

PERFECT 7

WEEKLY

CURRENT AFFAIRS

April: 2019 / Issue 05



In-Vitro Fertilisation

An Established Technique for Treating Infertility

- Dr. B.R. Ambedkar : A Great Socio-Political Reformer
- Election Commission : Responsible to Ensure Sanctity of Democracy
- Water Conservation Fee : A Tool to Improve the Groundwater Crisis
- AYUSH : A Different Therapeutic System
- Bay of Bengal : An Emerging Platform for Dialogue & Policy Making
- The Unregulated Urea Market : Issues and Interventions



DHYEYA IAS®
most trusted since 2003

FELICITATION PROGRAMME FOR UPSC TOPPERS 2018



DHYEYA IAS : AN INTRODUCTION



The guiding philosophy of the institute, throughout, has been creation of knowledge base. Dhyeya IAS inculcates human values and professional ethics in the students, which help them make decisions and create path that are good not only for them, but also for the society, for the nation, and for the world as whole. To fulfill its mission in new and powerful ways, each student is motivated to strive towards achieving excellence in every endeavor. It is done by making continuous improvements in curricula and pedagogical tools.

The rigorous syllabi not only instills in them, a passion for knowledge but also attempts to teach them how to apply that knowledge in real-life situations. The programmes lay emphasis on well-rounded personality development of the students and also in inculcating the values of honesty and integrity in them.

Vinay Kumar Singh
CEO and Founder
Dhyeya IAS



Dhyeya IAS is an institution that aims at the complete development of the student. Our faculty are hand-picked and highly qualified to ensure that the students are given every possible support in all their academic endeavors. It is a multi-disciplinary institution which ensures that the students have ready access to a wide range of academic material.

Our brand of education has broad horizons as we believe in exposure. Our students are encouraged to widen their knowledge base and study beyond the confinements of the syllabus. We aim to lend a gentle guiding hand to make our students recognize their inner potential and grow on their own accord into stalwarts of tomorrow's society.

Q H Khan
Managing Director
Dhyeya IAS

PERFECT 7 : AN INTRODUCTION



With immense pleasure and gratitude I want to inform you that the new version of 'Perfect-7', from the Dhyeya IAS, is coming with more information in a very attractive manner. Heartily congratulations to the editorial team. The 'Perfect-7' invites a wider readership in the Institute. The name and fame of an institute depends on the caliber and achievements of the students and teachers. The role of the teacher is to nurture the skills and talents of the students as a facilitator. This magazine is going to showcase the strength of our Institute. Let this be a forum to exhibit the potential of faculties, eminent writers, authors and students with their literary skills and innovative ideas.

I extend best wishes for the success of this endeavor.

Qurban Ali

Chief Editor

Dhyeya IAS

(Ex Editor- Rajya Sabha TV)



We have not only given the name 'Perfect 7' to our magazine, but also left no stone unturned to keep it 'near to perfect'. We all know that beginning of a task is most challenging as well as most important thing. So we met the same fate.

Publishing 'Perfect 7' provided us various challenges because from the beginning itself we kept our bar too high to ensure the quality. Right from the very first issue we had a daunting task to save aspirants from the 'overdose of information'. Focusing on civil services exams 'Perfect 7' embodies in itself rightful friend and guide in your preparation. This weapon is built to be precise yet comprehensive. It is not about bombardment of mindless facts rather an analysis of various facets of the issues, selected in a systematic manner. We adopted the 'Multi Filter' and 'Six Sigma' approach, in which a subject or an issue is selected after diligent discussion on various levels so that the questions in the examination could be covered with high probability.

Being a weekly magazine there is a constant challenge to provide qualitative study material in a time bound approach. It is our humble achievement that we feel proud to make delivered our promise of quality consistently without missing any issue since its inception.

The new 'avatar' of 'Perfect 7' is a result of your love and affection. We feel inspired to continue our efforts to deliver effective and valuable content in interesting manner. Our promise of quality has reached you in around 100 issues and more are yet to come.

Ashutosh Singh

Managing Editor

Dhyeya IAS



PREFACE

Dhyeya family feels honoured to present you a pandora box 'Perfect 7'. 'Perfect7' is an outstanding compilation of current affairs topics as per the new pattern of Civil Service examination (CSE). It presents weekly analysis of information and issues (national and international) in the form of articles, news analysis, brain boosters, PIB highlights and graphical information, which helps to understand and retain the information comprehensively. Hence, 'Perfect 7' will build in-depth understanding of various issues in different facets.

'Perfect7' is our genuine effort to provide correct, concise and concrete information, which helps students to crack the civil service examination. This magazine is the result of the efforts of the eminent scholars and the experts from different fields.

'Perfect 7' is surely a force multiplier in your effort and plugs the loopholes in the preparation.

We believe in environment of continuous improvement and learning. Your constructive suggestions and comments are always welcome, which could guide us in further revision of this magazine.

Omveer Singh Chaudhary
Editor
Dhyeya IAS

Perfect 7

The Weekly Issue

Perfect 7

An Initiative of Dhyeya IAS (for Civil Services Examination)

April: 2019 | Issue: 05

Founder & CEO
Vinay Kumar Singh

Managing Director
Q.H.Khan

Chief Editor
Qurban Ali

Managing Editor
Ashutosh Singh

Editors
Omveer Singh Chaudhary,
Rajat Jhingan, Jeet Singh, Shashidhar Mishra

Editorial Support
Prof. R. Kumar, Baghendra Pratap Singh

Lead Authors
Rama Shankar Nishad, Ajay Singh, Ahamad Ali,
Avaneesh Pandey, Dharmendra Mishra

Authors
Sanjan Gotam, Ashraf Ali, Vivek Shukla,
Swati Yadav, Neetesh Srivastava,
Ranjeet Singh

Chief Reviewers
Prerit Kant, Anuj Patel,
Rajhans Singh

Copy Readers
Baghendra Pratap Singh, Pankaj Rathour

Promotion & Advertisement
Jeevan Jyoti, Shivam Singh

Design & Development
Vipin Singh, Krishna Kumar,
Nikhil Kumar, Ramesh Kumar, Sachin Kumar

Computer Operators
Krishna Kant Mandal, Tarun Kanoujia

Articles Support
Mrityunjay Tripathi, Priya Singh,
Rajni Singh, Rajni Tiwari, Lokesh Shukla,
Vishishth Mishra, Ankit Mishra, Ayushi Jain,
Preeti Mishra, Ravi Ranjan, Prabhat

Correspondents
Preeti Mishra, Radhika Agarwal,
Saumya Tripathi, Sudheer Verma,
Satyam Singh, Anurag Singh, Rashi Srivastava

Office Assistants
Hari Ram, Sandeep, Raju Yadav, Subham,
Chandan, Arun Tripathi

Content Office

DHYEYA IAS
302, A-10/11, Bhandari House,
Near Chawla Restaurants,
Dr. Mukherjee Nagar, Delhi-110009



Content

Seven Important Issues1-20

- In-Vitro Fertilisation : An Established Technique for Treating Infertility
- Dr. B.R. Ambedkar : A Great Socio-Political Reformer
- Election Commission : Responsible to Ensure Sanctity of Democracy
- Water Conservation Fee : A Tool to Improve the Groundwater Crisis
- AYUSH : A Different Therapeutic System
- Bay of Bengal : An Emerging Platform for Dialogue & Policy Making
- The Unregulated Urea Market : Issues and Interventions

Seven Subjective Questions with Model Answers 21-23

Seven Important News24-26

Seven Brain Boosters & Seven MCQs Based on Them27-35

Seven Important Facts for Prelims36

Seven Important Highlights from PIB37-40

Seven Important Concepts through Graphics.....41-44

Our other initiative



Hindi & English
Current Affairs
Monthly
News Paper



DHYEYA TV
Current Affairs Programmes hosted
by Mr. Qurban Ali
(Ex. Editor Rajya Sabha, TV) & by Team Dhyeya IAS
(Broadcasted on YouTube & Dhyeya-TV)

SEVEN IMPORTANT ISSUES

1. IN-VITRO FERTILISATION: AN ESTABLISHED TECHNIQUE FOR TREATING INFERTILITY

Why in News?

Stories about women giving birth to babies conceived using in-vitro fertilization (IVF) — the process in which an egg is fertilized with sperm outside the body — are fairly common these days. But a new case of a baby with DNA from three people being born in Greece. A healthy baby boy was delivered by a 32-year-old woman who has a history of IVF failures.

Introduction

The IVF technique was developed in the United Kingdom by Doctors Patrick Steptoe and Robert Edwards. The world's first "test-tube baby", Louise Brown, was born as a result of this technique on July 25, 1978 amid intense controversy over the safety and morality of the procedure. India's first successful IVF to produce "Durga" alias Kanupriya Agarwal-second test tube baby in the world-was performed by Dr. Subhash Mukhopadhyay on October 3, 1978. Both these events caused public debate, criticism and even social professional ostracism of

those involved in initiating life outside the body. Besides these obstacles the techniques of IVF has survived as a method of choice for treating some type of infertility.

Currently, IVF success rates have improved dramatically and IVF is used by heterosexual and homosexual couples experiencing infertility as well as single women pursuing parenthood. IVF is now an established technique for treating some forms of infertility, yet it remains ethically controversial.

In-vitro Fertilization

In-vitro Fertilization is an assisted reproductive technology (ART) commonly referred to as IVF. IVF is the process of fertilization by extracting eggs, retrieving a sperm sample and then manually combining an egg and sperm in a laboratory dish. The embryo(s) is then transferred to the uterus. Other forms of ART include gamete intrafallopian transfer (GIFT) and zygote intrafallopian transfer (ZIFT).

cervix or inside the uterus (called Intrauterine Insemination or IUI). Donor insemination was previously called Artificial Insemination.

- ♦ **Embryo Development:** When the sperm successfully fertilizes the egg, an embryo forms and begins to grow. When the embryo is 2 to 3 days old it is at the 'cleavage stage'; at 5 to 6 days old, it is called a 'blastocyst'.
- ♦ **Embryo Transfer:** Fertilized eggs (embryos) are placed back into the woman's uterus or fallopian tube through the cervix.

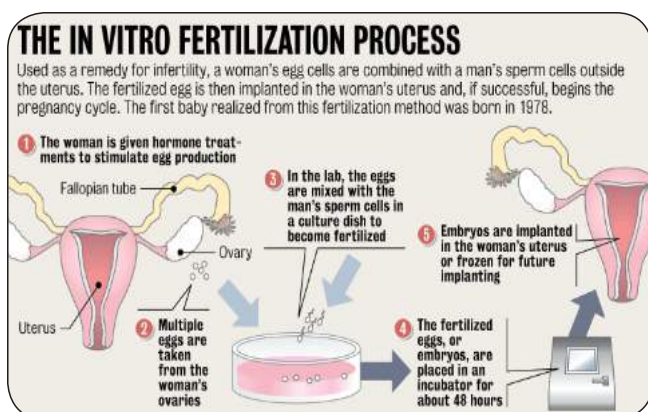
Treat Different Types of Infertility

IVF can be used to Treat Infertility of Different Types such as-

- ♦ Blocked or damaged fallopian tubes.
- ♦ Male factor infertility including decreased sperm count or sperm motility.
- ♦ Women with ovulation disorders, premature ovarian failure and uterine fibroids.
- ♦ Women who have had their fallopian tubes removed.
- ♦ Individuals with a genetic disorder.
- ♦ Unexplained infertility.

Challenges Faced with IVF

There are many risk associated with IVF technology. Some of the important risks are:



IVF Cycle

It consists-

- ♦ **Egg Retrieval:** A minor surgical procedure in which a doctor obtains eggs from the follicles of the ovaries.
- ♦ **Donor Insemination:** It is placed sperm directly inside the vagina at the

In-vivo fertilization	In-vitro fertilization
In-vivo fertilization refers to the normal method of fertilization between female egg and male sperm within a human body.	In-vitro fertilization refers to the artificial method of fertilization between female egg and male sperm outside a human body.
The term in-vivo came from the Latin word “within the living”.	The term in-vitro came from the Latin word “within the glass”.
It is a natural/normal method of reproduction that occurs in uterus/womb of female body.	It is an artificial method of reproduction done in laboratory using different humanized techniques.
This method of fertilization is normal and natural among couples.	This method of fertilization is chosen to cure infertility in human, either male or female.
It is a non-surgical method of fertilization.	It is a surgical method of fertilization.
Babies born through this method are considered as normal babies.	Babies born through this method are called ‘test-tube-baby’.
From chemical perspective, during in-vivo fertilization all chemical reactions between the egg and sperm occur within the human body.	From chemical perspective, during in-vitro fertilization all chemical reactions between egg and sperm is conducted in laboratory.
None of the chemical changes and reactions are in human control as everything occurs within human body.	All the chemical changes and reactions are in human control/in a controlled environment as this fertilization is conducted outside human body.
It is a simpler technique of fertilization.	It is relatively a more complex technique as it involves surgical procedure to retrieve the eggs.
The cost per treatment is lower.	Cost per treatment is higher and causes higher financial burden.
This method provides limited information during check up and treatment.	This method provides valuable information during treatment as the reactions between egg and sperms are evaluated initially in the lab setting.
It can be also considered as an experiment done using a whole living organism.	It can be also considered as an experiment done outside living organism.
This method of fertilization is suitable for fertile couple who don’t have any reproductive health complications.	This method of fertilization is suitable for infertile couple/s that has some complication related to reproductive organs.
It is a not an assisted method of fertilization.	It is a physician assisted method of fertilization.
This method does not have risk of multiple pregnancy.	The risk associated with this method is the possibility of multiple pregnancy.

Multiple Births

- ◆ IVF increases the risk of multiple births if more than one embryo is implanted in the uterus. A pregnancy with multiple fetuses carries a higher risk of early labor and low birth weight than pregnancy with a single fetus does.

Premature Delivery and Low Birth Weight

- ◆ Use of IVF slightly increases the risk that a baby will be born early or with a low birth weight.

Ovarian Hyperstimulation Syndrome (OHS)

- ◆ Use of injectable fertility drugs can cause OHS, in which ovaries become swollen and painful.

Miscarriage

- ◆ The rate of miscarriage for women who conceive using IVF with

fresh embryos is similar to that of women who conceive naturally — about 15 to 25 percent — but the rate increases with maternal age.

Birth Defects

- ◆ The age of the mother is the primary risk factor in the development of birth defects, no matter how the child is conceived.

Stress

- ◆ Use of IVF can be financially, physically and emotionally draining.

Ethical & Legal Concerns in IVF

The reproductive revolution has had the ability to separate genetic parenting from gestational parenting and from social parenting and the agent who brings it all about, a biotechnical, will be still another person. Sperm and eggs are being brought and sold and wombs are being rented. The fact, that these

techniques have been developed and have a certain success rate does not make them morally acceptable.

Donation of sperms and ova are both contrary to the unity of marriage and the dignity of procreation of human being. Furthermore, these procedures lend themselves to commercialization and exploitation, when people are being paid for sperm, ova and for surrogate motherhood.

Some of the ethical issues involved in this technology are:

- ◆ Bypassing the natural method of conception.
- ◆ Creating life in laboratory.
- ◆ Fertilizing more embryos than will be needed.
- ◆ Discarding excess embryos.
- ◆ Expensive technology, not affordable for common man.
- ◆ Creating embryos, freezing them and keeping them in limbo.

- ◆ Destroying embryos in research.
- ◆ Selective termination of embryos etc.

The legal problems that arise from invitro fertilization are that number of persons can assert for parental rights extends to the sperm donor, the egg donor, the surrogate mother, parents who raise the child. Further, if during the time in which the embryos are in storage, the couple divorces, legal complications may arise as to the custody of the embryo. The spare embryos are frozen, discarded, donated or used for experimentation. Since some religions believe that life begins at conception, it may amount to abortion which is contrary to both law and ethics. Expert indentation is also not permissible as science cannot experiment with someone with basic human rights without prior permission. Donation involves separation of the biological and social roles of parenthood that is significant part of family concept and is equivalent to adoption before birth thereby calling for amendments in adoption laws of most of the countries. When she is carrying more developed embryos, it can endanger her life. The only alternative available to avoid risk to her health and life is to carry out selective termination of one or more of the developing embryos. This not only involves trading of one life or more but the doctor is faced with the decision of which ones to terminate and how to make this decision.

The Indian Council for Medical Research (ICMR) Guidelines

It is necessary to follow ICMR guidelines in ascertain the therapeutic and research values of the Assistive Reproductive (AR) procedure.

Informed Consent

After duly counselling the couple/ oocyte/semen donor, an informed and written consent should be taken from both the spouses as well as the donor.

Selection of Donor

The semen bank assumes the responsibility in selection of the suitable donor on following terms:

- ◆ The physical characteristic and mental make-up of the donor should match as closely as possible to that of the spouse of the recipient, especially with reference to colour, eyes and hair, height and build, religious and ethnic background, and education and ABO blood type.
- ◆ Blood group of the proposed donor and donee should be tested with respect to Rh compatibility.
- ◆ No donor suffering from any sexually transmitted disease (e.g. syphilis, gonorrhea, chlamydia, herpes, HIV etc.), infectious disease (e.g. hepatitis B and C, HIV) or genetically transmissible disease. Sexually transmitted diseases should be ruled out within a week of obtaining the seminal fluid.
- ◆ It is essential that donated semen is cryo-preserved and used only after 6 months as this would enable the centre to retest the donor after 6 months for HIV and eliminate the potential risk of HIV transmission in the 'window' period of HIV infection.
- ◆ Identity of the donor as well as the recipient should be protected from each other. However, all the records of the donor must be preserved for at least 10 years and should be confidential.
- ◆ Confidentiality of the entire procedure and its outcome is advisable and therefore, no relative should be accepted as a donor in order to avoid identification and claims of parenthood and inheritance rights.
- ◆ Any information about clients and donors must be kept confidential. No information about the treatment of couples may be disclosed to anyone other than the accreditation authority or persons

covered by the license, except with the consent of the person(s) to whom the information relates, or in a medical emergency concerning the patient, or a court order.

- ◆ Written consent and an undertaking of the donor should be taken towards unrestricted use of sperms or oocytes for AR and he/she will not attempt to seek the identity of the recipient.

Conclusion

IVF has emerged as one of the most widely adopted and successful medical technologies in the last century. While giving hope to millions of couples suffering from infertility, IVF also has presented new ethical, legal, and social questions that society must address. Many countries have taken steps to regulate certain aspects of IVF. Specifically, what regulations and laws should be in place for IVF reporting, social inequities that may arise from financial barriers to IVF, genetic testing, emerging laboratory techniques that have improved embryo and gamete survival when cryopreserved and an individual's right to their genetic offspring in the setting of gamete or embryo donation are aspects of IVF which will become increasingly controversial and debated into the future.

However, the lion's share of ethical and legal questions that exist surrounding IVF have yet to be resolved. Society must reconcile how to fund IVF in a responsible and equitable manner to increase access to care. Additionally, the myriad of unresolved issues surrounding gamete and embryo donation must be addressed in greater detail in future social and legal dialogues.

General Studies Paper- III

Topic: Science and Technology-developments and their applications and effects in everyday life.



2. DR. B.R. AMBEDKAR: A GREAT SOCIO-POLITICAL REFORMER

Why in News?

On April 14, 2019 India marked the 128th birth anniversary of Dr B R Ambedkar, the architect of the Indian Constitution. People across the country have organised various programmes on the occasion.

Background

Dr B.R. Ambedkar was born on April 14, 1891 in the town and military cantonment of Mhow in the central provinces, (now in Madhya Pradesh) to Ramji Maloji Sakpal and Bhimabai Murbadkar Sakpal. Ambedkar was born into a poor low Mahar (Dalit) caste, which were treated as untouchables and subjected to socio-economic discrimination. His ancestors had long worked for the army of the British East India Company, and his father served in the British Indian Army at the Mhow cantonment. Although they attended school, it is reported that Ambedkar and other untouchable children were segregated and given little attention or help by teachers. They were not allowed to sit inside the class. However, despite facing all hardships, Ambedkar, in 1897 became the only untouchable enrolled at Elphinstone High School. Ambedkar pursued a degree in economics and political science from Elphinstone College, University of Mumbai, and then completed his Masters in Economics (Major) at the Columbia University and Doctor of Science in Economics from London School of Economics with the help of a scholarship.

His first organised attempt was his establishment of the central institution Bahishkrit Hitakarini Sabha, intended to promote education and socio-economic improvement, as well as the welfare of "outcastes", at the time referred to as depressed classes. For

the defence of Dalit rights, he started many periodicals like Mook Nayak, Bahishkrit Bharat, and Equality Janta.

After India attained independence in 1947, Ambedkar accepted Congress proposal to serve as the country's first Law Minister and was appointed chairman of the Constitution Drafting Committee on August 29, 1947. On November 26 1949, the Constitution was adopted by the Constituent Assembly. However, Ambedkar's importance in Indian history cannot just be limited to a person who championed for the rights of the poor, downtrodden and lower caste people. He can easily be remembered as "The Father of the Constitution of India" and the man who fought for the oppressed in the country. He was the principal architect of our Constitution and a founding father of the Republic of India. For all his contribution in 1990, Ambedkar was posthumously conferred with Bharat Ratna, India's highest civilian award.

Conversion to Buddhism

He viewed the 'Shudras' as 'Aryans' and rejected the Aryan invasion theory which depicts scenarios around the theory of an origin from outside South Asia of Indo-Aryan peoples. On December 25, 1927, Ambedkar publicly condemned the 'Manusmriti' for justifying caste discrimination and untouchability and led thousands of Dalits and burnt copies of the text.

He considered converting to Sikhism. But after meeting with Sikh leaders, he concluded that he might get "second-rate" Sikh status, as described by scholar Stephen P Cohen. Instead, he studied Buddhism all his life. Around 1950, he devoted his attention to Buddhism and travelled to Sri Lanka to attend a meeting of the 'World Fellowship of Buddhists.' After

meetings with the Sri Lankan Buddhist monk Hammalawa Saddhatissa, in Nagpur on October 14, 1956, he completed his own conversion, along with his second wife Savita.

His thoughts on why he adopted Buddhism were:

- ◆ Buddhism means casteless society based on equal rights. Hinduism on the other hands is based on caste system; a system which encourages aloofness, inequality and exploitation.
- ◆ Hinduism believes in God. Buddhism has no God. Hinduism believes in soul. According to Buddha there is no soul. Hinduism believes in Chaturvarna and caste system. Buddhism has no place for the caste system and Chaturvarna.
- ◆ Buddhism gives three principles in combination which no other religion does. All other religion is bothering themselves with God and Soul and life after death. Buddhism teaches PRAJANA (Understanding as against superstition & supernaturalism). It teaches KARUNA (Love) and SAMATA (Equality). This is what man wants for a good and happy life on the Earth.

Ambedkarite Thoughts

Social Thoughts

He rejected the Hindu social philosophy propounded in the Bhagwat Gita on the triguna of the Sankhya philosophy which is in his view a cruel perversion of the philosophy of Kapila and which had made the caste system and the system of graded inequality the law of Hindu social life. His social philosophy has been enshrined in three words-Liberty, Equality and Fraternity.

In his philosophy, liberty and equality had a place; but he added that unlimited liberty destroyed equality and absolute equality left no room for liberty. In his philosophy, law had a place only as a safeguard against the breaches of liberty and equality; but he did not believe that law can be a guarantee for breaches of liberty or equality. He gave the highest place to fraternity as the only real safeguard against the denial of the liberty or equality or fraternity which was another name for brotherhood or humanity, which was again another name for religion.

Religious Thoughts

According to him, religion is not a means to earn wealth and fame. It is a precious possession of an individual's mind and to be used only for achieving mental peace and alleviating the sufferings of society. He rightly justified his thoughts while saying, "the religion that does not recognize you as human being or give you water to drink, or allow you to enter the temple is not worthy to be called a religion. The religion that forbid you to receive education and come in the way of your material advance is not worthy of appellation religion. The religion that does not teach its followers to show humanity in dealing with its co-religionists is nothing but display of force. The religion that asks its adherents to suffer the touch of human beings is not religion but mockery. The religion which precludes some classes from education, forbids them to accumulate wealth and bear no arms is not religion but a mockery. The religion that compels the ignorant to be ignorant and poor to be poor is not religion but visitation." He wanted that Hindu religion must be reformed and made the religion of humanity deleting the concept of graded inequality. But it could not happen in his life time.

Political Thoughts

Dr. B. R. Ambedkar was a great admirer of Parliamentary system of government. According to him, there are three inherent characteristics of the system. Firstly, free and fair elections from time to time. Secondly, in the form of government no single individual can presume the authority that he knows everything and that he can make the laws and carry the government. The laws are to be made by the representatives of the people. Finally, the elected representatives, the legislatures and ministers must have the confidence of the people renewed in themselves at given periodicity.

However, he was aware of the pitfalls of the Parliamentary democracy. Parliamentary democracy, Ambedkar wrote, made not even a nodding acquaintance with economic equality. It failed to realize the significance of equality and did not even endeavour to strike a balance between liberty and equality, with the result the liberty swallowed equality and thus left a progeny of inequalities.

However, he saw no alternative to political democracy and therefore firmly believed in it as an appropriate form of political organization, but at the same time he emphasised the need to strengthen the social and economic foundation for a smooth functioning of democracy, which he saw as the tissues and fibres of political democracy by making socialism as a part of the constitution. Thus, his concept of state socialism is constitutional state socialism with parliamentary democracy.

Ambedkar as an Economist

His Ph.D. thesis was inspired to establish the Finance Commission of India and his contribution helped a lot in framing guidelines for the Reserve Bank of India Act, 1934. He studied economic issues like agrarian reforms, small holdings and agricultural productivity problems

regarding Indian currency, the problem of provincial finance and planning. He contributed immensely to Financial Economics, Economics of Socialism and Agricultural Economics. His economic ideas are still relevant.

His commitment was internal stability of the economy and he was convinced that only an automatic system based on the gold standard with gold currency could achieve this desirable end. He also stresses the need for industrialization so as to move surplus labor from agriculture to other productive occupations. He played a significant role in the establishment of the National Power Grid System, Central Water Irrigation, Navigation Commission, Damodar Valley Project, Hirakund Project and Sone River Project. Thus Dr. Ambedkar's ideas on public finance and agriculture have vital relevance and still applicable in a current situation of India.

Humanism vs Nationalism: Ambedkar's View

Assimilating him into the national pantheon of the freedom struggle is difficult because his life was one of steady accretion of ideas, of making a stand on rights and of standing up to social wrongs. His biggest fights were with fellow Indians and not with foreign rulers. He led no satyagraha against the British, he led no march on Delhi, he broke no repressive law to court arrest for it. His often stated view was that British rule had come as a liberator for the depressed classes. Despite all this, he was in agreement with the nationalists, that India must be ruled by Indians. Thus, for Ambedkar, human dignity mattered more.

The reason why Ambedkar may be accused of being anti-national has to do with his attitude towards the freedom movement, beyond his antagonistic relationship with Mahatma Gandhi. In 1939, Ambedkar made his stand clear in the legislative council of Bombay

province: “Whenever there is any conflict of interest between the country and the untouchables, so far as I am concerned, the untouchables’ interests will take precedence over the interests of the country”. But by saying such a thing, Ambedkar was not anti-national. For him, the national movement was dominated by elite, of which the masses were the first victims. For, as he said in 1943 before trade union activists, the working classes “often sacrifice their all to the so-called cause of nationalism. But they have never cared to enquire whether the nationalism for which they are to make their offerings will, when established, give them social and economic equality.

During World War II, Ambedkar continued to collaborate with the colonial power in exchange for concessions to Dalits and the working class at large. However, he had decided to cooperate with the British for another reason. Like Nehru, he thought that the Nazis, the Italian Fascists and Japan were more dangerous than the British. Opposing Mahatma Gandhi’s decision, in August 1942, to launch

the Quit India Movement, he declared that the “patriotic duty of all Indians” was rather to prevent such movements from creating “anarchy and chaos which would unquestionably help and facilitate the subjugation of this country by Japan”.

For Ambedkar, there was an “ism” above nationalism: Humanism, with its values of equality and liberty. Hence his collaboration with the British to promote the cause of the Indian plebe and to fight the Axis powers. — hence also his conversion to Buddhism, while Hinduism tends to be considered as the national religion of India par excellence today.

Conclusion

Ambedkarism is of great relevance to Indian society even today in achieving social justice, removal of untouchability, in establishing equality and freedom and true democracy. Dr. Ambedkar is a socio-political reformer, had a deep effect on modern India. In post-independence India, his socio-political ideas have acquired great respect across all spheres of the

society. He struggled throughout his life, for the rights of the Dalits and other socially backward classes as well as for the women. He also made a great contribution to economic and agrarian reforms.

It is strongly felt that if any student is not going to study completely the work and achievements of Ambedkar, history of modern India will be incomplete. It is proved that Ambedkar did yeoman service for the development of Indian society through his tireless fighting methods. So Dr.B.R.Ambedkar remained in history as tireless fighter for ever.

General Studies Paper- I

Topic: Social empowerment, Communalism, Regionalism & Secularism.

General Studies Paper- IV

Topic: Contributions of moral thinkers and philosophers from India and world.



3. ELECTION COMMISSION: RESPONSIBLE TO ENSURE SANCTITY OF DEMOCRACY

Why in News?

The Madras High Court upheld the Election Commission’s decision of cancelling polling in Vellore Lok Sabha constituency in Tamil Nadu. The decision comes as monumental amounts of unaccounted wealth have been seized in the state during Lok Sabha election season and bypolls in Tamil Nadu.

Introduction

Election, for the citizens of a democratic nation, is one of the most awaited events of their lives. It gives them a perfect opportunity to exercise their right to speech and expression as well

as their right to vote. A democratic state, in short, is simply one in which the community as a whole possesses sovereign authority, maintains ultimate control over affairs and determines what sort of governmental machinery shall be set up because democracy as a form of state is not merely a mode of government; but is merely a model of appointing, controlling and dismissing the government.

The election is a way through which people can express their dissent towards a political leader who has not fulfilled his duties during his term by not voting for him in the next elections. Hence, an election can be

termed as a medium of communication between the citizens and their elected representatives.

A general election in India is a gigantic exercise. It is equal to holding polls in Europe, the United States, Canada and Australia all put together. This task has been undertaken by an independent body to ensure free, fair and democratic election- the Election Commission of India (ECI).

As far as the public at large is concerned, the ECI has to build a stronger fiduciary relation based on mutual trust by ensuring transparent procedures in the conduct of elections. This article attempts to analyse the

challenges before this independent body since its inception. It also focus on certain legal and architectural loopholes in the commission impeding its role in conducting free and fair election.

Election Commission and its Challenges

ECI is a constitutional body vested with the responsibilities of superintendence, direction and control of conduct of elections. Article 324 states that the Election Commission shall consist of Chief Election Commissioner (CEC) and such numbers of other Election Commissioners (ECs), if any, as the President may from time to time fix and appointment of CEC and other ECs shall, subject to provisions of any law made in that behalf by the Parliament, be made by the President.

Problems related to Appointment

The appointment of CEC and other ECs according to the Article 324 shall be done as per the law made by the Parliament in this regard. However, no such law has yet been made which leaves a “gap” and leaves the appointment of such a crucial post solely to the executives.

Recently Supreme Court (SC) referred to the Constitution Bench the issue of a “foolproof and better”, independent and transparent system for the appointment of the CEC noting that the matter has never been debated before and requires a closer look at the relevance of Article 324(2).

The constitution has not prescribed the qualifications (legal, educational, administrative, or judicial) of the members of election commission. The constitution has not debarred the retiring EC from any further appointment by the government. There is no clarity regarding the power division between the CEC and other EC. Lack of security of tenure for ECs is also an organizational impediment in ECI. Article 324(5) of the Constitution

protects only CEC from removal, except if the manner and grounds of removal are the same as a judge of the Supreme Court. However, ECs can be removed by the government on the recommendation of the CEC.

Ensuring Model Code of Conduct

ECI is also entrusted with the task of ensuring a level playing field and good spirit of the whole campaign process. ECI has devised a model code of conduct (MCC). It has also issued guidelines to be observed during campaigning. But this particular task has become increasingly more difficult in recent times due to evolution of new mediums of communication and innovative and overzealous campaigning. Social media is an evolving platform. It provides an intimate, immediate and democratic space for information dissemination and interaction. The scale and depth of this platform is so vast that it is practically impossible to oversight and regulates it in a liberal democracy like India. ECI is still grappling with this challenge. There are no easy solutions to it. ECI is opening itself up to new possibilities and multi-stakeholder involvement.

Mushrooming Political Parties

Proliferation of political parties is also one of the root causes for the deterioration of electoral process. Section 29A of the Representation of the People Act, 1951, (RP Act, 1951) allows for small groups of people to form political parties by making only a simple declaration. According to the ECI, a large number of non-serious parties create excessive load on the electoral system. Around 2,300 parties are registered with the ECI till March 2019, a day before the announcement of Lok Sabha Election, but out of them only about 400 parties actually contests in the general election. The Commission also states that the main problem is that there is no specific provision to de-register a party.

Problem of Money Power

It is widely believed that in many cases successfully contesting an election costs a significant amount of money that is often much greater than the prescribed limits. A Consultation Paper to the National Commission to Review the Working of the Constitution, 2001, noted that “the campaign expenditure by candidates is in the range of about twenty to thirty times the legal limits”.

The problem with extravagant spending of money is that the person who wins the election spends all his or her time recovering the money that he or she spent during the election and in returning favours to those who funded him or her, rather than focusing on real issues of governance. In addition to this the citizens are directly affected because apart from compromised governance, the huge money spent on elections pushes up the cost of everything in the country and in return the general citizen has to face the real hurdles. Moreover it has been seen that electoral compulsions for funds become the foundation of the whole structure of corruption.

The Issue of Contempt

Earlier in 2017, ECI sought an urgent amendment to the Contempt of Courts Act, 1971, to empower it to punish anyone being disobedient or discourteous towards its authority. The rationale behind this argument is that certain allegations affect the credibility of the commission as one of the important guardian of the democratic process. Therefore to maintain credibility ECI has sought the power of contempt. Election management bodies of Kenya and Pakistan have direct power to initiate contempt proceedings.

However the body, custodian of secret ballot, should choose transparency rather than contempt powers to maintain its track record of honesty and fairness. Contestation

is part and parcel of elections. Thus, powers to silence criticism will undermine this democratic process. ECI does not have to satisfy every politician. It enjoys public confidence and reputation of impartiality. Thus, it just needs to reach out to people and explain process transparently.

A Mammoth Task

The task of ECI becomes even more important in a democracy like India where diversity is not an exception but a norm. Diversity in India exists along all the possible lines- topography, belief, language, sensibilities, aspirations and living standards among other things. Right from the enrolment process, given the scale of India's populace one can imagine how massive this task is. The demographic transition India is going through makes it even more cumbersome. The fact that there are 81.4 crore eligible voters this Lok Sabha election shows the sheer size of this enterprise.

Energising the Election

The right to exercise one power to vote is the bedrock of modern democracies. So ECI is also mandated to energise the election process to ensure that the election results reflect the true, broad based results. One forth of India's populace is still unlettered. A significant proportion of our people are physically challenged. Poor infrastructure and hard terrain poses accessibility challenges. Naxal affected areas and vulnerable polling stations pose security threats. These challenges call for innovative and sincere solutions. ECI has come up with some such solutions- vulnerability mapping of the polling booths, accessibility audits, deployment of central police forces, EVM-VVPAT among other things.

Reforms for Ensuring Sanctity of Electoral Process

Various reforms have been undertaken or proposed to be undertaken to maintain the purity of electoral process:

- ◆ **Imposition of additional norms for candidates contesting elections by Supreme Court:** In Lok Prahari case, SC has asked the Centre to amend the rules as well as the disclosure form filed by candidates along with their nomination papers, to include the sources of their income and those of their spouses and dependants. Non-disclosure of assets and their sources would amount to a "corrupt practice" under Section 123 of the Representation of the People Act, 1951.
- ◆ **Provision of None of the Above (NOTA):** Supreme Court in the People's Union for Civil Liberties v. Union of India case, 2013 paved the way for the introduction of NOTA. In 2014, ECI issued a circular that the provisions of NOTA be included in the Rajya Sabha elections too. This would help bringing symbolic resentment in open. It may have implications for reduction in criminalization of politics and strengthening of participatory democracy.
- ◆ **Introduction of Voter Verifiable Paper Audit Trail (VVPAT) Machines:** To cross-check EVM results through a paper audit, completing another layer of accountability to the indigenously produced machines.
- ◆ **Electronically Transmitted Postal Ballot System (ETPBS):** It was recently used in Chengannur (Kerala) assembly bypoll for service voters to provide an alternative method of quick dispatch of Postal Ballot paper electronically (earlier delivered by post). The voters can download the postal ballot and votes so cast would be received by the returning officer through post.
- ◆ **Appointment by Collegium:** 2nd Administrative Reforms Commission (ARC), in its fourth report on 'Ethics in Governance', has said that it would be appropriate to have a collegium headed by the Prime Minister to appoint the chief and members of the ECI.
- ◆ **Ensure Fair and Transparent Selection:** The court acknowledged that the appointments of CEC and ECs till now have been fair and politically neutral. But the void in law should be filled.
- ◆ **Constitutional Protection to ECI:** Amendment to provide constitutional protection for all three of its members as opposed to just one at present.
- ◆ **Fair Elevation:** Enabling provisions should be added in law that the senior most EC would be automatically elevated as CEC in order to instill a feeling of security and insulate from executive interference.

ECI has been ensuring democratic transfer of political power from one set of representatives to other since independence. However, in recent times, it is embroiled in various issues & controversies such as EVM malfunctioning, announcement of election dates to benefit ruling government, money and muscle role in elections etc. Thus, ECI has proposed slew of measures to address the same. Recently, ECI told the SC that it should be given the power to make rules under the electoral law, instead of the Centre. At present, RP Act empowers the Central government to make rules after consultation with ECI. However, the Central government is not bound to accept. Thus, impacting various reforms such as power to de-register political parties, insertion of new clause '58 B' be inserted in the RPA, 1951 to give power to postpone or countermand polls based on evidence that money power was used to influence voters.

Other Suggested Reforms

Steps that can be taken to address issues in appointment:

Electoral reforms over the years have financial accountability as the main concern. Many reforms such as reducing the ceiling of cash donation from Rs. 20,000 to Rs. 2,000 under Section 29C(1)(a) of the Representation of the People Act, 1951, introduction of electoral bonds, disclosure of IT returns of political parties to public under RTI etc. are reforms in electoral funding. But still it has a long way to go in eradicating the 'criminalization of politics'.

Conclusion

Over the years, the ECI has conducted a number of laudable electoral reforms to strengthen democracy and enhance the fairness of elections. These reforms are quite adequate and admirable. Undoubtedly, the election machinery, under the aegis of the ECI, deserves credit for conducting elections in a free

and fair manner. However, our system is still plagued by many vices. To win votes, political parties resort to foul methods and corrupt practices. Such maladies encourage the anti-social elements to enter the electoral fray. The problem is not lack of laws, but lack of their strict implementation. In order to stamp out these unfair tendencies, there is a need to strengthen the hands of the ECI and to give it more legal and institutional powers. The ECI must be entrusted with powers to punish the errant politicians who transgress and violate the electoral laws.

Our Election Commission tries its best to weed out the virus of malpractices. It is optimistic of strengthening and improving the working of democracy through free and fair elections. It has always devised better systems and is using advanced scientific technologies for maintaining

the high reputation of the Indian elections. However, the success of reforms will largely depend upon the will of the political parties to adhere to and implement such reforms. An independent media and an enlightened public opinion have no substitute in pushing through reforms. If people vote according to their convictions and punish those who infract the rules, corrupt practices will automatically disappear. And this will go a long way towards enabling democracy to flourish and grow to its full capacity.

General Studies Paper- II

Topic: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.



4. WATER CONSERVATION FEE: A TOOL TO IMPROVE THE GROUNDWATER CRISIS

Why in News?

Central Ground Water Authority (CGWA) under Ministry of Water Resources, River Development and Ganga Rejuvenation had notified revised guidelines to regulate and control ground water extraction in India. From June 1, 2019, the industrial extraction of water will attract Water Conservation Fee (WCF), which varies with the category of the area, type of industry and the quantum of ground water extraction.

Introduction

Natural replenishment of ground water reservoir is slow and is unable to keep pace with the excessive continued exploitation of ground water resources in various parts of the country. This has resulted in declining ground water levels and depleted ground water

resources in large areas of the country. Water being a State subject, initiatives on water management including conservation and artificial recharge to ground water in the Country is primarily States' responsibility.

- ◆ Ground water extraction in India is primarily for irrigation in agricultural activities, accounting for nearly 228 BCM (Billion Cubic Meter), which amounts to 90% of the annual ground water extraction.
- ◆ The remaining 10% of extraction (25 BCM) is for drinking & domestic as well as industrial uses.
- ◆ Industrial use is estimated to account for only about 5% of the annual ground water extraction in the country.

India is the largest user of ground water in the world, extracting ground

water to the tune of 253 bcm per year, which is about 25% of the global ground water extraction. Out of the total of 6584 assessment units distributed all over the country, 1034 have been categorized as 'Over-exploited' 253 as 'Critical', 681 as 'Semi-Critical' and 4520 as 'Safe' The remaining 96 assessment units have been classified as 'Saline' due to non-availability of fresh ground water due to salinity problem.

New Guidelines to Regulate and Control Ground Water

These guidelines will come into force with effect from 01.06.2019 and will supersede all the earlier guidelines issued by CGWA.

Key Features

- ◆ One of the important features of the revised guidelines is the

introduction of the concept of Water Conservation Fee (WCF).

- ◆ No-objection certificate (NOC): The draft guidelines make it mandatory for the industries, mining and infrastructure projects, other than those of government, to obtain a no-objection certificate for withdrawing ground water.
- ◆ Exemption from requirement of NOC has been given to agricultural users, users employing non-energised means to extract water, individual households and Armed Forces Establishments during operational deployment or during mobilization in forward locations. Other exemptions (with certain requirements) have been granted to strategic and operational infrastructure projects for armed forces, defence and paramilitary forces establishments and government water supply agencies.
- ◆ The new guideline has encouraged use of recycled and treated sewage water by industries, provision of action against polluting industries, mandatory requirement of digital flow meters, piezometers and digital water level recorders. The applicant of NOC has to mandatorily install rooftop rainwater harvesting system, continuously monitor groundwater level and report it to the Central Ground Water Board (CGWB), as well as recycle and reuse waste water, in lieu of the NOC obtained for groundwater extraction.
- ◆ Mandatory water audit by industries abstracting ground water 500 m³/day or more in safe and semi-critical and 200 m³/day or more in critical and over-exploited assessment units.
- ◆ Mandatory roof top rain water harvesting except for specified industries and measures to be adopted to ensure prevention of

ground water contamination in premises of polluting industries/projects.

- ◆ There was no provision for exemption from WCF to government infrastructure, water supply agencies and mining projects.
- ◆ Infrastructure projects including societies/builder constructed apartments, townships having recreational facilities like club, gym, commercial places, swimming pool will have to pay fee.
- ◆ CGWA has now proposed that the district magistrates/district collectors/sub divisional magistrates and regional directors of CGWB will be the authorities to monitor compliance, check violations and seal illegal wells.

Water Conservation Fee

Water Conservation Fee (WCF) payable varies with the category of the area, type of industry and the quantum of ground water extraction and is designed to progressively increase from safe to over-exploited areas and from low to high water consuming industries as well as with increasing quantum of ground water extraction.

According to a notification, for packaged drinking water units including soft drinks, breweries, and distilleries will be Rs 3, 5, 10, 20 per cubic meter per day if the extraction is less than 200 cubic meter for safe, semi-critical, critical and overexploited areas respectively.

For water extraction between 200 to less than 1,000 cubic meter, the WCF shall be Rs 5, 10, 20 and 40 and Rs 8, 15, 40 and 60 for extraction of more than 1,000 to 5,000 cubic meter while if the water is extracted more than 5,000 cubic meter, the WCF applicable for safe, semi-critical, critical and overexploited areas will be Rs 10, 20, 60 and 100 per cubic meter per day. However, the guidelines also say that packaged drinking water units located in salinity/ arsenic/ fluoride affected areas shall be given rebate of 50% on the WCF.

Major Issues: Ground Water Sector

Major issues related to ground water are:

- ◆ Over-exploitation of ground water resources.
- ◆ Sub-optimal utilization of ground water resources.
- ◆ Ground water quality & contamination.
- ◆ Impact of climate change.
- ◆ Site-specific availability of ground water in hard rock areas.
- ◆ Development of springs in hilly terrain.
- ◆ Ground water management in coastal areas.
- ◆ Water logging and salinity problems.
- ◆ Participatory groundwater management.
- ◆ Energization and pricing policy in irrigation sector.
- ◆ Ownership and sectoral allocation of ground water.
- ◆ Infrastructure development and capacity building in ground water sector.
- ◆ Research and development studies on various aspects of ground water management.

Central Government: Water Harvesting Initiative

These are:

- ◆ CGWB has prepared a conceptual document titled "Master Plan for Artificial Recharge to Ground Water – 2013" and has also been circulated to the State Governments for its implementation.
- ◆ The National Water Policy (2012) formulated by Ministry of Water Resources advocates conservation, promotion and protection of water and highlights the need for augmenting the availability of water through rain water harvesting, direct use of rainfall and other management measures.
- ◆ This Ministry has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground

water legislation for its regulation and development which includes provision of rain water harvesting.

- ◆ CGWB has taken up Aquifer Mapping and Management programme (NAQUIM) during XII Plan, under the scheme of Ground Water Management and Regulation.
- ◆ Model Building Bye Laws, 2016 circulated by Ministry of Urban Development include the provision of Rainwater Harvesting.
- ◆ Department of Land Resources is currently implementing 8214 watershed development projects in 28 States covering an area of about 39.07 million ha. under the Watershed Development Component (WDC) of the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) principally for development of rainfed portions of net cultivated area and culturable wastelands. The major activities taken up under the WDC-PMKSY, inter-alia, include ridge area treatment, drainage line afforestation, soil and moisture conservation, rain water harvesting, horticulture and pasture development etc.
- ◆ "Mission Water Conservation" to ensure gainful utilization of funds. The Framework strives to ensure synergies in Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Integrated Watershed Management Programme (IWMP) and Command Area Development & Water Management (CAD&WM), given their common objectives.

Significance of WCF

- ◆ Central Ground Water Board said, these are not water charges but a water conservation fee and will be used for groundwater recharge projects.

◆ The high rates of WCF are expected to discourage setting up of new industries in over-exploited and critical areas as well as act as a deterrent to large scale ground water extraction by industries, especially in over-exploited and critical areas.

- ◆ The WCF would also compel industries to adopt measures relating to water use efficiency and discourage the growth of packaged drinking water units, particularly in over-exploited and critical areas.

Criticism to Revised Guidelines

The guidelines levy a paltry fee but have totally done away with the need to recharge the groundwater. This means pay and keep exploiting the ground water, this is totally disastrous for the ground water. However, the proposed rates are not very regressive and provide an easy way out to industries to go for higher extraction.

To add to it, the lesser abstraction fee at safe and semi-critical zones may create possibilities for water-intensive industries to set up projects in these areas due to the lower fee rates, thereby, even gradually bringing the safe zones to critical and over exploited zones. Moreover, improper handling and storage of industrial waste can add to groundwater contamination in the region. The revised guidelines continue to enlarge this inequity in access to groundwater as pumping of groundwater by mechanised means for agriculture will be permissible and free of cost.

Nevertheless, currently, in the absence of any assessment on quantity and quality of water available in each aquifer at district level, the authorities would be giving NOCs on mere submission of approval letters or presence of a rainwater harvesting unit without understanding the science

of water management, authenticity of the impact assessment report, or functionality of the rainwater harvesting unit installed.

Conclusion

Government acknowledges the fact that India is the largest user of groundwater in the world, pumping more than the United States and China combined — the second and third-largest users — extracting groundwater to the tune of 253 billion cubic metres (BCM) per year, which is about 25 per cent of the global groundwater extraction. Merely imposing a cost to curb the growing extraction is not enough. What we must prioritise is the need to find newer ways to reduce and regulate over-extraction and usage, than promoting further extraction and overuse of this already endangered resource.

Moreover, while the revised guidelines suggest compensatory measures like installation of a rainwater harvesting unit for water extraction by households, infrastructure projects and industries, water harvesting is no substitute to large-scale water withdrawal.

Hence, groundwater regulation and governance in India should be reformed based on the grave realities around water scarcity, contamination and other challenges, else we will add to the irreparable damages that we have already created.

General Studies Paper- II

Topic: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

General Studies Paper- III

Topic: Conservation, environmental pollution and degradation, environmental impact assessment.



5. AYUSH: A DIFFERENT THERAPEUTIC SYSTEM

Why in News?

A Memorandum of Understanding (MOU) was signed between the Ministry of AYUSH and Council of Scientific and Industrial Research (CSIR) for cooperation in research and education in areas of traditional systems of medicine and its integration with modern science.

Introduction

Today, no one can ignore the impact and usefulness of modernisation in our daily life especially on how these innovations have made day to day life hassle-free. This is particularly true about faster means of communication and travelling as well as the field of medicine that is conquering new frontiers. State-of-the-art diagnostic techniques and treatment facilities have added an altogether different dimension to the profession of saving precious lives. The other side of the coin however, is too much of human interference with the nature and unhealthy lifestyle resulting in greater sufferings in terms of severe and untreatable diseases. While modern technology has tried to find newer ways of treating diseases, it has not been able to stop or reverse the process. It is in this scenario that mankind has started looking back to the 'Nature' and that is exactly where the role of alternative medicine and therapies come into play. They work on the principle of restoring natural balance and bringing human life back in harmony with the nature. Indian traditional medicine system has been based on this principle focusing on holistic health rather than treating a disease. Ayurveda, Homoeopathy, Naturopathy, Yoga, Unani, Siddha (AYUSH), all these traditional alternative therapies advocate a lifestyle which provides a healthy body, mind and overall happiness.

Ayurveda and Yoga started their journey more than 5000 years ago as ancient Indian sciences. While Siddha is one of the ancient systems of medicines popular in South India, Unani, the traditional system of medicine has its genesis in ancient Greece. Homoeopathy was developed in the early 1800s by the German physician Samuel Hahnemann. These systems have enjoyed continued patronage of people over the years. However, in recent times all alternative systems of medicine have gained global acceptance and popularity. The reason could be that apart from being effective, cheap, with no side effects, these therapies have been able to provide respite to certain chronic diseases and terminal stage patients. Modern medicine need not have a solution or answer to such situations. Institutions worldwide have undertaken researches to understand these systems more scientifically.

Governments world over are trying to evolve policies to promote these therapies amongst their people so that the lessprivileged sections are more benefited. In India, a full-fledged Ministry was created to focus on Education and Research in Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homoeopathy systems. The Ministry continues to lay emphasis on upgradation of AYUSH educational standards, quality control and standardization of drugs, research and development and awareness generation on the efficacy of the system domestically and internationally. The United Nations has also recognised holistic benefits of Yoga for physical, mental and spiritual wellbeing and passed a resolution at its General Assembly in December 2014 to celebrate 21st June every year as the International Yoga Day.

A Brief Description

Ayurveda

"Ayur" means age and 'veda' denotes knowledge, so Ayurveda defines knowledge about age or the knowledge which describe age. The knowledge of Ayurveda is claimed to have passed down to humans through a chain of supreme beings. Oldest references of Ayurveda are found in Atharvaveda that is the last of four principal texts of Hindu philosophy. The principle objectives of Ayurveda is maintenance and promotion of health, prevention of disease and cure of sickness.

Yoga

The literal meaning of Sanskrit word Yoga is 'Yoke'. According to Maharishi Patanjali (The Father of Yoga), Yoga is the suppression of five modifications of the mind. Yoga is one of the six systems of Astik Vedic philosophy. Maharishi Patanjali, compiled and refined various aspects of Yoga systematically in his "Yoga Sutras". He advocated eight folds of Yoga, popularly known as "Ashtanga Yoga" for all-round development of human beings.

Naturopathy

Naturopathy is an art and science of healthy living and a drugless system of healing. Naturopathy is a system of man building harmony with the constructive principles and forces of nature. The morbid matter theory, concept of vital force and other concepts upon which Naturopathy is based are already available in old texts. The revival of Naturopathy started in India by translation of Germany's Louis Kuhne's book "New Science of Healing". It has great health promotive, disease preventive and curative as well as restorative principle and effect.

Unani

Unani system is originated in Greece. The foundation of Unani System was laid by Hippocrates. In India, Unani system of medicine was Arabs and Persians sometime around eleventh century. Unani system is based upon Four Humors Balance Theory i.e. Dam (blood), Balgham (phlegm), Safra (yellow bile) and Sauda (black bile).

Siddha

Siddha system is one of the oldest systems of medicine in India. The term 'Siddha' means achievements and 'Siddhars' were saintly persons who achieved result in medicine. Siddha literature is in Tamil and is practiced in Tamil speaking part of India and abroad. According to its tradition it was Lord Shiva who unfolded the knowledge of 'Siddha system' of medicine to his consort Parvati who handed it down to Nandi Deva and then to Siddhas.

The 'Siddha system' is largely therapeutic in nature. According to this system the human body is the replica of the universe and so are the foods and drugs irrespective of their origin. The principles and doctrines of this system, have a close similarity to Ayurveda, with specialization in iatro-chemistry.

Homeopathy

Homeopathy is the youngest of all these medicinal system, yet rapidly growing and being practiced almost all over the world. The word 'Homeopathy' is derived from two Greek words, 'Homois' meaning similar and 'Pathos' meaning suffering. It was given a scientific basis by Dr. Samuel Hahnemann (1755-1843) in the early 19th century. It is based on the natural law of healing - "Similia Similibus Curantur" which means "likes are cured by likes".

Sowa - Rigpa

Sowa - Rigpa (Science of healing), which is also commonly known as Amchi system of medicine is one the

oldest living and well documented medical tradition in the world. Gyud-Zi (Four Tantra) is the fundamental text book of this medicine. The majority of theory and practice of Sowa - Rigpa is similar to "Ayurveda". It has been popularly practiced in Tibet, Mongolia, Nepal and Himalayan regions of India. In most Himalayan regions Sowa - Rigpa is practiced in traditional way community support with an Amchi in every village. Sowa - Rigpa is included in Indian Ayush therapies in 2010.

AYUSH Doctors in India

In 2016, World Health Organisation (WHO) published an eye-opening account of the incompetent health workforce of India based on the 2001 Indian census. According to WHO, the ideal doctor-patient ratio is 1:1000, whereas in India it is 1:1674. Furthermore, the report highlights the poor educational and medical background of the healthcare professionals in India - in allopathy, only 31.4% of allopathic doctors are educated up to the secondary level, and around 57.3% among them did not have any medical eligibility. In urban areas, only 58.4% of allopathic doctors had a valid medical qualification and this percentage was as low as 18.8% in the rural areas.

According to the Medical Council of India (MCI), the total number of medical practitioners in India was 9.32 lakh (as of September 30, 2014). However, the number of AYUSH doctors practising traditional medicine in the country is around 6.8 lakh, which is quite impressive.

Integration of AYUSH in the Existing Health Set-Up

Apart from the Allopathic fraternity, distinctive sort of scientifically proven, legally recognized and acceptable field of medicine such as AYUSH are in operation in variable parts of the country. Acknowledging the manpower resources and to combat the significant shortage in number of healthcare professionals, the

National Rural Health Mission (now known as National Health Mission) has recommended to mainstream the AYUSH system of indigenous medicine. Mainstreaming of AYUSH basically refers to the process of integrating AYUSH system of medicine with the existing health system in the country, at all levels of health care (viz. co-location in all public health establishments), so that preventive, promotive and rehabilitative health care services can be offered to all sections of society.

To ensure successful implementation of the process of mainstreaming all across the country, multiple measures such as strengthening of infrastructure – building, equipments and dispensaries; involving state government to decide which system of medicine should be set-up in a specific state; setting up of specialty centers and clinics in district headquarters hospitals and medical colleges; creating a managerial post for ensuring effective supervision and implementation of different activities at district/state level; building linkages with multiple sectors; encouraging cross-referral between allopathic and AYUSH streams; involving AYUSH practitioners to create awareness about their systems; mobilizing existing AYUSH establishments; integrating AYUSH with accredited social health activists (ASHA) workers by training them on relevant aspects of AYUSH; implementing initiatives for ensuring availability of AYUSH drugs at all levels; strengthening quality control mechanism in laboratories to avoid manufacture and sale of counterfeit and substandard drugs; streamlining the process of drug standardization so as to determine the drug potency; expanding the existing laws to encompass the manufacture and sale of drugs; and facilitating research work and promoting publications by exploring the local health traditions and traditional drugs used by experienced local health practitioners; have been proposed and implemented with varying range of success.

Further, the National Health Policy (NHP), 2017 has strongly advocated mainstreaming the potential of AYUSH within a pluralistic system of Integrative healthcare. The NHP, 2017 uses a new language of 'medical pluralism' and re-emphasizes the need for integrating AYUSH in the National Health Mission, research and education. NHP, 2017 highlights importance of scientific evidence for safety and efficacy of AYUSH medicines and practices and indicates the necessity of capacity building and critical mass of competent professionals through quality education and training at national and international levels.

However, the proposed strategies have not been achieved the desired results owing to the presence of multiple challenges / barriers such as distinct approach for management of a clinical condition; unrelated rationale involved in different systems practice; an unclear policy for cross referral; inadequate or absent infrastructure, assistance and supplies; potential rise in cross practice; shortage of staff; inequitable emoluments; ethical concerns (viz. no healthy dialogues between practitioners of either system/not disclosing which type of practitioners the patient is seeing); and lack of accountability mechanisms especially at the grassroots levels.

e-AUSHADHI Portal

- > The portal has been launched by Ministry of AYUSH for online licensing of Ayurveda, Siddha, Unani and Homoeopathy drugs and related matters.
- > The portal is intended for increased transparency, improved information management facility, improved data usability and increased accountability.

Ethical Challenges

A significant number of people hold the mistaken assumption that traditional medicine products, which are mostly herbal in nature, are safe because they are natural, but these medicines have pharmacological effects, just like synthetic pharmaceuticals. Many

plants are potent or toxic and there is typically far less safety data available for herbal products than would be required for conventional medications.

Unlike pharmaceutical drugs, most traditional medicines are not taken through the phases of development before release onto the open market.

Because most traditional medications are under researched, their potential for harm is often unknown and this has a direct impact upon the informed consent process.

Aside from the impacts upon people, the production and delivery of traditional medicines has impacts upon local environments and communities. For instance, the growing demand for standardised herbal products is putting pressure on selected high demand species and some plants are in danger of extinction as a result of demand. Along with the growth in global markets, there has been an increase in biopiracy, whereby traditional herbal medicines have been patented without consent or compensation to their holders.

While many believe that incorporating AYUSH in modern medicine will be advantageous, many are still sceptical of this proposition. They are concerned about the lack of scientific validation for AYUSH therapies and treatment. The 4th Common Review Mission Report, 2010 of the National Health Mission, brought to light a significant find - various states across India including Assam, Chhattisgarh, Maharashtra, Madhya Pradesh and Uttarakhand had deployed AYUSH practitioners as medical officers in public health centres (PHCs). However, due to the lack of proper training in allopathy, the AYUSH practitioners were unable to dispense the primary healthcare facilities satisfactorily. In medicine, it is a known fact that you must practice what you preach - it is unethical to study one system of medicine and practice another. In the present times, the fundamental

aspects of holistic systems are not appropriately positioned in most of the clinical trials designed to examine the safety and efficacy of AYUSH therapies/approaches.

National Medicinal Plants Board

The resource base of AYUSH medicines is largely plants. Increasing global interest in natural remedies has increased the demand for medicinal plants which are mainly sourced from the wild areas. This has led to the emergence of a number of issues like sustainability, conservation, cultivation, quality assurance, protection of Traditional Knowledge, issues related to access and benefit sharing etc. To coordinate all these matters relating to medicinal plants, Government of India has established the National Medicinal Plants Board (NMPB) under Ministry of AYUSH, Government of India.

Conclusion

AYUSH system is centuries old. But over these years it has gained confidence of many as other systems of medicine. There is much scientific evidence through which it can be validated that no single system of medicine can cater the health care needs effectively. Combinedly, they can be better practiced which can give relief and cure to the patients thereby paving the way for better health. They cannot be regarded as competitors rather they are complementary to each other.

One can conclude by saying that 'Alternative Medicine' is not an 'alternative' at all, but the basis of our health care system and hence should become a part of everyone's life. This, coupled with adequate and appropriate government policies, can ensure a healthy, blissful life for every Indian citizen.

General Studies Paper- II

Topic: Issues relating to development and management of Social Sector/ Services relating to Health, Education, Human Resources.



6. BAY OF BENGAL: AN EMERGING PLATFORM FOR DIALOGUE & POLICY MAKING

Why in News?

Recently Observer Research Foundation (ORF) has organised a international conference on significance of the Bay of Bengal: India, Japan and Southeast Asia.

Introduction

Covering more than two million square kilometres, the Bay of Bengal (BoB) is situated between vital sea routes and stretches from Sri Lanka, up the coast of Eastern India, curving under Bangladesh and Myanmar and heading South along Thailand and Malaysia, until it reaches the Northern coast of Sumatra in Indonesia. The countries bordering the BoB — India, Bangladesh, Myanmar, Sri Lanka, Thailand and Malaysia — are home to nearly a quarter of the world's population. For centuries, the BoB has served as a maritime gateway for India to Southeast Asia and further East to China. Historically, the BoB has been the point of connection between India and Southeast Asia and that, trade, ideas and people freely moved back and forth. It has not only been a site for the flow of capital and goods, but also aided the movement of large numbers of migrants to port cities like Singapore and Penang. But after the rise of nation-states in the BoB, the states, became inward looking producing a gulf instead of a bridge between them. Since the middle of the 20th century, the significance of the BoB, however, had receded.

Today, as traditional geographies are getting morphed into new ones the BoB, the biggest Bay in the world, is re-gaining centrality in the wider Indo-Pacific arena. The Bay is now subject to multiple policy initiatives such as China's 'Belt and Road Initiative', Japan's 'Free and Open Indo Pacific', India's 'Look/Act East Policy' and

Indonesia's 'Global Maritime Fulcrum' among others. Japan particularly with its supply chains across the Bay is intent on strengthening the region's economic integration. Consequently the BoB Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is coming back in focus amongst regional stakeholders. The BoB is thus emerging, once again, as the platform for dialogue and policy making aimed at ensuring stability in the region.

Prevailing Concerns in the Bay

Resource Politics in the Bay

Energy security has been the primary bone of contention in the BoB, with each actor involved aspiring for economic prosperity.

Despite being intrinsically rich in hydrocarbons and minerals, this region has not emerged so far as a major oil and natural gas producing area. In terms of foreign investment in the energy sector, this region (barring Malaysia and Indonesia) also appears to have been neglected in the past.

The rush for securing natural resources is not limited to the countries in the region as the world's major powers have aligned themselves for safeguarding the Bay; the interaction of these forces has spilled onto the geopolitical space as well.

Undocumented Migration

BoB is regarded as both a "place and passage". Recently, however, undocumented migration in the BoB has increased, primarily due to persecution. Maintaining imperviousness of borders against illegal migrants continuously traversing the BoB is increasingly becoming an ominous task for the

governments of the littoral states. During the Sri Lankan civil war there were many cases of undocumented migration in the Bay. In 2015, there was a new wave of undocumented migration of the "stateless" Rohingya Muslims of Myanmar. To escape state persecution, some fled across the border to Bangladesh, while the rest embarked upon long arduous journeys across the Bay in search of shelter. The Rohingya migration across the Bay continues till date.

Humanitarian Assistance and Disaster Response (HADR)

While maritime stability is the prerequisite for blue economy, it must be remembered that the BoB is a domain of high risk natural disasters. Hence, the issue of HADR assumes importance. HADR is a post-disaster task which includes rehabilitation of victims and reconstruction.

As disasters are the products of both natural and human factors, threats range from Tsunamis to the issues of oil spill. But as man-made disasters are potentially avoidable, they demand appropriate regulations and strict control by all powers operating in the Bay waters. Natural calamities, on the other hand, are unavoidable.

The onus is thus on developing efficient early warning systems and taking steps in advance to effectively mitigate its impact. It is desirable that regional platforms like Association of Southeast Asian Nations (ASEAN) and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) promote collaboration in disaster management. But HADR must on all occasions be provided with the consent of the affected country given the littoral's sensitivity to sovereignty.

Strategic Convergences and Divergences

Strategic competition have intensified across the BoB due to the resource concerns of Bay littorals, competing maritime presence of extra-regional powers and the preponderance of non-traditional security threats.

Analysing the case of Rohingya crisis it was argued that India, China and ASEAN's reluctance to restrain Myanmar from inflicting statelessness on the Rohingyas can be seen in the perspective of Gramscian concept of hegemony in the international order as states appear to be reluctant to report on human rights violations in other states to avoid getting involved in their internal affairs. Hence there is a need to bring about interaction between civil societies within states so as to enhance cooperative commitment of all stakeholders in addressing regional security concerns.

China-initiated Belt and Road Initiative (BRI) represented an extractive model of connectivity. The Strait of Lombok and the Strait of Malacca were areas of strategic importance to China but also having important implications for India as well. The strategic importance which Sri Lanka has assumed of late is because of the intensity of Chinese investments there.

Role of Major Power

The world's major powers are increasingly becoming interested in the Bay. Due to its strategic potential and geographic centrality, the primary aim of all interested countries is to maintain a balance of power in the BoB.

China: Causing Uncertainty in the Bay?

China is gradually increasing its political, economic and military influence in the region by forging maritime ties with the Bay littoral

countries such as India, Bangladesh, Sri Lanka and Myanmar through sponsoring infrastructural developments. Some examples are the construction of the Hambantota port in Sri Lanka and the Oil and Gas Pipeline in Myanmar which runs from Kyaukpyu in Myanmar to the Yunnan province in China.

One of the primary areas of Chinese strategic concern in the Bay is the Strait of Malacca, a crucial shipping lane for the world as it connects the Pacific Ocean with the Indian Ocean. Its significance was highlighted when former Chinese President Hu Jintao spoke of the "Malacca Dilemma", referring to the fact that the steady supply of oil through sea lanes to China was contingent on the narrow Strait of Malacca to being open and free for navigation. Keeping the same in mind, China has embarked on a two-pronged strategy: to develop an alternative energy route to reduce the dependence on the Malacca Strait and to establish holds at various points throughout the Indian Ocean to guarantee fulfilment of its needs by reviving the concept of the 21st century Maritime Silk Route.

China's activities in the Bay have been one of the most decisive factors influencing India's interest in the Bay and its relationship with the US and the other Indo-Pacific states. At present, India's strategic ambitions in relation to these growing partnerships as well as the implications of its 'Act East' policy in Southeast Asia have become particular causes of concern for China.

Japan: Offer of Strategic Cooperation in the Bay

As the Bay grows in importance, Japan is increasingly seeking to connect with South Asian powers, especially India. It wants to enhance connectivity in the region based on the rule of law, democracy, human rights and market economy and have better exchanges with production bases in India, so as to extend its reach beyond Myanmar.

There is also a strong synergy between India's "Act East Policy" and Japan's "Free and Open Indo-Pacific Strategy". The latter seeks to enhance "connectivity" between Asia and Africa, by propagating the concept of "sustaining peace" and encouraging stability and prosperity across the region. The strategy depends on two oceans; the Pacific and the Indian Ocean and thus the importance of BoB to Japan. The strategy will also help in maritime law enforcement across the region.

Australia: Promoting Geostrategic Partnerships in the Bay

As the key transit zone between the Indian Ocean and the Pacific Ocean, the BoB is gaining prominence for Australia, located on the Southeast of the Indo-Pacific. Australia also has strong economic ties with the Bay littoral countries of India, Bangladesh, Sri Lanka and Myanmar.

Australia has initiated multiple geo-strategic initiatives such as the 'Asia's Democratic Security Diamond' and the 'The Quadrilateral Initiative' in partnership with India and Japan to curtail the rise of China. It has also endorsed the idea of the 'Indo-Pacific Strategic Arc', of which India geo-strategically dominates the Indian Ocean region and Australia dominates the Southern Flank of the Indian Ocean and the Southern Pacific Ocean. The original Quadrilateral Security Initiative was a proposed maritime alliance that included the United States, Japan, Australia and India. It has now been renamed as "Quad 2.0" and this new alliance is likely to be more dynamic with India being much more embedded in US and Australian maritime strategic thinking on the Indo-Pacific.

The US: Keeping the Bay under Scrutiny

A geopolitical competition between free and repressive visions of

world order is taking place in the Indo-Pacific region, a region which stretches from the West coast of India to the Western shores of the US, represents the most populous and economically dynamic part of the world. The US interest in a free and open Indo-Pacific extends back to the earliest days of their republic. As a counter to the rising China, the US views India as a key player in South Asia. The US welcome India's emergence as a leading global power and stronger strategic and defense partner. Both countries signed the 'US-India Joint Strategic Vision for the Asia Pacific and Indian Ocean region' in 2015. A variety of joint exercises are also performed by the US and Indian Navy such as 'White Shipping'. The US is seeking to increase quadrilateral cooperation with Japan, Australia and India.

India's Approach

The BoB has become increasingly important to India's geopolitical calculus. India's interests in the BoB can be broadly viewed in two ways: first, India sees the bay as a sea-bridge to the East, through which India can unlock greater political, economic, and strategic cooperation between itself, its neighborhood and the Asia-Pacific. Second, against the backdrop of increasing Chinese footprint in the BoB, it is in India's interest to uphold a stable, rules-based maritime order in the region to secure the flow of goods along vital sea routes and the freedom of navigation for the Indian Navy.

In June 2017, Prime Minister Modi declared the BIMSTEC a "natural platform to fulfill our key foreign policy priorities of 'Neighborhood First' and 'Act East'." BIMSTEC has the potential to bolster both India's 'Neighborhood First Policy', which gives importance to its immediate neighbors, and its 'Act East Policy', which aims to strengthen New Delhi's engagement with its extended neighborhood to its east.

India has to give proactive salience to BIMSTEC by regularizing meetings and expediting the signing of the BIMSTEC-Free Trade Agreement (FTA) to facilitate greater economic ties. Further, India has to boost connectivity and infrastructural opportunities in the region, ensuring that projects like the Kaladan Multi-Modal Project and India-Myanmar-Thailand Highway are completed without delays. At the same time, India has to take a stand on whether it wants to engage with China in the region by pursuing the Bangladesh-China-India-Myanmar (BCIM) economic corridor. In addition to it, India has to put new initiatives on the table, like 'Project Mausam', to link the states around the BoB.

India has an interest in protecting the Sea Line of Communication (SLOC) in the BoB from the threat of maritime terrorism, piracy and natural disasters to meet its growing energy demands. For this reason, India is seeking to cement its role as a net-security provider in the region through platforms like the Indian Ocean Naval Symposium (IONS), which provides a forum for the "discussion of regionally relevant maritime issues," and 'Exercise MILAN', a biennial naval exercise in which many of the littoral states of the BoB participate.

Instead of restricting itself only to fundamental security issues in the BoB, India must carve out a mental map of the BoB that prioritizes the idea of a community within South and Southeast Asia sharing the same waters and the same opportunities, threats and risks. Not only would this bolster economic interdependence and promote a strategic consensus in the region, but it would also help India to solidify its role as a regional leader. One way to accomplish this is by engaging BoB states on the issue of climate change. Presently, India engages in technical information sharing for disaster management. Given the high risks of

climate change and natural calamities faced by the littoral states in the BoB, India could display its leadership, confront a common threat and bolster inter-regional cooperation by initiating a climate security agreement through BIMSTEC.

Conclusion

The on-going dynamics of the BoB will in the long run affect the landscape of the Indo-Pacific. Connectivity initiatives must therefore be regarded as important instruments to transform this fragmented maritime space into a more integrated and economically dynamic region. Existing vulnerabilities in the region such as weak domestic institutions and shortage of infrastructure will have to be addressed. Most importantly the culture of regional collaboration will have to be cultivated in the Bay. However, in doing so two important considerations must be kept in mind. Firstly, as the BoB is emerging against the backdrop of major power competition it requires a stable security structure. The new bilateral and multilateral security partnerships that are being forged to respond to the changing security environments are therefore important. Secondly, and contrary to the conventional view, one must look beyond US-China relations for the future of the region will be defined not by US-China relations but by the way in which the countries in the region are becoming resilient internally and externally. Connectivity initiatives must therefore be widened to include human resource development and institutional reform.

General Studies Paper- II

Topic: India and its neighborhood-relations.

Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.



7. THE UNREGULATED UREA MARKET: ISSUES AND INTERVENTIONS

Why in News?

Cabinet Committee on Economic Affairs, chaired by Prime Minister Narendra Modi has approved the proposal of the Department of Fertilisers to extend the duration of New Urea Policy-2015 from April 1, 2019 till further orders, except for the provisions which stand already amended vide notification dated March 28, 2018. It will facilitate to continue operations and regular supply of urea to the farmers.

Introduction

India has often been criticized as being a 'Subsidy Raj'. It spends almost 2% of Gross Domestic Product (GDP) (IMF 2016) on food, fertilizer and fuel subsidies. Since 2014, fertilizer has been the largest subsidy after food. It remains untargeted, resulting in substantial fiscal costs for a government committed to fiscal consolidation.

In a country where 42% of the people are engaged in agriculture, timely access to fertilizer is critical. To ensure this, the government of India (GOI) has classified fertilizer as an "essential" commodity. The Department of Agriculture and Cooperation controls where and how much fertilizer can be sold. But there are various issues plaguing the market for urea, the most abundantly used fertilizer, in India. In this article we will analyse the most prominent problems and weigh various policy options to tackle these issues.

Background

In the 1960s India was struggling to feed its people. To make India self-sufficient in food, government has taken a comprehensive reform in agriculture sector called 'Green Revolution'. Various measures like land reforms, improved infrastructure, and adoption of high yielding varieties

(HYVs) of seeds were taken.

Since fertilizer was critical to India's Green Revolution, the government passed the Fertilizer Control Order in 1957 to regulate the sale, pricing and quality of fertilizer. Consequently with the passing years it became a topic of political economy. Fertilizer subsidy is seen as a way of social protection for the poor and marginalized farmer. And thus the government seldom tried to rationalize it due to political considerations; ultimately it culminated into a significant burden on public exchequer.

Issues in Urea Market

The urea market has numerous distortions that make it a unique and complex problem. We will split the issues into those of supply or production, and demand or sales.

Supply of Urea

Domestic Production

To meet the needs of the 'Green Revolution', the government had to ensure sufficient supply of fertilizer and establish numerous fertilizer plants. Today, there are 30 manufacturing units with varying levels of efficiency. The government's desire to be self-sufficient in urea has meant that shutting down units, no matter how inefficient, is not acceptable. This has led to a model where the subsidy amount given to a firm is calculated based on their cost of production. As a consequence, inefficient firms with a high cost of manufacturing thrive and have little incentive to lower costs. Further, the efficient firms are also hurt. Any efficiency gains made accrue to the government, not the firm, as subsidy amounts are adjusted downwards. The slim margins offered to domestic firms mean that production of fertilizer is not very profitable.

An alternative is to promote joint ventures with countries with sufficient stock of natural gas. One such collaboration between IFFCO and Oman established in 2005 allows India to import fertilizer at around \$135 per metric tonne (MT) - almost 50% cheaper than world price. The ministry of fertilizer is pursuing one such joint venture with Iran with a commitment to purchase 127 thousand MT of urea per year.

Imports

Imports were primarily seen as a way to meet excess demand after domestic supply had been exhausted. It was important to ensure that imports would not displace domestic units in the market. In order to achieve this, imports were canalized. Only four firms were allowed to import fertilizer and quantity was controlled.

When demand estimation is incorrect or there are shortages in domestic supply, importers should respond by bringing in excess stock to close the gap. Canalization ties the hands of these importers and the cost of this is borne by farmers. Unable to source subsidized fertilizer, farmers are forced to purchase urea in the black market where they often pay as much as 50% more than maximum retail price (MRP).

Demand for Urea

Demand Estimation

Since urea movement is controlled, the Ministry of Fertilizer needs to estimate the demand for urea in each district. Before each cropping season, monthly demand for urea is projected by the Department of Agriculture and Cooperation along with the state governments. Estimating the demand for urea in a given month for a district is not a trivial task. As with any effort

at estimating demand, it is prone to errors. Such errors lead to significant shortages.

Overuse of Urea

The optimal ratio of consumption of N, P, and K in India is 4:2:1 with regional variation. Over time the consumption ratio has worsened to 8:3:1. Chemical fertilizers need to be used at the right ratio to restore the nutrient balance of the soil. Fertility of the soil is compromised if any of the nutrients are depleted.

One theory suggests that the overuse of urea is because it is substantially cheaper than DAP or MOP. A second reason provided was knowledge. The amount of fertilizer used is based on experience and habit. In order to ensure that the farmer applies the correct balance of fertilizer, the government has provided free soil testing and soil health cards etc.

Government Interventions

New Urea Policy-2015

The New Urea Policy-2015 was notified with the objective of maximizing indigenous urea production, promoting energy efficiency in urea production and rationalizing subsidy burden on the government.

As per the policy, the preset energy norms for gas based urea units, fixed during earlier policies, were mopped up and they were eligible for concessional rates on the basis of revised energy norms fixed for each group, effective from June 1, 2015 to March 31, 2018 which is the simple average of pre-set energy norms of New Price Scheme (NPS)-III and average actual energy consumption achieved during the years 2011-12, 2012-13 and 2013-14 or the pre-set set energy norms of NPS-III, whichever is lower. At present, there are 31 urea units in the country of which 28 units are gas-based and the remaining three units use naphtha as feedstock.

Key Highlights

- ◆ The NUP (National Urea Policy) is effective from June 1, 2015 to March 31, 2019.
- ◆ Under this policy, Urea producers are allowed to produce neem coated urea upto 100 percent of production and making it mandatory to produce a minimum of 75 percent of domestic urea as neem coated, so that farmers are benefitted.
- ◆ The MRP of urea for the farmers has been kept the same at Rs. 268/- per bag of 50 kg excluding local taxes. Farmers have to pay an additional price of only Rs.14/- per bag of neem coated urea.
- ◆ The movement plan for urea would continue to be given by the government every month to urea suppliers, to ensure its timely and adequate availability, in all parts of the country.
- ◆ Movement plan for P&K fertilizers has also been freed to reduce monopoly of few companies in a particular area so that any company can sell any P&K fertilizer in any part of the country.
- ◆ Rail freight subsidy has been decided to be given on a lump sum basis so that the companies economies on transport. This will help farmers and reduce pressure on the railway network. The government continues to have legal tools to direct fertilizer suppliers to supply fertilizers in any part of the country where there would be any shortage.
- ◆ Subsidy would be payable to suppliers only after fertilizers are received in the districts and final settlement of subsidy claims will continue to be done only after acknowledgement of receipt of fertilizers by retailers. Quality certificates are to be given by the respective State Governments

within six months from the receipt of fertilizers. If quality is sub-standard, subsidy will not be given to fertilizer suppliers.

Soil Health Card

Soil Health Card Scheme is a scheme launched by the Government of India in February 2015. Under the scheme, the government plans to issue soil health cards to 140 million farmers to improve productivity through judicious use of inputs.

Soil Health Card (SHC) is a printed report that a farmer will be handed over for each of his holdings. It will contain the status of his soil with respect N,P,K (Macro-nutrients) and other nutrients. The card will contain an advisory based on the soil nutrient status of a farmer's holding. It will show recommendations on dosage of different nutrients needed. Further, it will advise the farmer on the fertilizers and their quantities he should apply, and also the soil amendments that he should undertake, so as to realize optimal yields.

Neem Coating of Urea

From 2015 Ministry of Chemicals and Fertilizers has made it mandatory for fertilizer companies to neem coat the urea before selling it. The urea was subsidised for agriculture use but it was being diverted to non-agricultural purposes. This led to shortage of urea. Introduction of Neem Coated Urea (NCU) reduced the shortage of urea because it became impossible to use it for non-agricultural purposes. Large quantity of urea used to be imported due to shortage of urea (mainly due to its use for non-agricultural purposes). NCU has lowered the imports of urea.

Neem coating leads to more gradual release of urea, helping plants gain more nutrient and resulting in higher yields. NCU lowers underground water contamination due to leaching of urea. Neem also serves as a natural

insecticide. Collection of neem seeds is needed for manufacturing of neem coated urea. This would generate employments in rural areas.

Direct Benefit Transfer (DBT) in Fertilizers

DBT in fertilizer is a modified payment of subsidy in which the fertilizer companies are paid subsidy only after the retailer has sold the fertilizer to the farmer. The buyer identity is authenticated using a point of sale machine through Aadhaar authentication. An amount of Rs 70,000 crore has been sanctioned annually to distribute fertilizer subsidies.

It will help in reducing leakages due to diversions and cross border smuggling. The point of sale machine generates a receipt which provides information about the money to be paid by the farmer. This protects the farmers from the overcharging by retailers by providing transparency about the price.

Overuse of Fertilizer and Environment

While fertilizer is generally a good thing for most plants, there is certainly too much of a good thing. The nutrients fertilizer provides to plants can also damage them if used in excess. But the damage from the misuse of fertilizer doesn't stop at our plants. It creates problems for the environment too, especially aquatic life.

Root Burn

Root burn is a condition in which the roots of plants suffer damage from the overuse of fertilizers. Low-quality fertilizers often contain Urea, which is a source of nitrogen. It is not organic and some plant roots are sensitive to

it. But over fertilizing with high-quality fertilizers can also lead to root burn due to an overabundance of soluble salts in the soil. The salts essentially burn the roots and even sometimes the foliage. Plants that suffer from root burn become stunted, wilted and are often unable to flower.

Environmental Issues

Excessive fertilizer that washes into storm drains eventually makes its way into bodies of water, such as rivers and lakes, causing pollution. The misuse of fertilizer often has negative effects on fish and other aquatic animals. Algae feed off of the nutrients in fertilizers, using up oxygen that fish and other animals need. Additionally, ammonia released by fertilizer is harmful to fish.

Pests and Diseases

Plants that produce greener, lush leaves because of over fertilization may attract more pests, according to licensed arborist Dennis Panu. The increased vigor of the foliage can attract unwanted insects, such as aphids, which feed on the leaves.

Way Forward

Lack of availability constrains sale of urea and creates a black market where farmers pay 60% higher prices on average. This lack of availability is due to overregulation of the urea market and the untargeted nature of the subsidy. A large amount of the subsidy is lost through inclusion errors and siphoning to industry.

Before any supply-side deregulation, leakages need to be stymied. Since targeting farmers is not administratively feasible. Therefore we need to limit the amount of subsidized fertilizer available per Aadhaar card.

The deregulation must begin with import decanalization. By switching to an open general license (OGL) policy, so that we allow importers to respond to unmet demand and increase supply. India is the biggest importer of fertilizer and shifts world prices with each tender. Under OGL, importers will no longer be directed on how much and when to import and can take advantage of low market prices.

The order of implementation is important. Deregulation should follow demand-side reform to avoid the already high fiscal costs from worsening. Further, states should be allowed to experiment with policy parameters. The limits on subsidized fertilizer can be set based on either normative guidelines or a function of current usage. Smaller states that have homogenous soil types, like Punjab, can sell "multipacks" that combine the critical fertilizers in optimal ratios.

Urea policy is politically sensitive. Solutions like reducing rate of subsidy or deregulating prices will not gain political support in the absence of a crisis. Therefore, we must look for second-best solutions like the ones presented to gradually transition to the desired end state.

General Studies Paper-III

Topic: Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System-objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.



SEVEN SUBJECTIVE QUESTIONS WITH MODEL ANSWERS

In-vitro Fertilisation: An Established Technique for Treating Infertility

Q1. In-vitro Fertilisation (IVF) has emerged as one of the most widely adopted and successful medical technologies in the last century. However, it also presented new ethical, legal and social questions that society must address. Critically discuss.

Hints:

- ◆ Currently, In-vitro Fertilisation (IVF) success rates have improved dramatically and IVF is used for heterosexual and same sex couples experiencing infertility and even single women pursuing parenthood. IVF is now an established technique for treating some forms of infertility, yet it remains ethically controversial. New developments, such as embryo donation and embryo freezing, have led to further discussion.
- ◆ Some challenges faced with IVF are multiple births, birth defects, miscarriage and so on.
- ◆ Some ethical & legal concerns related to IVF are creating life in laboratory, discarding excess embryos and so on.
- ◆ However, the lion's shares of ethical and legal questions that exist surrounding IVF have yet to be resolved. Society must reconcile how to fund IVF in a responsible and equitable manner to increase access to care. Additionally, the myriad of unresolved issues surrounding gamete and embryo donation must be addressed in greater detail in future social and legal dialogues.

Dr. B.R. Ambedkar: A Great Socio-Political Reformer

Q2. Critically discuss the relevance of Dr. B. R. Ambedkar's thoughts in the contemporary India.

Hints:

- ◆ He rejected the Hindu social philosophy propounded in the Bhagwat Gita. According to him, religion is not a means to earn wealth and fame. It is a precious

possession of an individual's mind and to be used only for achieving mental peace and alleviating the sufferings of society.

- ◆ He was a great admirer of Parliamentary system of government. According to him, there are three inherent characteristics of the system. Firstly, free and fair elections from time to time. Secondly, in the form of government no single individual can presume the authority. Finally, the elected representatives, the legislatures and ministers must have the confidence of the people renewed in themselves at given periodicity.
- ◆ His Ph.D. thesis was inspired to establish the Finance Commission of India and his contribution helped a lot in framing guidelines for the Reserve Bank of India Act, 1934. He contributed immensely to Financial Economics, Economics of Socialism and Agricultural Economics. His economic ideas are still relevant.
- ◆ For Ambedkar, there was an "ism" above nationalism: Humanism, with its values of equality and liberty. Hence his collaboration with the British to promote the cause of the Indian plebe and to fight the Axis powers.

Election Commission: Responsible to Ensure Sanctity of Democracy

Q3. "The Election Commission of India has to build a stronger fiduciary relation based on mutual trust by ensuring transparent procedures in the conduct of elections." Comment.

Hints:

- ◆ Election Commission of India (ECI) is a constitutional body vested with the responsibilities of superintendence, direction and control of conduct of elections.
- ◆ Election Commission and its Challenges
 - ◆ Proliferation of political parties is one of the root causes for the deterioration of electoral process. According to the Election Commission, around 2,300 parties are registered with the Election Commission till March 2019, but out of them only about 400 parties actually contests in the general

election. The Commission also states that the main problem is that there is no specific provision to de-register a party.

- ◆ The problem with extravagant spending of money is that the person who wins the election spends all his or her time recovering the money that he or she spent during the election and in returning favours to those who funded him or her, rather than focusing on real issues of governance.
- ◆ Reforms for Ensuring Sanctity of Electoral Process
 - ◆ Introduction of Voter Verifiable Paper Audit Trail (VVPAT) machines to cross-check EVM results through a paper audit, completing another layer of accountability to the indigenously produced machines.
 - ◆ Provision of None of the Above (NoTA): Supreme Court in the People's Union for Civil Liberties v. Union of India case, 2013 paved the way for the introduction of NOTA.
- ◆ Over the years, the Election Commission has conducted a number of laudable electoral reforms to strengthen democracy and enhance the fairness of elections. These reforms are quite adequate and admirable.
- ◆ However, our system is still plagued by many vices. To win votes, political parties resort to foul methods and corrupt practices. Such maladies encourage the anti-social elements to enter the electoral fray. The problem is not lack of laws, but lack of their strict implementation.

Water Conservation Fee: A Tool to Improve the Groundwater Crisis

Q4. "Levying a water conservation fee is perceived as a silver bullet which would discourage setting up of new industries in over exploited and critical areas." Critically analyse.

Hints:

- ◆ Water Conservation Fee (WCF) would be levied for use of ground water depending on the category of area, type of industry and quantum of ground water withdrawal. Levying a WCF is, therefore, perceived as a silver bullet which would 'discourage setting up of new industries in over exploited and critical areas'.
- ◆ The draft guidelines make it mandatory for the industries, mining and infrastructure projects, other than those of government, to obtain a no-objection certificate for withdrawing ground water.

- ◆ Exemption from requirement of NOC has been given to agricultural users, users employing non-energised means to extract water, individual households and Armed Forces Establishments during operational deployment or during mobilization in forward locations.
- ◆ However, what the Ministry has overlooked is the legal provision for groundwater abstraction under the guise of WCF, thereby, promoting the idea of 'pay more and extract more'. In other words, the extraction of groundwater will be permitted for both drinking and domestic use; and industry, mining, and infrastructure projects, given a no-objection certificate (NOC) is obtained from relevant groundwater authority and user fee paid.
- ◆ Hence, groundwater regulation and governance in India should be reformed based on the grave realities around water scarcity, contamination and other challenges, else we will add to the irreparable damages that we have already created.

AYUSH: A Different Therapeutic System

Q5. What do you understand by 'AYUSH'? Discuss why mainstreaming of AYUSH with the existing health system in the country, at all levels of health care is necessary for all sections of society.

Hints:

- ◆ Indian traditional medicine system has been based on this principle focusing on holistic health rather than treating a disease. Ayurveda, Homoeopathy, Naturopathy, Yoga, Unani, Siddha (AYUSH), all these traditional alternative therapies advocate a lifestyle which provides a healthy body, mind and overall happiness.
- ◆ The National Health Policy (NHP) 2017 has strongly advocated mainstreaming the potential of AYUSH within a pluralistic system of Integrative healthcare. It also highlighted importance of scientific evidence for safety and efficacy of AYUSH medicines and practices, and indicates the necessity of capacity building, and critical mass of competent professionals through quality education and training at national and international levels.
- ◆ However, the proposed strategies have not been achieved the desired results owing to the presence of multiple challenges / barriers such as distinct approach for management of a clinical condition; unrelated rationale involved in different systems practice; an

unclear policy for cross referral; inadequate or absent infrastructure, assistance and supplies; potential rise in cross practice; shortage of staff; inequitable emoluments; ethical concerns (viz. no healthy dialogues between practitioners of either system/not disclosing which type of practitioners the patient is seeing); and lack of accountability mechanisms especially at the grassroots levels.

- ◆ One can conclude by saying that 'Alternative Medicine' is not an 'alternative' at all, but the basis of our health care system and hence should become a part of everyone's life. This, coupled with adequate and appropriate government policies, can ensure a healthy, blissful life for every Indian citizen.

Bay of Bengal: An Emerging Platform for Dialogue & Policy Making

Q6. "The Bay of Bengal is emerging, once again, as the platform for dialogue and policy making aimed at ensuring stability in the region." Critically discuss.

Hints:

- ◆ The Bay of Bengal is now subject to multiple policy initiatives such as China's 'Belt and Road Initiative', Japan's 'Free and Open Indo Pacific', India's 'Look/Act East Policy' and Indonesia's 'Global Maritime Fulcrum' among others. Japan particularly with its supply chains across the Bay is intent on strengthening the region's economic integration.
- ◆ Prevailing Concerns in the Bay
 - ◆ Despite being intrinsically rich in hydrocarbons and minerals, this region has not emerged so far as a major oil and natural gas producing area. In terms of foreign investment in the energy sector, this region (barring Malaysia and Indonesia) also appears to have been neglected in the past.
 - ◆ Strategic competition have intensified across the BoB due to the resource concerns of Bay littorals, competing maritime presence of extra-regional powers and the preponderance of non-traditional security threats.
- ◆ India's Approach
 - ◆ India has an interest in protecting the Sea Line of Communication (SLOC) in the BoB from the threat of maritime terrorism, piracy, and natural disasters to meet its growing energy demands. For this

reason, India is seeking to cement its role as a net-security provider in the region through platforms like the Indian Ocean Naval Symposium (IONS) and Exercise MILAN, a biennial naval exercise in which many of the littoral states of the BoB participate.

- ◆ Instead of restricting itself only to fundamental security issues in the BoB, India must carve out a mental map of the BoB that prioritizes the idea of a community within South and Southeast Asia sharing the same waters and the same opportunities, threats, and risks.

The Unregulated Urea Market: Issues and Interventions

Q7. Critically analyse the most prominent problems related to urea as fertilizer and weigh various policy options to tackle the same.

Hints:

- ◆ The urea market has numerous distortions that make it a unique and complex problem. We will split the issues into those of supply or production and demand or sales. It comprises problems related with domestic production, issue of import, demand estimation and overuse of urea.
- ◆ The New Urea Policy-2015 was notified with the objective of maximizing indigenous urea production, promoting energy efficiency in urea production and rationalizing subsidy burden on the government.
- ◆ Lack of availability constrains sale of urea and creates a black market where farmers pay 60% higher prices on average. This lack of availability is due to overregulation of the urea market and the untargeted nature of the subsidy. A large amount of the subsidy is lost through inclusion errors and siphoning to industry.
- ◆ Direct benefit transfer in fertilizer is a modified payment of subsidy in which the fertilizer companies are paid subsidy only after the retailer has sold the fertilizer to the farmer. The buyer identity is authenticated using a point of sale machine through Aadhaar authentication.
- ◆ Urea policy is politically sensitive. Solutions like reducing rate of subsidy or deregulating prices will not gain political support in the absence of a crisis. Therefore, we must look for second-best solutions like the ones presented to gradually transition to the desired endstate.



SEVEN IMPORTANT NEWS

1. Indo-Pacific Division

India has just set up an Indo-Pacific division in the foreign office. The new division is intended to give a coherent architecture to the policy, which was articulated by Prime Minister Narendra Modi at the Shangri-La Dialogue in 2018.

Key Points

The division, which started work this week, will be headed for the moment by joint secretary Vikram Doraiswami, for whom it will be an additional charge apart from Bangladesh and Myanmar.

Ministry of External Affairs's territorial divisions are crucial for policy making, so the creation of an

Indo-Pacific division is a big step by the government.

The division will integrate the Indian Ocean Rim Association (IORA), Association of Southeast Asian Nations (ASEAN) region and the Quad to the Indo-Pacific table.

It's not clear whether the different trilateral groupings in the Indo-Pacific theatre, like the India-Japan-US, India-Australia-Indonesia and India-Australia-Japan would be part of this division's responsibility.

India is planning to put greater energy to the IORA because the heart of its Indo-Pacific policy is rooted in the Indian Ocean.

This integrates the blue economy part of the Indian policy with the security part — a trilateral security mechanism between India, Sri Lanka and Maldives.

In its Indo-Pacific diplomacy, India has repeatedly placed ASEAN at the centre of its policy. ASEAN by itself does not actually speak as a united entity, particularly when confronted by China's overwhelming presence, for, while ASEAN is wary of China, it is equally wary of the US and its allies, preferring to keep the ASEAN region outside great power politics.

2. Mars Base Simulator in Gobi Desert

In the middle of Gobi desert China has built a Mars base simulator namely 'Mars Base 1'. It has a silver dome and nine modules, including living quarters, a control room, a greenhouse and an airlock. The facility's unveiling comes as China is making progress in its efforts to catch up to the United States and become a space power, with ambitions of sending humans to the moon someday.

Surrounded by barren hills in northwestern Gansu province, 'Mars Base 1' has opened with the aim of introducing citizens to what life could be like on the Red Planet.

Although currently an educational facility for schools, the company behind the project, C-Space, is planning to open it up to tourists next year.

Authorities are investing 2.5 billion yuan (£286 million) with the hope of attracting two million visitors a year by 2030.

Background

It follows a similar Mars 'village' that opened last month in the Qaidam Basin of neighbouring Qinghai - a searingly hot desert region, which is considered to be the closest replica of Mars conditions on Earth.

China in Space

China conducted its first crewed space mission in 2003, only the third country to do so after Russia and the US. It has put a pair of space stations into orbit and planning to launch a Mars rover in the mid-2020s.



Earlier this year, it made the first ever soft landing on the far side of the Moon, deploying a rover on the surface, claiming it had 'opened a new chapter in human lunar exploration.'

In 2020, China is planning to begin building a manned space station on the lunar surface controlled by artificial intelligence robots until humans arrive.

3. Grafting Technology to Boost the Yield of Brinjal

The Tamil Nadu Agricultural University (TNAU) has evolved a technology – grafting technology – to boost the yield of brinjal. This technology, particularly in vegetable crops, is widely prevalent in most foreign countries. The University has, after successful completion of field trials, released this technology and imparted training to around 300 farmers.

Key Highlights

It is a method of propagation to boost plant growth by increasing the uptake of nutrients and developing resistance to soil borne diseases with suitable rootstocks. Normally, the plant is shallow-rooted. But grafting

is different. After beheading the top of rootstock, a small slit is made to accommodate the brinjal seedling and the two are tied using grafting clips or polythene strips. The grafted plant is placed in a mist chamber for three to five days before being transferred to shade net. It would take a month-and-a-half to produce brinjal grafts.

The grafts are then transplanted in the field. The study revealed that the root of the grafts run deep into the soil, does not require as much water, is resistant to nematodes and dry root rot and above all the plant duration can be extended to a year. There is a three-fold increase in yield over conventional seedling.

About Grafting

Grafting is an advanced technique that botanists, farmers, gardeners, and hobbyists use



to add living tissue from one plant to another. Plant tissues have the ability to grow new vascular tissue, and the process of grafting takes advantage of this ability. The vascular tissue of the main plant joins with the vascular tissue of the added plant, keeping the new tissue alive and growing. This is a way for plants to reproduce asexually.

4. India's First Interactive Bird Park

India's first foreign interactive and exotic world park was inaugurated in Mumbai. The first-of-its-kind rain forest-themed park spread across 1.4 acres is home to over 500 exotic birds from more than 60 species.

Key Highlights

The main motive was to set up a bird park that meets international standards and lets the city dwellers peep into the birds' world.

The park is carefully designed to ensure appropriate living conditions for the birds. It is meant not only for entertainment but also to spread

awareness of different types of birds.

Spread over almost 1.5 acre of a rainforest themed terrain, tourists can take a walk through the aviary where over 500 birds belonging to 60 different exotic species including terrestrial, aquatic and high gliding birds are housed, most of which roam freely providing, visitors and bird enthusiasts an opportunity of watching the birds from very close distance. For the safety purpose and to ensure that the birds do not escape, the entire bird park has been covered with a 50-foot tall mesh cage. The park is equipped with small ponds for aquatic birds, dense cover of

trees for birds to incubate their eggs and a water stream that offers drinking water to birds. It also houses a special bird's kitchen and healthcare centre.

Birds Housed

- ◆ **High gliding birds:** African grey parrot, Blue gold Macaw, Cockatiel, Rainbow lorikeet, Toucan, Black lorry and Violet turaco.
- ◆ **Terrestrial birds:** California quail, Golden pheasant and Ostrich.
- ◆ **Aquatic bird:** Black swan, American wood duck and Mandarin duck.

5. Mental Illness of Death Row Convicts Ground to Spare them from Gallows

In a historic verdict, the Supreme Court (SC) has given a ray of hope to people on death row who develop "severe mental illness" post-conviction, saying their health condition would now be a "mitigating" factor for appellate courts

for sparing them from the gallows.

SC's View

An accused could till now take the plea of "legal insanity" under the Indian Penal Code (IPC) to avoid criminal

prosecution and the defence was made relatable to the moment when the crime is committed.

It, however, took note of "barbaric and brutal manner of commission of the crime" and awarded the jail term to

the convict for “remainder of his life” with the direction to the government to ensure proper mental health care to him.

Delineating directions to be followed by appellate courts on sentencing mentally-ill accused, the bench said: “The post-conviction severe mental illness will be a mitigating factor that the appellate

Court, in appropriate cases, needs to consider while sentencing an accused to death penalty.

The assessment of such disability should be conducted by a multi-disciplinary team of qualified professionals (experienced medical practitioners, criminologists etc), including professional with expertise in accused person’s particular mental

illness. To prevent misuse of the directions, the SC said the burden would be on the accused to prove “by a preponderance of clear evidence” that he is suffering with severe mental illness.

The court said that the state government would be at liberty to “offer evidence to rebut such claim” of insanity or mental illness. ■

6. World Earth Day - 2019

Earth Day is observed by people all over the world on April 22. As the name suggests, the day is dedicated to protect the planet, and spread awareness on how to conserve it. This year the theme is ‘protect our species’. As per the United Nations, World Earth Day is celebrated so that each of us remembers that we are all responsible for the the sustenance of Earth and its ecosystems.

The theme aims to draw attention to the rapid extinction of species across the world, which is directly linked with the human activities which is leading to increasing climate change, global

warming, population and deforestation which is leading straight to the rapid acceleration of the extensions of many species.

The day also identifies the collective responsibility to promote harmony with nature and the Earth in order to achieve a balance among the economic, social and environmental needs of present and future generations of humanity. This was called for in the 1992 Rio Declaration.

This day provides a suitable platform to raise public awareness around the world pertaining to the challenges and the well-being of the

planet. It also serves as the reminder of the life it supports and the need to protect it.

Background

The movement began in the US in 1970 as a protest against the brutal and severe impact of industrial development on the environment. Inspired by the passion of the student anti- Vietnam War movement and concerned by an oil spill in Santa Barbara, California, US, the movement came to be known as 'Modern Environment Movement' and it resulted in the creation of the Environment Protection Agency. ■

7. INS Imphal

The Indian Navy has launched its third guided missile destroyer at Mazgaon Docks as part of its 'Project 15B', which is aimed at adding state-of-the-art warships to the naval fleet.

Key Highlights

With a launch weight of 3037 tonnes, the INS Imphal, like the other ships under the project, has been designed indigenously by the Indian Navy’s Directorate of Naval Design, New Delhi. Each warship spans 163 metres in length and 17.4 metres at beam, and displaces 7300 tonnes.

These ships will be propelled by four gas turbines to achieve speeds in excess of 30 knots. The P 15B destroyers incorporate new design concepts for improved survivability, sea keeping, stealth and ship manoeuvrability.

Enhanced stealth features have been achieved through shaping of hull and use of radar transparent deck fitting, which make these ships difficult to detect. P 15B ships will be equipped to carry and operate two multiple role helicopters.

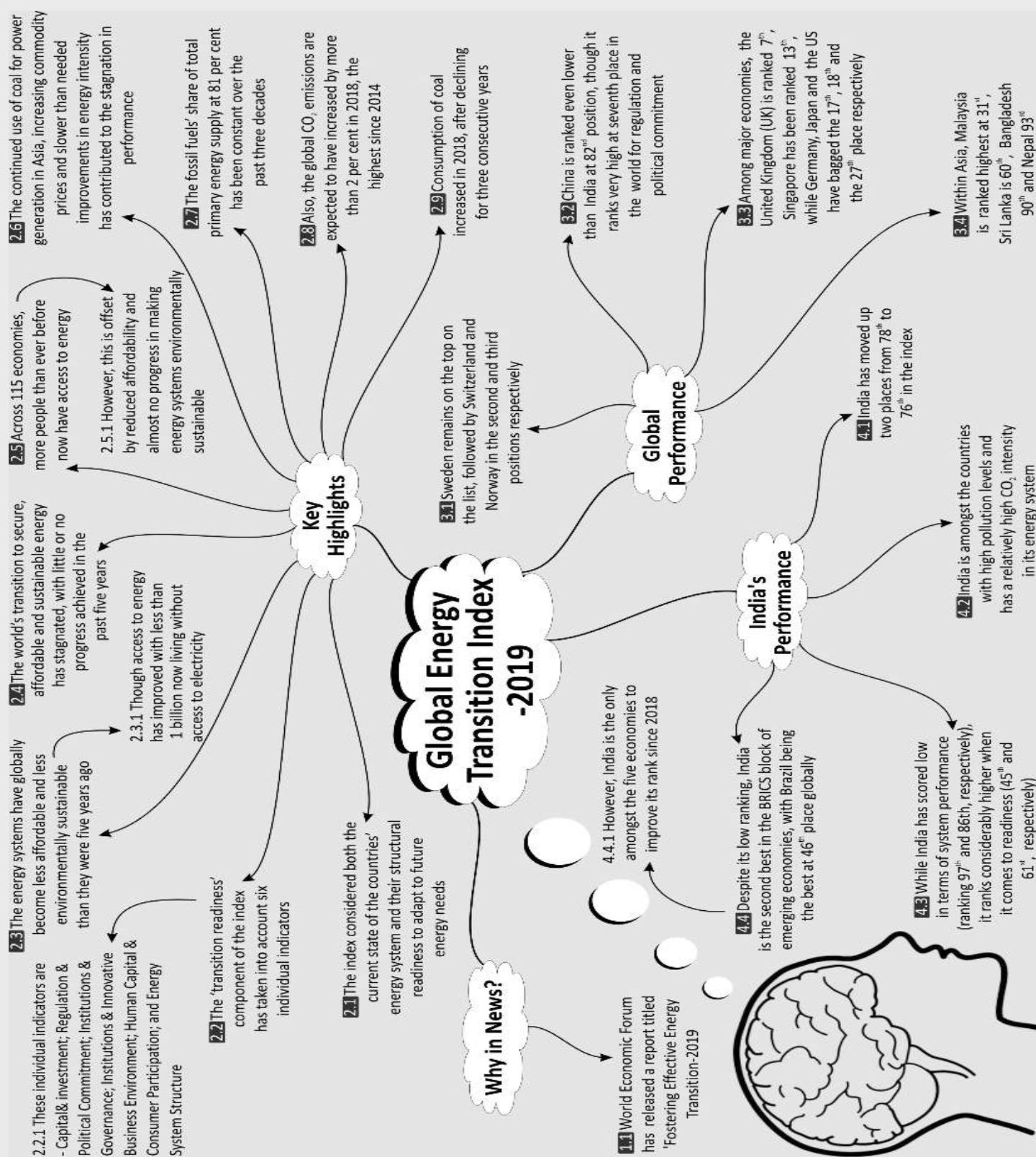
The ships are packed with an array of state-of-the-art weapons and

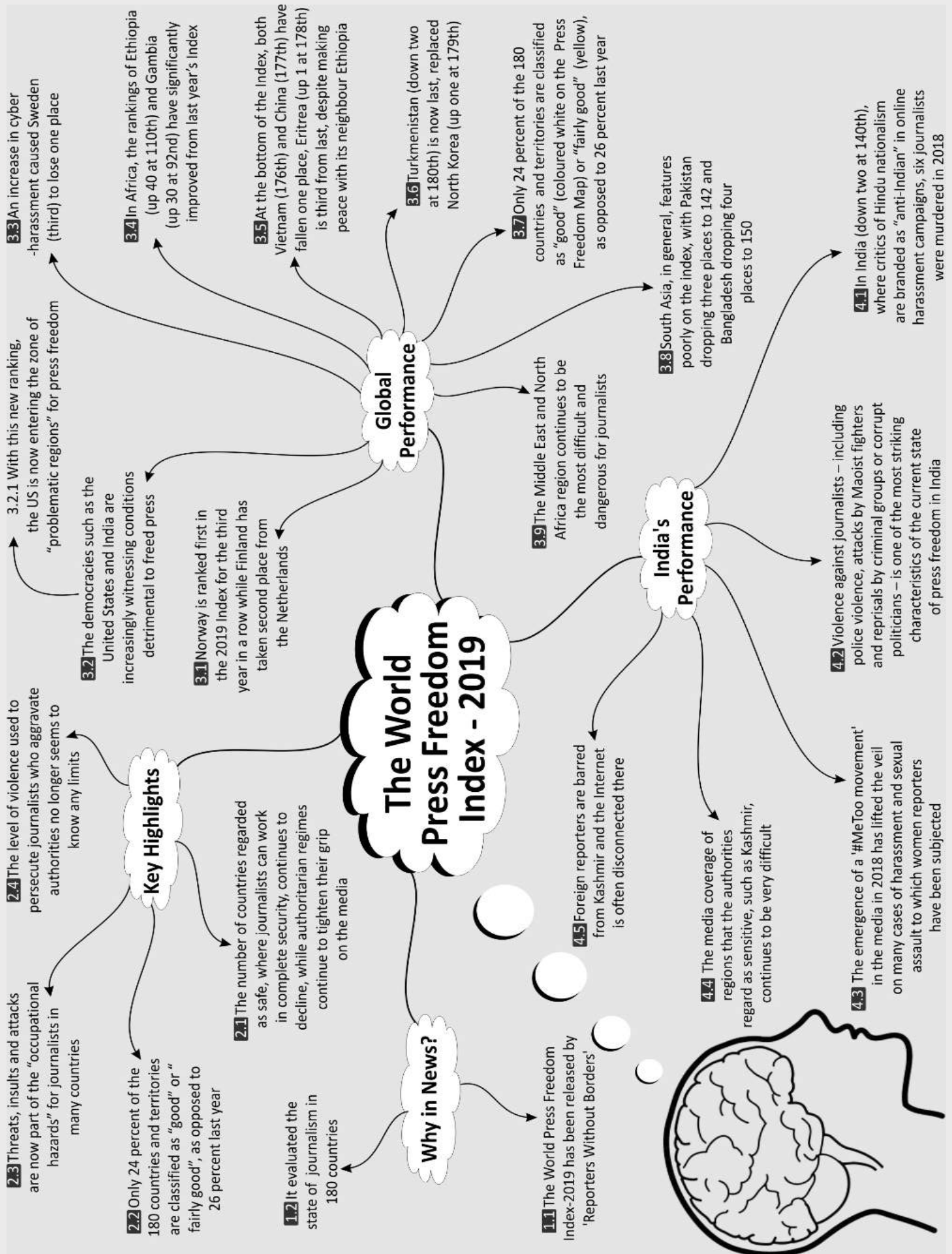
sensors, including multi-functional surveillance radars and vertically launched missile system for long-distance engagement of shore, sea-based and air targets.

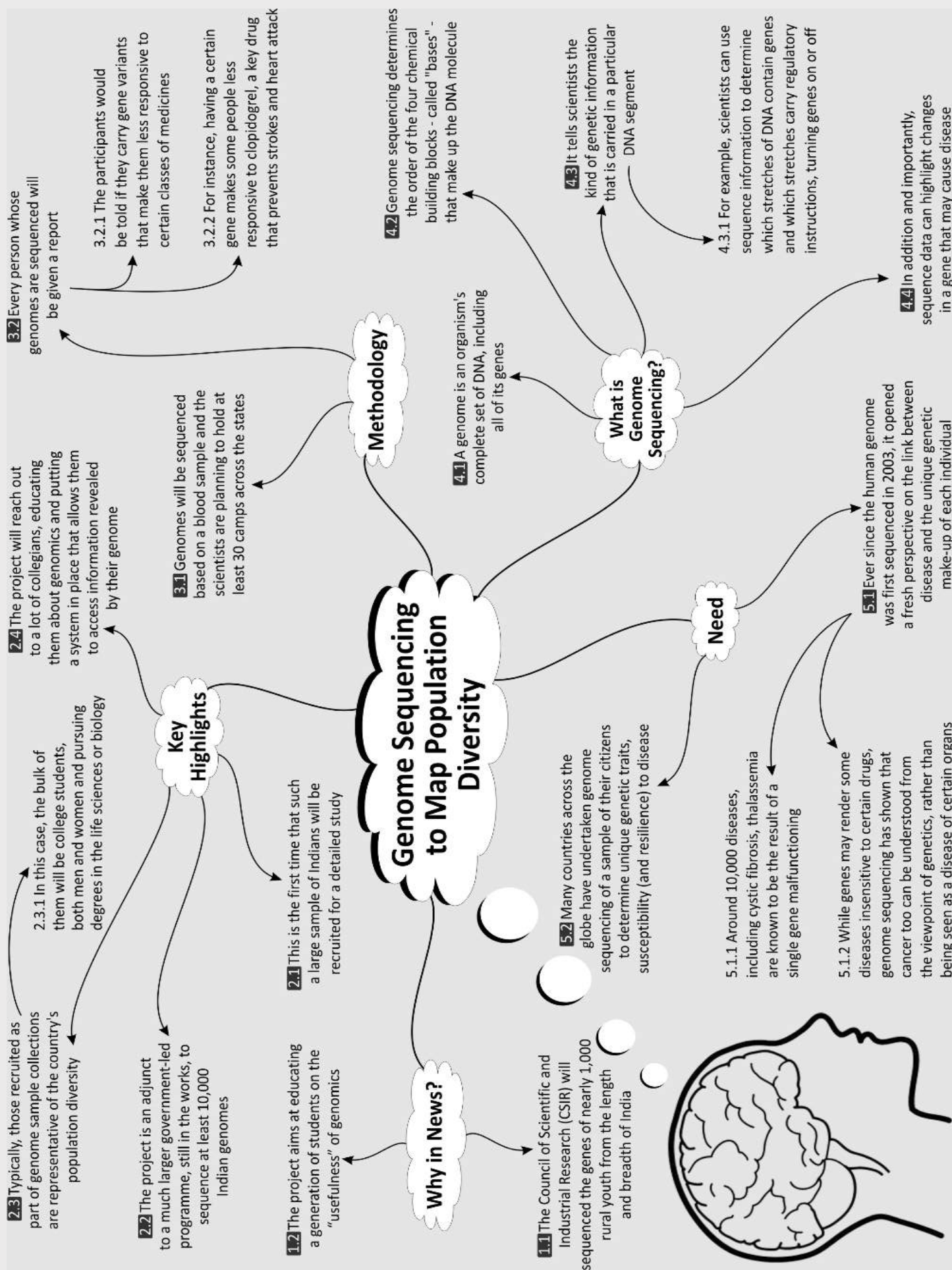
Background

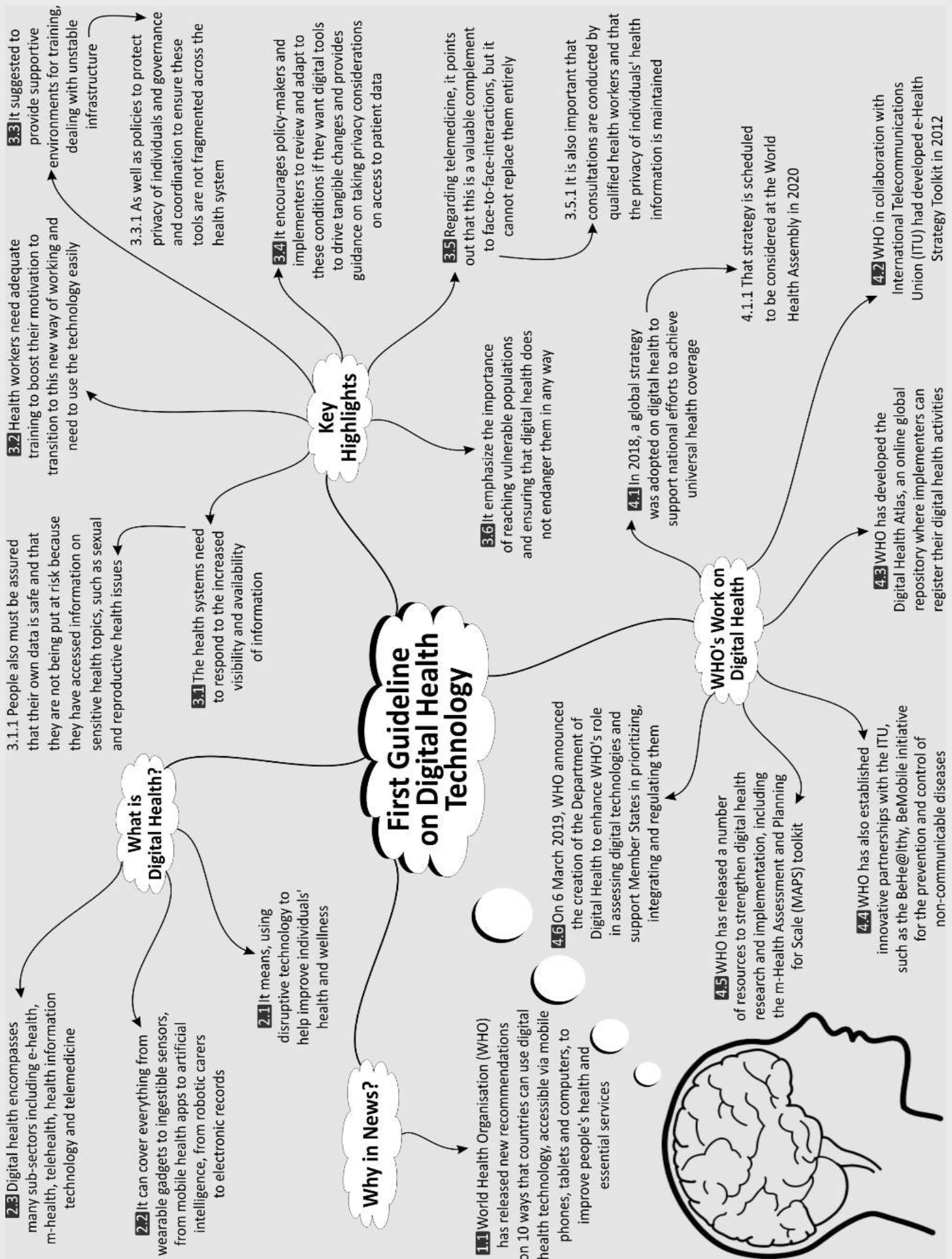
The Navy had launched INS Vishakhapatnam, the first Project 15B ship, in April 2015, while the second ship, INS Mormugao, was launched in September 2016. A contract for four destroyers under the Project 15B has been signed. ■

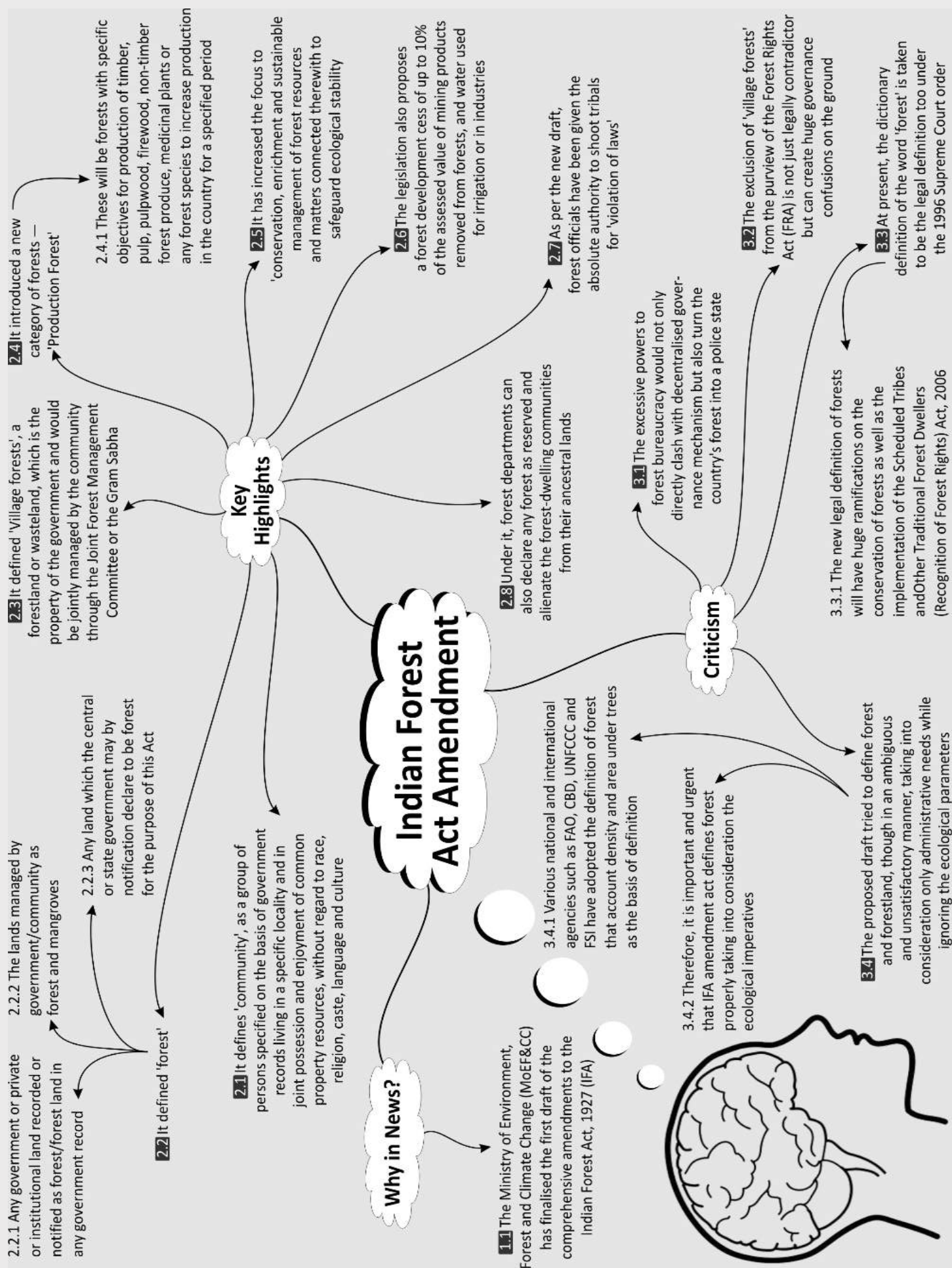
SEVEN BRAIN BOOSTERS

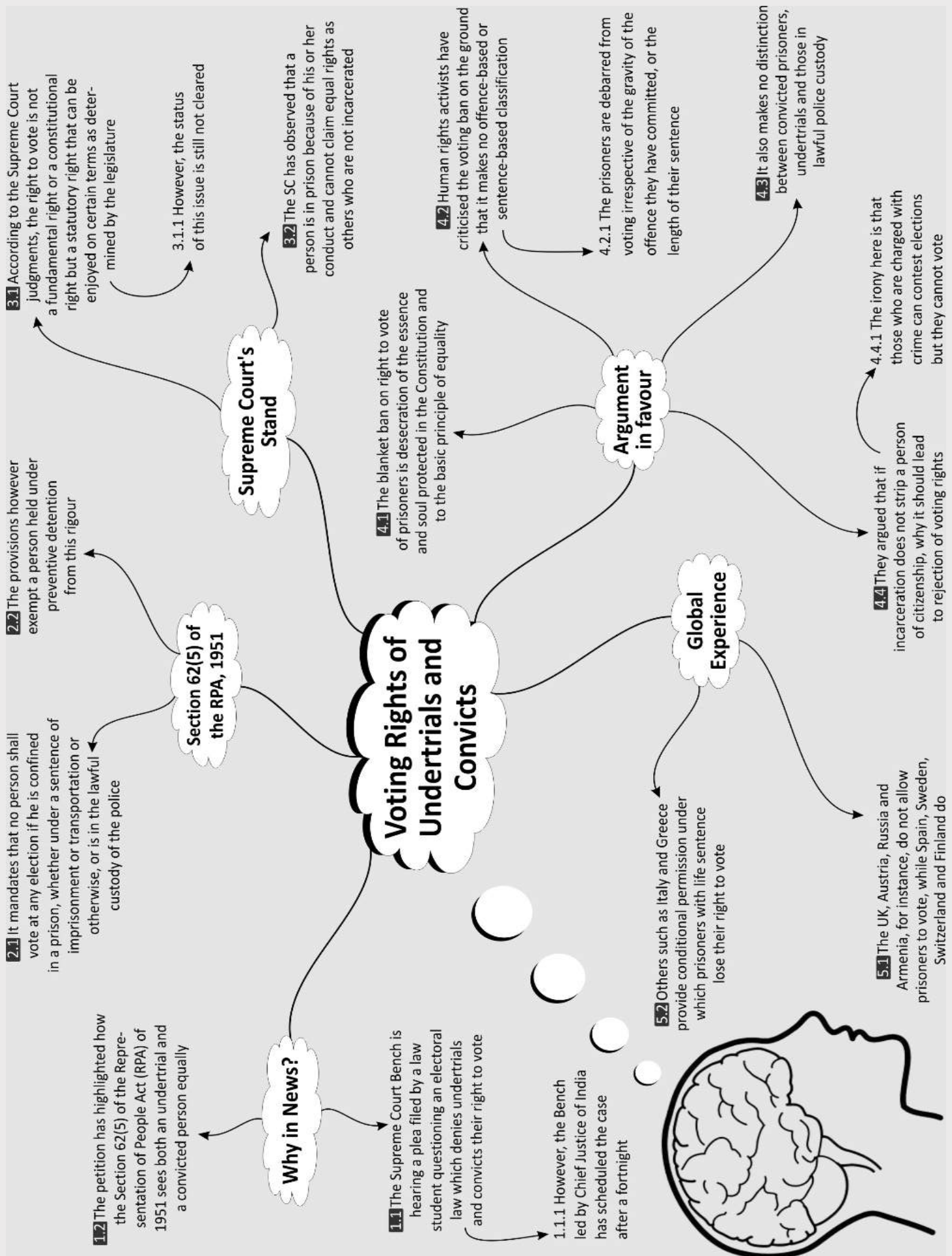


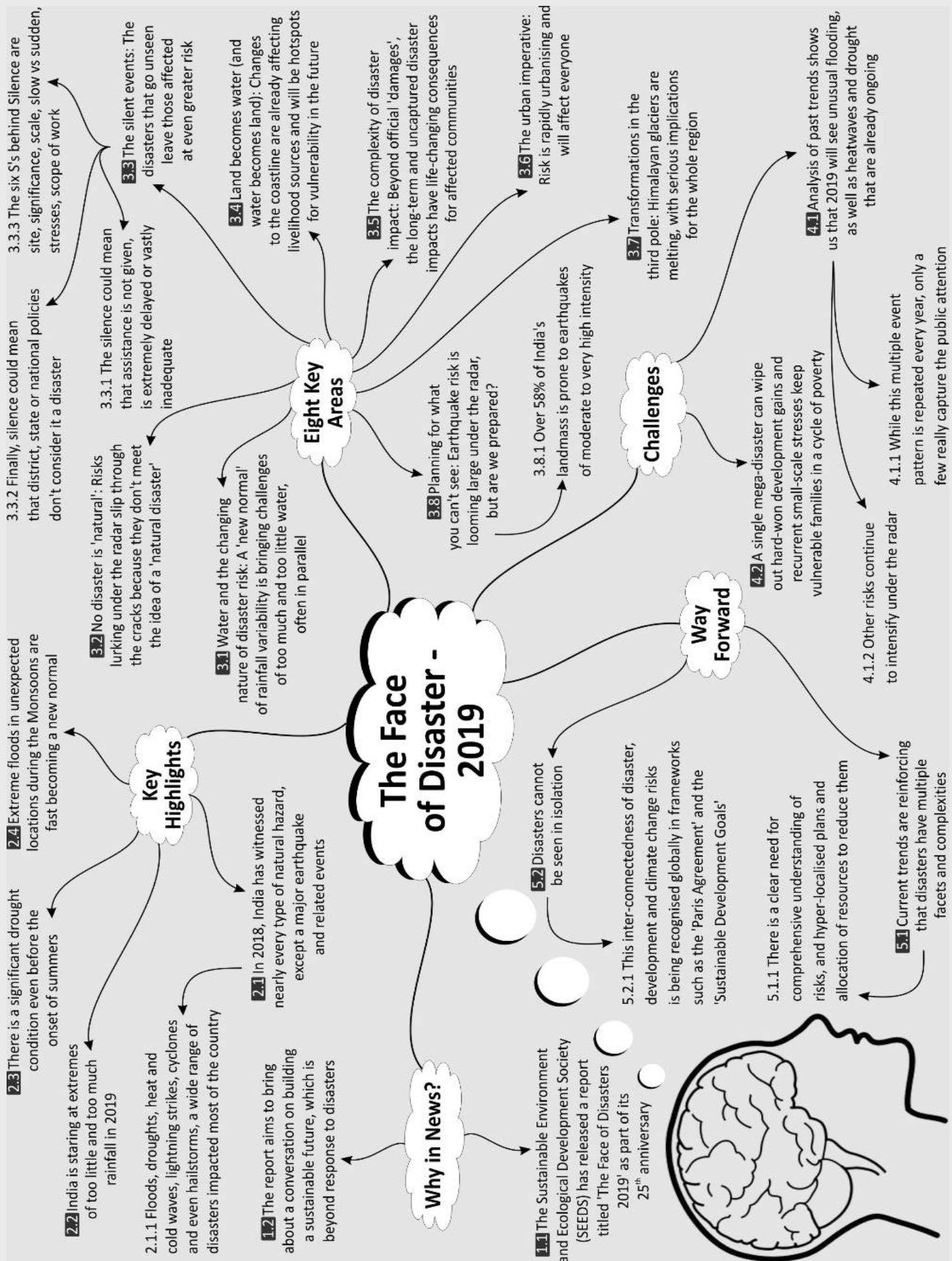












SEVEN MCQ's WITH EXPLANATORY ANSWERS

(Based on Brain Boosters)

Global Energy Transition Index - 2019

Q1. Consider the following statements in respect of 'Global Energy Transition Index - 2019':

1. It has been released by the World Bank.
2. India has dropped down two places from 76th to 78th in the index.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: (d)

Explanation: Both statements are incorrect. World Economic Forum has released a report titled 'Fostering Effective Energy Transition 2019'. The index considered both the current state of the countries' energy system and their structural readiness to adapt to future energy needs.

India has moved up two places from 78th to 76th in the index. India is amongst the countries with high pollution levels and has a relatively high CO₂ intensity in its energy system.

The World Press Freedom Index - 2019

Q2. Consider the following statements in respect of the 'World Press Freedom Index - 2019':

1. It has been released by 'Reporters Without Borders'.
2. India's rank dropped down to 140th from 138th in 2018.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: (c)

Explanation: Both statements are correct. The World Press Freedom Index - 2019 has been released by 'Reporters Without Borders'. It evaluated the state of journalism in 180 countries and territories.

India's rank dropped down to 140th in 2019 from 138th last year.

Genome Sequencing to Map Population Diversity

Q3. With reference to the 'genome sequencing to map population diversity', consider the following statements:

1. Department of Biotechnology will sequence the genes of nearly 1,000 rural youth to educate the generation of students on the "usefulness" of genomics.
2. It has opened a fresh perspective on the link between disease and the unique genetic make-up of each individual.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: (b)

Explanation: Statement 1 is not correct. The Council of Scientific and Industrial Research (CSIR) will sequence the genes of nearly 1,000 rural youth from the length and breadth of India. The project aims at educating a generation of students on the "usefulness" of genomics.

Statement 2 is correct. Ever since the human genome was first sequenced in 2003, it opened a fresh perspective on the link between disease and the unique genetic make-up of each individual. Around 10,000 diseases, including cystic fibrosis, thalassemia are known to be the result of a single gene malfunctioning. The knowledge of sequencing will help to cure many diseases such as Cancer.

First Guideline on Digital Health Technology

Q4. Consider the following statements in respect of 'first guideline on digital health technology':

1. World Health Organisation has released new recommendations that countries can use digital health technology, to improve people's health and essential services.

2. Digital health encompasses many sub-sectors including e-Health, m-Health, tele-health, health information technology and telemedicine.

Which of the statements given above is/are correct?

- a) 1 only b) 2 only
c) Both 1 and 2 d) Neither 1 nor 2

Answer: (c)

Explanation: Both statements are correct. World Health Organisation (WHO) has released new recommendations on 10 ways that countries can use digital health technology, accessible via mobile phones, tablets and computers, to improve people's health and essential services.

Digital health means using disruptive technology to help improve individuals' health and wellness. It encompasses many sub-sectors including e-health, m-health, tele-health, health information technology and telemedicine.

Indian Forest Act Amendment

Q5. Consider the following statements in respect of 'draft of amendments to the Indian Forest Act':

1. It proposed a forest development cess of up to 10% of the assessed value of mining products removed from forests and water used for irrigation or in industries.
2. It also introduced a new category of forests -Production Forest, to increase the production of timber, pulp, pulpwood, firewood, non-timber forest produce, medicinal plants or any forest species.

Which of the statements given above is/are correct?

- a) 1 only b) 2 only
c) Both 1 and 2 d) Neither 1 nor 2

Answer: (c)

Explanation: Both statements are correct. The legislation also proposes a forest development cess of up to 10% of the assessed value of mining products removed from forests, and water used for irrigation or in industries.

It introduced a new category of forests — production forest with specific objectives for production of timber, pulp, pulpwood, firewood, non-timber forest produce, medicinal plants or any forest species to increase production in the country for a specified period.

Voting Rights of Undertrials and Convicts

Q6. Consider the following statements in respect of 'voting rights of undertrials and convicts':

1. As per the Section 62(5) of the RPA, 1951, convicted prisoners, undertrials, a person held under preventive detention and those in lawful police custody shall not vote at any election.
2. Countries like the UK, Austria, Russia and Armenia allow prisoners to vote.

Which of the statements given above is/are correct?

- a) 1 only b) 2 only
c) Both 1 and 2 d) Neither 1 nor 2

Answer: (d)

Explanation: Both statements are incorrect: Section 62(5) of the RPA, 1951, mandates that no person shall vote at any election if he is confined in a prison, whether under a sentence of imprisonment or transportation or otherwise, or is in the lawful custody of the police. The provisions however exempt a person held under preventive detention from this rigour.

The UK, Austria, Russia and Armenia, for instance, do not allow prisoners to vote, while Spain, Sweden, Switzerland and Finland do.

The Face of Disaster - 2019

Q7. With reference to the 'The Face of Disaster - 2019' report, consider the following statements:

1. It has been released by the Sustainable Environment and Ecological Development Society (SEEDS).
2. As per the report extreme floods in unexpected locations during the monsoons are fast becoming a new normal in India.

Which of the statements given above is/are correct?

- a) 1 only b) 2 only
c) Both 1 and 2 d) Neither 1 nor 2

Answer: (c)

Explanation: Both statements are correct. The SEEDS has released a report titled 'The Face of Disasters 2019' as part of its 25th anniversary. The report aims to bring about a conversation on building a sustainable future, which is beyond response to disasters.

According to the report, in 2018, India has witnessed nearly every type of natural hazard, except a major earthquake and related events. Extreme floods in unexpected locations during the monsoons are fast becoming a new normal in India.

SEVEN IMPORTANT FACTS FOR PRELIMS

1. Which African nation has changed its name to 'the Kingdom of eSwatini'?

–Swaziland

2. Which nation has launched recently its first Satellite 'NepaliSat-1'?

–Nepal

3. Which nation has opened the world's tallest indoor waterfall at Changi Airport for general public?

–Singapore

4. Which international city hosted the 23rd Asian Athletics Championship 2019'?

–Doha, Qatar

5. Which city has named as 'World Capital of Architecture for 2020' by UNESCO?

–Rio de Janeiro, Brazil

6. Which nation will host world's foremost artificial intelligence summit to empower global dialogue on the future of government, business and society?

–United Arab Emirates

7. Which nation has started the pilot tests of the world's first malaria vaccine (RTS,S) to reduce Malaria in children?

–Malawi

○○○

SEVEN IMPORTANT HIGHLIGHTS FROM PIB

1. Science & Technology for Positive change in the Lives of People

The Vice President of India, Shri M. Venkaiah Naidu has asked the youngsters and students to use science and technology and their intellect to bring in a positive change in the lives of people.

Key Highlights

He called upon the youth to make impactful contributions to the society by providing solutions to pressing problems of the nation such as poverty, illiteracy, climate change, hidden hunger, urban-rural divide and others.

The Vice President while expressing concern over poor global ranking of Indian Higher Educational Institutions, stressed the need to completely revamp the higher education system. He asked universities to play a leading role by incorporating relevant changes in curriculum, teaching methodologies and research strategies to make India a hub for global learning.

Observing that economic prosperity must ensure equitable development, he called for a special focus on bridging the urban-rural divide in education, health, and other areas. He also stressed upon the need to ensure inclusive development to create a harmonious society where different sections of the society could get access to the wealth created.

All technical and human resources must encourage their students to work with local societies and offer technology-based solutions to the problems faced by them. He also wanted the academic institutions maintain regular coordination with industry and the government to prepare the students for jobs of the future.

There is a need to maximize the potential of India's demographic dividend by imparting employable skills and also provide training to youth.

2. Participation of Indian Navy in PLA (N) IFR

INS Kolkata and Shakti reached China to participate in the International Fleet Review (IFR) as part of 70th Anniversary Celebrations of People's Liberation Army (PLA) (Navy) on 21 April 2019. The Indian Navy has deployed its finest assets for the IFR with an aim to strengthen existing cooperation, enhance mutual trust, extend interoperability and build greater synergy to address common maritime concerns among participating navies. The participation of Indian Navy in PLA (N) IFR, for third consecutive time (2009,



2014 and 2019), is a demonstration of the Nation's commitment to enhance maritime cooperation between the two navies and bolster bonds of friendship between the two Countries.

INS Kolkata is equipped with state-of-the-art weapons and sensors to address threats in all dimensions of naval warfare while the INS Shakti, a replenishment ship, is one of the largest tankers displacing over 27,000 tonnes and capable of carrying 15,000 tonnes of liquid cargo and over 500 tonnes of solid cargo including victuals and ammunition.

About IFR

International Fleet Review is a parade of naval ships, aircraft and submarines, and is organised by nations to promote goodwill, strengthen cooperation and showcase their organisational capabilities. IFR also serves as an ideal platform for the world's navies to showcase their prowess and indigenous ship designing and shipbuilding capabilities in the international arena.

India has organised an IFR off Visakhapatnam in February 2016 which saw participation of nearly 100 warships from 80 countries.

3. Creating Awareness about Lifestyle Diseases

The Vice President of India has urged the medical fraternity to create awareness among the people, particularly the youth, on the dangers posed by changing lifestyles.

Key Highlights

He asked youth to shun junk food and pointed out that traditional Indian food was time-tested, seasonal and suitable to Indian climatic conditions.

Stressing the need for building a healthy nation, he said that the spread of non-communicable diseases, unequal access to healthcare and rising costs are the major challenges in the healthcare sector.

He also wanted the urban-rural gap in providing modern healthcare facilities to be bridged and urged the private sector to supplement the efforts of the governments in catering to the rural population.

Pointing out that hospitals in rural areas were facing shortage in terms of infrastructure and human resource, he

suggested a mandatory rural service for young doctors after passing out of the college.

About Lifestyle Diseases

Lifestyle diseases characterize those diseases whose occurrence is primarily based on the daily habits of people and are a result of an inappropriate relationship of people with their environment. The main factors contributing to lifestyle diseases include bad food habits, physical inactivity, wrong body posture, and disturbed biological clock.

Globally, 14.2 million people between the ages of 30-69 years, die prematurely each year from diseases like heart attack, diabetes, and high blood pressure. Some of these diseases have emerged as more fatal than hereditary diseases or infectious ones. Some of the most common type of lifestyle diseases are- obesity, type II diabetes, arteriosclerosis, heart diseases, high blood pressure, cancer, chronic obstructive pulmonary disease, etc.

4. Exercise Sea Vigil Concluded

The maiden national level Coastal Defence Exercise Sea Vigil was conducted by Indian Navy from 22 to 23 January 2019. The exercise witnessed the simultaneous activation of the coastal security apparatus across the country involving maritime stakeholders at the Centre and all the 13 coastal states and Union Territories. The debrief of Exercise Sea Vigil was held on 16 April 2019.

The Chairperson highlighted the significant achievements during the exercise and complimented all stake holders for the progress made over last decade in the realm of Coastal Defence and Security. He complimented the strong interagency coordination and interoperability achieved during the exercise and reiterated the need for flexibility and agility to deal with security challenges.

About Exercise

Sea Vigil that lasted for over two days, including the mobilisation phase, witnessed a high tempo of operations by all agencies and large-scale deployment of forces. All operational centres of the Navy and Coast Guard and control rooms of Police and Kochi Port were fully activated and exchanged information with each other. During the exercise, multi-agency teams also evaluated the security set up implemented by agencies including at fishing harbours, fish landing centres, police control rooms and ports amongst others.



Sea Vigil conducted by Indian Navy and assisted by all stakeholders will facilitate in establishing shortfalls, working out new ways to optimise resources, recommend solutions to higher authorities and refine Standard Operating Procedures. With active support from all stakeholders, such exercises further strengthen the overall security architecture and enhance confidence to thwart any misadventure by anti-national elements.

5. Empower Women by Educating them on Finances

The Vice President of India has asserted that the nation could not accelerate its progress unless women were involved as equal stakeholders in every sphere of activity. He urged the state governments and the Centre, NGOs and civic society at large to collectively work towards educating women on financial management.

Key Highlights

Economy like India which was projected by IMF to grow at

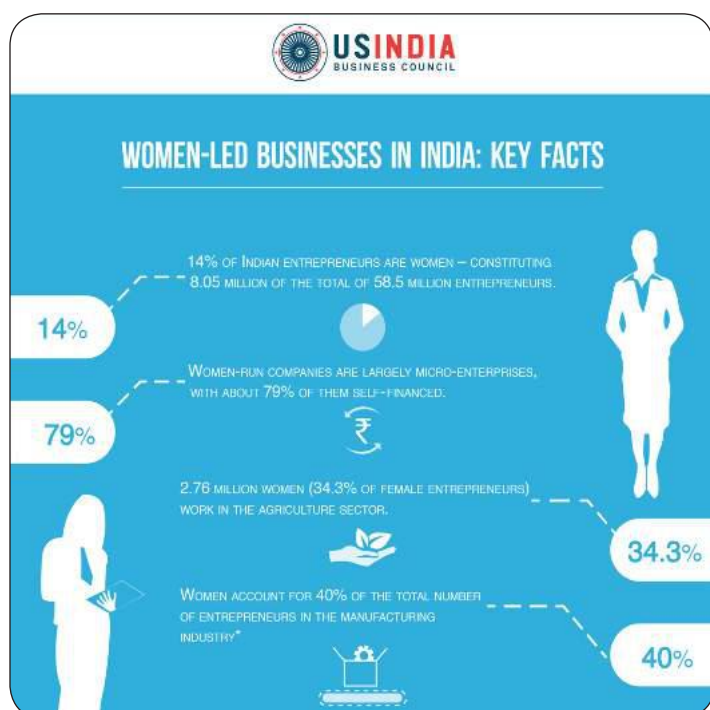
7.3 per cent this fiscal and 7.5 per cent in 2020 and is poised to become a US \$ 5 trillion economy in next five years, must make women equal partners in that process by creating an enabling framework. We must realize that one cannot change social dynamics without women's involvement in the economy.

Educating women and girls about financial services, instilling the discipline of financial investment in them would not only make them run households better, but would also help bring a turnaround in the fortunes of our country.

Empowering women through financial literacy would not only help in bridging the gender gap but would also ensure more secure future for women. At the same time, it was equally important to impart training and skills to women for economic empowerment.

Observing that financially literate women ensure greater financial stability through investments and savings, there is a need to train rural women in the use of digital technology to promote and sell their products as also to ensure proper investment of their earnings.

Financial inclusion is one of the most effective accelerators of economic participation by women and called for efforts to generate or create programs and modules to increase financial literacy among women. He also complimented the 'Jaadu Ginni' Ka campaign, a financial literacy initiative in India working in 15 states.



6. Home Expo India - 2019

The 8th edition of Home Expo India - 2019 was held at India Expo Centre and Mart, Greater Noida. The three-day exhibition was organized by the Export Promotion Council for Handicrafts (EPCH). Select exhibitors, premium products and invited buyers were the attention of this year's home expo. Buyers from more than 50 countries including USA, Europe, Argentina, Brazil, Chile, Colombia, UAE, Lebanon, Iran, Nigeria, Ghana, South Africa, Vietnam and Romania visited the home expo.

Home Expo India covers sectors with maximum thrust and growth potential in home decor, furnishing, furniture, flooring and textiles. About 500 companies in permanent marts exhibited their collection under these categories at the state of the art India Expo Centre & Mart. During the

expo, a thematic display of the North Eastern region and other artisans were also attracted the visitors.

Significance

Exports of furniture and accessories grew by about 27.13%, houseware and decorative 15.19%, home furnishing, flooring and home textiles 6.3% last year. Handicrafts exports during the year 2018-19 was Rs. 26,590.25 crores (provisional) registering a growth of 15.46% over the previous year.

About EPCH

EPCH is the nodal export promotion body for handicrafts in India and plays an important role with the main objective of boosting trade in handicrafts and also projects India's image in the global market as a reliable supplier.

7. Life of Mahaveer holds Crucial Lessons to Contemporary World

The Vice President of India has said that the life of Bhagwan Mahaveer and the philosophy of Jainism hold many crucial lessons for contemporary world.

Key Highlights

The messages of non-violence, truth and universal compassion illuminated a path of righteousness and honesty. The spiritual radiance and moral splendour of Bhagawan Mahaveer's teachings would keep inspiring everyone to strive for peace, harmony and progress for all humanity. Bhagwan Mahaveer was one of the most illustrious and celebrated spiritual teachers to have walked on this Earth.

Jainism has contributed greatly to the spiritual development of India and has helped fortify India's unwavering commitment to the ideals of truth, non-violence and peace. India was the cultural capital of the world, the

seat of the highest human values of love, peace, tolerance and brotherhood and the source of profound knowledge and wisdom, the Vishwaguru to the world. We have to reclaim our rightful position of leadership in the world.

The world is currently in the grip of violence in several forms from terrorism, insurgency and civil wars on one hand and the consequences of unchecked exploitation of resources and unbalanced and poorly planned developmental actions on the other.

He called upon people to strive to attain peace and spare no efforts to suffuse harmony into their relationship with nature. We must cease the reckless exploitation of the abundant resources of nature and exercise restraint in the way we live. It is time for people to introspect and have a re-look into ancient values and identify the best of them to find solutions to the pressing issues.



SEVEN IMPORTANT CONCEPTS THROUGH GRAPHICS

1. Bharatnatyam Dance



Key Facts

- It is an Indian classical dance that originated in the Hindu temples of Tamil Nadu.
- As a solo dance, Bharatnatyam leans heavily on the abhinaya or mime aspect of dance - 'the nritya', where the dancer expresses the sahitya through movement and mime.
- Bharatnatyam dance is known to be 'ekaharya', where one dancer takes on many roles in a single performance.
- In the early 19th century, the famous Tanjore Quartette, under the patronage of Raja Serfoji are said to have been responsible for the repertoire of Bharatnatyam dance as we see it today.
- The repertoire of Bharatnatyam is extensive, however, a performance follows a regular pattern.
- At first there is an invocation song. The first dance item is the 'alarippu', literally meaning - to adorn with flowers.
- The next item is 'jatiswaram'. Jatiswaram has no sahitya or words, but is composed of 'adavus' which are pure dance sequences - 'nritta'.
- 'Shabdam' follows the 'jatiswaram'.
- After the 'shabdam', the dancer performs the 'varnam'. The varnam which is the most important composition of the Bharatnatyam repertoire, encompasses both 'nritta' and 'nritya' and epitomises the essence of this classical dance form.
- After the strenuous 'varnam', the dancer performs a number of abhinaya items expressing a variety of moods. The common pieces are 'keertanam', 'kritis', 'padams' and 'javalis'.
- A Bharatnatyam performance ends with a 'tillana', a vibrant dance performed to the accompaniment of musical syllables with a few lines of sahitya.
- The accompanying orchestra consists of a vocalist, a mridangam player, violinist or veena player, a flautist and a cymbal player. The person who conducts the dance recitation is the Nattuvanar.

2. Kathakali Dance



Key Facts

- Kathakali is the dance drama from the South Indian state of Kerala.
- 'Chakiarkoothu', 'Koodiyattam', 'Krishnattam' and 'Ramanattam' are few of the ritual performing arts of Kerala which have had a direct influence on Kathakali in its form and technique.
- For body movements and choreographical patterns, Kathakali is also indebted to the early martial arts of Kerala.
- Kathakali is a blend of dance, music and acting and dramatizes stories, which are mostly adapted from the Indian epics.
- Kathakali dance is chiefly interpretative. The characters in a Kathakali performance are broadly divided into 'satvika', 'rajasika' and 'tamasika' types.
- The facial muscles play an important part. The movement of the eyebrows, the eye-balls and the lower eye-lids as described in the Natya Shastra are not used to such an extent in any other dance style. The weight of the body is on the outer edges of the feet which are slightly bent and curved.
- 'Kalasams' are pure dance sequences where the actor is at great liberty to express himself and display his skills. The leaps, quick turns, jumps and the rhythmic co-ordination make kalasams, a joy to watch.
- A Kathakali performance begins with the 'kelikottu', a formal announcement of the performance. A pure nritya piece known as the 'purappadu' comes as a sequel to this.
- 'Ilakiattam' is that part of the performance when the characters get an opportunity to demonstrate their excellence in abhinaya.

3. Kathak Dance

Key Facts

- Kathak is the principal classical dance of North India.
- The word Kathak has been derived from the word Katha which means a story.
- The nineteenth century saw the golden age of Kathak under the patronage of Wajid Ali Shah, the last Nawab of Oudh.
- He established the 'Lucknow gharana' with its strong accent on bhava, the expression of moods and emotions.
- The 'Jaipur gharana' known for its layakari or rhythmic virtuosity and the 'Benaras gharana' are other prominent schools of Kathak dance.
- The weight of the body is equally distributed along the horizontal and vertical axis. The full foot contact is of prime importance where only the toe or the ball of the foot are used, their function is limited. There are no deflections and no use of sharp bends or curves of the upper or lower part of the body. Torso movements emerge from the change of the shoulder line rather than through the manipulations of the backbone or upper chest and lower waist muscles. In the basic stance, the dancer stands straight, holds one hand at a level higher than the head and the other is extended out on the level of the shoulder.
- The dancer commences with a sequence called 'That' where soft gliding movements of the neck, eyebrows and the wrists, are introduced. This is followed by a conventional formal entry known as the 'Amad' (entry) and the 'Salami' (salutation).
- The nritya portion of Kathak is performed to the 'nagma'.
- In the mime portions (nritya or abhinaya), words are not used in simple numbers called the 'gata'.



4. Manipuri Dance



Key Facts

- Manipuri dance originated in the state of Manipur in the North-eastern corner of India.
- 'Lai Haraoba' is one of the main festivals still performed in Manipur which has its roots in the pre-Vaishnavite period.
- The principal performers are the 'maibas' and 'maibis' (priests and priestesses).
- It has a large repertoire, however, the most popular forms are the 'Ras', the 'Sankirtana' and the 'Thang-Ta'.
- There are five principal 'Ras' dances of which four are linked with specific seasons, while the fifth can be presented at any time of the year.
- The 'Kirtan' form of congregational singing accompanies the dance which is known as 'Sankirtana' in Manipur. The male dancers play the 'Pung' and 'Kartal' while dancing.
- The 'Pung' and 'Kartal choloms' are performed at all social and religious festivals.
- The martial dancers of Manipur - 'the Thang-ta' - have their origins in the days when man's survival depended on his ability to defend himself from wild animals.
- Manipuri dance incorporates both the 'tandava' and 'lasya' and ranges from the most vigorous masculine to the subdued and graceful feminine.
- The Manipuri classical style of singing is called 'Nat' - very different from both North and South Indian music.
- The main musical instrument is the 'Pung' or the Manipuri classical drum.

5. Odissi Dance

Key Facts

- Odissi dance originated in the Indian state of Odisha.
- The techniques of movement are built around the two basic postures of the 'Chowk' and the 'Tribhanga'.
- The 'chowk' is a position imitating a square - a very masculine stance with the weight of the body equally balanced. The 'tribhanga' is a very feminine stance where the body is deflected at the neck, torso and the knees.
- The torso movement is very important and is a unique feature of the Odissi style. With the lower half of the body remaining static, the torso moves from one side to the other along the axis passing through the centre of the upper half of the body.
- The opening item is 'Mangalacharan' where the dancer slowly enters the stage with flowers in her hands and makes an offering to mother Earth. This is followed by an invocation to the deity of the dancer's choice.
- The next item is called 'Batu'. It brings out the duality of the masculine and the feminine through the basic stance of the chauk and 'tribhanga'.
- The concluding item of the repertoire, which may consist of more than one pallavi and items based on abhinaya, is called 'moksha'.
- An Odissi orchestra essentially consists of a pakhawaj player (usually the Guru himself), a singer, a flutist, a sitar or violin player and a manjira player.



6. Kuchipudi Dance

Key Facts

- Kuchipudi is an Indian classical dance form that originated in a 'Kuchipudi' village of Krishna district of Andhra Pradesh.
- To show the dexterity of the dancers in footwork and their control and balance over their bodies, techniques like dancing on the rim of a brass plate and with a pitcher full of water on the head was introduced.
- Acrobatic dancing became part of the repertoire. By the middle of this century, Kuchipudi fully crystallized as a separate classical solo dance style. Thus there are now two forms of Kuchipudi; the traditional musical dance-drama and the solo dance.
- A recital of Kuchipudi begins with an invocatory number, as is done in some other classical dance styles.
- It is followed by 'nritta', that is, non-narrative and abstract dancing. Usually jatiswaram is performed as the nritta number.
- Next is presented a narrative number called 'shabdham'.
- The 'shabdham' is followed by a natya number called 'Kalaapam'.
- Next in the sequence comes a pure nritya abhinaya number based on literary-cum musical forms like 'padam', 'jaavli', 'shlokam', etc.
- A Kuchipudi recital is usually concluded with 'tarangam'. Excerpts of Krishna-leela-tarangini are sung with this number.
- The music that accompanies a mridangam player, a violin or veena player or both and a cymbal player who usually conducts the orchestra and recites the sollukattus (mnemonic rhythm syllables).



7. Mohiniyattam Dance

Key Facts

- Mohiniyattam, the sinuous dance of the enchantress, is a classical dance form of Kerala.
- Mohiniyattam is characterized by graceful, swaying body movements with no abrupt jerks or sudden leaps. It belongs to the lasya style which is feminine, tender and graceful.
- The foot work is not terse and is rendered softly. Importance is given to the hand gestures and 'Mukhabhinaya' with subtle facial expressions.
- Movements have been borrowed from Nangiar Koothu and female folk dances 'Kaikottikali' and the 'Tiruvattirakali'.
- Mohiniyattam lays emphasis on acting. The dancer identifies herself with the character and sentiments existing in the compositions like the 'Padams' and 'Pada Varnams' which give ample opportunity for facial expressions.
- The hand gestures, 24 in number, are mainly adopted from 'Hastalakshana Deepika', a text followed by Kathakali.
- The traditional repertoire includes 'Chollukettu', 'Jatiswaram', 'Padavarnam', 'Padam', 'Tillana' and 'Slokam'.



LEGACY OF SUCCESS CONTINUES...

After achieving a phenomenal success with **120+** selections in CSE 2017, **DHYEYA IAS** has once again reached a new zenith of success with **122+** selection



**KANISHAK
KATARIA
AIR 1**



**JUNAID
AHMED
AIR 3**

*We salute the spirit of our selected candidates
and wish them a successful and bright future ahead*



ANURAJ JAIN
AIR-24



DEEPAK KUMAR DUBEY
AIR-46



RENJINA MARY VARGHESE
AIR-49



RANGASHREE
AIR-50



GIRDHAR
AIR-61



AYUSHI SINGH
AIR-86



SAWAN KUMAR
AIR-89



VEER PRATAP SINGH
AIR-92



BRIJESH JYOTI UPADHYAY
AIR-112



RANJEETA SHARMA
AIR-130



CHITTIREDDY SRIPAL
AIR-131



SHIV NARAYAN SHARMA
AIR-149



SHAKTI MOHAN AVASTHY
AIR-154



SIDDHARTH GOYAL
AIR-163



GUNDALA REDDY RAGHAVENDRA
AIR-180



GAUTAM GOYAL
AIR-223



SHIVAM SHARMA
AIR-251



INDERVEER SINGH
AIR-259



GAURAV GUNJAN
AIR-262



MD JAWED HUSSAIN
AIR-280



DEEPTI BAGGA
AIR-297



ARPIT GUPTA
AIR-300



HIMANSHU GUPTA
AIR-304



POORVI GARG
AIR-317



NAVEEN KUMAR
AIR-324



ADITYA KUMAR JHA
AIR-339



SACHIN BANSAL
AIR-349



CHIRAG JAIN
AIR-355



LAKSHMAN KUMAR
AIR-362



SAHIL GARG
AIR-376



YOGITA
AIR-384



ANIMESH GARG
AIR-387



KIRTI PANDEY
AIR-389



KUMAR BISWARANJAN
AIR-391



GARIMA
AIR-394

and many more...

AN INTRODUCTION

Dhyeya IAS, a decade old institution, was founded by Mr. Vinay Singh and Mr. Q.H. Khan. Ever since its emergence it has unparalleled track record of success. Today, it stands tall among the reputed institutes providing coaching for Civil Services Examination (CSE). The institute has been very successful in making potential realize their dreams which is evident from success stories of the previous years.

Quite a large number of students desirous of building a career for themselves are absolutely less equipped for the fairly tough competitive tests they have to appear in. Several others, who have a brilliant academic career, do not know that competitive exams are vastly different from academic examination and call for a systematic and scientifically planned guidance by a team of experts. Here one single move invariably put one ahead of many others who lag behind. Dhyeya IAS is manned with qualified & experienced faculties besides especially designed study material that helps the students in achieving the desired goal.

Civil Services Exam requires knowledge base of specified subjects. These subjects though taught in schools and colleges are not necessarily oriented towards the exam approach. Coaching classes at Dhyeya IAS are different from classes conducted in schools and colleges with respect to their orientation. Classes are targeted towards the particular exam. Classroom guidance at Dhyeya IAS is about improving the individual's capacity to focus, learn and innovate as we are comfortably aware of the fact that you can't teach a person anything you can only help him find it within himself.

DSDL Prepare yourself from distance

Distance learning Programme, DSDL, primarily caters the need for those who are unable to come to metros for economic or family reason but have ardent desire to become a civil servant. Simultaneously, it also suits to the need of working professionals, who are unable to join regular classes due to increase in work load or places of their posting. The principal characteristic of our distance learning is that the student does not need to be present in a classroom in order to participate in the instruction. It aims to create and provide access to learning when the source of information and the learners are separated by time and distance. Realizing the difficulties faced by aspirants of distant areas, especially working candidates, in making use of the institute's classroom guidance programme, distance learning system is being provided in General Studies. The distance learning material is comprehensive, concise and exam-oriented in nature. Its aim is to make available almost all the relevant material on a subject at one place. Materials on all topics of General Studies have been prepared in such a way that, not even a single point will be missing. In other words, you will get all points, which are otherwise to be taken from 6-10 books available in the market / library. That means, DSDL study material is undoubtedly the most comprehensive and that will definitely give you added advantage in your Preliminary as well as Main Examination. These materials are not available in any book store or library. These materials have been prepared exclusively for the use of our students. We believe in our quality and commitment towards making these notes indispensable for any student preparing for Civil Services Examination. We adhere all pillars of Distance education.

Face to Face Centres

DELHI (MUKHERJEE NAGAR) : 011-49274400 | 9205274741, **DELHI (RAJENDRA NAGAR)** : 011-41251555 | 9205274743, **DELHI (LAXMI NAGAR)** : 011-43012556 | 9205212500, **ALLAHABAD** : 0532-2260189 | 8853467068, **LUCKNOW (ALIGANJ)** 9506256789 | 7570009014, **LUCKNOW (GOMTINAGAR)** 7234000501 | 7234000502, **GREATER NOIDA RESIDENTIAL ACADEMY** : 9205336037 | 9205336038, **BHUBANESWAR** : 8599071555, **SRINAGAR (J&K)** : 9205962002 | 9988085811

Live Streaming Centres

BIHAR – PATNA, **CHANDIGARH**, **DELHI & NCR** – FARIDABAD, **GUJRAT** – AHMEDABAD, **HARYANA** – HISAR, KURUKSHETRA, **MADHYA PRADESH** – GWALIOR, JABALPUR, REWA, **MAHARASHTRA** – MUMBAI, PUNJAB – JALANDHAR, PATIALA, LUDHIANA, **RAJASTHAN** – JODHPUR, **UTTARAKHAND** – HALDWANI, **UTTAR PRADESH** – ALIGARH, AZAMGARH, BAHRAICH, BAREILLY, GORAKHPUR, KANPUR, LUCKNOW (ALAMBAGH), LUCKNOW (GOMTI NAGAR), MORADABAD, VARANASI



YouTube **dhyeyaias**

dhyeyaias.com



/dhyeya1

STUDENT PORTAL

Dhyeya IAS Now on WhatsApp

We're Now on WhatsApp

Free Study Material Available

Join Dhyeya IAS Whatsapp Group
by Sending **"Hi Dhyeya IAS"**
Message on **9205336069**

You Can also join Whatsapp Group
Through our website
www.dhyeyaias.com
www.dhyeyaias.in



Join Dhyeya IAS Whatsapp Group by Sending

"Hi Dhyeya IAS" Message on **9205336069**.

You can also join Whatsapp Group through our website

www.dhyeyaias.com
www.dhyeyaias.in



Address: 635, Ground Floor, Main Road, Dr. Mukherjee Nagar, Delhi 110009
Phone No: 011-47354625/ 26 , 9205274741/42, 011-49274400