1994. The residents of the hostels having 2/3rd students belonging to SC/ST/OBC are eligible to get 15 kg food grains per resident per month.

Annapurna Scheme

- The Ministry of Rural Development launched this scheme in 2000-01. Indigent senior citizens of 65 years of age or above who are not getting pension under the National Old Age Pension Scheme (NOAPS) are provided 10 kg. of food grains per person per month free of cost under the scheme.

Open Market Sale Scheme

- Many a times there is excess stock under central pool as against the required buffer norms because of open ended procurement policy of food grains providing price support to every farmer.
- As excess stock involve carrying cost which adds to the burden of food subsidy on the Government, it is necessary that they are liquidated from time to time either through sale in the open domestic market or through exports.
- Liquidation of excess stocks under Open Market Sale Scheme-Domestic (OMSS-D) also helps in keeping food inflation under check and controlling prices of food grains during off season, especially in the deficit areas.

Storage of Food Grains

FCI has its own grid of covered godowns in all states to safely stock the central pool of food grains. In addition, it hires capacity from Central Warehousing Corporation and state agencies as well as private parties. Department is implementing

Private Entrepreneurs Guarantee (PEG) scheme for augmenting the covered storage capacity in the country. Under the PEG scheme, godowns are constructed in PPP mode and the land and construction cost is borne by the selected partners.

Warehousing Development and Regulatory Authority

For the growth and development of warehousing sector, to bring reforms in the agricultural marketing and to increase credit flow in the farm sector, the Government of India introduced a negotiable warehouse receipt system by enacting the concerned Act. Warehouses need to be registered with the WDRA for issuing NWRs. Warehouses are accredited by the approved accreditation agencies prior to their registration with the WDRA to ensure basic requirements of scientific and safe storage.

Grand Total Storage Capacities:

Highest in Punjab and Madhya Pradesh; Lowest in Himalayan and N-E states.

The Authority has notified 123 agricultural commodities for issuing NWRs. Primary Agricultural Cooperative Societies warehouses have also been covered under this NWR system so that small and marginal farmers may get benefited from this scheme.

Post Harvest Management of Food Grains

Quality Standard for Food Grains

The Government exercises due control over the quality of food grains procured for the central pool.

- The Quality Control Cell of the ministry at New Delhi and the field offices at Bengaluru, Bhopal, Bhubaneswar, Kolkata, Hyderabad, Lucknow and Pune monitor the quality of food grains procured, stored and issue for distribution by FCI and State Governments and their agencies.

Indian Grain Storage Management and Research Institute

- Indian Grain Storage Management and Research Institute (IGMRI), Hapur and its field stations at Ludhiana (Punjab) and Hyderabad (Andhra Pradesh) are engaged in the training and Research and Development (R and D) work relating to scientific grain storage management.
- The IGMRI also conduct training courses on storage, inspection of foodgrains, pest control, etc., for the officers of central, state and private storage agencies, pest control operators, etc.

Central Grain Analysis Laboratory

- The Central Grain Analysis Laboratory (CGAL) located in New Delhi assists in monitoring the quality of food grains at the time of procurement, storage and distribution by analysing samples collected by Quality Control Officers.

Export Policy of Rice and Wheat

- The Government had allowed free export of non-basmati rice by private parties from privately held stocks from 2011.
- State Trading Enterprises (STEs) including M/s NCCF and NAFED are also permitted to export privately held stocks of non-basmati rice. Export of wheat had also been allowed from 2011.
- The Government also permits export of wheat and rice to various friendly countries on diplomatic basis/humanitarian aid as recommended by Ministry of External Affairs.
- No import of wheat and rice has been made for Central Pool during 2015-16. However, some amount of wheat and Non-basmati rice was imported by private traders/millers in 2015-16.

Sugar Production

India is largest consumer and second largest producer of sugar in world. The production of sugar during the current sugar season 2015-16 is estimated to be about 251. 60 lakh tonnes.

Highest Production : UP, Maharashtra and Karnataka.

327 Cooperatives, 349 Private and 43 Public factories are engaged in sugar production.

Sugarcane Pricing Policy

'Fair and Remunerative Price (FRP)' came in 2009-10, decided on the basis of the recommendations of CACP, having regard to the factors:- a) cost of production of sugarcane; b) return to the growers from alternative crops and the general trend of prices of agricultural commodities; c) availability of sugar to consumers at a fair price; d) price at which sugar produced from sugarcane is sold by sugar producers; e) recovery of sugar from sugarcane; f) the realisation made from sale of by-products viz. molasses, bagasse and press mud or their imputed value; and g) reasonable margins for the growers of sugarcane on account of risk and profits.

The new system also assures the margins on account of profit and risk to farmers. FRP is linked to a basic recovery rate of sugar, with a premium payable to farmers for higher recoveries of sugar from sugarcane.

2016-17: FRP Of 230/- per quintal ; Basic Recovery Level of 9.5% ; Premium of 2.42 %

New System for Distribution of Sugar

It is supplied under PDS mainly to BPL families except in the North Eastern states, hilly states and island territories where universal coverage is allowed.

Central Government, in April 2013 decontrolled the sugar sector by removing the levy obligation on sugar mills and doing away with the regulated release mechanism on open market sale of sugar. As of now, 30 states/UTs have participated in the scheme and no disruption in the distribution of sugar through PDS has been reported.

Ethanol Blending Petrol Programme

Ethanol is an agro-based product, basically produced from the by-product of the sugar industry, viz., molasses. The ethanol blended petrol programme, besides lowering pollution levels, is expected to provide another outlet for ethanol use, thus insuring utilization of molasses produced as a by-product during manufacture of sugar.

Ministry of Petroleum & Natural Gas have notified that oil marketing companies shall sell ethanol-blended petrol with percentage of ethanol up to 10 per cent blending across the country as a whole.

A Scheme for Extending Financial Assistance to Sugar Undertakings 2014 was notified envisaging loans to them through participating scheduled commercial banks, RRBs and cooperative banks for clearance of cane price arrears.

The Government in 2014 notified the scheme allowing incentive for marketing and promotion services for raw sugar production targeted for export market. The incentive available under the scheme shall be utilised by the sugar mills for making payment to the farmers.

Sugar Development Fund

Under the Sugar Cess Act, 1982, cess is collected at various rates on all the sugar produced and sold by any sugar factory within India which shall after due appropriation made will be credited to the Sugar Development Fund (SDF).

Some of the purposes of Fund a) making loans for facilitating the rehabilitation and modernisation of any sugar factory b) making loans for undertaking any scheme for development of sugarcane c) making grants for the purpose of carrying out any research project aimed at its promotion and development

Imposed Stock Holding and Turn Over Limits on Sugar

To deal with the artificial price rise in market due to hoarding of sugar by traders/dealers, the Government has imposed stock holding and turn over limits on sugar from 2016.

Fixed Minimum Indicative Export Quota

With a view to reduce the inventory pressure on domestic sugar prices, the Government has fixed indicative export targets for each mill. But since sugar prices have rallied in recent past and current price levels are compatible with FRP of cane notified for the current sugar season, it is no longer required to promote export of sugar. Hence, MIEQ was withdrawn from June 2016.

Production Subsidy

The Government has also extended production subsidy @4.50 per quintal to sugar mills to offset the cost of cane and facilitate timely payment of cane price dues of farmers.

Edible Oils

The efficient management of edible oils in the country involves steps to ensure the sufficient availability of edible oils to the consumer at reasonable rates.

- As per fourth Advance Estimates of Ministry of Agriculture, released on August 14, 2014 for 2013-14 (November-October), estimated oilseeds production is about 328.79 lakh tonnes as compared to 309.43 lakh tonnes during the previous year. Production of oils from these oilseeds in 2013-14 is likely to be about 77.80 lakh tonnes.
- The net availability of edible oils, including from all primary and secondary sources has increased from 79.46 lakh tonnes in 2009-10 to 107.90 lakh tonnes in 2013-14. In spite of this, the country imports edible oils to meet the gap between demand and availability, which is about 50 per cent of the total requirement.

Status of Vegetable Oils Industry

There are about 124 Vanaspati units and 474 Solvent Extraction Plants in the country with an annual capacity of 40.06 lakh tonnes and 290 lakh tonnes respectively. Due to various reasons, mainly the seasonal availability of raw material, the total capacity utilization of edible oil industry is around 35 per cent.

Ban on Export of Edible oils

Exports of edible oils has been banned from March 2008 with certain exemptions i.e. (i) castor oil (ii), coconut oil, from all Electronic Data Interchange (EDI) ports and through notified Land Customs Stations (LCS) and (iii) certain oil produced from minor forest produce. Further, export of edible oil has been permitted in branded consumer packs of up to 5 kg subject to Minimum Export Price requirements.

Import of Edible Oils and Import duty on Edible Oils

As there is more demand in excess over the domestic supply of edible oils, its import has been resorted to meet the gap in supply. India imports around 100 lakh tonnes of edible oil in an year.

In order to maintain uninterrupted supply of edible oils at affordable prices to the consumers and at the same time keeping in mind the interest of the industry, import duty on refined edible oils was raised from 7.5 per cent to 10 per cent in January, 2014 while maintaining the duty on crude edible oils at 2.5 per cent.

International Cooperation

India is associated with a number of international agencies working in the field of food related matters. These include World Food Programme (WFP), SAARC Food Bank, Food and Agriculture Organization (FAO), International Grains Council (IGC) etc. Brief detail of some of the important international cooperation activities of the Department of Food and Public Distribution are as follows:

World Food Programme

Government of India allocates food grains (wheat/rice) at BPL price under a Country Programme Action Plan (CPAP) 2008-12 signed between the Government of India and the United Nations World Food Programme (WFP) for the development schemes to be utilized in various WFP assisted projects in India.

- The WFP's projects involving food improvement in PDS food delivery systems and nutritional aspects of food based schemes are currently under implementation in states of Odisha, Chattisgarh, Madhya Pradesh, Jharkhand and Rajasthan.
- Capacity development programmes for food security are being implemented by WFP in these states and also in Gujarat, Uttarakhand, Uttar Pradesh, Bihar and Tamil Nadu.

SAARC Food Bank

- The SAARC Food Bank has been set up to supplement national efforts to provide food security to the people of the SAARC region during emergencies and food shortages.
- SAARC Food Bank has a reserve of food grains maintained by each member country consisting of either wheat or rice, or a combination of both as assessed share of the country. Presently India's assessed share of food grains is 3,06,400 lakh tonnes out of a total quantity of 4,86,000 lakh tonnes allocated for SAARC Food Bank.

Food and Agricultural Organisation

- India is a member to both FAO (Food and Agriculture Organization) and CFS (Committee on World Food Security).
- The Committee on World Food Security (CFS) serves as a forum in the United Nations System for review and follow-up of policies concerning world food security, including food production, physical and economic access to food. The CFS also monitors the progress of implementation of the WFS Plan of Action.

International Grains Council

- India is a member of the IGC which was previously known as International Wheat Council.
- IGC is an intergovernmental forum of exporting and importing countries, for co-operation in wheat and coarse grain matters. It administers the Grains Trade Convention 1995.
- The IGC Secretariat, based in London, also services the Food Aid Committee, established under the Food Aid Convention.
- International Grains Agreement comprises of Grains Trade Convention (GTC) and Food Aid Convention (FAC).
- India is a signatory to the International Grains Agreement (IGA), 1995 and its Grain Trade Convention (GTC), 1995 which is effective from July 1, 1995.
- India has been included in the category of exporting members in July, 2003 and represented in the meetings/session of the council held from time to time.