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SEVEN IMPORTANT ISSUES

I. CORPORATE GOVERNANCE REFORMS IN INDIA

Why in News?

The Securities and Exchange Board of India (SEBI) approved sweeping changes proposed by the Uday Kotak panel on improving corporate governance standards. SEBI had constituted the Committee in June 2017, under the Chairmanship of Shri Uday Kotak to make recommendations to SEBI for improving standards of corporate governance of listed entities in India. The committee was represented by different stakeholders including the government, industry, stock exchanges, academicians, proxy advisors, professional bodies, lawyers, etc. The committee submitted its report detailing several recommendations on October 5, 2017.

Introduction

India accounts for nearly 3 percent of world GDP and 2.5 percent of global stock market capitalization. With over 5,000 listed companies and more than 50 companies in the global fortune 2000, India represents a vibrant mix of small and large companies that access capital from domestic and international investors to fund their growth. Many of these companies are amongst the largest employers. As corporate India's health is critical for India's future, sound corporate governance needs to be the key enabler to manifest this reality. Corporate governance deals with the ways in which suppliers of capital to corporations, especially faceless, powerless small investors,

can assure themselves of getting fair treatment as stake holders.

The companies that exhibit sound corporate governance generate significantly greater returns when compared to companies that exhibit poor corporate governance. Governance mechanisms that ensure such value creation highlight the role of:

- (i) composition of boards, especially their independence in law and in spirit from the company's management;
- (ii) expertise of the directors on the boards;
- (iii) the composition and independence of key board committees such as the audit committee and the nomination and remuneration committee;
- (iv) independence of the companies' auditors and the quality of audit of its financial statements;

(v) the quality of disclosures by the company; and

(vi) Careful balancing of the interests of controlling share holders vis-a-vis minority shares holders.

Numerous studies indicate that the payoff from good corporate governance manifests both in the operating results of publicly listed companies, as well as the market capitalization of such companies. In fact, good firm-level governance often makes up for weaknesses in a country's corporate laws or the enforcement of such laws.

Improving Corporate Governance

The Securities and Exchange Board of India (SEBI) approved sweeping changes proposed by the Uday Kotak panel on improving corporate governance standards such as splitting

Raising Standards		OTHER PROPOSALS APPROVED	
Separate posts for chairperson and managing director	At least one woman independent director in board	Congestion charges on algo trading for a prescribed slab	Reduced additional expense to be charged by MFs to 5 bps from 20bps
Shareholder nod for royalty payment to related party exceeding 2% of consolidated turnover		Physical settlement for all stock derivatives in a phased manner	
Disclosure of utilisation of funds from QIP/ preferential issue	Reduced maximum no. of listed co directorship to 8 from 10		
Disclosure of auditor credentials, audit fee and reasons for resignation of auditors			
		Increased maximum investment amount in venture capital undertakings by an angel fund to ₹10 cr from ₹5 cr	

the post of chairman and managing director, tighter rules for independent directors, enhanced disclosure of related-party transactions and mandatory secretarial audits for listed entities and their material subsidiaries.

The SEBI committee was set up in June 2017 to review corporate governance rules since the last such exercise had been conducted more than a decade before. The panel, which submitted its report on October 5 last year, had suggested the implementation of its proposals in phases. Most of the changes will be effective April 1, 2019 and April 1, 2020.

Over the past decade, policymakers in India have been acutely conscious of the importance of corporate governance – several committees, including those under the chairmanship of Mr. Kumar Mangalam Birla, Mr. Narayana Murthy and Mr. Naresh Chandra, have made valuable recommendations which have been largely adopted. These include evaluation of company boards, board diversity, reliability of disclosures (especially those relating to financial statements), role of independent directors, protection of minority shareholder interests, managerial compensation and related party transactions.

Recommendations of Kotak Committee

Out of 80 odd recommendations (of the Kotak panel), 40 were accepted without modification, 15 with modifications, eight were referred to government and other departments.

Corporate Governance: The Board decided to accept several recommendations of the committee without any modifications including the following.

- I. Reduction in the maximum number of listed entity directorships from

10 to 8 by April 01, 2019 and to 7 by April 1, 2020.

- II. Expanding the eligibility criteria for independent directors.
- III. Enhanced role of the Audit Committee, Nomination and Remuneration Committee and Risk Management Committee.
- IV. Disclosure of utilization of funds from QIP/preferential issue.
- V. Disclosures of auditor credentials, audit fee, reasons for resignation of auditors, etc.
- VI. Secretarial audit to be mandatory for listed entities and their material unlisted subsidiaries under SEBI Listing Obligations and Disclosure Requirements (LODR) Regulations.

The Board decided to accept several recommendations with modifications which included the following.

- Minimum 6 directors in the top 1000 listed entities by market capitalization by April 1, 2019 and in the top 2000 listed entities, by April 1, 2020.
- At least one woman independent director in the top 500 listed entities by market capitalization by April 1, 2019 and in the top 1000 listed entities, by April 1, 2020.
- Not less than fifty percent of the board of directors shall comprise of non-executive directors. A company can appoint maximum 15 directors.
- Separation of CEO/MD and Chairperson (initially applicable to the top 500 listed entities).
- Quorum for Board meetings (1/3rd of the size of the Board or 3 members, whichever is higher) in the top 1000 listed entities by market capitalization by April 1, 2019 and in the top 2000 listed entities, by April 1, 2020.
- Top 100 entities to hold AGMs within 5 months and Webcast of AGMs will be compulsory after the

end of FY 2018-19 i.e. by August 31, 2019.

- Shareholder approval (majority of minority) for royalty/brand payments to related party exceeding 2% of consolidated turnover (instead of the proposed 5%).

The Board decided to refer certain recommendations to various agencies (i.e. government, other regulators, professional bodies, etc.), considering that the matters involved relate to them.

Strengthening Algorithmic Trading

Framework: Stock Exchanges to allot a unique identifier to each algorithm approved and each order generated by the algorithm to carry the unique identifier with it, in order to establish an audit trail and to ensure better surveillance of Algo trading.

Strengthening Equity Derivatives

Market: Proposals approved by the Board to rationalize and strengthen the framework of the equity derivatives market, inter-alia, include the following:

- To facilitate greater alignment of the cash and derivative market, physical settlement for all stock derivatives shall be carried out in a phased and calibrated manner.
- To update and strengthen the existing entry criteria for introduction of stocks into the derivative segment in line with the increase in market capitalization since the last revision of the criteria in 2012 (current level of INR 300 crore and INR 10 lakh respectively to INR 500 crore and INR 25 lakh respectively).
- To reflect global initiatives on product suitability, a framework has been approved.

Regulatory Provision of Mutual

Fund Schemes: The Board approved the proposal to reduce the maximum additional expense permitted to be

charged to a mutual fund scheme from 20 bps to 5 bps.

Go Green initiative in Mutual Funds: With electronic mode of communication being the preferred mode of communication besides being environment friendly.

Angel Funds: The SEBI Board has approved following amendments to SEBI (Alternative Investment Funds) Regulations, 2012 with respect to 'Angel Funds':

- I. Increase in maximum investment amount in venture capital from 5 crore rupees to 10 crore rupees.
- II. The requirement of minimum corpus of an angel fund reduced from 10 crore rupees to 5 crore rupees.
- III. Increase in maximum period for accepting funds from angel investors from 3 years to 5 years.
- IV. The provisions of the Companies Act, 2013 shall apply to the angel fund, if it is formed as a company.

For Non-compliance of the Listing Regulations: The Board has decided to revise the existing enforcement framework for non-compliance of the listing regulations by listed companies. It is more comprehensive and covers a wide gamut of listing regulations such as the requirements pertaining to composition of the listed company's Board and its committees, submission of corporate governance compliance report, financial results and voting results, etc. Non-compliance of these regulations will lead to imposition of fines by stock exchanges. It also empowers the stock exchanges to freeze the shareholding of the promoter and promoter group in such non-compliant entity as well as their shareholding in other securities. If non-compliance persists, it will lead to suspension.

Mandating transfer of Securities: The measure is aimed at curbing fraud and manipulation risk in physical

transfer of securities by unscrupulous entities. Transfer of securities only in demat form will improve ease, convenience and safety of transactions for investors. Public consultation process for laying down a framework of compliance with SEBI regulations by listed entities subject to Corporate Insolvency Resolution Process under the Insolvency and Bankruptcy Code, 2016.

Corporate Governance

The authority structure of a firm – lies at the heart of the most important issues of society such as “who has claim to the cash flow of the firm, who has a say in its strategy and its allocation of resources.” The corporate governance framework shapes corporate efficiency, employment stability, retirement security and the endowments of orphanages, hospitals and universities. “It creates the temptations for cheating and the rewards for honesty, inside the firm and more generally in the body politic.” It “influences social mobility, stability and fluidity. It is no wonder then, that corporate governance provokes conflict. Anything so important will be fought over like other decisions about authority, corporate governance structures are fundamentally the result of political decisions.

Corporate governance is most often viewed as both the structure and the relationships which determine corporate direction and performance. The board of directors is typically central to corporate governance. Its relationship to the other primary participants, typically shareholders and management, is critical. Additional participants include employees, customers, supplier and creditors. The corporate governance framework also depends on the legal, regulatory, institutional and ethical environment of the community. Whereas the 20th century might be viewed as the age of management, the early 21st century is predicted to be more focused on

governance. Both terms address control of corporations but governance has always required an examination of underlying purpose and legitimacy. Shareholder value is partly about efficiency. But there are serious issues of distribution at stake – job security, income inequality, social welfare. There may be many ways to organize an efficient firm.

The Fundamental Principles of Corporate Governance

- (i) **Transparency:** Transparency means the quality of something which enables one to understand the truth easily. In fact, transparency is the foundation of corporate governance; which helps to develop a high level of public confidence in the corporate sector. For ensuring transparency in corporate administration, a company should publish relevant information about corporate affairs in leading newspapers, e.g., on a quarterly or half yearly or annual basis.
- (ii) **Accountability:** Accountability is a liability to explain the results of one's decisions taken in the interest of others. In the context of corporate governance, accountability implies the responsibility of the chairman, the board of directors and the chief executive for the use of company's resources in the best interest of company and its stakeholders.
- (iii) **Independence:** Good corporate governance requires independence on the part of the top management of the corporation i.e. the board of directors must be strong non-partisan body; so that it can take all corporate decisions based on business prudence. Without the top management of the company being independent; good corporate governance is only a mere dream.

Ethical Compliance for Corporate Governance

Environmental: Environmental stewardship is a critical component of the company's overall corporate responsibility approach.

Social: Company should work with stakeholders to build trust, strengthen relationships and make a positive impact in its service territory. The company stakeholders include individuals and groups who impact – or are impacted by company's and its business operations, such as customers, communities, employees, investors, suppliers and regulators.

Governance: Ethical conduct and good corporate governance are priorities for company's employees, leadership and board of directors. Good corporate governance, as well as a strong ethics and compliance program, are in the best interests of company stakeholders and critical to long-term success.

Way Ahead

Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the economy and its shareholders and should facilitate effective monitoring. Corporate governance standards in India have come under a cloud after recent financial frauds and other issues related to the corporate sector.

"While liberalisation, a digital revolution and reforms like ease of approvals seek to cut down red tape and help promote growth of the corporate sector, ironically some unscrupulous individuals and companies are trying to misuse the system and indulge in fraudulent practices.

- Effective corporate governance system, within an individual company and across an economy as a whole, helps to provide a degree of confidence that is necessary for proper functioning of a market economy.
- The new reforms encourages boards and managements to

view disclosure and transparency as a means to build trust with stakeholders and to proactively disclose material information that may impact decision-making variables.

- According to a report, over 50 percent of companies are hiring women directors primarily to comply. The need to comply seems stronger than the belief that diversity adds value. Following the revamp, market regulator Securities and Exchange Board of India issued guidelines in Feb 2015 asking companies to follow the new mandate. Then again in 2017, SEBI announced that companies which fail to follow the regulation should be penalized.
- SEBI's decision to make mandatory disclosure of auditor credentials, audit fee, reasons for resignation of auditors, seem to be in sync with the government's efforts of increasing governance in the audit profession.

Climate change has emerged as a major concern which we cannot afford to ignore, higher corporate governance standards need to be propelled by the larger ethical and environmental concerns as well. So, environmental audit of corporate decisions is essential. Effective and sound approach of corporate governance safeguards not only the management but the interests of the stakeholders as well and fosters the economic progress of India in the roaring economies of the world.

Conclusion

Failure in corporate governance is a real threat to the future of every corporation. With effective corporate governance based on core values of integrity and trust (reputational value) companies will have competitive advantage in attracting and retaining talent and generating positive reactions in the market place – if you have a reputation for ethical behavior in today's market place it engenders not only customer loyalty but employee

loyalty. Effective corporate governance can be achieved by adopting a set of principles and best practices. A great deal depends upon fairness, honesty, integrity and the manner in which companies conduct their affairs. Companies must make a profit in order to survive and grow, however, the pursuit of profits must stay within ethical bounds.

Companies should adopt policies that include environmental protection, whistle blowing, ethical training programs and so on. Such compliance mechanisms help develop and build corporate image and reputation, gain loyalty and trust from consumers and heightens commitment to employees. Ethical compliance mechanisms contribute to stability and growth since it in stills confidence; management, leadership, and administration are essentially ethical tasks. The focus of the virtues in governance is to establish a series of practical responses which depend on the consistent application of core values and principles as well as commitment to ethical business practice. Virtues are powerful means to personal betterment and bring about social reform because of its strong appeal to reason, it diffuses passion, prejudice, pride and self-interest and is acivilizing force in bringing about justice.

Ethics is truly an essential ingredient for business success and it will continue to serve as the blueprint for success in the 21st century. Many of our traditional role models have fallen and so it is more important for us to set a strong ethical example for future generations.

General Studies Paper- II

Topic: Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations and potential; citizens charters, transparency & accountability and institutional and other measures.



2. RISING OF FINANCIAL INCLUSION IN INDIA

Why in News?

India records significant improvement in CRISIL report on financial inclusion. Financial inclusion has improved significantly, with the all-India score surging to 58.0 in fiscal 2016, compared to 50.1 in fiscal 2013. Digital inclusion is leading to financial inclusion in India.

Introduction

If we compare the digital economies of the United States and China we find that the US is more card-based, while China has moved to Quick Response (QR) codes and mobile payments. The government of India and the Reserve Bank of India have been making concerted efforts to promote financial inclusion as one of the important national objectives of the country. Some of the major efforts made in the last five decades include - nationalization of banks, building up of robust branch network of scheduled commercial banks, co-operatives and regional rural banks, introduction of mandated priority sector lending targets, lead bank scheme, formation of self-help groups, permitting Business Correspondent/Business Facilitators (BCs/BFs) to be appointed by banks to provide door step delivery of banking services, zero balance Basic Savings Bank Deposit (BSBD) accounts, etc. The fundamental objective of all these initiatives is to reach the large sections of the hitherto financially excluded Indian population.

Since independence, several attempts have been made towards financial inclusion of the poor, particularly in rural areas. The initiatives include the cooperative movement, followed by priority sector lending, lead bank scheme, service area approach, creation of national bank for agriculture and rural development, introduction of regional rural banks/

local area banks, microfinance, kisan credit cards, business correspondence and finally Pradhan Mantri Jan-Dhan Yojana.

India is a country of 1.2 billion people, spread across 29 states and 7 union territories. There are around 600,000 villages and 640 districts in our country. A vast majority of the population, especially in rural areas, is excluded from the easy access to finance. Forty per cent of the households having bank accounts, but only 38 per cent of the 117,200 branches of scheduled commercial banks are working in rural areas. Accessibility of financial services at affordable and appropriate prices has been always a global issue. Hence, an inclusive financial system is required widely not only in India, but has become a policy priority in various countries. Financial access can surely improve the financial condition and living standard of the poor and the deprived section.

Financial Inclusion

Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost. Financial Inclusion, broadly defined, refers to universal access to a wide range of financial services at a reasonable cost. These include not only banking products but also other financial services such as insurance and equity products.

Financial inclusion implies an absence of obstacles to the use of these services, whether the challenges are price or non-price barriers to financing. It is important to distinguish between access to and the possibility to use and actual use of financial services. Exclusion can be voluntary,

where a person or business has access to services but no need to use them, or involuntary, where price barriers or discrimination, for example, bar access. Failure to make this distinction can complicate efforts to define and measure access. Financial market imperfections, such as information asymmetries and transaction costs, are likely to be highly imposing on the talented poor and micro and small enterprises that lack collateral, credit histories and connections.

Measuring Financial Inclusion

There has been a marked increase in both deposit and loan accounts. Nearly 600 million deposit accounts were opened between fiscals 2013 and 2016, or twice the number between 2010 and 2013. This is reflected in the surge of deposit penetration by over 16 points. On the credit side, there was a sharp increase of 31.7 million new credit or loan accounts (banks and microfinance institution) in the two years up to fiscal 2016, which is the most since fiscal 2013.

- **Branch Penetration:** It is measured as the number of bank branches per one lakh population. This refers to the penetration of commercial bank branches and ATMs for the provision of maximum formal financial services to the rural population.
- **Credit Penetration:** It takes the average of the three measures: number of loan accounts per one lakh population, number of small borrower loan accounts per one lakh population and number of agriculture advances per one lakh population.
- **Deposit Penetration:** It is measured as the number of saving deposit accounts per one lakh population.

- **Insurance Penetration:** It is measured as the ratio of premium underwritten in a particular year to the GDP.

Factors Affecting Access to Financial Services

Financial Inclusion, on the one hand, is a process aiming at providing banking services like savings account, credit facility and insurance product to weaker sections of the society. Although there is some evidence that access is improving but still there are multiple factors which have affected the access to financial services.

- **Place of Living:** Most of commercial banks operate only in commercial areas and these banks set their branches in profitable areas. Hence population lives in rural areas find it difficult to access the financial services.
- **Absence of Legal Identity and Gender Biasness:** Minorities, economic and political migrants, refugee workers and women's are excluded from accessing financial services due to lack of legal identities such as original birth certificates and identity cards.
- **Limited Knowledge of Financial Services:** Incomplete basic education and financial literacy are the major hurdles in order to access various financial services to the individuals. They do not know the significance of different financial products i.e., bank accounts, cheque facility, bank loan or overdraft and insurance.
- **Level of Income and Bank Charges:** It is impossible for poor people to access financial services even when these services are made for lower income level group. Moreover in India, a lot of hidden bank charges which has been demotivated poor persons in availing these services.
- **Rigid Terms and Conditions:** People are also least interested using such type of financial products or services which are attached with some inflexible terms and conditions. Many financial institutions having different rules relating with the use of accounts like minimum balance requirements.

Understanding the Necessity

Without inclusive financial systems, these individuals and enterprises with promising opportunities have their capital constrained to their own savings and earnings. This access dimension of economic development has often been overlooked, mainly because of severe data gaps on who has access to which financial services and a lack of systematic information on the barriers to broader access.

Access to the right financial tools at critical moments can be a crucial element in overcoming the stubborn realities for those who operate in penny economies. It can provide them with an opportunity to move out of poverty or absorb a shock without being pushed deeper into debt. The poor need to set aside money in times of plenty and draw it out in lean times. Without a safe place to save money, it is difficult to cope with the unexpected or to plan for the future. Improved access to finance increases savings, reduces poverty and promotes employment. Without access to affordable credit, it is difficult to get a business idea off the ground or acquire an asset like a house. In the absence of insurance, all of one's security can be wiped out by one misfortune. Financial services allow one to insure for health care, save for children's education and borrow for wedding or funeral costs.

Financial Literacy

A bank account acts as a means of fulfilling these needs. However, merely opening accounts for the unbanked

will not help unless they are actively used them for managing their money. To make this possible, people have to be given the ability to understand and execute matters of personal finance, including basic numeracy and literacy, budgeting, investing and risk diversification. This skill is known as financial literacy. It is a combination of financial awareness, attitudinal and behavioural changes necessary to make sound microeconomic decisions. It is necessary to teach them the basic nuances of finance so that they keep a distance from unscrupulous and dubious investment schemes that have lacerated the financial lives of so many.

The challenge of financial inclusion is to understand what is best about all the different ways of reaching underserved customers. It is about understanding what works and building on it.

Financial Inclusion in India

Financial Inclusion is the way the governments strive to take the common man along by bringing them into the formal channel of economy thereby ensuring that even the person standing in the last is not left out from the benefits of the economic growth and is added in the mainstream economy thereby encouraging the poor person to save, safely invest in various financial products and to borrow from the formal channel when (s) he need to borrow. One of the most crucial of the several steps taken by this government is JAM- Jan Dhan, Aadhar & Mobile. Other Schemes includes Jeevan Suraksha Bandhan Yojana, Sukanya Samriddhi Yojana, Kisan Credit Cards (KCC) and General Credit Cards (GCC) and BHIM App.

CRISIL Financial Inclusion Index (Inclusix)

India's first financial inclusion index was launched in 2013 with the objective of becoming that crucial

gauge and policy input. It is based on four dimensions—branch penetration, deposit penetration, credit penetration and insurance penetration. The last dimension was added for the first time this year as data became available. CRISIL –Inclusix (on a scale of 100) increased from 35.4 in March 2009 to 37.6 in March 2010 and to 40.1 in March 2011.

The index's readings for fiscal 2016 (the latest period for which data is available) show financial inclusion has improved significantly in India, with the all-India score rising to 58.0 in fiscal 2016, compared with 50.1 in fiscal 2013. The score would have been even higher at 62.2 had we excluded the effect of rebasing of the index and inclusion of insurance data. The Pradhan Mantri Jan Dhan Yojana and the RBI's steadfast focus on unbanked regions have really made a difference.

On the credit side, there was a sharp 31.7 million increase in new credit or loan (banks and microfinance) accounts in the two years up to fiscal 2016, which is the most since fiscal 2013. Notably, microfinance institutions contributed significantly to the financially under-penetrated regions. The Digital India initiative, payments banks and small finance banks have all helped improve the reach of formal financial services to economically disadvantaged sections of the populace and geographically remote regions. Underserved pockets, particularly in the North-East and the East, have logged a sharp rise in credit penetration. The credit penetration index of these two regions is up an average 9 points compared with 6 points at the all-India level. But despite the strong growth, only 200 million borrowers have had access to credit from formal channels. This is the reason why the credit penetration index of CRISIL Inclusix remained low at 56.0 compared with 78.3 for deposit penetration.

In terms of branch penetration, the number of new branches opened

by lenders has declined because they are betting more on the digital channels (mobile phones/internet). Among regions, the South remains ahead by a wide margin, but other regions are catching up thanks to the spread of microfinance, particularly in the East. However, the inclusion of insurance data moderated the overall Inclusix scores for most regions, except the West and the East, which have maintained their performance.

Among states, Kerala was well ahead with a CRISIL Inclusix score of 90.9, while Rajasthan moved up from "below average" to "above average" and Haryana from "above average" to "high". The upshot from the scores is that financial inclusion can spread faster if there is sharper focus on enhancing branch and credit penetration beyond South India. Policy makers need to continue incentivizing branch and credit penetration in districts with low CRISIL Inclusix scores. Coverage through protection-linked insurance and pension schemes also needs to be ratcheted up significantly.

Benefits of Financial Inclusion

- The rural masses will get access to banking like cash receipts, cash payments, balance enquiry and statement of account can be completed using fingerprint authentication. The confidence of fulfilment is provided by issuing an online receipt to the customer.
- Reduction in cash economy as more money is brought into the banking ecosystem.
- It inculcates the habit to save, thus increasing capital formation in the country and giving it an economic boost.
- Direct cash transfers to beneficiary bank accounts, instead of physical cash payments against subsidies will become possible. This also ensures that the funds actually reach the intended recipients

instead of being siphoned off along the way.

- Availability of adequate and transparent credit from formal banking channels will foster the entrepreneurial spirit of the masses to increase output and prosperity in the countryside.

Conclusion

In developing economies like India, the banks work as mobilizers of savings and allocators of credit for production and investment, have a very critical role. As a financial intermediary, the banks contribute to the economic growth of the country by identifying the entrepreneurs with the best chances of successfully initiating new commercial activities and allocating credit to them. Financial access can really boost the financial condition and standards of life of the poor and the disadvantaged population of the country.

Lack of accessible, affordable and appropriate financial services has always been an Indian problem and effective inclusive financial system is needed for economic growth of the country. Reserve bank of India (RBI) and government plays an important role in promoting financial inclusion for economic growth to increase the banking penetration, installation of new ATMs and implementation of various schemes in the country. The Reserve Bank has used Financial Inclusion Plans (FIPs) to gauge the performance of banks under their financial inclusion initiatives. During the first phase of FIPs 2010–2013 a large number of bank accounts have been opened. However, it has been observed that the accounts opened and the banking infrastructure created has not seen substantial operations in terms of transactions.

RBI has been applied a fresh three-year FIPs during 2013–2016 for ensuring meaningful access to banking services to the excluded population.

The new FIP is now more focused on the volume of transactions which plays an important role in growth and development of the India. The most robust relationship is observed among financial inclusion and economic growth of the country. The RBI's study found the positive significant impact of number of bank branches and credit deposit ratio of banks (proxies of financial inclusion) on GDP of the country. Whereas one indicator of financial inclusion, ATMs growth rate has been shown a statistically insignificant impact on Indian GDP. Hence, the study observed that financial inclusion is strongly associated with the progress and development of the economy. In spite of this there

should be a need for proper financial inclusion regulation in the country to access financial services and customer awareness E-banking training and financial literacy programmes should be organized. Thus, financial inclusion is a big road which India needs to travel to make it completely successful.

"Overcoming poverty is not a gesture of charity. It is an act of justice. It is the protection of a fundamental human right, the right to dignity and a decent life. While poverty persists, there is no true freedom.

Sometimes it falls upon a generation to be great. You can be that great generation. Let your greatness blossom. Of course, the task will not

be easy. But not to do this would be a crime against humanity, against which I ask all humanity now to rise up."

- Nelson Mandela

General Studies Paper- II

Topic: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

General Studies Paper- III

Topic: Inclusive growth and issues arising from it.



3. DATA PROTECTION: STILL UNFOLDED

Why in News?

Much of the outrage around the recent Cambridge Analytica incident has centred around the fact that the company allegedly used data harvested from about 50 million Facebook users to target US voters ahead of the presidential race. Details of Cambridge's acquisition and use of Facebook data have been reported in several detailed accounts by the media, setting off a furious debate about the ethical implications of the firm's so-called psychographic modelling techniques.

Recent Controversy

Cambridge Analytica acquired the data in 2014 via personality profiling app 'this is your digital life', built by Aleksandr Kogan, an academic at Cambridge University. While the app was downloaded by just 2,70,000 Facebook users, it pulled in data from the "Facebook friends" of these users, allowing Cambridge Analytica

to harvest the data of 50 million users, without their consent. Information campaigns were then micro targeted at these users based on their preferences and vulnerabilities. Cambridge Analytica is being investigated by the U.K.'s Electoral Commission for its role in the Brexit referendum. Cambridge Analytica is a consulting company providing services to political parties and think-tanks that want to profile and connect with citizens. With the help of Cambridge Analytica's data, these organisations can now micro target the citizens based on their disposition to certain beliefs and views- details that were harvested from Facebook data. The crisis has renewed questions about Facebook's ability to protect the privacy of its users while also exploiting their personal details to fuel its lucrative advertising business. It has also deepened concerns about the social media network's ability to avoid being exploited to spread propaganda and sway elections.

Issues Involved

Recent controversy has brought to light several issues that need to be addressed.

- First, companies have been collecting data and tailoring marketing campaigns accordingly. The issue here is particularly prickly because politics and elections are involved.
- Second, regardless of what Facebook and Cambridge Analytica did was legal or not, something is broken in a policy environment in which the data of millions are taken and used when only 270,000 people knowingly or unknowingly gave consent.
- Third, technology is evolving at a rapid pace, raising the question whether laws need to be reframed mandating an opt-out approach universally rather than an opt-in approach. Individuals often share their data without being aware of it

or understanding the implications of privacy terms and conditions.

- Fourth, there must be clear laws on the ownership of data and what data need to be protected. Personal data cannot be the new oil. Individuals must own it, have a right to know what companies and governments know about them and, in most cases, that is, when there is no legitimate security or public interest reasons, have the right to have their data destroyed.

Key Definitions

- Data protection is the means by which the privacy rights of individuals are safeguarded in relation to the processing of their personal data.
- Data means a representation of information, knowledge, facts, concepts or instruction which are being prepared or have been prepared in a formalized manner, and is intended to be processed, is being processed or has been processed in a computer system or computer network, and may be in any form (including computer printouts magnetic or optical storage media, punched cards, punched tapes) or stored internally in the memory of the computer.
- It includes both automated data and manual data. Automated data means any information on computer or information recorded with the intention that it is processed by computer. Manual data means information that is kept/recorded as part of a relevant filing system or with the intention that it should form part of a relevant filing system.
- Personal data is data relating to a living individual who is or can be identified either from the data or, from the data in conjunction with other information that is in, or is likely to come into, the possession

of the data controller. This can be a very wide definition depending on the circumstances.

- Sensitive personal data relates to specific categories of data which are defined as data relating to a person's:
 - Racial or ethnic origin
 - Political opinions or religious or philosophical beliefs
 - Physical or mental health or condition
 - Sexual life
 - Criminal convictions or the alleged commission of an offence any proceedings for an offence committed or alleged to have been committed the disposal of such proceedings or the sentence of any court in such proceedings trade union membership.
- Data Controllers are those who, either alone or with others, control the contents and use of personal data.
- Data Processing means performing any operation or set of operations on data, including: (i) obtaining, recording or keeping data; (ii) collecting, organising, storing, altering or adapting the data; (iii) retrieving, consulting or using the data; (iv) disclosing the information or data by transmitting, disseminating or otherwise making it available; (v) aligning, combining, blocking, erasing or destroying the data.
- Data Processor is a person who processes personal information on behalf of a data controller but does not include an employee of a data controller who processes such data in the course of their employment.

Principles of Data Protection

The principles of data protection need to be reinvented and weaponized, not discarded. There are three data principles:

1. **Data Minimization:** It is the principle that requires the data controller to collect data only if mandated to do so by regulation or because it is a prerequisite for providing functionality. For example, Facebook's messenger app on Android harvests call records and meta-data, without any consumer facing feature on the app that justifies such collection. Therefore, this is a clear violation of the data minimization principle.
2. **Principle of Consent:** It requires that the data controller secure explicit, informed and voluntary consent from the data subject unless there are exceptional circumstances. Unfortunately, consent has been reduced to a mockery today through obfuscation by lawyers in verbose "privacy notices" and "terms of services".
3. **Right to Explanation:** It is a principle that requires the data controller to make transparent the automated decision-making process when personal information is implicated. So far it has been seen as a reactive measure for user empowerment. In other words, the explanation is provided only when there is a demand for it. The Facebook feeds that were used for manipulation through micro-targeting of content is an example of such automated decision making.

Worldwide Data Protection Framework

European Union (EU): Distinct from all other major human rights documents, protection of people's data has been included as one of the fundamental rights under Article 8 of the Charter of the Fundamental Rights of the European Union. Right to privacy and consent of an individual form the basis of Article 8 adding the

right to access data and the right to have it rectified. EU superseded the data protection directive with the general data protection regulation in 2016 and the same regulation will be enforceable from 2018. The regulation will be applied to all 28 of the European Union members. Data processors will be held under the law which would include individuals as well as companies processing bulky data.

Japan: After European Union, Japan introduced a separate central legislation for protection of data as the Act on the Protection of Personal Information (APPI). The Act took partial effect in 2016 and has been enforceable from May 30, 2017. The law defines the scope of the legislation and states on whom the law is applicable under Article 2-4 of the APPI. As per the Act, it is applicable to four entities—state institutions, local public bodies, independent administrative agencies and an entity not having over 5,000 individuals' personal information for more than six months. Countries like the US, Canada, Australia and Thailand have similar but not as stringent laws.

Indian Scenario

The recent data breach involving alleged misuse of information of Facebook users by data mining and analytics firm Cambridge Analytica has once again highlighted the need for users to treat their digital lives as their physical ones. Experts have pointed to the importance of aspects such as following basic cyber hygiene and a periodic review of the security facets of one's profile on various web platforms, especially on social media, where users tend to share personal information. The controversy has not only impacted the US and the UK but India too. Ovleno Business Intelligence (OBI), the Indian partner of Cambridge Analytica and SCL, has used data analytics to influence several elections since 2010.

As of January 2018, with 250 million users, India is the largest user-base for

Facebook. It is also an important tool for the government to take forward its flagship programmes to the wider populace. Facebook is one of the top contenders for partnering with the government's societal development and digital inclusion plans. The Election Commission of India had also partnered with Facebook in 2017, launching a nationwide voter registration campaign. Indian users, paying little regard to the privacy terms and condition of social media platforms, uninhibitedly share images, pictures and other content and are extremely vulnerable to the tools, techniques and campaigns devised for influencing both commercial and political behaviour. For India, as a functioning democracy, the Cambridge Analytica episode highlights the need to expedite the process of developing a data protection framework and probably amend the IT Act in accordance with the changing realities of cyberspace.

In India's financial technology space, innovations have been rapid, particularly after demonetization. As digital transactions rise, the country is now more receptive to innovations like eSign and eKYC via OTP through Aadhaar, which banks, insurers, fund houses and others use to onboard non-face-to-face customers. By 2020, India will have more than 700 million internet users. But the country already has a burning need to come up with a world-class data protection and privacy law.

Data Protection Framework in India

The Indian constitution has provided the law relating to privacy under the scope of Article 21. The laws dealing data protection in India are given below:

The Information Technology Act, 2000

The Information Technology Act, 2000, currently governing data protection in India, provides specific protection of sensitive

personal data or information such as health records, sexual orientation, biometric information and financial information, compensation claim by aggrieved individuals. Further, it also provides for general protection of privacy and confidentiality by imposing imprisonment and granting compensation for disclosure of information without the consent of the individual involved. It is based on the United Nations Model Law on Electronic Commerce 1996 recommended by the General Assembly of United Nations by a resolution.

The Information Technology (Amendment) Act, 2008

The Information Technology (Amendment) Act, 2008 an act to amend the IT Act, 2000 received the assent of the President in 2009. Many significant changes have been introduced in the IT Amendment Act, 2008. Eight new cyber offences added:

1. Sending offensive messages through a computer or mobile phone (Section 66A),
2. Receiving stolen computer resource or communication device (Section 66B)
3. Punishment for identity theft (Section 66C)
4. Punishment for cheating by personation using computer resource (Section 66D)
5. Punishment for violating privacy or video voyeurism (Section 66E)
6. Cyber Terrorism (Section 66F)
7. Publishing or transmitting material in electronic form containing sexually explicit act (Section 67A)
8. Child pornography (Section 67B)

The Personal Data Protection Bill

In the year 2006, our legislature has also introduced a bill known as 'The Personal Data Protection Bill' so as to provide protection to the personal information of the person.

The Privacy (Protection) Bill, 2013

The Privacy (Protection) Bill, 2013 does not provide any definition of "privacy"; however, it focuses on the protection of personal and sensitive personal data of persons. The Bill focuses on the protection of personal and sensitive personal data of persons. There are specific provisions

in the bill related to collection, storage, processing, transfer, security, confidentiality and disclosure of sensitive personal data in the Bill. The consent of the data provider is necessary.

Justice B. N. Srikrishna Committee

The Committee was constituted in August 2017 to examine issues

related to data protection, recommend methods to address them and draft a data protection law. The objective was to ensure growth of the digital economy while keeping personal data of citizens secure and protected. Recently it has put out a white paper on data protection framework for India.

White Paper on Data Protection Framework for India

The Committee of Experts on a Data Protection Framework for India chaired by Justice B. N. Srikrishna released a white paper on November 27, 2017.

Principles: The Committee suggested that a framework to protect data in the country should be based on seven principles: (i) law should be flexible to take into account changing technologies, (ii) law must apply to both government and private sector entities, (iii) consent should be genuine, informed and meaningful, (iv) processing of data should be minimal and only for the purpose for which it is sought, (v) entities controlling the data should be accountable for any data processing, (vi) enforcement of the data protection framework should be by a high-powered statutory authority, and (vii) penalties should be adequate to discourage any wrongful acts.

Scope and exemptions under the framework

Applicability: The Committee observed that countries can enforce laws within their jurisdiction. However, a single act of data processing could take place across different countries and jurisdictions. Some of the questions asked by the Committee relate to: (i) territorial applicability of the law, (ii) extent to which the law should apply outside India and (iii) measures that should be included in the law to ensure compliance by foreign entities.

Definition of personal data: The Committee noted that it is important to define what constitutes personal information. This is critical to determine the extent to which privacy of information will be guaranteed under a data protection law. It sought comments on some questions which relate to: (i) what kind of information qualifies as personal data, (ii) should the definition focus on whether a person can be identified based on the data, and (iii) treatment of sensitive personal data. Sensitive data is related to intimate matters where there is a higher expectation of privacy (e.g., caste, religion and sexual orientation).

Exemptions: The Committee noted that entities under the data protection framework may be exempt from certain obligations (e.g., certain actions taken by the state). It sought comments on the categories of exemptions that should be included under the law and the basic safeguards that should be ensured when processing data in these categories.

Grounds for data processing, obligation on entities and rights of individuals

Consent: The Committee noted that consent is treated as one of the grounds for processing personal data. However, consent is often not informed or meaningful. In this context, it sought comments on the conditions that determine valid consent. Further, it noted that one in three internet users across the world is a child under the age of 18. A data protection law must sufficiently protect their interests, while considering their vulnerability, and exposure to risks online.

Purpose of collection: The Committee discussed the principle where personal data must be collected for a specified purpose and such data should not be processed for any other purpose. Further, a related principle requires that personal data be erased once the purpose for collecting it has been met.

Participation rights: The Committee noted that one of the principles of data protection is that a person whose data is being processed should be able to influence the processing. This includes the right to confirm, access and rectify the data. The Committee observed that regulations of the European Union have recognised other rights such as the right to object to data processing. Incorporation of such rights in the Indian law requires further assessment. It also noted that the right to be forgotten has emerged as a contentious issue in data protection laws.

Regulation and enforcement

Enforcement models: The Committee noted that once the provisions of the law are formalised, enforcement mechanisms must be structured to ensure compliance. In this context, it sought comments on the enforcement tools to be used for: (i) code of conduct, (ii) breach of personal data, (iii) categorisation of different data controllers, and (iv) creation of a separate data protection authority. The authority may be responsible for: (i) monitoring, enforcement and investigation, (ii) setting standards, and (iii) generating awareness.

Penalty and compensation: The Committee discussed penalties for offences under the proposed law and the authority which should have the power to hear and adjudicate complaints. Further, it noted that awarding compensation to an individual who has incurred a loss or damage due to the data controller's failure is an important remedy to be specified under the law.

Way Forward

The Ministry of Electronics and Information Technology has issued a notice to London-based analytics firm, Cambridge Analytica, seeking response on issues related to data of Indians collected by the firm or its intermediaries or associates. India, on its part, lacks a comprehensive policy on data protection or online security—the Indian Information Technology Act (2008) or amended rules in 2011 are not adequate. In many cases such as Aadhaar where the case in sub

judice, quasi-government bodies will consistently pressure you to sign up, failing which you will have to run to the courts to queue up for justice. So you may end up signing up for these services, either because you feel helpless to fight the state or just do not have enough time to fight the system. India desperately needs a separate Privacy Act. The Right to Privacy, as enshrined in the Constitution, does not suffice when it comes to information security. It is thus necessary to make a comprehensive law to adequately

protect personal data in all its dimensions and to ensure effective enforcement machinery for the same.

General Studies Paper- III

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

Topic: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.



4. THE KOREAN PENINSULA CRISIS

Why in News?

Chinese President Xi Jinping sought to underline a core message with his unexpected and secretive hosting of North Korean leader Kim Jong-un on his first trip abroad since taking power after his father's death in 2011. That message is that the long-standing friendship between Pyongyang and Beijing remains in place.

Background

The U.S. has responded to North Korean weapons tests with a campaign of “maximum pressure”, involving economic sanctions, diplomatic pressure, together with military exercises, overflights and posturing, aims to signal to take preventive military action.

Yet there may be (thin) silver linings to the dangerous turn the crisis has taken over the past year. U.S. belligerence has jangled the nerves of regional powers but also likely steeled their will to find an off-ramp. North Korea's advances in its nuclear and missile program could make this moment propitious for diplomacy. Rekindled ties between Seoul and Pyongyang could defuse tensions in the short window. Washington might convince the president to use this

window to seek some form of de-escalatory deal. In second report of a two-part series, Global Crisis Group lays out the steps to de-escalate the crisis and buy time for a more durable solution.

- In the line of fire and fury
- From fire and fury to freeze-for-freeze

In the Line of Fire and Fury

For decades, Pyongyang's nuclear program has shaped relations among major powers and regional states, as well as dynamics within the latter. While Kim's accelerated weapons program and Trump's combativeness are new, the fundamental challenge – how to restrain North Korea while addressing some of its core concerns – remains. The nuclear program of the Democratic People's Republic of Korea (DPRK, North Korea) is more than six decades old. Over this period, the program has been influenced by and, in turn, helped shape the North Korean state's economy, ideology and external posture; great power contestation in the region; and dynamics in and between all of the states in North East Asia. It has been critical to the development of the Kim family regime and is vital to Kim Jong-un's hold

on power. Recent years have seen a marked evolution in the geopolitics surrounding the DPRK nuclear crisis, shaped by four successions:

- From Kim Jong-il to his son Kim Jong-un in North Korea in 2011.
- From Barack Obama to Donald Trump in the U.S. in 2017.
- From Park Geun-hye to Moon Jae-in in South Korea, also in 2017.
- From Hu Jintao to Xi Jinping in China five years earlier.

As the pace of North Korea's nuclear and missile testing increased throughout 2017, so too did the U.S.' bellicosity. North Korea's neighbours – South Korea, China, Japan and Russia – are caught between Pyongyang's sprint to expand its nuclear capability and an administration in Washington apparently determined to stop that dash at virtually any cost. Strategic calculations in the region are evolving, due not only to fear of North Korean weapons but also to the spectre of chaos provoked by the U.S. military action. Yet opportunities for de-escalation exist: North and South Korea have reopened diplomatic channels, while the more U.S. aggressive posture has added urgency to China's efforts to find a way out of the crisis.

Japan and Russia play less central parts, but their proximity – and Russia’s historical ties – to North Korea give them important stakes in the crisis. Japan broadly tracks the U.S. policy on North Korea and Russia and China. Japanese Prime Minister Shinzo Abe has been more supportive than other neighbours of the “maximum pressure” campaign, though in Tokyo, as elsewhere, there is disquiet at the danger of confrontation. Russia opposes North Korea’s nuclearisation but has little appetite for hostilities on the peninsula. It also is quick to seize any opportunity to cast the U.S. in a negative light and, on occasion, to offer Pyongyang support.

Brinkmanship on the Korean peninsula threatens a potentially catastrophic military escalation.

Pyongyang’s Nuclear Motives

This imperative of self-protection is about more than Kim’s need to consolidate. Korean national identity – not just the DPRK’s – is alive to instances of lost sovereignty.

- North Korea’s push for nuclear weapons is partly motivated by fear of threats from abroad, namely the U.S. military action, which Pyongyang believes a nuclear capability can deter. It claims to be pursuing a doctrine of “asymmetric escalation”, according to which it would use nuclear weapons only if attacked. Kim’s pursuit of nuclear weapons also is driven by domestic political dynamics.
- North Korea’s nuclear calculus is affected by economic factors. The regime’s “pyongjin line” commits it to the simultaneous pursuit of nuclear capability and economic development. But it knows it will need to defuse tensions and open up to diplomacy to obtain sanctions relief and to strengthen economic ties with the outside world.

- Strategic parity with the U.S. by creating a credible nuclear deterrent and compelling opponents to conclude a peace treaty with the North, recognise the sovereignty and independence of the DPRK and provide security guarantees to enable the country’s further economic development. Pyongyang is keen to present itself as a responsible nuclear power, in keeping with its goal of gaining international acceptance as a nuclear state.
- Pyongyang’s assessment of threats from abroad overlaps with concerns about threats from within, with the latter arguably playing at least as important a role in Kim’s nuclear calculations.

From Fire and Fury to Freeze-for-Freeze

The U.S. has responded to North Korean weapons tests with a campaign of “maximum pressure”, involving economic sanctions, diplomatic pressure on states with ties to North Korea and, most visibly, bellicose rhetoric that, together with military exercises, overflights and posturing, aims to signal Washington’s willingness to take preventive military action. Even the harshest sanctions will not, in themselves, prompt Pyongyang to slow its weapons program. The U.S., working with regional powers, notably China, should explore a resumption of U.S.-North Korean talks and a deal whereby Pyongyang freezes its most sensitive tests and Washington freezes some military exercises and deployments, while fudging the issue of Pyongyang’s nuclear status. This could presage negotiations toward a durable resolution.

Risk of Catastrophic War: The risk of catastrophic war on the Korean peninsula is higher. The “maximum pressure” strategy of the U.S. has pursued in response to North Korea’s

weapons tests could badly backfire. Its first track, economic pressure through sanctions, will not, on its own, prompt Pyongyang to slow down its weapons program within a reasonable timeframe and could cause considerable harm to its people. The second, threatening or, worse, carrying out military action, risks uncontrolled escalation. Both tracks are hobbled by Washington’s objective – North Korea’s denuclearisation – which, while desirable, is unrealistic for the foreseeable future.

The limits of sanctions, perils of bellicosity and horrific toll of confrontation are compelling reasons for all parties to seek an off-ramp. New options should be used to enable the U.S. and North Korea to resume bilateral talks aimed at prolonging and formalising a freeze-for-freeze understanding.

President Trump’s administration can continue with its maximum pressure strategy, dialling up economic pressure and threats of military strikes. At its core, the choice is between further high-stakes brinkmanship on the Korean peninsula and an effort to achieve some form of de-escalation that presages a broader diplomatic process with Kim Jong-un’s regime.

Talks with the Kim regime, which believes many of its core interests directly contradict those of the U.S. and its neighbours, would hardly be a cakewalk. Nor is the final outcome evident, given it would have to balance the U.S. and wider international concerns about what Pyongyang would do with advanced nuclear capacity against the regime’s fear of what might happen to it without that, all the while keeping both the Non-Proliferation Treaty and a delicate regional strategic balance intact. But diplomacy remains the better option.

While maximum pressure has paid some dividends – injecting new urgency into other states’ North

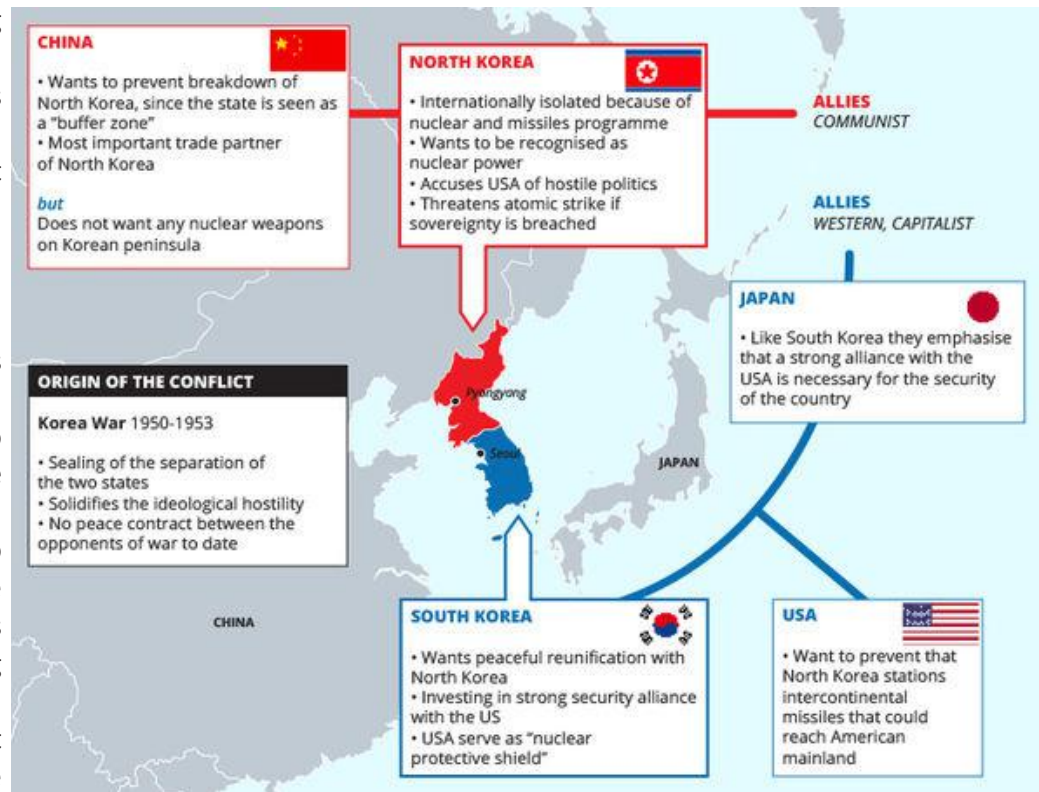
Korea policies and contributing to a tougher Chinese stand against North Korea that Beijing's already strained relations with Pyongyang had precipitated – it has come at a cost. As outlined in Crisis Group's companion report, evolving strategic calculations in North East Asia, among allies and rivals alike, owe as much to fears that the U.S. belligerence could spark an escalation as they do to Pyongyang's sprint to acquire nuclear weapons. More gravely, while sanctions will take time to kick in, the expiration date of the U.S. bellicosity is likely near. Kim's next round of weapons testing could leave Washington with an awful choice: show restraint and chance that its threats are perceived as bluster; or strike and risk catastrophic war.

New Message

In his New address, Mr. Kim conveyed two messages — that the entire U.S. was within range and the nuclear button was on his table and that he was open to dialogue with Seoul. Mr. Trump responded by tweeting that his "nuclear button" was "much bigger & more powerful". But South Korea responded positively and reaffirmed willingness to talk with North Korea at any time and anywhere. Thereafter events gathered pace.

North Korean Diplomacy

The two South Korean officials travelled to Washington to brief Mr. Trump. It was announced that Mr. Trump had agreed to a summit with the North Korean leader in May-2018. This will be the first summit meeting between the U.S. and North Korea. Jimmy Carter and Bill Clinton have travelled to Pyongyang in 1994 and 2009, respectively, to meet Mr. Kim's grandfather and father, respectively, but after their terms as U.S. President ended. Since the



beginning of this year, Kim and Moon have repeatedly surprised the world with their diplomacy across the divided peninsula. Consider, for example, Kim's visit to China last week. It was Kim's first trip abroad since he took charge of the nation in 2011. Coming a few days after the plans for Kim's summit with US President Donald Trump were announced, Kim's talks with President Xi Jinping were widely seen as the affirmation of China's central role in the Korean Peninsula.

China has long been North Korea's political ally and economic lifeline, accounting for 90% of North Korea's foreign trade. It has often resisted tightening of sanctions that could lead to the collapse of the regime. Mr. Kim's objectives are clear — securing regime legitimacy, regime security and sanctions relief. A summit with Mr. Trump provides legitimacy as long as it begins a dialogue process leading towards diplomatic recognition. In 1992, despite North Korean reservations, China recognised South Korea and today it is one of the South's largest partners and a major investment source.

De-escalating Now

While both tests and military exercises appear to be on hold and inter-Korean lines of communication are open, remains the most viable way to avoid that decision. A freeze-for-freeze along the lines China has proposed is far from ideal, but it does provide the U.S. with an off-ramp that preserves its credibility — particularly if Beijing commits to help broker and enforce such a deal — while buying time to negotiate a more durable solution for the North Korean nuclear crisis. Washington's insistence on denuclearisation is understandable, given the nature of the Kim regime; indeed, it is an objective shared in principle by most other states. But however worthy the goal, for now it is delusional: Pyongyang will not pledge to a step it perceives as akin to signing its own death warrant. Holding out in the hope it does so hinders the ability of the U.S. and that of its allies, to cope with the grave risks that Pyongyang's nuclear capability already poses.

Conclusion

Pressure and threats are not an effective means of settling the crisis. Moreover, the constant instigation of

the situation and the demonstration of the military force may lead to incidents and even an armed conflict whose consequences may affect the entire region.

The young North Korean leader Kim Jong-un can call his quick visit to Beijing a success or US pressure on North Korea that Pyongyang was forced to make a move. Kim Jong got the chance to preemptively involve big brother China in advance of direct talks next month with South Korea, and potentially with the US. This could range from denuclearization of the Korean Peninsula to the elimination of rocket tests aimed at the US. Kim sees the “denuclearization of the Korean Peninsula” to also mean the withdrawal of the US’ tactical nuclear weapons arsenal from the region, such as those on submarines.

Korean political developments tend to draw a big yawn in Delhi. This time though, India should be paying attention to the miracle being plotted by the maverick men in Washington and Pyongyang. Trump and Kim are not afraid of the unfreezing of the Korean Peninsula. Whether they succeed or fail, India would be staring at a very different set of geopolitical equations in East Asia.

Two themes stand out. First, India should stop being a passive observer of the Korean geopolitical theatre. While Delhi is in no position to influence the outcomes in the current diplomacy, a more active engagement with the leadership of the two Koreas would better prepare India for potential historic changes in the region. Second is the importance of effective neigh-

bourhood diplomacy. Kim and Moon have shown that relaxation of tensions between North and South can give both of them a greater say in regional affairs. If it makes creative moves in the neighbourhood, Delhi could find it a bit easier to cope with the penetration of rival powers into the Subcontinent.

General Studies Paper- III

Topic: India and its neighborhood-relations.

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

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5. PLASTIC POLLUTION IN THE OCEANS

Why in News?

UN Environment recently launched an unprecedented global campaign to eliminate major sources of marine litter: microplastics in cosmetics and the excessive, wasteful usage of single-use plastic by the year 2022. The United Nations Environment Programme (UNEP) is urging everyone to eliminate the use of microplastics and stop the excessive, wasteful use of single-use plastic, to save the world's seas and oceans from irreversible damage before it's too late.

Introduction

Oceans and coasts are the very basis of much of the world's economy. 350 million jobs around the world are linked to the oceans. They flow over nearly three-quarters of our planet and hold 97% of the planet's water. The marine environment supplies the planet with key services such as climate regulation, storm protection, food security, nutrients cycling etc. All these services

are underpinning lives and livelihoods in different sectors from tourism to fisheries. The world population is living, working, vacationing, increasingly conglomerating along the coasts and standing on the front row of the greatest, most unprecedented, plastic waste tide ever faced.

Washed out on our coasts in obvious and clearly visible form, the plastic pollution spectacle blatantly unveiling on our beaches is only the prelude of the greater story that unfolded further away in the world's oceans, yet mostly originating from where we stand: the land. For more than 50 years, global production and consumption of plastics have continued to rise. An estimated 300 million tons of plastics were produced in 2015, confirming and upward trend over the past years. Our global plastic consumption worldwide has been estimated at 260 million tons and according to a report by Global Industry Analysts, plastic consumption

reached at 297.5 million tons by the end of 2015.

Plastic is versatile, lightweight, flexible, moisture resistant, strong and relatively inexpensive. Those are the attractive qualities that lead us, around the world, to such a voracious appetite and over-consumption of plastic goods. However, durable and very slow to degrade, plastic materials that are used in the production of so many products all, ultimately, become waste with staying power. Our tremendous attraction to plastic, coupled with an undeniable behavioral propensity of increasingly over-consuming, discarding, littering and thus polluting, has become a combination of lethal nature.

What Is Plastic?

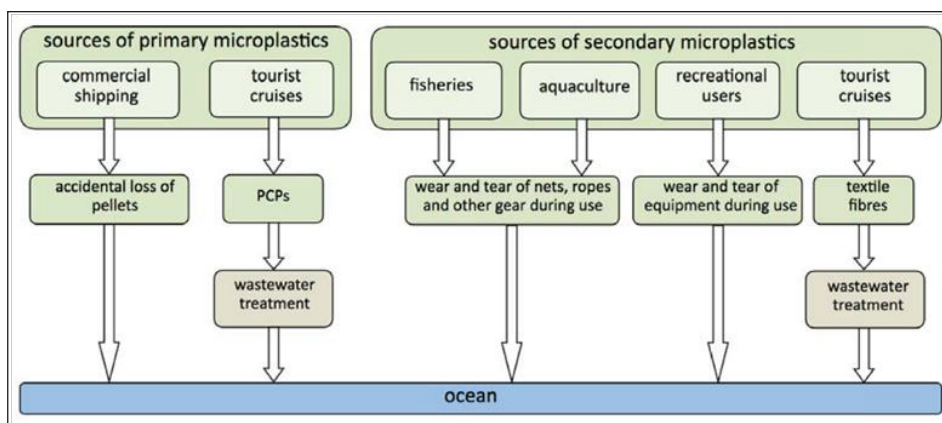
A simple definition could be: any of a group of synthetic or natural organic materials that may be shaped when soft and then hardened, including many types of resins, resinoids,

polymers, cellulose derivatives, casein materials and proteins: used in place of other materials, as glass, wood and metals, in construction and decoration, for making many articles, as coatings, and, drawn into filaments, for weaving. They are often known by trademark names, as Bakelite, Vinylite, or Lucite.

In chemistry, plastics are large molecules, called polymers, composed of repeated segments, called monomers, with carbon backbones. Polymers are divided into two distinct groups: thermoplastics (moldable) and thermosets (not). The word “plastics” generally applies to the synthetic products of chemistry.

Sources of Microplastics

There are many sources of microplastics to the marine environment, including terrestrial and maritime and there is evidence that microplastics are littered into the environment at



all steps in the lifecycle of a plastic product, from production to waste management. Microplastics can enter the marine environment via riverine systems, coastlines, directly at sea from vessels and platforms or by wind-induced transport in the atmosphere.

Broadly, sources of microplastics are categorized into two types: primary and secondary. The distinction is based on whether the particles were originally manufactured to be that

size (primary) or whether they have resulted from the breakdown of larger items (secondary). Fragmentation and degradation plays an essential role in the formation of secondary microplastics, but the processes remain poorly understood.

Decompose

Plastic debris, of all sizes and shapes, is a transboundary pollution problem with a powerful vehicle, the ocean. Since plastics belong to a chemical family of high polymers, they are essentially made up of a long chain of molecules containing repeated units of carbon atoms. Because of this inherent molecular stability (high molecular weight), plastics do not easily breakdown into simpler components. The Marine Conservancy has published that the estimated decomposition rates of most plastic debris found on coasts are:

- Foamed plastic cups: 50 years
- Plastic beverage holder: 400 years
- Disposable diapers: 450 years
- Plastic bottle: 450 years
- Fishing line: 600 years.

Cause for Concern

Microplastics, tiny fragments of plastic smaller than 50mm in size that make up the vast majority of items in the Great Pacific Garbage Patch, can enter the food chain when swallowed by fish. The pollutants they contain become more concentrated as they work their way up through the food web, all the way to top level predators such as sharks,

Plastic Type	Examples of Common Uses	Concerns
#1 Polyethylene terephthalate (PET or PETE)	Drink bottles, clear bottles, wide-mouth containers for apple sauce, puddings, gelatin, salsa containers.	Single use - litter of beaches and ocean. Heating can cause leaching of chemicals.
#2 High-density polyethylene (HDPE)	Opaque bottles and containers for milk, juice and beverages. Detergent bottles and grocery bags.	Single use - litter of beaches and ocean. Heating can cause leaching of chemicals. Bags and container bits make their way into the sea and the stomachs of marine mammals.
#3 Polyvinyl chloride (PVC)	Shrink wrap, plastic squeeze bottles, detergent and window cleaner bottles, some children's toys, shower curtains	May contain DEHA and phthalates
#4 Low-density Polyethylene (LDPE)	Produce bags, Ziplock bags, most plastic wraps, and trash bags. Lids.	Plastic bags carried by wind, potentially harm land and marine animals, who mistake them for food.
#5 Polypropylene (PP)	Straws, plastic cups, margarine tubs, some yogurt tubs, douded plastic containers like baby bottles.	Heating can cause leaching of chemicals. May contain antibacterial chemicals. Likely litter the ocean.
6 Polystyrene (PS)	Foam containers and coffee cups. Foam meat trays, foam plates and bowls. Packing.	Styrene a known carcinogen leaks from polystyrene. Btts end up in stomachs of manne birds. Hard to recyde.
#7 Other (includes Polycarbonates)	Tupperware, polycarbonate water bottles, storage containers, all plastics that are not #1-6, unmarked containers and lids. Bioplastics can also fall into this category.	Polycarbonates with BPA

Degradation of Plastics – Some Definitions

- **Degradation:** The partial or complete breakdown of a polymer as a result of e.g. UV radiation, oxygen attack, biological attack. This implies alteration of the properties, such as discolouration, surface cracking and fragmentation.
- **Biodegradation:** Biological process of organic matter, which is completely or partially converted to water, CO₂/methane, energy and new biomass by microorganisms (bacteria and fungi).
- **Mineralisation:** Defined here, in the context of polymer degradation, as the complete breakdown of a polymer as a result of the combined abiotic and microbial activity, into CO₂, water, methane, hydrogen, ammonia and other simple inorganic compounds.
- **Biodegradable:** Capable of being biodegraded.
- **Compostable:** Capable of being biodegraded at elevated temperatures in soil under specified conditions and time scales, usually only encountered in an industrial composter.
- **Oxo-degradable:** Containing a pro-oxidant that induces degradation under favourable conditions. Complete breakdown of the polymers and biodegradation still have to be proven.

seals and polar bears. Fishing net fragments kill marine life by trapping fish and animals such as turtles in a process known as 'ghost fishing'.

Ecological Impacts of Microplastics

- Microplastics have been documented in a diversity of habitats and in over 100 species.
- Microplastics can impact an organism at many levels of biological organization, including at the levels of populations and assemblages. Still, the majority of the evidence is at levels that are sub-organismal (e.g. changes in gene expression, inflammation,

tumour promotion) or affect individual organisms (i.e. death).

- Microplastics can be a source and sink of hazardous chemicals to organisms, but its relative importance as a source of chemicals to wildlife relative to others (e.g. water, sediment, diet) remains under investigation.
- Nano-sized plastics are probably as common as micro-sized plastics, yet the hazards may be more complex.
- Microplastics can transport invasive species, including harmful algal blooms and pathogens.

Socio-Economic Aspects

The socio-economic impacts of marine plastic are growing with the ongoing increase in plastic in the marine environment. There is mounting concern, globally and by sector, about the increasing cost both of inaction and action needed across the value chain.

Economics

- Whilst the benefits of action against macroplastics often outweigh their costs, downstream clean-up actions focusing on microplastics are unlikely to be cost-effective, underlining the need for upstream preventative measures on sources.
- Many sectors of the economy are sources of microplastics either directly (releases of primary microplastics) or indirectly (macroplastics breaking down to microplastics).
- It is in the interests of those employed in many sectors of the economy to find strategies to reduce marine litter, as this can help reduce social and economic burdens. Examples include: tourism and recreation, aquaculture and fisheries and shipping.

Social Aspects

- Citizen consumption of goods and services, personal habits (e.g. use

of reusable bags and packaging) and waste practices (littering, waste separation) are key drivers of marine litter.

- Mitigating marine litter can benefit communities, support long term livelihoods (e.g. links to fisheries, tourism), well-being (e.g. linked to recreation) and social cohesion (e.g. sense of belonging to a clean environment).
- Human health impacts can be mitigated by removing waste that can harbour pathogens or accumulate pools of water that host insects which are vectors for diseases, like dengue fever.
- A range of factors influence perceptions and behaviour, such as: cultural norms, gender, social standing, education level and economic status. Accounting for these in the design and implementation of measures to encourage behaviour change may result in longer lasting, more effective and lower-cost solutions.

Distribution, Fate and Hot-spots

Understanding the sources, fate and transport of microplastics in the marine environment is a growing field and increasingly important to guide management decisions. The fate and transport of microplastics is complex and driven by myriad factors including: weathering and fragmentation, winds, buoyancy (plastics properties), local and large-scale currents, wave action and biofouling. Understanding fluxes of microplastics and hot-spots of microplastics distribution requires understanding movement between these compartments. Microplastics are distributed between the ocean surface, the water column, the seafloor, the shoreline and in biota. The physical, chemical and biological processes acting on the microplastics within each reservoir or compartment

differ. Due to lack of data for most of the compartments, the risks and opportunities for mitigation are poorly understood at present. Harmonizing the multiple existing approaches to sampling, measuring and quantifying microplastics will improve local, regional and global understanding and support much-needed, large-scale syntheses.

Commercial Fish and Shellfish

Capture fisheries and aquaculture sectors provide an important protein source that may be negatively affected by microplastic pollution. Microplastics have been documented in finfish, shellfish and crustaceans, which are consumed by humans. The impacts of the consumption of microplastics by food fish are unknown; however, studies on non-commercial species suggest microplastics have the potential to negatively affect organism health and hence food security although at current observed concentrations this appears to be unlikely. It is possible that microplastics may increase the chemical contamination of seafood, but there is little evidence to suggest that this represents a significant

Legislation and International Concerted Programs

In 1972, the London Convention, a United Nations agreement to control ocean dumping, was entered into. It was followed by the most well-known piece of international legislation, the International Convention for the Prevention of Pollution from ships (MARPOL). Annex V of MARPOL was introduced in 1988 with the intention of banning the dumping of most garbage and all plastic materials from ships at sea. A total of 122 countries have ratified the treaty. There is some evidence that the implementation of MARPOL has helped to reduce the marine debris problem.

Under the umbrella of UNEP, numerous cooperative efforts have been held to reach protocols and conventions. For instance, a Protocol on Integrated Coastal Zone Management was approved in January 2008, involving 21 countries bordering the Mediterranean Sea, as well as the European Union. Within the framework of Land Based Sources Protocol for pollution reduction from land-based sources, Mediterranean countries and parties to the Barcelona Convention have agreed this year on an initial set of actions covering the reduction of municipal pollution and the elimination of a number of Persistent Organic Pollutants.

Last December in Nairobi, UN member-countries resolved to produce a binding agreement in 18 months to deal with the release of plastics into the marine environment. The problem is staggering: eight million tonnes of waste, including bottles and packaging, make their way into the sea each year. There is now even the Great Pacific Garbage Patch of plastic debris.

Way Ahead

Given the complexity and the global scope of the issue, a concerted effort involving both national and local governments as well as the private sector, non-governmental organizations and citizens is needed. In the short-term, focusing on measures that prevent plastic that has already been produced from reaching the sea, such as improving waste management and waste to energy efforts, are key. It should be noted however, that in the long term, what is needed is a shift in the way we think about plastic. We need to stop viewing it as something that can just be thrown away after it has been used and start viewing it as a valuable resource of which we have only a limited supply. This means that both the production and consumption of plastic must be reduced.



India has a major problem dealing with plastics, particularly single-use shopping bags that reach dumping sites, rivers and wetlands along with other waste. The most efficient way to deal with the pollution is to control the production and distribution of plastics. Banning single-use bags and making consumers pay a significant amount for the more durable ones is a feasible solution. Enforcing the Solid Waste Management Rules, 2016, which require segregation of waste from April 8 this year, will retrieve materials and greatly reduce the burden on the environment. Waste separation can be achieved in partnership with the community and presents a major employment opportunity. The goal, however, has to be long term. As the European Union's vision 2030 document on creating a circular plastic economy explains, the answer lies in changing the very nature of plastics, from cheap and disposable to durable, reusable and fully recyclable. There is consensus that this is the way forward. Now that the presence of plastics in drinking water, including the bottled variety, has been documented, governments should realise it cannot be business as usual.

General Studies Paper- III

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



6. SEARING HOT SUMMER IN INDIA

Why in News?

According to the India Meteorological Department most parts of north India can expect a searing hot summer this year with average mean temperatures remaining more than a degree above normal. IMD also predicts hotter summer for many parts of India between April and June. According to a study by the Indian Institute of Technology (IIT) Gandhinagar, the frequency of severe heat waves in India will increase 30-fold by 2100 under a 2°C warming scenario. Under a business-as-usual scenario, heat-wave frequency might increase 75-fold.

Introduction

Heat waves that occurred in 1998, 2012 and 2015 had notable impacts on human health and such events are projected to become more frequent in India. Mercury hovering around early 40°C in Gujarat; Delhi experiencing the hottest March in the last eight years and Mumbai sizzling at 41°C are ominous signs. They tell of the future when such high temperatures will be the new normal. The IMD's seasonal forecast in the beginning of March indicated that there is a 52 per cent chance of maximum temperatures in the core heat wave zone touching its peak between March and May.

The maximum temperatures, according to the latest seasonal forecast, are likely to be 'markedly above normal' (5°C or more) over major parts of North West India (including Western Himalayan region) and parts of Central India and Peninsular India in the coming days.

- The IMD's seasonal forecast says there is a probability that the maximum temperature in the core heat wave zone during the March to May period will peak, pointing to a high likelihood of heat waves.

- The regions that will bear the brunt of higher-than-normal temperature, according to the IMD forecast, include Delhi, Punjab, Himachal Pradesh, Chhattisgarh, Bihar, Jharkhand, West Bengal, Odisha, Marathwada, Vidarbha, Madhya Pradesh, Maharashtra and coastal Andhra Pradesh.
- In areas like Kerala, Tamil Nadu, South interior Karnataka and Rayalaseema, temperature is likely to be higher by 0.5 degree Celcius. Remaining sub-divisions will mostly experience anomalies between 0.5 degrees to one degree.
- The forecast also projects that the seasonal average mean temperature in Kerala, Tamil Nadu, south interior Karnataka, Rayalaseema and North-Eastern states is likely to be less than 0.5 degree Celcius.

While future does not look promising, even the present does not look any better. The Indian Meteorological Department (IMD) has predicted that summer could be severe in 2018, with temperatures 0.5 to 1°C higher than the long-term average. While Northern and Western parts of the country will see a spike in mean seasonal temperatures by more than 1 °C, the Southern states could see temperatures rise between 0.5 degrees Celsius and 1 °C from their long-term averages.

Heat Wave in India

A heat wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season in the North-Western parts of India. Heat waves typically occur between March and June and in some rare cases even extend till July. The extreme temperatures and resultant

atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.

When actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat waves should be declared. Higher daily peak temperatures and longer, more intense heat waves are becoming increasingly frequent globally due to climate change. India too is feeling the impact of climate change in terms of increased instances of heat waves which are more intense in nature with each passing year and have a devastating impact on human health thereby increasing the number of heat wave casualties.

Identification of Heat Wave Events

Heat wave is considered if maximum temperature of a station reaches at least 40°C or more for plains, 37°C or more for coastal stations and at least 30°C or more for Hilly regions. Following criteria are used to declare heat wave:

a) Based on Departure from Normal

- **Heat Wave:** Departure from normal is 4.5°C to 6.4°C
- **Severe Heat Wave:** Departure from normal is >6.4°C

b) Based on Actual Maximum Temperature (for plains only)

- **Heat Wave:** When actual maximum temperature $\geq 45^{\circ}\text{C}$
- **Severe Heat Wave:** When actual maximum temperature $\geq 47^{\circ}\text{C}$

To declare heat wave, the above criteria should be met at least in 2 stations in a Meteorological sub-division for at least two consecutive days and it will be declared on the second day.

Green (No action)	Normal Day	Maximum temperatures are near normal
Yellow Alert (Be updated)	Heat alert	Heat wave conditions at district level likely to persist for 2 days
Orange Alert (Be prepared)	Severe heat alert for the day	(i) Severe heat wave conditions persist for 2 days (ii) With varied severity, heat wave is likely to persists for 4 days or more
Red Alert (Take Action)	Extreme heat alert for the day	(i) Severe heat wave persists for more than 2 days (ii) Total number of heat/severe heat wave days likely to exceeds 6 days.

Anatomy of Indian Heatwaves

The heatwaves over India have been linked with the climate modes such as El Nino-Southern Oscillation (ENSO) and also to the variations in the sea surface temperatures in the Bay of Bengal. The dependence of heat waves on the Indian and Pacific Oceans has large implications. Some studies also linked the heatwaves to the re-curving tropical cyclones in the Bay of Bengal. The re-curving tropical cyclones before the onset of the heatwaves could change the direction of the winds and cut-off moisture to the inland regions leading to heatwaves. In spite of the large societal impact, there has been no systematic attempt to understand the principal mechanism of heatwaves over India.

India suffers from major heatwaves during March-June. The rising trend of number of intense heatwaves in recent decades has been vaguely attributed to global warming. Since the heat waves have a serious effect on human mortality, root causes of these heatwaves need to be clarified. Based on the observed patterns two types of heatwaves are.

- The first-type of heatwave over the North-Central India is found to be associated with blocking over the North Atlantic. The blocking over North Atlantic results in a cyclonic anomaly West of North Africa at upper levels. The stretching of vorticity generates a Rossby wave source of anomalous Rossby waves

near the entrance of the African Jet. The resulting quasi-stationary Rossby wave-train along the Jet has a positive phase over Indian subcontinent causing anomalous sinking motion and thereby heatwave conditions over India.

- The second-type of heatwave over the coastal Eastern India is found to be due to the anomalous Matsuno-Gill response to the anomalous cooling in the Pacific. The Matsuno-Gill response is such that it generates northwesterly anomalies over the landmass reducing the land-sea breeze, resulting in heatwaves.

The heat waves are associated with large scale atmospheric anomalies connecting sub-tropical persistent high, quasi-stationary Rossby waves over the mid-latitudes, depleted soil moisture and clear skies.

Causes of Heat Wave

Basically, a heat wave occurs when a high-pressure system in the atmosphere, instead of moving across the landscape, stays stuck in one location – for days or even weeks. But in the mega heat waves that killed tens of thousands of people in Europe and Russia, there was another factor. These heat waves were made worse by a vicious positive feedback loop between ultra-dry soil and unexpectedly powerful high-pressure systems in the lowest level of the atmosphere. This combination trapped the heat. The trapped heat couldn't dissipate

overnight – so the next morning started as hot as the previous afternoon. The cycle intensified with each passing day. Ultimately, it created a thick blanket of hot air, four kilometres thick.

Health Impacts of Heat Waves

The health impacts of heat waves typically involve dehydration, heat cramps, heat exhaustion and/or heat stroke. The signs and symptoms are as follows:

- **Heat Cramps:** Edema (swelling) and Syncope (Fainting) generally accompanied by fever below 39°C i.e. 102°F.
- **Heat Exhaustion:** Fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.
- **Heat Stoke:** Body temperatures of 40°C i.e. 104°F or more along with delirium, seizures or coma. This is a potential fatal condition.

Heat Action Plan

It aims to implement four key strategies:

- **Building Public Awareness and Community Outreach:** To communicate the risks of heat waves and implement practices to prevent heat-related deaths and illnesses. Disseminating messages on how to protect people against extreme heat through media outlets and informational materials such as pamphlets and advertisements on heat stress prevention. New efforts being launched as part of this year's Plan include the use of modern media such as SMS, text messages, email, radio and mobile applications such as WhatsApp. Special efforts will be made to reach vulnerable populations through inter-personal communication as well as other outreach methods.

- **Initiating an Early Warning System and Inter-Agency Coordination:** To alert residents of predicted high and extreme temperatures. The AMC has created formal communication channels to alert governmental agencies, the Met Centre, health officials and hospitals, emergency responders, local community groups and media outlets of forecasted extreme temperatures.
- **Capacity Building among Health Care Professionals:** To recognize and respond to heat-related illnesses, particularly during extreme heat events. Such trainings focus on primary medical officers and other paramedical staff and community health staff so they can effectively prevent and manage heat-related cases so as to reduce mortality and morbidity.
- **Reducing Heat Exposure and Promoting Adaptive Measures:** By launching new efforts including mapping of high-risk areas of the city, increasing outreach and communication on prevention methods, access to potable

drinking water and cooling spaces during extreme heat days. Collaboration with non-governmental organizations is also identified as a means to expand outreach and communication with the city's most at-risk communities.

Conclusion

The study has brought out the salient features of variability of heat waves over India and associated physical mechanisms and influence of coupled climate modes. Over Central and North Western parts of the country, frequency, total duration and maximum duration of heat waves are increasing. Anomalous persistent high with anti-cyclonic flow, supplemented with clear skies and depleted soil moisture are primarily responsible for the occurrence of heat waves over India. Variability of heat waves over India is influenced by both the tropical Indian Ocean and Central Pacific Sea Surface Temperature (SST) anomalies. The warming of the tropical Indian Ocean and more frequent El Nino events in future may further lead to more frequent and longer lasting heat waves over India.

Heatwave effects on human health and wellbeing is a great public health concern, especially in the context of climate change. Heatwave intensity plays a relatively more important role than duration in determining heat wave related deaths and significantly increases mortality across the globe. City or region-specific heat health early warning systems based on identified local heatwave definitions may be optimal for protecting and preventing people from the adverse impacts of future heatwaves.

Building resilience through climate change adaptation becomes an imperative role of the state and national governments. This includes building awareness about heat waves and their effects, issuing proper warning systems and building capacity of health workers to deal with such events.

General Studies Paper- III

Topic: Disaster and disaster management.

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7. THE PATH OF INEQUALITY IS WIDENING

Why in News?

The report, 'The Widening Gaps: India Inequality Report-2018', alleges that the wealthiest individuals in India (it pegs the total wealth of Indian billionaires at 15 per cent of the GDP, has risen from 10 per cent only five years ago) have cornered a large share of their wealth through 'crony capitalism' and inheritance, while people at the bottom have been seeing their share reduced further. The report pointed out that the path of inequality has changed in India — from being stagnant in the 1980s to increasing since 1991 and to a subsequent and continued surge up to the present.

Introduction

Globally, billionaires' total wealth increased by 31 per cent to \$10.5 trillion, equivalent to 13.2 per cent of global GDP and almost doubles the per cent of global GDP six years ago. The Hurun Global Rich List, 2018 ranked 2,694 billionaires from 68 countries and 2,157 companies. India reclaimed the third place in the list. The country saw the addition of 31 new billionaires this year, taking the overall tally to 131. In India, the richest one per cent own 53 per cent of the country's wealth, according to the latest data from Credit Suisse. The richest 5 per cent own 68.6 per cent, while the top 10 per cent have

76.3 per cent. At the other end of the pyramid, the poorer half jostles for a mere 4.1 per cent of national wealth. A few months back, a research paper co-authored by French economist Thomas Piketty estimated that the share of the top one per cent of India's income pie is higher than ever before. A report released by Oxfam India on February 22 revealed that inequality has been on the rise for the last three decades.

- The share of national income accruing to the top 1% income earners is now at its highest level since the launch of the Indian Income Tax Act in 1922. The top 1% of earners captured less than 21%

of total income in the late 1930s, before dropping to 6% in the early 1980s and rising to 22% today.

- Over the 1951-1980 period, the bottom 50% captured 28% of total growth and incomes of this group grew faster than the average, while the top 0.1% incomes decreased.
- Over the 1980-2014 period, the situation was reversed; the top 0.1% of earners captured a higher share of total growth than the bottom 50%, while the top 1% received a higher share of total growth than the middle 40%.

What is Inequality?

Inequality refers to the measurement of imbalance or unequal distribution in a system, which may be social, economic, political, diversity, etc. In economics, it refers to how economic metrics are distributed among individuals in a group, among groups in a set of population, or among countries. Economists generally reckon about three broad areas of economic disparity. They are with respect to wealth, known as wealth inequality, income or income inequality and consumption or consumption inequality. Inequality of outcome from economic transactions occurs when some individuals gain much more than others from an economic transaction. Inequality of opportunity occurs when individuals are denied access to institutions or employment, which limits their ability to benefit from living in a market economy.

Measuring Inequality and Poverty

Consumption Inequality: Generally the Gini coefficient, which lies between 0 and 1, is used for measuring inequality. The Gini coefficient of consumption expenditure for rural areas declined marginally between period of 1983-84 to 1993-94 (from 0.304 to 0.286); while it recorded a

marginal rise during the high growth period of 2004-05 and 2011-12 (from 0.304 to 0.311). In the case of urban areas, it stayed the same from 1983-84 to 1993-94 (0.344) while it increased modestly from 2004-05 to 2011-12 (0.376 to 0.390). Using long time series since 1951, a study shows that inequality in rural areas declined while it increased in urban areas in the post-reform period, particularly in the high growth period.

One view is that inequality in consumption may be an under-estimate as National Sample Survey (NSS) data may not be capturing the consumption of the rich adequately. According to the Rangarajan Committee, these two estimates of consumption do not match in any country and India is no exception. What is alarming in India is that the difference between NAS and NSS is widening over time. For example, the difference was less than 10% in the late 1970s; it rose to almost 50% in 2009-10. Some adjustments made in the report reduced the difference from 45.8% to 32.5%. But still the differences are high.

Income Inequality: Income and wealth inequalities are much higher than consumption inequality. According to some estimates, consumption Gini coefficient was 0.36 in 2011-12 in India. On the other hand, inequality in income was high with a Gini coefficient of 0.55 while wealth Gini coefficient was 0.74 in 2011-12. Thus, income Gini was about 20 points higher than consumption Gini while wealth Gini was nearly almost 40 points higher than consumption Gini. Thus, inequality in income and wealth is much higher than that of consumption.

- First, as the World Bank study shows, poverty declined by 1.36 percentage points per annum post-1991 compared to 0.44 percentage points per annum prior to 1991. This study shows that among other

things, urban growth is the most important contributor to the rapid reduction in poverty even in rural areas in the post-1991 period.

- In the post-reform period, poverty declined faster in the 2000s than in the 1990s. The official estimates based on Tendulkar poverty lines show that poverty declined much faster during 2004-05 to 2011-12 as compared to the period 1993-94 to 2004-05. Around 135 million people were lifted above the poverty line in the post-reform period.

Growth and Distribution: The trends in poverty show that the pace of reduction was much higher in the post-reform period particularly during high growth period. The impact of higher growth on poverty reduction can also be seen from the decile-wise growth in per capita consumption expenditure. A comparison of the growth rate of per capita consumption (in real terms) during the periods 1993-94 to 2004-05 and 2004-05 to 2011-12 shows that the average growth of per capita consumption of the top five deciles is more than that of the bottom five deciles. However, the ratio of the average growth rates of the two periods is higher for the bottom five deciles as compared to the top five. It implies that the expansion of consumption of the lower deciles of the population was more than the upper deciles.

Poverty and Inequality: Higher incomes reduced poverty substantially. Inequality measured in terms of share of income of the top 10% increased poverty sharply but only in the more affluent states. Somewhat surprisingly, higher cereal prices did not have a significant positive effect on poverty. Similar results are obtained if the share of the top 10% is replaced with the Gini coefficient as a measure of inequality. It is plausible that poverty reduction slowed in 2016-17 because

of deceleration of income growth; and huge shocks of demonetisation and the GST to the informal sector have aggravated income inequality. Indeed, depending on the magnitudes of these shocks, poverty could have risen during this period.

Causes of Inequalities

There are several causes which give rise to inequality of incomes in an economy:

- **Inheritance:** Rich inheritance gives them a start in life and if they are reasonably prudent, they keep up the lead. Some persons are born landless; others inherit a few acres and still others thousands of acres. So long as the system of inheritance lasts, inequalities are bound to be perpetuated.
- **Differences in Natural Qualities:** Persons who are endowed by nature with superior intelligence, better physique and greater capacity for hard work must surpass others in the race of life. Some inherit a feeble mind in a feeble body and they naturally lag behind.
- **Differences in Acquired Talent:** There is no doubt that if one undergoes technical training of the right type after a course of general education, his efficiency will improve. Commercial education may also improve efficiency and raise a person's income-making capacity. Differences in personal efficiency are thus an important cause of inequality of incomes.
- **Family Influence:** That is why unequal incomes are earned by different persons. In this world, family contacts make a lot of difference to what people earn.
- **Luck and Opportunity:** It is well known that under-developed regions do not offer good opportunities for employment,

whereas the developed regions have ample opportunities. This is also an important cause of inequality of incomes. These are some of the causes which give rise to inequality of incomes.

Consequences of Inequality

Inequality of incomes leads to some very serious economic and social consequences:

- **Class-conflict:** It has created two sections in society—the 'haves' and the 'have-not's'—which are ever on the war path. This has resulted in ever mounting social tensions and political discontent.
- **Political Domination:** The rich dominate the political machinery and they use it to promote their own exclusive interests. This results in corruption, graft and social injustice.
- **Exploitation:** The rich exploit the poor. The consciousness of this exploitation leads to political awakening and then agitation and even political revolution. Thus inequality of incomes is an important cause of social and political instability.
- **Creation of Monopolies:** Unequal incomes promote monopolies. These powerful monopolies and industrial combines charge unfair prices from the consumer and crush the small producers. The bigger fish swallow the small fry.
- **Suppression of Talent:** It is said that 'slow rises merit by poverty depressed'. It is not easy for a poor man to make his way in life, however brilliant he may be. It is a great social loss that brainy people without money are unable to make their due contribution to social welfare.
- **Undemocratic:** Democracy is a farce when there is a wide gulf between the rich and the poor.

Political equality is a myth without economic equality.

- **Moral Degradation:** The rich are corrupted by vice and the poor demoralized by lack of economic strength. Thus inequalities spoil the rich and degrade the poor. Vice and corruption rule such a world. The poor man finds it almost impossible to regain the virtues of honesty and integrity. Human dignity is lost altogether.
- **Promotes Capital Formation:** However, there is one good which comes out of these inequalities of incomes and that is that it facilitates savings. If the national income of the country is evenly distributed among all its citizens, it is clear that it will be only thinly spread over the whole population. Everyone will have nothing left for saving. It is only when income is unequally distributed that there are people who are so rich that in their case saving is automatic.

It is only a minority of the people who have the saving habit. To the rest if income comes, it is squandered away. Under a system, where there are large accretions of wealth in certain patches, not only is the capacity for savings greater, but the ability to invest and gain is also greater. There are people who save and turn their saving into capital. Thus inequality of incomes helps capital formation in a country.

Inequality: An Ethical Challenges

Inequality also tests our ethics. Inequality is not just about income gaps. We may not value the same things in life. People and a society may pursue different paths whose values cannot be compared by a simple measure of how much you possess. As Catholic social teaching suggests, we need to have faith in the poor to organize themselves and choose the life they wish.

Measures to Reduce Inequalities

In the present era of social and political awakening, it has become a major plank of political policy that inequalities of incomes should be reduced, if not eliminated. India also has decided to set up a 'socialistic pattern of society'. With this end in view, the government strives to prevent the concentration of wealth and income in a few hands. The following are some of the measures which can be suggested to reduce inequality of incomes:

- Fixing minimum wage
- Social security
- Equality of opportunity
- Steeply-graded income tax
- High taxes on luxuries
- Steep succession taxes and estate duty and wealth tax
- Ceilings on agricultural holdings and urban property

Governments can intervene to promote equity and reduce inequality and poverty, through the tax and benefits system. This means employing a progressive tax and benefits system which takes proportionately more tax from those on higher levels of income and redistributes welfare benefits to those on lower incomes. It can support sectoral training, apprenticeships and earn-while-you-learn programmes; maintain and strengthen safety

net programs such as welfare, unemployment benefit, universal healthcare, homeless shelters and sometimes subsidised services such as public transport, which prevent individuals from falling into poverty beyond a certain level. This brings us to the concept of Universal basic income (UBI) which is a sum of money provided by the state to all citizens to take care of the bare necessities of life.

Conclusion

There are many options and we do not claim to put an end to debates but rather to trigger them. As written above, more tax progressivity is a very handy tool to limit rising income inequality at the top. Now looking at the other end of the social ladder, government investments in transportation, health and free quality education are indeed crucial to raise bottom 50% incomes. Land ownership concentration is also an issue in India, where agriculture remains a key sector and where land reform has been only very partial. One of key goals is to relate macroeconomic issues—such as capital accumulation, the aggregate structure of property, privatization or nationalization policies and the evolution of public debt—to the microeconomic study of inequality. Far too often, the study of the “capital” side of the economy (that is, focused on capital, investment, debt and so forth) is separated from the study of

the “household” side (that is, looking at wages, transfers, poverty, inequality and other issues).

There has been lot of discussion in recent years on inequality. There is no doubt that inequality in itself has several undesirable consequences. It was Simon Kuznets who had argued in a famous paper in 1955 that in the early period of economic growth distribution of income tends to worsen and that only after reaching a certain level of economic development an improvement in the distribution of income occurs. In this context, measuring inequality is not the same as measuring the changes in level of poverty. Even if the Gini coefficient remains the same or picks up, the poverty ratio can be declining. This has been true of India. The decline in poverty is much higher particularly in the period 2004-05 to 2011-12 in spite of rise in inequality. Thus the changes of the poverty ratio is an equally important indicator to monitor.

General Studies Paper- III

Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Topic: Inclusive growth and issues arising from it.



SEVEN SUBJECTIVE QUESTIONS WITH MODEL ANSWERS

Corporate Governance Reforms in India

Q1. Corporate governance is most often viewed as both the structure and the relationships which determine corporate direction and performance. Elaborate.

Hints:

- The Securities and Exchange Board of India (SEBI) approved sweeping changes proposed by the UdayKotak panel on improving corporate governance standards such as splitting the post of chairman and managing director, tighter rules for independent directors, enhanced disclosure of related-party transactions and mandatory secretarial audits for listed entities and their material subsidiaries.
- Over the past decade, policymakers in India have been acutely conscious of the importance of corporate governance – several committees, including those under the chairmanship of Mr. Kumar Mangalam Birla, Mr. Narayana Murthy and Mr. Naresh Chandra, have made valuable recommendations which have been largely adopted. These include evaluation of company boards, board diversity, reliability of disclosures (especially those relating to financial statements), role of independent directors, protection of minority shareholder interests, managerial compensation and related party transactions.
- India accounts for nearly 3 percent of world GDP and 2.5 percent of global stock market capitalization. India represents a vibrant mix of small and large companies that access capital from domestic and international investors to fund their growth. Many of these companies are amongst the largest employers. As corporate India's health is critical for India's future, sound corporate governance needs to be the key enabler to manifest this reality. Corporate governance deals with the ways in which suppliers of capital to corporations, especially faceless, powerless small investors, can assure themselves of getting fair treatment as stake holders.
- The companies that exhibit sound corporate governance generate significantly greater returns when compared to companies that exhibit poor corporate governance. Numerous studies indicate that the payoff from good

corporate governance manifests both in the operating results of publicly listed companies, as well as the market capitalization of such companies. In fact, good firm-level governance often makes up for weaknesses in a country's corporate laws or the enforcement of such laws.

- Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the economy and its shareholders and should facilitate effective monitoring. Corporate governance standards in India have come under a cloud after recent financial frauds and other issues related to the corporate sector.
- Effective corporate governance can be achieved by adopting a set of principles and best practices. A great deal depends upon fairness, honesty, integrity and the manner in which companies conduct their affairs. Companies must make a profit in order to survive and grow; however, the pursuit of profits must stay within ethical bounds.
- Companies should adopt policies that include environmental protection, whistle blowing, ethical training programs and so on. Such compliance mechanisms help develop and build corporate image and reputation, gain loyalty and trust from consumers and heighten commitment to employees. Ethical compliance mechanisms contribute to stability and growth since it instills confidence; management, leadership and administration are essentially ethical tasks.

Rising of Financial Inclusion in India

Q2. Financial inclusion is not just opening of a bank account. It means a symbiotic relationship between the client and the bank. Critically examine the efficacy of financial inclusion as a tool to ensure inclusive growth.

Hints:

- India records significant improvement in CRISIL report on financial inclusion. Financial inclusion has improved

significantly, with the all-India score surging to 58.0 in fiscal 2016, compared to 50.1 in fiscal 2013.

- Since Independence, several attempts have been made towards financial inclusion of the poor, particularly in rural areas. The initiatives include the cooperative movement, followed by priority sector lending, lead bank scheme, service area approach, introduction of regional rural banks/ local area banks, microfinance, kisan credit cards, business correspondence and finally Pradhan Mantri Jan-DhanYojana.
- Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost.
- Financial Inclusion, on the one hand, is a process aiming at providing banking services like savings account, credit facility and insurance product to weaker sections of the society. Although there is some evidence that access is improving but still there are multiple actors which have affected the access to financial services.
- CRISIL –Inclusix index’s readings for fiscal 2016 (the latest period for which data is available) show financial inclusion has improved significantly in India, with the all-India score rising to 58.0 in fiscal 2016, compared with 50.1 in fiscal 2013. On the credit side, there was a sharp 31.7 million increase in new credit or loan (banks and microfinance) accounts in the two years up to fiscal 2016, which is the most since fiscal 2013.
- Notably, microfinance institutions contributed significantly to the financially under-penetrated regions. The Digital India initiative, payments banks and small finance banks have all helped improve the reach of formal financial services to economically disadvantaged sections of the populace and geographically remote regions.
- Reserve Bank of India (RBI) and government plays an important role in promoting financial inclusion for economic growth to increase the banking penetration, installation of new ATMs and implementation of various schemes in the country.
- However, it has been observed that the accounts opened and the banking infrastructure created has not seen substantial operations in terms of transactions. Lack of accessible, affordable and appropriate financial services has always been an Indian problem and effective inclusive financial system is needed for economic growth of the country.

Data Protection: Still Unfolded

Q3. What is Cambridge Analytica and Facebook controversy? What are the issues involved in this controversy? In the light of this controversy discuss the data protection framework in India.

Hints:

- Cambridge Analytica acquired the data in 2014 via personality profiling app ‘thisisyourdigitallife’, built by Aleksandr Kogan, an academic at Cambridge University. While the app was downloaded by just 2,70,000 Facebook users, it pulled in data from the “Facebook friends” of these users, allowing Cambridge Analytica to harvest the data of 50 million users, without their consent. Information campaigns were then micro targeted at these users based on their preferences and vulnerabilities.
- The crisis has renewed questions about Facebook’s ability to protect the privacy of its users while also exploiting their personal details to fuel its lucrative advertising business. It has also deepened concerns about the social media network’s ability to avoid being exploited to spread propaganda and sway elections.
- Recent controversy has brought to light several issues that need to be addressed.
 - ♦ First, companies have been collecting data and tailoring marketing campaigns accordingly. The issue here is particularly prickly because politics and elections are involved.
 - ♦ Second, regardless of what Facebook and Cambridge Analytica did was legal or not, something is broken in a policy environment in which the data of millions are taken and used when only 270,000 people knowingly or unknowingly gave consent.
 - ♦ Third, technology is evolving at a rapid pace, raising the question whether laws need to be reframed mandating an opt-out approach universally rather than an opt-in approach. Individuals often share their data without being aware of it or understanding the implications of privacy terms and conditions.
 - ♦ Fourth, there must be clear laws on the ownership of data and what data need to be protected. Personal data cannot be the new oil. Individuals must own it, have a right to know what companies and governments know about them and, in most cases, that is, when there is no legitimate security or public interest reasons, have the right to have their data destroyed.

- As of January 2018, with 250 million users, India is the largest user-base for Facebook. It is also an important tool for the government to take forward its flagship programmes to the wider populace. Facebook is one of the top contenders for partnering with the government's societal development and digital inclusion plans.
- Data protection in India is governed by provisions of the Information Technology Amended Act, 2008 (ITAA) under Sections 43-A and 72A of the Act. Compensation for failure to protect data (Section 43-A) was introduced by way of an amendment in 2008, which states the liability of a body corporate to compensate in case of negligence in maintaining and securing the "sensitive data."
- In 2017 the Ministry of Electronics and Information Technology released a White Paper by a committee of experts led by former Supreme Court judge, Justice B.N. Srikrishna, on a data protection framework for India. Until that consultative process agrees upon basic principles to guide data protection laws, India will continue to suffer the existing regulatory framework under the Information Technology Act, 2000, which only identifies six types of "sensitive personal data" and requires entities handling such data to have "reasonable security practices and procedures" in place before collecting the information.
- India desperately needs a separate Privacy Act. The Right to Privacy, as enshrined in the Constitution, does not suffice when it comes to information security. It is thus necessary to make a comprehensive law to adequately protect personal data in all its dimensions and to ensure effective enforcement machinery for the same.
- With his relentless focus on "burden-sharing" and "America First", Trump could end up rearranging the political and security order in East Asia. Korean political developments tend to draw a big yawn in Delhi. This time though, India should be paying attention to the miracle being plotted by the maverick men in Washington and Pyongyang. Trump and Kim are not afraid of the unfreezing of the Korean Peninsula. Whether they succeed or fail, India would be staring at a very different set of geopolitical equations in East Asia. Undoubtedly, India would have to assure key stakeholders in the Korean Peninsula – South Korea, the US, Japan, China and Russia (parties to the Six-Party Talks) – about its intentions and objectives behind deepening relations with North Korea.
- **South Korea:** South Korea is the primary stakeholder in developments in the Korean Peninsula involving North Korea. It stands for 'a gradual, step-by-step and peaceful' unification of the two Koreas.
- **The United States:** The US has been a security provider for South Korea since the Korean war. It has since maintained its military presence in the country. It opposes North Korea's nuclear programme and remains highly critical of the human rights situation within the country. It has imposed unilateral sanctions on North Korea for the latter's proliferation activities since 1992. The US focus in the six-party talks is on denuclearisation of North Korea. There is a perception that the US implicitly supports regime change in North Korea.
- **Japan:** Japan has serious security concerns vis-à-vis the North Korean nuclear and missile programme. It also pushes the bilateral (with North Korea) issue of Japanese abductees in the six-party talks. Japan by and large shares the US approach in these talks. But it does not have enough leverage to influence North Korea or the outcome of the talks.
- **China:** China, as a traditional communist ally, has enjoyed special status with North Korea since the Korean War. North Korea is China's only treaty ally in the world. However, in recent years, it seems to have begun viewing North Korea as a liability. China under President Xi Jinping seems to believe that the persistence of North Korea as a security threat will guarantee the continued US presence in South Korea. It also considers the North Korean nuclear and missile programme as against its own interest. Therefore, China appears to be stepping up pressure on North Korea for resuming the six-party talks. Nevertheless, a fundamental shift in China's North Korea policy is yet to be seen. It remains a key source of strength for the regime despite the perceived strains between the two sides.

The Korean Peninsula Crisis

Q4. Region like Middle East and South Asia depends entirely on USA for the resolution of Korean crisis because it controls South Korea and Japan. Discuss the role of USA and India's stance on the issue?

Hints:

- North Korea's neighbours – South Korea, China, Japan and Russia – are caught between Pyongyang's sprint to expand its nuclear capability and Washington's apparent determination to stop that dash at virtually any cost. Strategic calculations in the region are evolving, prompted not only by the fear of North Korean weapons but also by the spectre of chaos provoked by the U.S. military action. All of North Korea's neighbours believe that the risks of U.S. strikes against Pyongyang far outweigh any potential benefit.

- **Russia:** Russia, a key benefactor of North Korea from the Cold War period, became a party in the six-party talks in 2003 after a decade-long neglect of North Korea. Russia too opposes forced regime change and ignores concerns about the human rights issue in North Korea. Russia supports the idea of using economic incentives to convince North Korea to abandon its nuclear programme. It is clearly opposed to South Korea leading the unification process. At present, Russia under President Vladimir Putin has got its own geopolitical objective – to regain influence in the erstwhile USSR territories or zones of influence. North Korea appears prominently in this scheme. Economically, Russia wants to link North Korea with its own Far East region.
- **India's stance:** Two themes stand out. First, India should stop being a passive observer of the Korean geopolitical theatre. While Delhi is in no position to influence the outcomes in the current diplomacy, a more active engagement with the leadership of the two Koreas would better prepare India for potential historic changes in the region. Second is the importance of effective neighbourhood diplomacy. Kim and Moon have shown that relaxation of tensions between North and South can give both of them a greater say in regional affairs. If it makes creative moves in the neighbourhood, Delhi could find it a bit easier to cope with the penetration of rival powers into the Subcontinent.

Plastic Pollution in the Oceans

Q5. Marine plastic pollution has become a critical problem in many parts of the world. What are the major factors that have aggravated this problem? Discuss its impact on marine life as well as on human life.

Hints:

- UN Environment recently launched an unprecedented global campaign to eliminate major sources of marine litter: micro plastics in cosmetics and the excessive, wasteful usage of single-use plastic by the year 2022. The United Nations Environment Programme (UNEP) is urging everyone to eliminate the use of micro plastics and stop the excessive, wasteful use of single-use plastic, to save the world's seas and oceans from irreversible damage before it's too late.
- Washed out on our coasts in obvious and clearly visible form, the plastic pollution spectacle blatantly unveiling on our beaches is only the prelude of the greater story that unfolded further away in the world's oceans. For more than 50 years, global production and consumption of plastics have continued to rise. An estimated 300 million tons of plastics were produced in 2015, confirming and upward trend over the past years.
- A simple definition could be: any of a group of synthetic or natural organic materials that may be shaped when soft and then hardened, including many types of resins, resinoids, polymers, cellulose derivatives, casein materials and proteins.
- There are many sources of microplastics to the marine environment, including terrestrial and maritime and there is evidence that microplastics are littered into the environment at all steps in the lifecycle of a plastic product, from production to waste management. Microplastics can enter the marine environment via riverine systems, coastlines, directly at sea from vessels and platforms or by wind-induced transport in the atmosphere.
- Microplastics can impact an organism at many levels of biological organization, including at the levels of populations and assemblages. Still, the majority of the evidence is at levels that are sub-organismal (e.g. changes in gene expression, inflammation, tumour promotion) or affect individual organisms (i.e. death).
- The socio-economic impacts of marine plastic are growing with the ongoing increase in plastic in the marine environment. There is mounting concern, globally and by sector, about the increasing cost both of inaction and action needed across the value chain.
- Microplastics, tiny fragments of plastic smaller than 50mm in size that make up the vast majority of items in the Great Pacific Garbage Patch, can enter the food chain when swallowed by fish. The pollutants they contain become more concentrated as they work their way up through the food web, all the way to top level predators such as sharks, seals and polar bears.
- Given the complexity and the global scope of the issue, a concerted effort involving both national and local governments as well as the private sector, non-governmental organizations and citizens is needed. We need to stop viewing it as something that can just be thrown away after it has been used and start viewing it as a valuable resource of which we have only a limited supply. This means that both the production and consumption of plastic must be reduced.

Searing Hot Summer in India

Q6. What is heat wave? Why is India experiencing more heat waves? Also discuss the strategies are being followed by government to address the consequences of heat waves.

Hints:

- According to the India Meteorological Department (IMD) most parts of North India can expect a searing hot summer this year with average mean temperatures remaining more than a degree above normal. IMD also predicts hotter summer for many parts of India between April and June. According to a study by the Indian Institute of Technology (IIT) Gandhinagar, the frequency of severe heat waves in India will increase 30-fold by 2100 under a 2°C warming scenario. Under a business-as-usual scenario, heat-wave frequency might increase 75-fold.
- The maximum temperatures, according to the latest seasonal forecast, are likely to be 'markedly above normal' (5°C or more) over major parts of northwest India (including western Himalayan region) and parts of Central India and Peninsular India in the coming days.
- A heat wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season in the North-Western parts of India. Heat waves typically occur between March and June and in some rare cases even extend till July. The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.
- The heat waves over India have been linked with the climate modes such as El Nino-Southern oscillation (ENSO) and also to the variations in the sea surface temperatures in the Bay of Bengal. The dependence of heat waves on the Indian and Pacific Oceans has large implications. Some studies also linked the heat waves to the re-curving tropical cyclones in the Bay of Bengal. The re-curving tropical cyclones before the onset of the heat waves could change the direction of the winds and cut-off moisture to the inland regions leading to heat waves. In spite of the large societal impact, there has been no systematic attempt to understand the principal mechanism of heat waves over India.
- Based on the observed patterns, there are two types of heat waves:
 - ♦ The first-type of heatwave over the North-Central India is found to be associated with blocking over the North Atlantic. The blocking over North Atlantic results in a cyclonic anomaly West of North Africa at upper levels. The stretching of vorticity generates a Rossby wave source of anomalous Rossby waves near the entrance of the African Jet. The resulting quasi-stationary Rossby wave-train along the Jet has a positive phase over Indian subcontinent causing anomalous sinking motion and thereby heat wave conditions over India.
 - ♦ The second-type of heat wave over the coastal eastern India is found to be due to the anomalous Matsuno-Gill response to the anomalous cooling in the Pacific. The Matsuno-Gill response is such that it generates northwesterly anomalies over the landmass reducing the land-sea breeze, resulting in heatwaves.
- Building Public Awareness and Community Outreach: To communicate the risks of heat waves and implement practices to prevent heat-related deaths and illnesses. Disseminating messages on how to protect people against extreme heat through media outlets and informational materials such as pamphlets and advertisements on heat stress prevention. New efforts being launched as part of this year's plan include the use of modern media such as SMS, text messages, email, radio and mobile applications such as WhatsApp. Special efforts will be made to reach vulnerable populations through inter-personal communication as well as other outreach methods.
- Capacity Building among Health Care Professionals: To recognize and respond to heat-related illnesses, particularly during extreme heat events. Such trainings focus on primary medical officers and other paramedical staff and community health staff so they can effectively prevent and manage heat-related cases so as to reduce mortality and morbidity.
- Heat wave effects on human health and well being is a great public health concern, especially in the context of climate change. Heat wave intensity plays a relatively more important role than duration in determining heatwave-related deaths and significantly increases mortality across the globe. City- or region-specific heat health early warning systems based on identified local heatwave definitions may be optimal for protecting and preventing people from the adverse impacts of future heatwaves.

The Path of Inequality is Widening

Q7. A reasonable degree of social cohesion and an extreme income gap in a society is an ethical challenge. Do you agree? Give reason.

Hints:

- Poverty and inequality have long been concerns of development economics. A social development paradigm with an emphasis on pro-poor growth is replacing the trickle-down industrialization model. Eradicating poverty and rectifying extreme levels of inequality go hand in hand with economic growth. It is true that a broad-based participation of people in productive activities can increase a nation's total output of goods and services and promote economic development. However, poverty and inequality are not just economic issues. They are ethical issues as well.
- When we see people suffering from materially and psychologically desperate conditions, we are compelled to act. Father Adolfo Nicolas, superior general of the Society of Jesus, has spoken about four challenges facing humankind.
 - ◆ Emphasize world poverty as a “social challenge” and called on us to work hard to eradicate it.
 - ◆ He referred to the lack of worldwide access to learning opportunities as a “cultural challenge” and encouraged us to achieve education for all.
 - ◆ He also mentioned the protection of the environment as an “ecological challenge” and
 - ◆ Encouraged us to live ethically to meet an “ethical challenge.”
- These four challenges are all linked. The eradication of poverty is supported by equal access to quality education and a fairer society so that everyone who receives education can have more options in their lives and fulfill their aspirations. Universal access to education and a fair society are not just about promoting economic growth. They are about ensuring human dignity. These challenges call upon our sense of ethical responsibility.
- Inequality also tests our ethics. Inequality is not just about income gaps. We may not value the same things in life. People and a society may pursue different paths whose values cannot be compared by a simple measure of how much you possess. As Catholic social teaching suggests, we need to have faith in the poor to organize themselves and choose the life they wish.
- Still, an extreme income gap in a society and between societies is alarming because it could erode social cohesion—a basic sense of trust between people who do not know each other. A reasonable degree of social cohesion is needed so that a society (and the world) can function and for people to have the chance to increase their opportunities in life.
- Again, education is perhaps one of the most important public policies to address inequality and trust. Education can reproduce an unequal society if it is not offered equally to all. Equal and fair provision of educational services, however, can rectify issues of inequality. Education can also promote bonding of different groups when it draws children of different social, cultural and economic backgrounds. In both cases, a national government plays a critical role, even in this globalized and increasingly borderless world.
- Way Ahead: Economic inequality can adversely exacerbate a range of social problems, including inter-group relations and conflict, social cohesion and violent crime. Inequality hurts not only the poor but everyone with increased crime and increased workplace accidents. In a range of indicators including mean years of schooling, gross national income per capital and labor force participation rates, Indian women lag significantly behind Indian men. Cumulative effects of entrenched inequality will worsen their deprivations.



SEVEN IMPORTANT NATIONAL & INTERNATIONAL NEWS

NATIONAL

1. Public Financial Management System Portal

Public Financial Management System (PFMS) is an ambitious project of government of India being implemented by Controller General of Accounts Ministry of Finance. It has achieved a historical record breaking volume of digital transactions. According to Finance Ministry, on 28th March, 2018, an amount of Rs 71,633.45 crores has been digitally

transacted/routed through PFMS Portal for 98, 19,026 transactions. This is a historic record of number of digital transactions processed in a single day.

PFMS provides platform for efficient management of funds through tracking of funds and real time reporting of expenditure and receipts through treasury and bank interface.

The line ministries/ departments utilize this platform to monitor the utilization of funds provided to the implementing agencies and states governments. PFMS is also used for Direct Benefit Transfer (DBT) payments under MGNREGA and other notified schemes of the government of India.

2. Rajasthan's First Mega Food Park

Ministry of Food Processing Industries inaugurated Greentech Mega Food Park Private Ltd - the first mega food park in Rajasthan at Roopangarh village in Ajmer. The park has been set up at a cost of Rs 113.57 crore and will benefit around 25,000 farmers in this as well as neighbouring districts. The mega food park, which has been set up in an area of 85.44 acres, would have a central processing centre as well as four Primary Processing Centres (PPCs) at Jaipur, Nagaur, Tonk and Churu. Modern infrastructure for food processing created at park will benefit the farmers, growers, processors and

consumers of Rajasthan and adjoining areas immensely and prove to be a big boost to the growth of the food processing sector in Rajasthan.

Mega Food Parks Scheme

It aims to provide a mechanism to bring together farmers, processors and retailers and link agriculture production to the market so as to ensure maximization of value addition, minimization of wastages and improving farmers' income. The primary objective of the scheme is to provide modern infrastructure facilities for the food processing along the value

chain from the farm to the market with a cluster based approach based on a hub and spokes model.

It includes creation of infrastructure for primary processing and storage near the farm in the form of Primary Processing Centres (PPCs) and Collection Centres (CCs) and common facilities and enabling infrastructure like roads, electricity, water, ETP facilities etc. at Central Processing Centre (CPC). These PPCs and CCs act as aggregation and storage points to feed raw material to the food processing units located in the CPC.

3. Re-structuring of NSDF and NSDC

The Union Cabinet chaired by Prime Minister has given its approval for restructuring of National Skill

Development Fund (NSDF) and National Skill Development Corporation (NSDC) to strengthen governance,

implementation and monitoring framework. The restructuring will also ensure better corporate governance,

transparency and accountability in operations of NSDC besides strengthening the oversight role of NSDF.

Background

NSDC and NSDF were set up by the Ministry of Finance and registered in July, 2008 and January, 2009 respectively for implementing coordinated action for skill development. NSDF trust was incorporated to act as a receptacle for financial contributions

from governmental sources, bilateral/multilateral and other agencies. Its main objective is to enhance, stimulate and develop the skills of Indian youth force by various sector specific programmes. NSDF entered into an Investment Management Agreement (IMA) with NSDC for utilization of its corpus to meet the desired objectives of National Skill Development Mission and encourage skill development in the country.



Provision of supervisory role of NSDF over NSDC's functions is also included in the IMA between NSDC and NSDF. ■

4. First National Conclave on Psychological Trauma, Child Protection and Mental Illnesses

With an aim to provide a comprehensive synthesis of research, service provision and clinical practice in addressing psychological trauma and subsequent mental illnesses in Indian children and adolescents, first ever National conclave was organised by the Ministry of Women & Child Development, in collaboration with the Department of Psychiatry, AIIMS in New Delhi. Psychological trauma is a broad term that may include many kinds of experiences and circumstances such as human trafficking, sexual harassment, war, natural disaster, abduction, domestic violence etc.

Challenges

Although there is an increasing global agreement on association of childhood trauma with a wide range of mental illnesses including first episode

psychosis—a severe mental illness, the research in India is limited to very few descriptive and review studies. The service provision to children witnessing such traumatic life events in institutional care homes suffers from lack of appropriate trained manpower/professionals in handling trauma and trauma focused service provision. There are many gaps in training, research and service provision in India.

The cross cultural research in child and adolescent mental health in last 3 decades has reached at a consensus regarding the direct relationship of psychosocial adversities in childhood and resulting psychological trauma, affecting almost all aspects of life and development of the children and adolescents. However, childhood adversities and resulting trauma is overlooked, underestimated and

underreported due to various reasons in the developing countries, although media and official data indicates the higher prevalence of such adversities in terms of exposure of children to natural and man-made disasters, domestic violence, emotional abuse, trafficking, domestic violence, vehicular accidents, chronic life threatening illness of self or significant family members or sudden death of a parent or sibling.

The conclave provided an overview of research and development perspectives in the subject matter to the audience purely in Indian context. It also highlighted the gaps in the subject matter, hence provided a direction of research and clinical intervention development for the future researchers and clinicians. ■

5. Integrated Scheme for School Education

The Cabinet Committee on Economic Affairs, chaired by Prime Minister has approved the proposal of Department of School Education and Literacy to formulate a Integrated Scheme on School Education by subsuming Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

and Teacher Education (TE) from 1st April, 2018 to 31st March, 2020. The scheme comes in the backdrop of PM's vision of Sabko Shiksha, Achhi Shiksha and aims to support the states in universalizing access to school education from classes pre-nursery to XII across the country.

Main Features of the Scheme

The vision of the scheme is to ensure inclusive and equitable quality education from nursery to senior secondary stage in accordance with the Sustainable Development Goal for Education. The main emphasis of the integrated scheme is on improving

quality of school education by focussing on the two T's - Teacher and Technology.

The objectives of the Scheme, across all levels of schooling, are:

- Provision of quality education and enhancing learning outcomes of students;
- Bridging social and gender gaps in school education;
- Ensuring equity and inclusion at all levels of school education;
- Ensuring minimum standards in schooling provisions;
- Promoting vocationalization of education;

- Support states in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009; and
- Strengthening and up-gradation of State Councils for Educational Research and Training (SCERTs)/ State Institutes of Education and District Institutes for Education and Training (DIET) as nodal agencies for teacher training.

Impact

The scheme gives flexibility to the States and UTs to plan and prioritize their interventions within the scheme norms and the overall resource

envelope available to them. It will help improve the transition rates across the various levels of school education and aid in promoting universal access to children to complete school education. The scheme, by providing quality education, aims to equip the children with varied skills and knowledge essential for their holistic development and prepare them for the world of work or higher education in the future. It would lead to an optimal utilization of budgetary allocations and effective use of human resources and institutional structures created for the erstwhile schemes. ■

6. Baseline Ranking of Aspirational Districts

The NITI Aayog launched the baseline ranking for the Aspirational Districts based on published data of 49 indicators (81 data points) across five developmental areas of health and nutrition, education, agriculture and water resources, financial inclusion and skill development and basic infrastructure. According to the baseline rankings, Vizianagaram in

Andhra Pradesh is ranked highest with score of 48.13% and the worst performing districts in the country are Mewat (Haryana), Asifabad (Telangana) and Singrauli (Madhya Pradesh).

About 'Transformation of Aspirational Districts' Programme

The 'Transformation of Aspirational

Districts' programme aims to quickly and effectively transform some of the most underdeveloped districts of the country. With states as the main drivers, this program will focus on the strength of each district, identify low-hanging fruits for immediate improvement, measure progress and rank districts. ■

7. South Asia Cooperative Environment Programme

The Union Cabinet chaired by Prime Minister has approved signing of a Memorandum of Understanding (MoU) between India and South Asian Cooperative Environment Programme (SACEP) for cooperation on the response to oil and chemical pollution in the South Asian seas region.

Impact

The MoU intends to promote closer cooperation between India and other maritime nations comprising the South Asian seas region namely Bangladesh, Maldives, Pakistan and Sri Lanka for

protection and preservation of marine environment in the region.

Implementation

Indian Coast Guard (ICG) will be the competent national authority and national operational contact point for implementation of "Regional Oil Spill Contingency Plan" under the MoU and shall respond to oil and chemical spills on behalf of government of India. Further, ICG Maritime Rescue Coordination Centres (MRCCs) will be the national emergency response centre for marine incidents.

About South Asia Cooperative Environment Programme

South Asia Co-operative Environment Programme (SACEP) is an inter-governmental organization, established in 1982 by the governments of South Asia to promote and support protection, management and enhancement of the environment in the region. SACEP also serves as the secretariat of South Asian Seas Programme (SASP). Member countries are Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. ■

INTERNATIONAL

1. Interstitium: The largest Organ in the Body

Researchers have identified a new organ, the interstitium, which they said could be the largest organ in the human body. It is a network of fluid-filled spaces surrounded by connective tissue that fills the spaces between our organs, surrounding and potentially protecting our insides throughout the body. This new organ can be found beneath the surface of the skin. It is also present in tissue layers lining the gut, lungs, blood vessels and muscles. The

organ is a network of interconnected, fluid-filled compartments that run all over the body. It is made up of both strong (collagen) and flexible (elastin) connective tissue proteins, with interstitial fluid moving throughout.

Functions of the Interstitium

It appears that the interstitium might have a unified function or functions. That could help researchers decide if it really is an organ, since organs usually

serve at least one specific purpose. There are several ways the network of interstitial fluid and connective tissue could better explain how the human body functions. The fluid-filled sacs throughout this tissue could help interstitial fluid travel throughout the body. That's important because fluid in this network is the largest source of lymph, which is a critical part of the immune system.

2. BeiDou Navigation Satellite System

China successfully launched two satellites with a single rocket to strengthen its BeiDou Navigation Satellite System (BDS). Named after the Chinese term for Big Dipper, the BeiDou system started providing independent services over China in 2000. It is being projected by Beijing as a rival to the American Global Positioning System

(GPS). By around 2020, when the BDS goes global, it is expected to have more than 30 satellites.

A report in the state-run Xinhua news agency said the Chinese navigation system will serve countries along the Belt and Road Initiative (BRI) by the end of 2018.

Other Navigation System

- GPS of the United States of America
- GLONASS of Russia
- Galileo of the European Union
- IRNSS or NAVIC of India
- QZSS of Japan

3. Mission to Study 'Heart' of Mars

NASA will send the first-ever mission dedicated to exploring the deep interior of Mars on May 5. It will also be the first NASA mission since the Apollo moon landings to place a seismometer, a device that measures quakes, on the soil of another planet.

InSight or the Interior Exploration using Seismic Investigations, Geodesy and Heat Transport mission, carries

a suite of sensitive instruments to gather data. But InSight is more than a Mars mission - it is a terrestrial planet explorer that will address one of the most fundamental issues of planetary and solar system science - understanding the processes that shaped the rocky planets of the inner solar system (including Earth) more than four billion years ago.

The InSight mission will seek to understand the evolutionary formation of rocky planets, including Earth, by investigating the interior structure and processes of Mars. InSight will also investigate the dynamics of Martian tectonic activity and meteorite impacts, which could offer clues about such phenomena on Earth.

4. Point Nemo: Earth's Watery Graveyard

China's Earth-bound and out-of-control spacelab, Tiangong-1, narrowly

missed landing in the world's largest spacecraft cemetery in the southern

Pacific Ocean. Officially called an "oceanic pole of inaccessibility," this

watery graveyard for titanium fuel tanks and other high-tech space debris is better known to space junkies as Point Nemo.

Point Nemo is nestled in the middle of the southern Pacific Ocean, farther from land than any other point on Earth. It is located, literally, in the middle of nowhere. About 2.5 miles (4

kilometers) below the ocean's surface, Point Nemo houses the largest "Spacecraft Cemetery" on Earth, concealing the ripped-up remains of hundreds of defunct spacecraft that were guided there in controlled re-entries dating back to the 1970s.

Point Nemo, named after the submarine captain in Jules Verne's

classic science fiction novel *20,000 Leagues under the Sea*, is about 2,688 kilometers from the nearest land – Pitcairn Islands – which lies to the North of this point. Also, Motu Nui – one of the Easter Islands – lies to the North East and Maher Island, part of Antarctica, to the South.

5. UNSC to Visit Myanmar and Bangladesh

The UN Security Council is planning to finally visit Myanmar and Bangladesh this month to study first-hand the Rohingya crisis and convey the relevant message. The Myanmar government has agreed to allow the long-delayed visit and the details are being finalised. In Bangladesh, the Council members planned to visit the Cox Bazaar area, which is hosting the most of the Rohingya refugee. According to the

UN High Commissioner's office, over 700,000 Rohingya refugees have fled from their homes in Myanmar's Rakhine state to Bangladesh since the crisis erupted last August. The UN has characterised the widespread attacks that sent the Rohingyas fleeing their homes as "ethnic cleansing."

Following attacks on Myanmar security forces by an Islamic group, the Arakan Rohingya Salvation Army, the



Myanmar government forces as well as civilians started an indiscriminate violent campaign against the Rohingyas.

6. China Slapped Tariffs on 128 US Products

The trade war between China and the US escalated, with Beijing slapping a tariff as high as 25 per cent on 128 American products. The new sanctions on 128 US products, which it first proposed 10 days ago, are in response to President Donald Trump's tariffs on

imports of steel and aluminum from China and some other countries.

China's commerce and finance ministries said that authorities are imposing tariffs of 15% on 120 American products — such as fruits, nuts, wine and steel pipes — and 25%

on eight other products, including pork and recycled aluminium. Even though China and the U.S. have not publicly said they are in a trade war, the sparks of such a war have already started to fly.

7. Malaysia Passed a Law against Fake News

Malaysia's government recently pushed a law through Parliament that makes "fake news" punishable with a maximum six-year jail term, including for articles published abroad, sparking fears of a crackdown on dissent as elections loom.

The law targets foreign as well as local media. The law originally proposed a maximum prison sentence

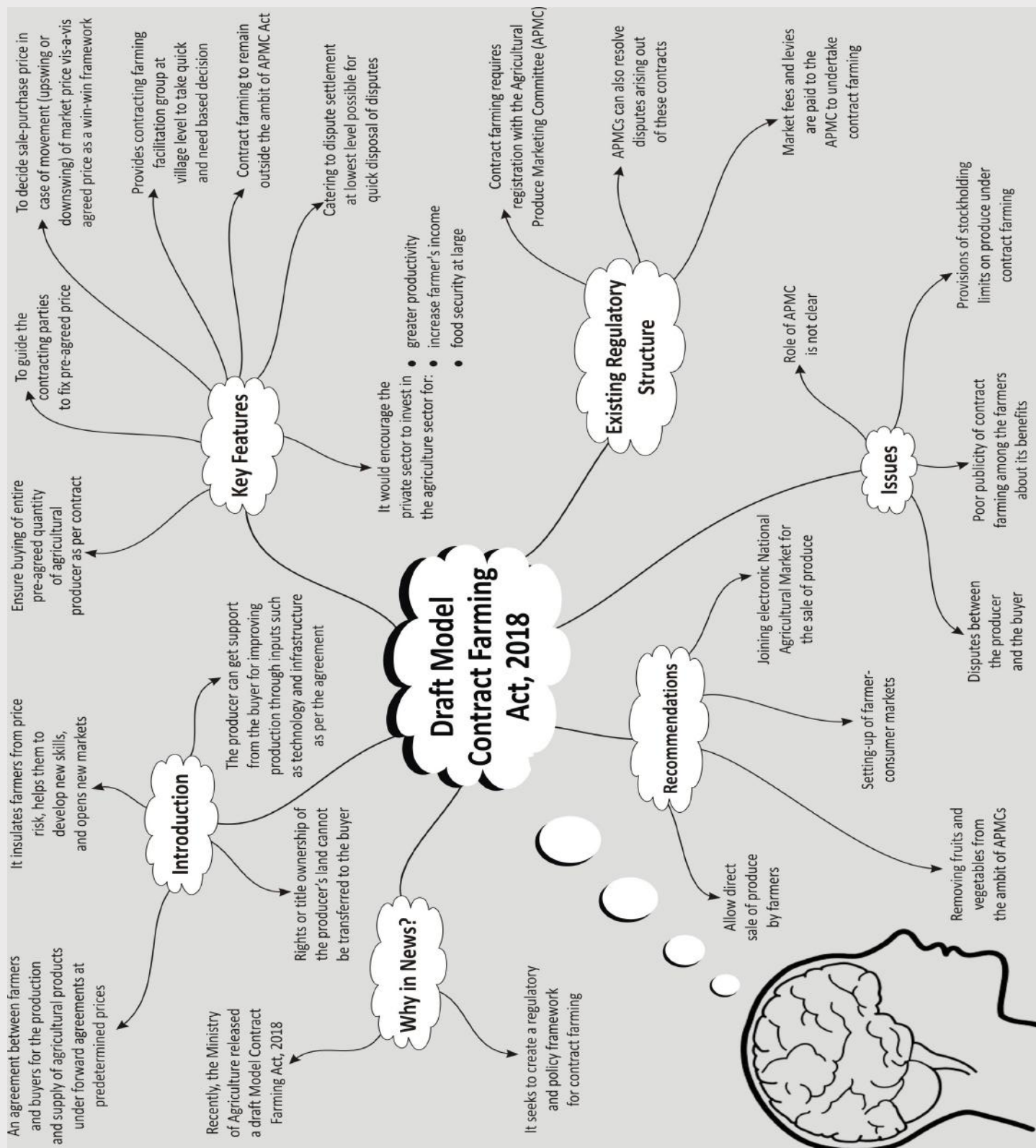
of 10 years and fine of 5,00,000 ringgit (\$1,30,000) for publishing what authorities deem to be fake news, but the government lowered the jail term to six years following a storm of criticism.

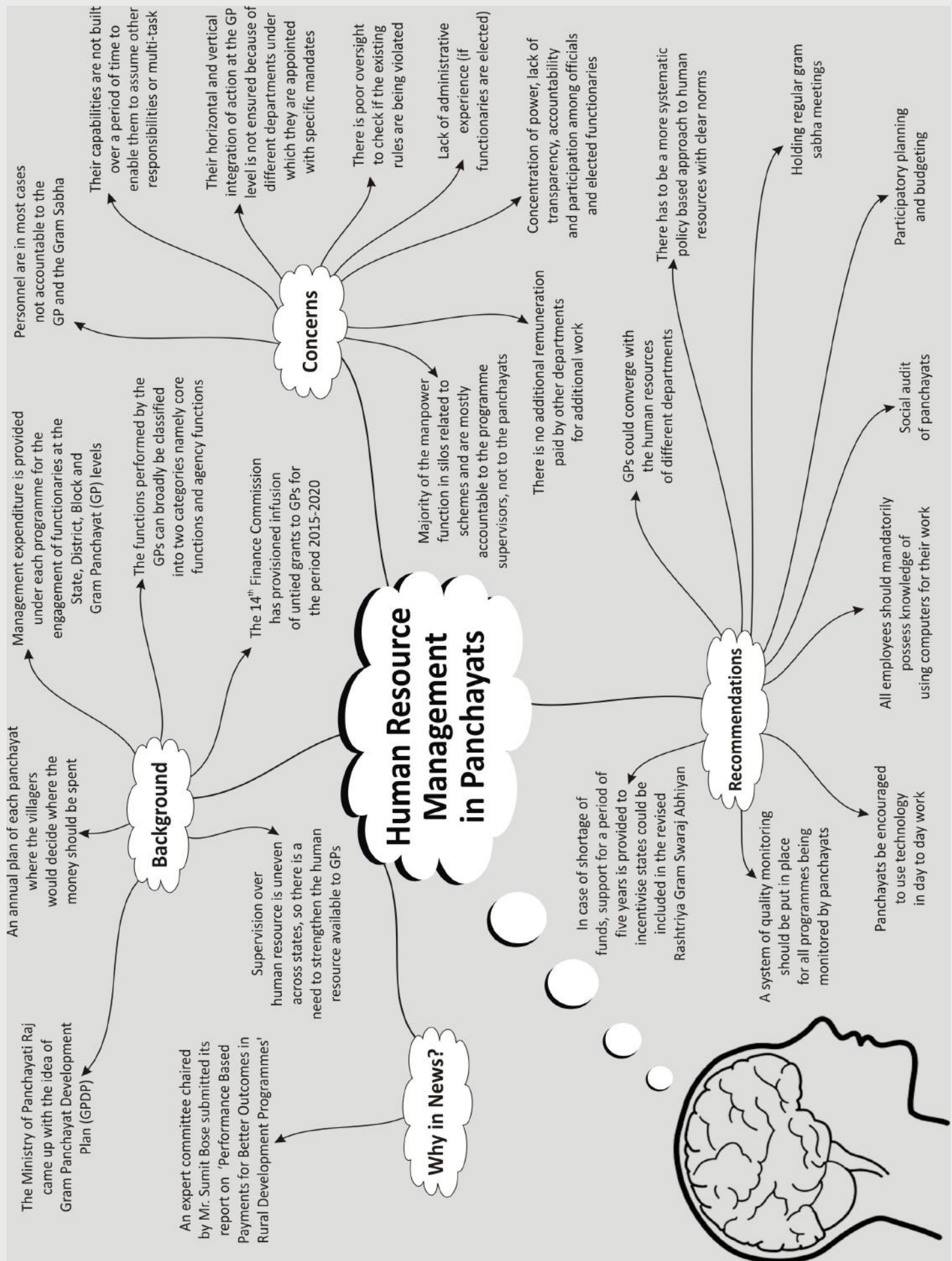
Malaysia is ranked 144th out of 180 countries in Reporters without Borders'-World Press Freedom Index.

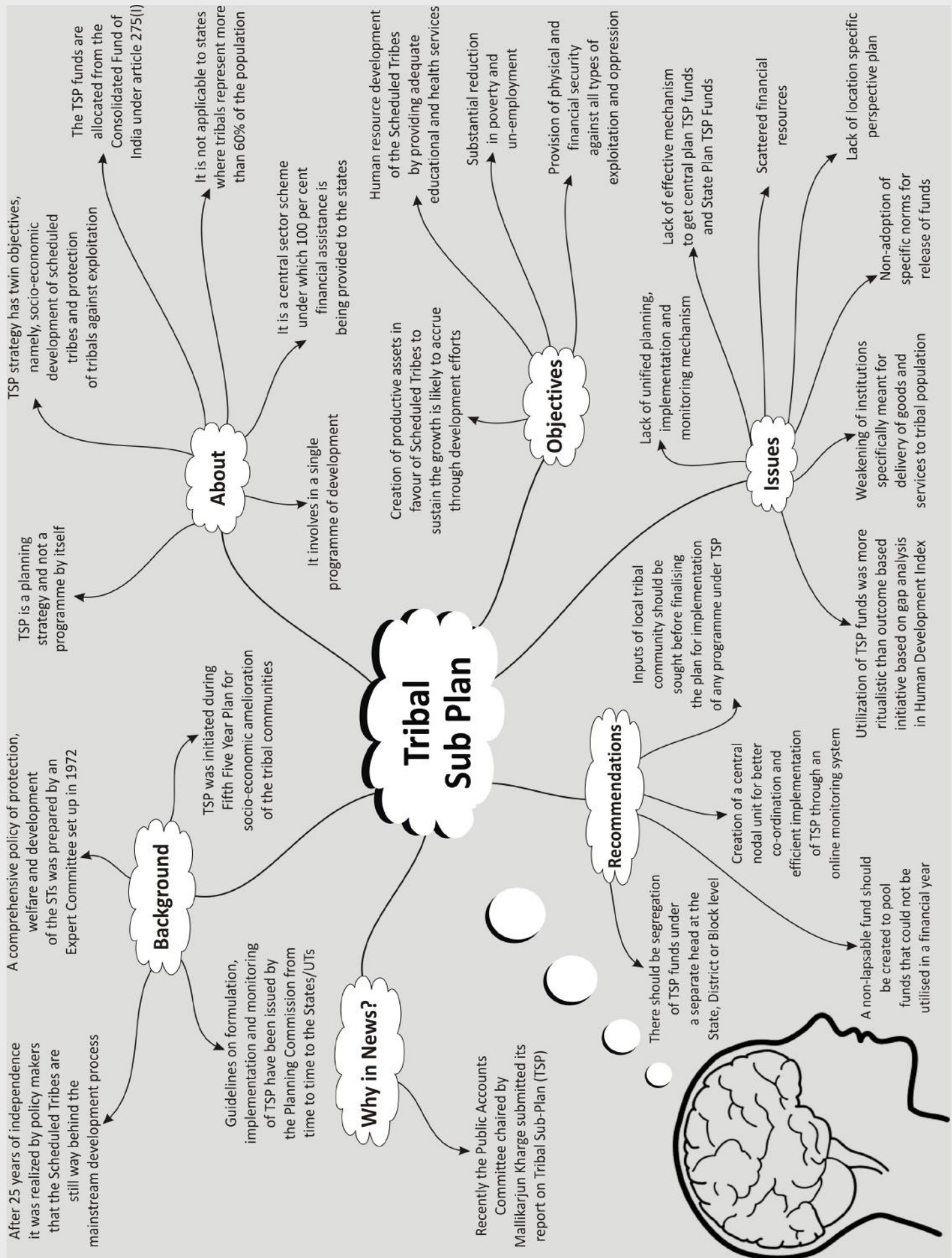
Fake News

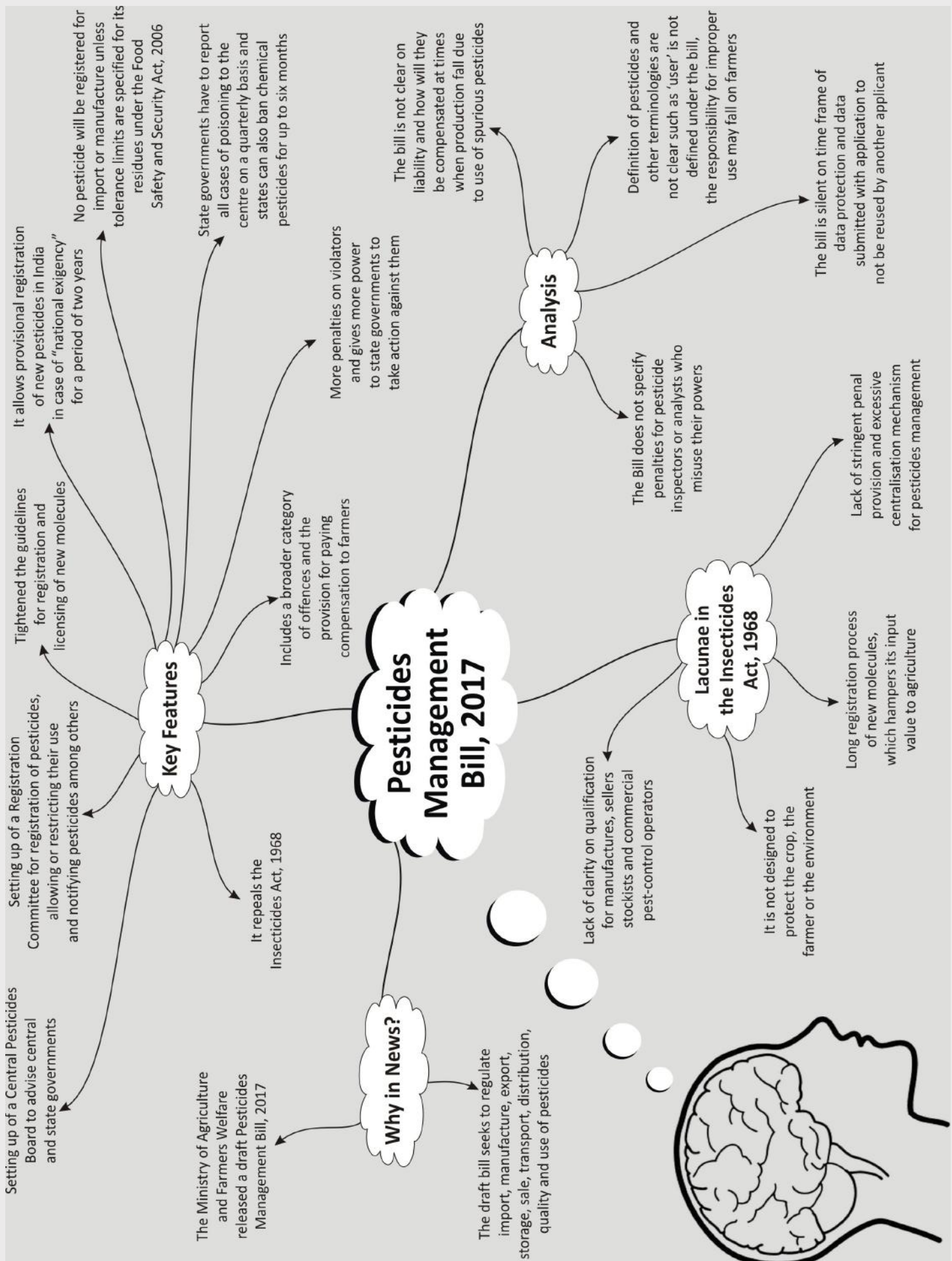
Fake news is news, stories or hoaxes created to deliberately misinform or deceive readers. Usually, these stories are created to either influence people's views, push a political agenda or cause confusion and can often be a profitable business for online publishers.

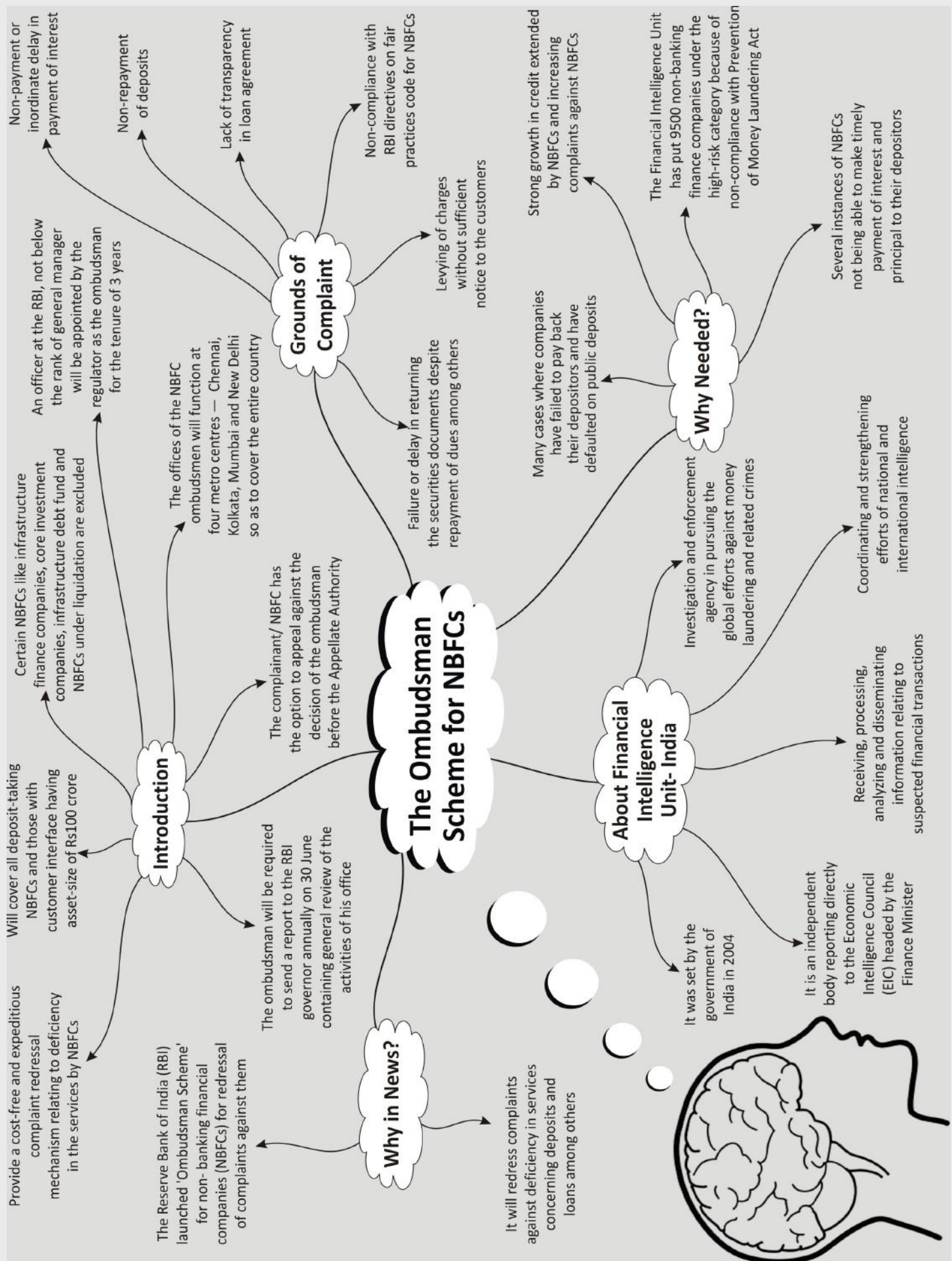
SEVEN BRAIN BOOSTERS

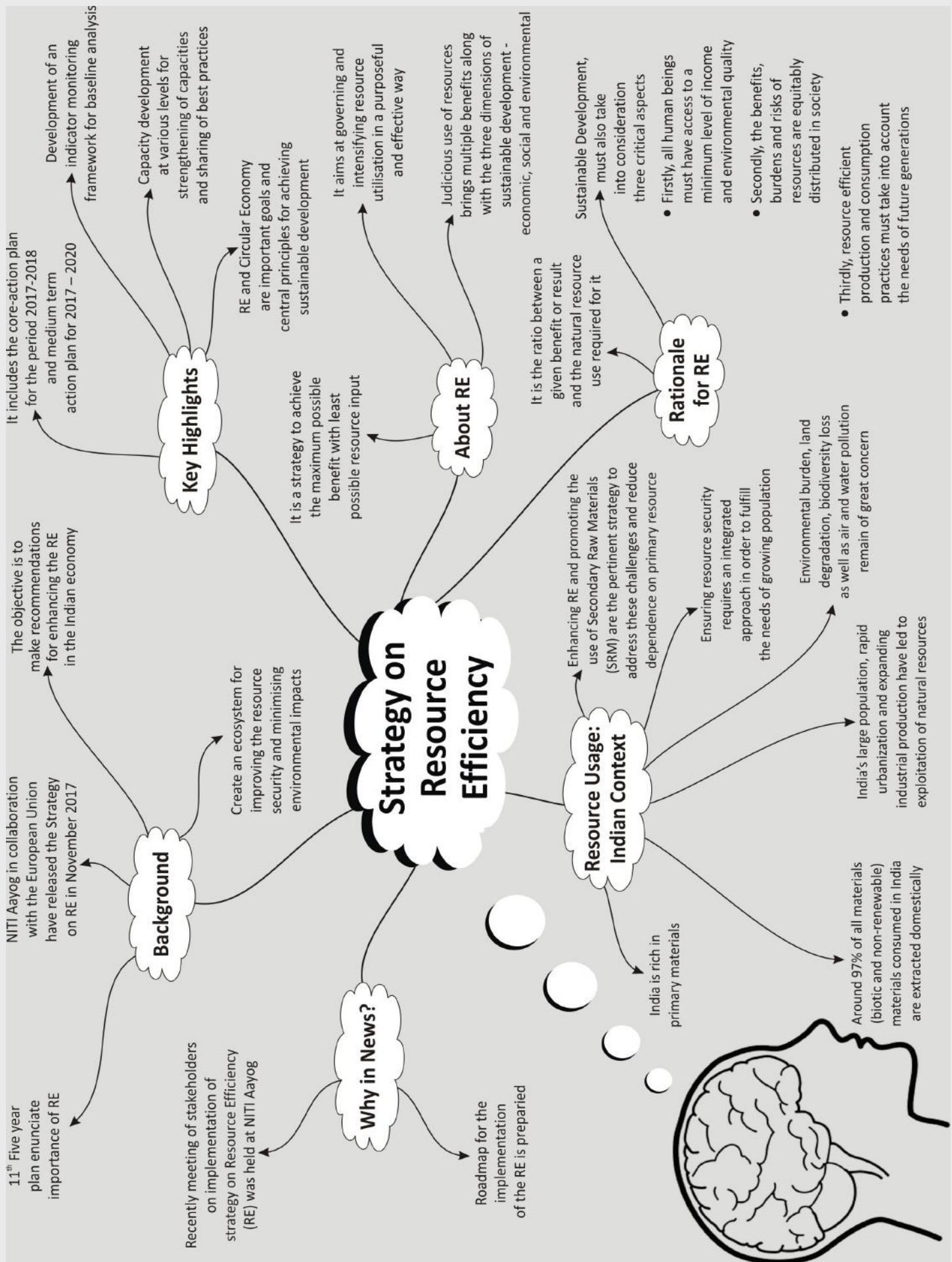


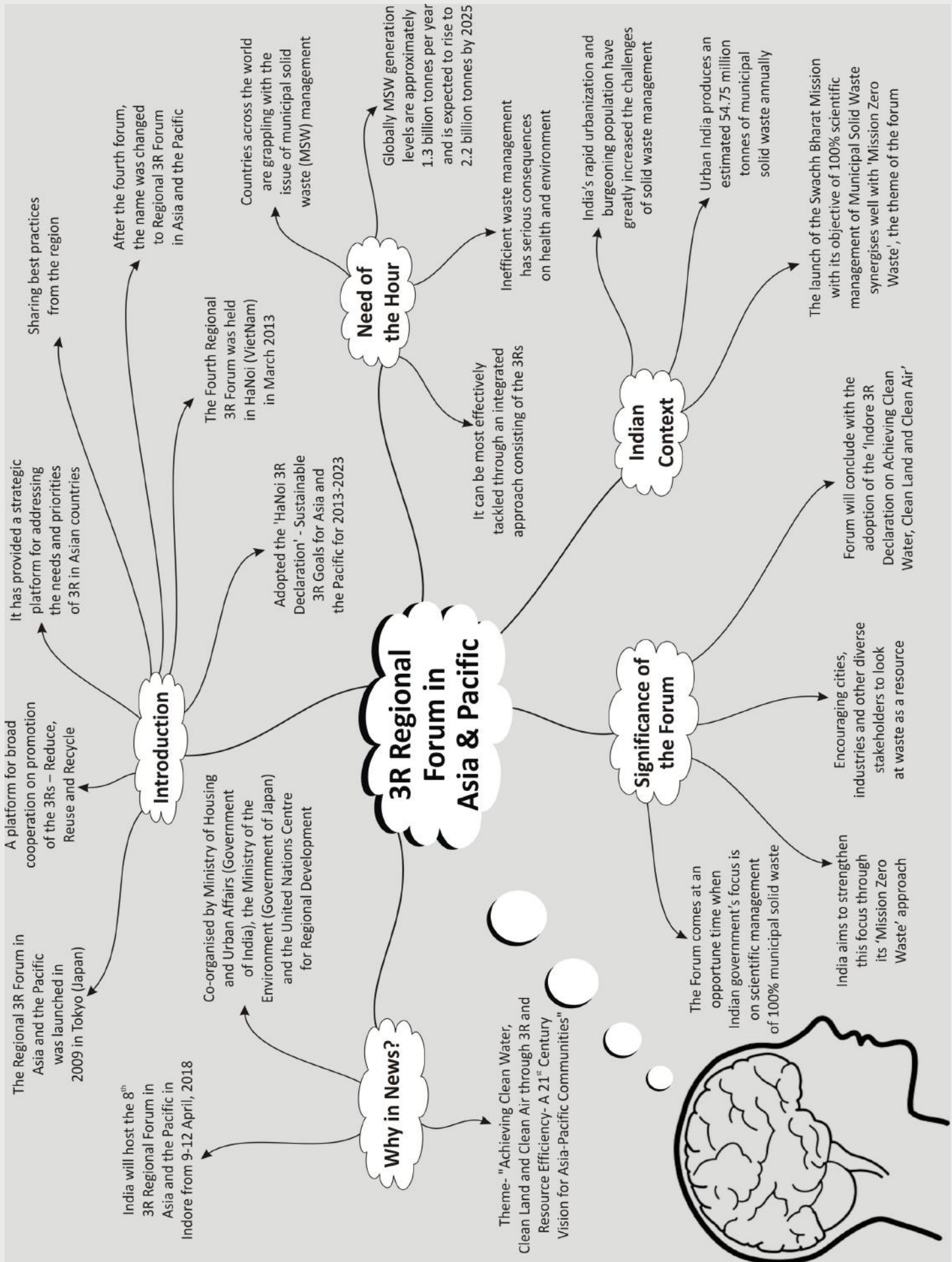












SEVEN MCQ's WITH EXPLANATORY ANSWERS

(Based on Brain Boosters)

Draft Model Contract Farming Act, 2018

Q1. With reference to the draft Model Contract Farming Act 2018, consider the following statements:

1. It will take the contract farming out of the ambit of APMC's.
2. Under draft Model Act, legislatures of states can enact a law on contract farming.

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 draft Model Act seeks to create a regulatory and policy framework for contract farming. Based on this draft Model Act, legislatures of states can enact a law on contract farming as contracts fall under the Concurrent List of the Constitution and it will take the contract farming out of the ambit of APMCs.

Human Resource Management in Panchayats

Q2. Consider the following statements:

1. Gram Sabha is a body consisting of persons registered in the electoral rolls of a village comprised within the area of the Panchayat level.
2. The Ministry of Panchayati Raj came up with the idea of Gram Panchayat Development Plan (GPDP).

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. A village is governed by a 'Panchayat'. Indian Constitution also permits "Gram Sabha" to exercise such powers and perform such functions at the village level as the legislature of a state may, by law,

provide. Constitution defines "Gram Sabha" as a body consisting of persons registered in the electoral rolls relating to a village comprised within the area of Panchayat at the village level. The Ministry of Panchayati Raj came up with the idea of Gram Panchayat Development Plan (GPDP) — an annual plan of each panchayat where the villagers would decide where the money should be spent. State government communicates the "resource envelope" to all local bodies. At the end, every panchayat knows how much money it has under different schemes and how it should plan. Once a plan is formulated, the gram sabha passes it.

Tribal Sub Plan

Q3. With reference to the Tribal Sub Plan (TSP), consider the following statements:

1. The TSP funds are allocated from the Consolidated Fund of states.
2. It is not applicable to states where tribals represent more than 60% of the population.

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 because the TSP funds are allocated from the Consolidated Fund of India under article 275(1). It is a central sector scheme under which 100 per cent financial assistance is being provided to the states through the nodal Ministry of Tribal Affairs.

Statement 2 is correct as it is not applicable to states where tribals represent more than 60% of the population.

Pesticides Management Bill, 2017

Q4. Consider the following statements in respect of draft Pesticide Management Bill, 2017:

1. According to the draft, states can ban chemical pesticides for up to two months.

2. The Bill provides for setting up of a Central Pesticides Board to advise central and state governments.

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. According to the draft, state governments have to report all cases of poisoning to the centre on a quarterly basis and states can also ban chemical pesticides for up to six months. Currently, states can ban a chemical for up to two months.

Statement 2 is correct. The Bill provides for setting up of a Central Pesticides Board to advise central and state governments on matters including, prevention of risk to human beings, animals and environment due to pesticides, monitoring performance of registered pesticides, procedures for manufacturing pesticides and guidelines for regulation of advertising of pesticides in the media.

The Ombudsman Scheme for NBFCs

- Q5. Which of the following are the objectives of 'Ombudsman Scheme for Non-Banking Financial Companies (NBFCs)'?**

1. To provide a cost-free and expeditious complaint redressal mechanism relating to deficiency in the services by NBFCs.
2. To provide an appellate mechanism under which the complainant/ NBFC has the option to appeal against the decision of the ombudsman before the Appellate Authority.
3. To promote conducive credit culture among the Non-Banking Financial Companies (NBFCs).

Select the correct answer using the code given below:

- a) 1 and 2 only b) 2 and 3 only
c) 3 only d) 1, 2 and 3

Answer: (d)

Explanation: To promote conducive credit culture among the Non-Banking Financial Companies (NBFCs) and to regulate the credit system of the country to its advantage, it is necessary to provide for a system of ombudsman for redressal of complaints against deficiency in services concerning deposits, loans and advances and other specified matters. The scheme provides for an appellate mechanism under which the complainant/ NBFC has the option to appeal against the decision of the ombudsman before the Appellate Authority.

Strategy on Resource Efficiency

- Q6. With reference to the strategy on resource efficiency, consider the following statements:**

1. NITI Aayog in collaboration with the World Bank has released the Strategy on resource efficiency.
2. NITI Aayog will facilitate the RE strategy implementation.

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 because NITI Aayog in collaboration with the European Union and the Confederation of Indian Industries, (CII) has released the first ever Strategy on Resource Efficiency for India, in November 2017.

Statement 2 is correct. NITI Aayog will facilitate the RE strategy implementation. Implementation however will be the responsibility of the line ministries/departments.

3R Regional Forum in Asia & Pacific

- Q7. Consider the following statements in respect of '3R Regional Forum in Asia and Pacific':**

1. It was launched in 2009 in Tokyo (Japan).
2. India will host the 8th 3R Regional Forum in Asia and the Pacific in Indore from 9-12 April, 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 Regional 3R Forum in Asia and the Pacific was launched in 2009 in Tokyo, (Japan). It has provided a strategic platform for addressing the needs and priorities of 3R in Asian countries including emerging concerns in waste management. And after the fourth forum, the name was changed to Regional 3R Forum in Asia and the Pacific. The Fourth Regional 3R Forum was held in Ha Noi, Viet Nam, in March 2013 and adopted the 'Ha Noi 3R Declaration' - Sustainable 3R Goals for Asia and the Pacific for 2013-2023. India will host the 8th 3R Regional Forum in Asia and the Pacific in Indore from 9-12 April, 2018.



SEVEN IMPORTANT FACTS FOR PRELIMS

1. The world's longest sandstone cave was discovered in which state?

– *Meghalaya*

2. When was the GST E-way Bill rolled-out in India?

– *1st April 2018*

3. Which state government has revived its Regional Plan 2021?

– *Goa*

4. Which state is going to set up a crime branch of police on the lines of metropolitan cities?

– *Tripura*

5. Which country has launched its first accessible trekking trail for the disabled and elderly?

– *Nepal*

6. Which state has introduced the 'Rupashree scheme' for marriage of poor girls?

– *West Bengal*

7. Which state launched India's first Insect Museum?

– *Tamil Nadu*

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SEVEN PERFECT QUOTES

(IMPORTANT FOR ESSAY AND ANSWER WRITING)

"We are what we repeatedly do. Greatness then, is not an act, but a habit."

—*Will Durant*

"Have you ever sensed that our soul is immortal and never dies?"

—*Plato*

"All I know is that I do not know anything."

—*Socrates*

"It's no use going back to yesterday, because I was a different person then."

—*Lewis Carroll*

"The mind is furnished with ideas by experience alone"

—*John Locke*

"The brave man is he who overcomes not only his enemies but his pleasures"

—*Democritus*

"Life can only be understood backwards, but it must be lived forward."

—*Soren Kierkegaard*

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SEVEN PRACTICE QUESTIONS FOR MAIN EXAM

Answer each of the following questions in 200 words:

- Q1. Recent Supreme Court ruling adding procedural safeguards for accused under SC/ST Atrocities Act shows that judiciary needs to be sensitised to the operation of caste in Indian society. Critically analyse.
- Q2. India needs to move away from centralization-decentralization thinking and embrace genuine fiscal federalism by permanently creating a fiscal power centre in the states. Analyse.
- Q3. A shift in cropping and consumption patterns could reduce India's micronutrient deficiencies and reduce greenhouse gas emissions. Examine.
- Q4. Discuss the relevance of Martin Luther King's philosophy in today's world.
- Q5. What are the functions of Finance Commission? Discuss why South Indian states are objecting to Finance Commission's mandate in respect of terms of reference (ToR) of the 15th Finance Commission.
- Q6. The crisis of ethical values in modern times is traced to a narrow perception of the good life. Discuss.
- Q7. Mob violence is emerging as a serious law and order problem in India. By giving suitable examples, analyze the causes and consequences of such violence.

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