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SEVEN IMPORTANT ISSUES

1. WOMEN'S PARTICIPATION IN POLITICS: A SILENT FEMINISATION

Why in News?

According to the World Economic Forum's study, across the 149 countries assessed, there are just 17 that currently have women as heads of state while, on average, just 18% of ministers and 24% of parliamentarians globally are women.

In another research, which was conducted at United Nations University World Institute for Development Economics Research (UNU-WIDER) has caused to believe that there is significantly higher economic growth in constituencies that elect women. Differences in men and women were explored in corruption, efficiency and motivation – all of which have been linked to economic growth.

Introduction

The evolution of Indian democracy through sixteen general elections so far has reflected a low representation of women in parliament, state legislatures, political parties & other decision making bodies. The reasons behind are historical, social and cultural factors that have always restricted woman to utilize her capabilities and nurture her talent for the growth and development in almost every sphere of life. The preference for imparting education is given to men and women are considered as secondary for earning bread for the family, as a result there are fewer women in paid work force than men.

Due to rise of various women movements in India during late 1980s,

political parties started realizing the importance of women representation in their election manifestoes and the potential votes they carry behind them. However, these weighted fact did not convert into more seats for women in political bodies along with it, women issues were always despised within the agenda of the party and never translated to programmes, policies, and legislation of the government as a whole. Women are far from the decision making position of most political parties. The women party leaders are meant to deal with women issues like dowry, rape, child & family and social taboos for procuring women votes for the party. They are used as instruments to gather support for all women of the society.

Despite a secular increase in the number of female politicians, women generally remain under-represented in Indian federal and state politics. In the federal and state legislatures, for example, the average share of female representatives continues to oscillate around 10 percent. There has been a phenomenal global increase in the proportion of women in politics in the last 20 years. Constituencies that elect women experience significantly higher growth in economic activity through the electoral term than similar constituencies that elect men. Constituencies that elect women in India's state legislative assemblies are likely to witness more economic growth than those run by male politicians, according to a new study

that analyses the economic impact of electing women members of legislative assemblies. While there is evidence that raising the share of women politicians has substantive impact on the composition of government spending, there is scarcely any evidence of how it influences economic performance.

To solve the problem of under representation of women in leadership positions in politics and business, in many countries, policy-makers have responded by introducing gender quotas in politics and increasingly, many have expressed an interest in requiring gender quotas for corporate boards. Raising the share of women in India's state legislative assemblies is not only likely to lead to better representation of women's and children's concerns in policymaking, it is also likely to lead to higher economic growth.

The passing of the historic Women's Reservation Bill – which instructed the reservation of 33 percent seats for women in the Lok Sabha in 2010, was a game changer for women politicians as well as women aspiring to enter the political arena. However, this bill still needs to pass the Parliament and state assemblies.

In November 2018, according to a survey published by Inter-Parliamentary Union ranks India 151 on a list of 193 countries in terms of female participation in the Upper and Lower Houses of the Parliament. More than a hundred countries have introduced quotas for women in parliament or in party lists in the last two decades. The

percentage of women in parliament worldwide has more than doubled in the last 20 years, standing at 22.8% in June 2016. Currently, of 4,118 MLAs across India--where 48.5 percent of the population is female--only 9 percent are women, according to the 2018 Economic Survey of India.

Representation of Women in Indian Politics

Politics is directly related to governance and management of any society. Political power is necessary to formulate policies, laws and order for a state. Indian constitution provides provision for equal political participation of men and women in the process of formulation of government. But it is certainly not true in the case of women especially in a democratic country like India.

The state and its organizational entities impart equal role to women in decision making and policy formulation but some social and historical factors tends to create obstacles. In a democratic country like India both men and women are equally and legally eligible for political offices, in spite of the fact those women constitute half of the Indian population, the representatives of the women in state and central legislatures are very few. This void prevents the ideas & aspirations of half of the society to be expressed for the development of women of the whole nation.

According to the Indian Constitution women being the weaker section are eligible for reservation wherever necessary. Till date, women's representation in the legislative bodies is literally being obstructed by male domination. Constitutional and political action has to play a positive roll to solve the problem. Unfortunately in India, no political party has come forward with the suggestion of reserving the candidature for women. Also the Indian political parties arriving at a consensus on the issue is remote.

Women Legislators and Economic Performance

Economic Growth

Women legislators in India raise economic performance in their constituencies by about 1.8 percentage points per year more than male legislators. Average growth in India for constituencies stemming from their having a female legislator is about 25 per cent.

On Building Infrastructure

Since economic infrastructure is an important input to economic growth, especially in developing countries. The research suggests that women are more effective at completing road projects and hence creating infrastructure for growth. It challenges any presumption that men are more effective at delivering growth-producing infrastructure. More clearly, since road construction in India has been shown to produce higher returns in terms of job mobility for men than for women, it establishes that women are not only good at serving the interests of women. The qualities that lead women to achieve higher completion rates may include efficiency, mission, or lower corruption, all of which are related to effective delivery of public goods.

Clean Governance

If clean governance is an important reason that women-led constituencies experience higher growth and women make a larger difference in institutional environments where (male-dominated) corruption is pervasive.

Criminal Background

Women legislators are significantly less likely than men to be carrying criminal charges. Overall, male legislators are twice as likely to be carrying charges, about 10 per cent of women legislators have pending charges in contrast to about 32 per

cent of men. Conditional on being criminally accused, women legislators have significantly fewer charges than men.

Corruption in Office

Overall, the evidence suggests that women legislators are less likely than men to exploit their office for personal financial gain. There is no significant difference in other characteristics, including education and wealth.

Criticism: Feminising Politics

- ◆ The result that women are better than men at producing growth is only statistically significant in the less developed states. One reason for this difference is likely to be that male and female legislators have more similar criminal propensities in the more developed states. However, in less developed states, male legislators are more likely than female legislators to have criminal histories.
- ◆ Separating into swing and non-swing constituencies, women legislators only perform better than men in non-swing constituencies. In swing constituencies where electoral uncertainty is greater, elected men appear to exert more effort to improve economic growth. One interpretation of this is that men exhibit political opportunism while women display more intrinsic motivation.
- ◆ Comparison of coefficient magnitudes suggests that women are more effective than men when the constituency leader is aligned with the state-level party, but the difference is not statistically significant. There is no evidence that women legislators are more effective when the state chief minister is a woman, so we can reject favouritism between women as a channel for the success of women leaders.

- ◆ A considerable body of evidence has demonstrated that women politicians more effectively represent the interests of women and children. As pro-female and pro-family policies are often associated with welfare payments, one may expect that widening the representation of women in government compromises growth, at least over a period as short as an electoral term.

Policy Implications

Political institutions are aware that the role that women are playing cannot be ignored, and because of that there is a general tendency in social and political contexts to push for at least a discussion about feminism and the feminisation of politics. In the past years we have seen women taking more and more significant positions in roles of representation and in decision-making processes.

Even if 'Women Reservation Bill' is a fundamental condition and first attempt at the process of feminising politics, it seems clear that there is a significant difference between the number of women that have a role of representation in political space and the power of decision and action that these women have de facto. The level in which women involve and participate in political debates connects with our historical underrepresentation in the public spaces. Feminism has taught us that it is not enough to reclaim more representation in institutions, we also need to reflect about the structural conditions of society that leave women underrepresented. That is why it is not enough to include more women in the structures that are excluding them "by nature." Women need to be more represented but we also need to change the structure of institutions that from nature expels them.

Global Initiative

The 2011 UN General Assembly resolution on women's political

participation reiterated that "women in every part of the world continue to be largely marginalised from the political sphere, often as a result of discriminatory laws, practices, attitudes and gender stereotypes, low levels of education, lack of access to health care, and the disproportionate effect of poverty on women." Therefore, to eliminate the multi-faceted problem like gender inequality, a multi-pronged approach must be adopted; and among the various initiatives, political empowerment of women could act as a catalyst. Political empowerment could lead to opening more opportunities for women and as a result, create a level playing field for them.

Globally, several international commitments have been made, for achieving gender equality and these have emphasized on enhancing women's representation in political sphere. While the Convention on the Elimination of All Forms of Discrimination against Women (1979) upheld women's right to participate in public life, the Beijing Platform for Action (1995) called for removing barriers to equal participation. The Sustainable Development Goals also took into account women's representation in parliament to measure progress towards gender equality.

The system of reserving for women 33 per cent seats in Parliament already exists in Russia, the Philippines, Korea etc. In certain other countries—Norway, Sweden, France, Germany etc.—the political parties take initiative to reserve 33 per cent seats for women. Both ways it has worked well.

Way Forward

The imbalance between men and women in politics is undeniable, that a consensus between men and women has arisen on the urgent need to remedy this situation and that practical solutions have been identified. It now remains to mobilise

sustained political resolve in order to advance from words to action. This is our joint responsibility, to take up this responsibility to the full. To address this deficit, a major shift in the mind-set of both men and women is needed. This would generate a positive change of attitudes towards women and lead to a new balance in society at large and in politics in particular. Women's political rights must be considered in the overall context of human rights and cannot be dissociated therefrom. Men and women politicians, governments and parliaments must pursue their efforts towards the recognition of these rights and the implementation of the international instruments which relate to them.

Some Suggestions

- Parliaments and political parties should organise public relations sessions on the image of women politicians in the media.
- Parliaments should ensure the adoption of legislation regarding the implementation of women's rights.
- Every State should set up a multidisciplinary advisory board having a supervisory function to ensure that the interests and needs of women are taken into account in every field.
- Political parties should, as a matter of principle, put forward at least one-third women candidates and allocate to them one-third of their campaign resources.
- It is necessary to bring about a radical change in attitudes so that the image of women politicians which is relayed by the media should not be restricted only to their identity as women but should portray them as real actors in political life.

General Studies Paper- I

Topic: Role of women and women's organizations, Population and associated issues, Poverty and developmental issues, Urbanization, their problems and their remedies.



2. THE 'NO-DETENTION POLICY' CONUNDRUM

Why in News?

The Right to Education Amendment Bill, 2019 has been passed by Parliament. It has empowered states to detain weak students in the same class if they fail to pass annual exams. This was not permitted earlier under the Right of Children to Free and Compulsory Education (RTE) Act and is expected to impact more than 180 million students across 1.4 million elementary schools.

Introduction

Under the Right of Children to Free and Compulsory Education (RTE) Act, 2009, all children between the ages of six and 14 years have the right to elementary education (class 1-8) in a neighbourhood school. Among other provisions, the RTE Act states that a child cannot be detained in any class till the completion of elementary education. This automatic promotion to the next class is to ensure that detention would not lead to them dropping out of school. Before the enactment of RTE, states had the flexibility of practising a no-detention policy. For example, Goa did not detain children till class 3, Tamil Nadu till class 5, and Assam till class 7.

After the introduction of the RTE Act in April 2010, students between Class I and Class VIII could not be detained irrespective of their learning standard. Section 16 of the Act provides that no child admitted in a school shall be held back in any class or expelled from school till the completion of elementary education. This provision was made in the said Act because examinations are often used for eliminating children who obtain poor marks, which compels children either to repeat the same grade or leave the school altogether. It was felt that compelling a child to repeat a class is both de-motivating and discouraging.

On the contrary no-detention policy had been criticized because of the deteriorating standards of education. In the last few years, 25 states have demanded a reversal of this policy, prompting the centre to amend the Act. States and Union territories have been raising the issue of adverse effect on the learning levels of children as section 16 does not allow holding back of children in any class till the completion of elementary education. Therefore, in order to improve the learning outcomes in the elementary classes and after wide deliberations with all the stakeholders, it is proposed to substitute section 16 so as to empower the appropriate government to take a decision as to whether to hold back a child in the fifth class or in the eighth class or in both classes, or not to hold back a child in any class, till the completion of elementary education."

The provisions of the Bill are at variance with the views of several states with regard to assessing learning outcomes and detention. For example, with regard to conducting examinations, (i) Himachal Pradesh suggested internal examinations in class 3 and third party examination in classes 5 and 8, and (ii) Punjab and Odisha suggested that examinations should be conducted in every class from class 1 to class 8. With regard to detention: (i) Andhra Pradesh and Himachal Pradesh suggested detention in class 3 as well, (ii) Delhi suggested detention from class 4 onwards, and (iii) Maharashtra and Telangana suggested continuing with the current no-detention provision under the RTE Act.

Education is a concurrent subject under the Constitution, and the central law will override the state law.

This raises the question whether the central law should specify details such as which classes should be subject to examination and detention or whether such decisions should be left to state legislatures to make based on their local context and needs.

In recent years, two expert committees reviewed the no-detention provision in the RTE Act and recommended it be removed or be discontinued in a phased manner.

Key Recommendations are:

- **Reinstating examinations:** The Committee observed low learning levels among school children. In this context, the Committee upheld the Bill's provision which states that learning of children must be assessed through examinations in classes 5 and 8.
- **Flexibility of states:** The Committee supported the Bill's provision wherein states have the discretion to detain or not to detain. If they choose to detain, they can do so in class 5 or class 8 or in both classes. As there are diversities amongst states, it would be appropriate that they are allowed to take a decision as per their circumstances and needs.
- **Implementation of Continuous and Comprehensive Evaluation:** Under the RTE Act, 2009, Continuous and Comprehensive Evaluation (CCE) is the evaluation mechanism for elementary education. The Committee noted that the inadequate implementation of CCE under the Act has contributed to poor learning outcomes. The Committee recommended that CCE should be implemented properly for providing quality education at the elementary level.
- **Teacher capacity:** The Committee observed over engagement of teachers in non-teaching activities like census, invigilation duties, among others. In this context, it recommended enhancing the academic and professional standard of teachers. It suggested making efforts to build teacher capacity by providing professional teacher education, and pre-service and in-service training to teachers.

Overview of School Education in India

The Bill revisits the no-detention provision. In this context some of the facts are given below:

- ◆ Consequent to the enactment of RTE, enrolment for elementary education (class 1-8) has crossed 100% and is now at 96.9% as of 2014-15. The above-100% enrolment rate in 2007-08 till 2010-11 indicates that students enrolled included the non-age appropriate enrolments.
- ◆ Between 2008-09 and 2014-15, the proportion of students enrolled in class 1-8 in government schools declined from 71% to 62%, implying an increasing preference for private schools.
- ◆ The attendance for both boys and girls falls as the level of education rises in school education. There is hardly any difference between the attendance of boys and girls.
- ◆ Dropouts highest in secondary education, particularly in class 10
- ◆ The dropout rate peaks at the secondary level (class 9-10) at 17% as compared to 4% in elementary school (class 1-8) and 2% in upper secondary school (class 11-12). This is also reflected in the transition rates in school education where the lowest transition rate is at the secondary level (class 10 to 11) at 69%. A transition rate below 100% indicates that the students are held back or have dropped out of school.

According to NSSO data (71st round) on reasons for dropping out (for the age group 5-29 years), the key reasons for females dropping out is to engage in domestic activities (30%), lack of interest in education (16%), and marriage (14%). On the other hand, the key reasons for males dropping out is to engage in economic activities (31%), lack of interest in education (24%), and financial constraints (24%).

Factors that Affecting Quality of Learning

It could be argued that there are other factors that affect the implementation of RTE and consequently have a bearing on low quality of learning outcomes. Various expert bodies like the Central Advisory Board on Education (CABE) sub-committee (2014), Committee for Evolution of the New Education Policy (2016), Comptroller and Auditor General of India (2017), among others have highlighted that the current education system is not equipped adequately to fully implement the RTE. These include issues related to teachers, school accountability, nature of assessment and age appropriate training.

Teachers

Experts have identified various issues with regard to the role of teachers to address the challenges confronting elementary education. These include: (i) low teacher accountability and appraisal, (ii) poor quality of the content of teacher-education and changes required in the curriculum of B. Ed and D. Ed courses, (iii) need for continuous in-service teacher training and upgradation of skill set, (iv) inadequate pupil teacher ratio and deployment of teachers for non-educational purposes, and (v) teacher vacancies.

School Accountability

CABE (2014) has recommended introducing a performance management system for all teachers, school leaders, and department officials, with performance measures linked with student learning outcomes. Such measures of school accountability exist internationally. For example, in the United States, under the 'No Child Left Behind Act', schools are required to do annual assessment of learning outcomes in reading and mathematics for students from classes 3 to 8. If the

school fails to achieve minimum test scores then the consequences include removal from service of teachers or the headmaster, school restructuring or closure and an option for students to transfer to another school.

Nature of Assessment

Under the RTE Act, the Continuous and Comprehensive Evaluation (CCE) is the evaluation mechanism for elementary education. CCE (e.g., paper-pencil test, drawing and reading pictures, and expressing orally) does not mean absence of evaluation, but it means an evaluation of a different kind from the traditional system of examinations. It has been noted that CCE has not been adequately implemented or monitored. Further, it has been recommended that proper design of assessment and using this information can help improve the quality and innovation in terms of teaching and learning.

Age Appropriate Training

Under the RTE Act, children are enrolled in the class that corresponds to their age, irrespective of their learning levels. This results in a situation where in the same class, depending on when they are enrolled in school, children may have different learning requirements. It has been recommended that special training to be organised and is of flexible duration to enable the child to be at par with other children and ensure his integration with the class.

Advantages and Disadvantages of Detention

There are differing views on whether children should be detained for failing examinations in elementary school. Some argue that automatic promotion reduces incentive for children to learn and for teachers to teach. There is also social stigma associated with "failing", and this has deeply damaging effects on a child. Others argue that detaining a child leads to drop outs and does not

focus on the systemic factors that affect learning such as quality of teachers, schools, and assessment.

CABE (2014), National Achievement Survey (2012), and the Economic Survey (2016-17) observed declining learning levels in elementary education even after the implementation of the RTE Act. In 2016, 58% of children in class 3 were unable to read a class 1 level text. At the national level, 73% of children in class 3 were unable to do basic arithmetic.

Detaining a child could be counter productive as it is de-motivating and leads to them dropping out of school. And fear of any kind, including that of exams and failing, has detrimental effect on curricular learning for children. Experts have highlighted that repeating a class on failing an exam

presumes that the child is at fault and does not acknowledge the role of other factors that affect learning outcomes of children. Poor learning outcomes could be due to lack of professionally qualified teachers, teacher absenteeism, limited infrastructure and inadequate roll out of the Continuous and Comprehensive Evaluation method of teaching and assessment.

Way Forward

It is good decision to roll-back of the no-detention policy by the government but the approach is partial. In either situation of detention or no-detention, the educational efforts required for the child to learn remain the same; formative assessment combined with no-detention helps in these efforts, whereas detention harms the

child and helps only in easy labelling required for administrative reasons. There is enough evidence to show that uninspiring curricula, poorly-trained teachers and inadequate infrastructure are the real bottlenecks in improving learning outcomes. Removing these snags will require creative solutions.

General Studies Paper-II

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

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



3. RESERVATION FOR ECONOMICALLY WEAKER SECTION: AN ANALYSIS

Why in News?

Parliament during the last leg of winter session cleared the Constitutional (124th Amendment) Bill, 2019 guaranteeing 10% quota in education and employment to economically weaker sections (EWS) in the general category. Clarifying the Bill's provisions, Law Minister Ravi Shankar Prasad said the reservation would be applicable to jobs in both Central and state governments, adding that the legislation gave powers to states to determine the economic criteria for identification of beneficiaries.

Introduction

It's the duty of the government to provide equality of status and opportunity in India. Reservation is one of the tools against social oppression and injustice against certain classes. Otherwise known as affirmative action, it helps in uplifting backward classes.

However, reservation is just one of the methods for social upliftment. There are many other methods like providing scholarships, funds, coachings and other welfare schemes. The way reservation is implemented and executed in India is largely governed by vote-bank politics.

In the last decade, India has been witnessing the interplay of the agrarian crisis and demands for reservation by dominant peasant castes, Jats in the North, Marathas and Patidars in the West and Kappus in the South. The resultant political crisis leads to absurd complexities whereby reservation is sought and promised as the remedy for agrarian distress.

Indian Consitution allowed reservation only for socially and educationally backward classes. However, in India, it became caste-based reservation instead of class-

based reservation. Initially, the reservation was intended only for Scheduled Caste (SC) / Scheduled Tribe (ST) communities – that too for a period of 10 years (1951-1961). However, it got extended ever since. After the implementation of Mandal Commission report in 1990, the scope of the reservation was widened to include Other Backward Communities (OBCs).

The benefits of the reservation were successively enjoyed only by a few communities (or families), excluding the truly deserving ones. Even 70 years after independence, the demand for reservation has only increased. Now, with the introduction of economic criteria for reservation, in addition to the caste-criteria which already existed, things have become more complicated.

The Constitution (103rd Amendment) Act, 2019

The Constitution 103rd Amendment Act, 2019 provides ten per cent reservation to the economically weaker sections (EWS) in the General category. The bill facilitates reservation for EWS in direct recruitments in jobs and admission in higher educational institutions. The reservation of EWS of general category will be given without tampering the existing quotas for SC, ST and OBCs people.

What was Amended?

It seeks to amend Article 15 and Article 16 of the Indian Constitution. The centre had taken the decision under Article 46 of the Indian Constitution.

Amendment to Article 15 (Reservation in Educational Institutions):

In article 15 of the Constitution, after clause (5), the following clause shall be inserted, namely:—“(6) Nothing in this article or sub-clause (g) of clause (1) of article 19 or clause (2) of article 29 shall prevent the State from making,— any special provision for the advancement of any economically weaker sections of citizens to their admission to educational institutions including private educational institutions, whether aided or unaided by the State, other than the minority educational institution, subject to a maximum of ten per cent of the total seats in each category.”

Amendment to Article 16 (Reservation in Jobs)

In article 16 of the Constitution, after clause (5), the following clause shall be inserted, namely:—“(6) Nothing in this article shall prevent the state from making any provision for the reservation of appointments or posts in favour of any economically weaker sections of citizens other than the

classes mentioned in clause (4), in addition to the existing reservation and subject to a maximum of ten per cent of the posts in each category.”

"Economically Weaker Sections" shall be such as may be notified by the State from time to time on the basis of family income and other indicators of economic disadvantage.

Who are the Beneficiaries?

According to government sources, this 10 per cent reservation will apply for all communities and caste is not going to be a criterion for eligibility. The quota will be applicable to economically backwards among Hindus, Muslims and Christians.

So far, Scheduled castes, who constitute 20 per cent of the entire population in India, corner 15 per cent reservation in the government sector. Scheduled Tribes, who constitute 9 per cent of the population, are provided with 7.5 per cent reservation while communities in the Other Backward Caste, who constitutes more than 50% population (1931 census), corner the lion's share of 27 per cent reservation. Thus altogether about 70 per cent of the population, are provided with 49.5 per cent reservation in the government sector. It is among the rest 30 per cent or 39 crore, who fall under the general category, which will be eligible to avail the 10 per cent reservation announced by the Centre.

Criteria to Determine It

This category will be defined as families with income (includes agricultural income as well as from profession) below Rs 8 lakh per annum, possessing agricultural land below five acre and residential house below 1,000 square feet. As for urban areas, those with residential plot below 100 yards in notified municipality or residential plot below 200 yards in the non-notified municipal area will be considered for reservation.

Will it pass Judicial Scrutiny?

The percentage of seats that can be reserved has long been an issue in the courts. In *M R Balaji and others vs State of Mysore* (1962), the Supreme Court enunciated the principle that “speaking generally and in a broad way, a special provision should be less than 50%”.

A nine-judge Constitution Bench of the Supreme Court in the *Indira Sawhney* case of 1992 specifically answered the question “whether backward classes can be identified only and exclusively with reference to the economic criterion.”

The constitution bench had categorically ruled that a backward class cannot be determined only and exclusively with reference to economic criterion. The bench had held that economic criterion may be a consideration or basis along with, and in addition to, social backwardness, but it can never be the sole criterion. The bench in its judgement declared 50% quota as the rule unless extraordinary situations “inherent in the great diversity of this country and the people” happen. Even then, the court stated that extreme caution is to be exercised and a special case should be made out.

The proposed 10% poor forward quota will take the reservation ceiling higher than 50%. Reservation in Tamil Nadu, which is 69% of the total, is protected from judicial review by the Ninth Schedule; however, the Supreme Court, in *I R Coelho v State of Tamil Nadu* (2007), has ruled that laws that violate the basic structure of the Constitution would be open to judicial review, including any law added to the Ninth Schedule after April 24, 1973.

However in a recent judgement Supreme Court while quashing the Central government's notification granting Other Backward Classes (OBC) status to the Jat community in nine

states, also observes that while “caste may be a prominent and distinguishing factor for easy determination of backwardness of a social group”, such determination must not be made “solely on the basis of caste”, and that identifying the “most deserving” groups “must necessarily be a matter of continuous evolution,” requiring the state to look beyond caste. On reading between the lines of this judgement, it can be inferred that this amendment also have equal chances of surviving judicial scrutiny. As the context in which Indra Sawhney judgement was made was different from the present context in which this amendment will be scrutinized.

Analysis of this Act

India needs effective forms of reservation or affirmative action, especially for Dalits. But our reservation policy, post Mandal, has more generally become a prime example of majoritarian politics, where the exigencies of politics and power rather than the ethical and moral claims drive entitlements. One of the biggest casualties of this move has been that the historical specificity of the experience of Dalits has been completely occluded. Every other group has managed to don the mantle of victimhood in the same way. The purpose of reservation has been stretched beyond combating discrimination and empowering the truly marginalised, (that is the only thing it does not do), to now an anti-poverty measure, a load it cannot bear. The idea, to address economic deprivation through reservation is preposterous.

One of the criteria — the income threshold of Rs. 8 lakh per annum — has been mentioned. The National Sample Survey (NSS) of 2011-12 shows that the annual per capita expenditure for 99% of households falls under this threshold, even when we take inflation into account. Similarly, as per the India

Human Development Survey (IHDS), the annual household incomes of 98% of households are less than Rs. 8 lakh. Even if we apply all the other criteria for exclusion (e.g. amount of land owned and size of home), the Act would still cover over 95% of the households. So almost no one is getting excluded.

It breached the 50 per cent ceiling on reservations laid down by the Supreme Court. It is true that the rationale for 50 per cent ceiling was not entirely clear; nor should it be sacrosanct. It was an uneasy social compact that tried to strike the balance between two different ideas: That the legitimacy of institutions be measured entirely by their representativeness and the idea that identity should be irrelevant in determining whom jobs go to. It recognised the historical claims of Dalits and, more controversially, other backward castes, while keeping enough of a general structure open. If the 50 per cent ceiling is breached, we have straightforwardly moved to the idea that representativeness, based on criteria the state decides is all that matters.

One way or the other, this issue is going to deepen the crisis of the judiciary. If it caves in, it will be seen as pliant, overturning a hard-won constitutional settlement it had itself created. If it does not, the clamour will be to portray the Indian judiciary as an obstacle to greater social justice (which, in the case of reservation jurisprudence, will be unjustified).

The proposal has silver lining too. One unintended thing it will do is to remove the stigma of reservation itself. Reservation has historically been associated with caste. And often in our imagination there was a stigma that the upper caste put on those who had come through reservation. By including upper castes under the sign of reservation, it dissociates caste and the stigma of reservation. Upper castes

can no longer resent Dalits and others for reservation.

What need to be done?

In between the noises and chaos created by the reservation policy, what we are forgetting is the fact that, Indian economy is not creating as many jobs as before (the number has declined from 7 lakh to 1.55 lakh from 2011-12 to 2014-15 in the eight sectors reviewed by the Labour Bureau). Wages in the private sector are much lower than in the public sector. On average, in 2011-12 daily earnings were almost 2.5 times higher in the public sector at Rs 945 against Rs 388 in the private sector. The gap will increase after the recommendations of the 7th Pay Commission are fully implemented across the country.

The first problem is that the public sector is shrinking: Government jobs which were 19.5 million in 1996-97 are about 17.6 million today. It is also true that among government workers, groups A and B have continued to grow (24.1 and 27 per cent respectively between 2001-02 and 2011-12), but groups C and D have declined by 8.4 per cent over the same period, and these are the most numerous. Secondly, government jobs may not be the right solution for the dominant castes because an increasingly large percentage of these jobs are occupied by contract workers who earn at least twice less than the directly employed ones.

So what the government needs to be focus on is job creation, relieving rural and agrarian distress, strengthening grass-root institutions etc. so that these demand of reservation can found a structural solution.

Reservation is neither an instrument of poverty-eradication, nor does it have the scale to cope with the agrarian and other economic crises afflicting India today. At a time when a deep institutional response is

warranted, going for the easy and lazy measure of earmarking reservation amounts to policy escapism. The trend of making public policies and institutional response subservient to electoral exigencies as a norm is tantamount to treating India as a proto-state.

The government has many programmes which are, in principle, accessible to all poor people. Reservation exists because, in addition to being more likely to be poor than general castes, dalits, backward Muslims and Adivasis face social discrimination and exclusion that poor people from general caste backgrounds do not face. The fact that the right to education, the right to own land, the right to conduct business, or to pursue a well-remunerated occupation has been reserved for men from high caste backgrounds for generations means that government must take steps to correct the unequal distribution of rights.

We need to recognise that future economic growth in India is going to come from the private sector and entrepreneurship. In order to ensure that all Indians, regardless of caste, class and religion, are able to partake in economic growth, we must focus on basic skills. We have focused on

admission to prestigious colleges and government jobs, but little attention is directed to social inequality in the quality of elementary schooling. The India Human Development Survey (IHDS) shows that among children aged 8-11, 68% of the forward caste children can read at Class 1 level while the proportion is far lower for OBCs (56%), SCs (45%) and STs (40%). This suggests that we need to focus on reducing inequalities where they first emerge, within primary schools.

Way Forward

It is certainly true that the reservation policy as it exists today is deeply flawed and in need of radical rethinking. But this rethinking needs to be framed against the vital need — more urgent today than ever before — to confront the ugly reality of continuing caste discrimination, oppression and exclusion all along the hierarchy. We need to question the equation of reservation with the redressal of caste inequality not because reservation is no longer needed but because it is no longer enough — we need to do much more to tackle the resilient mutations of caste prejudice.

Reservation based entirely on economic criteria is not an all-in-one solution, though family income can be

one of the parameters. Also, its time to fix a time period for the reservation system — rather than extending it to eternity. Denying India, the service of the meritorious candidates, who see them being overtaken by others with lesser academic performance or brilliance, is also a crime and injustice.

Reform in the reservation system of India is the need of the hour. However, as the subject of reservation revolves around vote bank politics parties are reluctant to disrupt the existing system. There is no doubt that unequals should not be treated equally. However, is the current system of unequal treatment perfect? Is it creating more injustice? Is it the only way out in a welfare-nation? It's time to introspect.

Various Commissions Appointed to Deal with Reservation Issue:

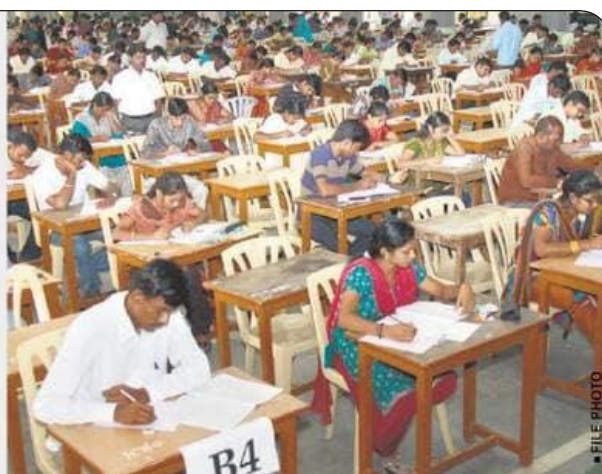
The first Backward Classes Commission was appointed under Article 340(1) in 1953 under the Chairmanship of Kaka Saheb Kalelkar to determine criteria to identify people as socially and educationally Backward Classes, and to recommend steps to ameliorate their condition. In its report, the Commission interpreted the term "socially and educationally backward classes as relating primarily to social hierarchy based on caste". The second Backward Classes Commission was appointed in 1978 under B P Mandal to review the state of the Backward Classes. The Commission submitted its report in 1980, but it was put in cold storage until the V P Singh government pulled it out in 1990. This report recommended 27.5% reservations in government jobs for OBCs, stirring a hornet's nest in North Indian politics, with ramifications that continue to be felt today.

Reserved category

A look at the details of the 10% quota and its ramifications

ELIGIBILITY:

- People earning less than ₹8 lakh annually
- People who own farm land below 5 acres
- People who own a house measuring less than 1,000 sq ft
- In its famous Indra Sawhney judgment, the Supreme Court had set a cap of 50% on quotas
- A Constitutional Amendment Bill would be required as the Constitution does not provide for reservation on the ground of economic conditions. It envisages Amendment to Articles 15 and 16 of the Constitution



PARLIAMENT PROCEDURE

- **Constitution amendment:** The proposed quota will be over & above existing 50% reservation. The government is likely to bring a Constitution Amendment bill in Parliament
- **Under Article 368:** The Bill must be passed in each House by an absolute majority (over 50% of total membership) and a two-thirds majority of members present and voting

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.



4. FREEDOM OF LITERATURE BILL, 2018: AN INTRODUCTION

Why in News?

MP Shashi Tharoor has introduced Freedom of Literature Bill, 2018 (Private Member's Bill) in Lok Sabha, to "amend certain enactment to guarantee and protect literary freedom in the country".

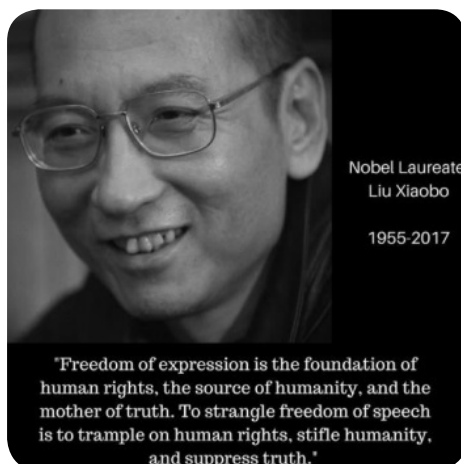
Introduction

Literature is a medium which conveys, maintains and appreciates freedom between writers and readers. Compared to other forms of art, it is the most modest, relying on words only. The way it connects people - writers and readers or readers and readers - is through freedom. For writers, creativity in their writing itself always helps to expand the boundary of freedom permitted by censorship. And for readers, creativity in their imagination helps them to read between the lines, among words or even inside a vocabulary. For this, they just need freedom in their imaginative power. Writers, too, do not need to get permission from the censorship board in order to be creative. Writers and readers remain free in their own creative and imaginative power under a period of heavy censorship. Thus, literature is an art which holds freedom.

Censorship prohibits only the publishing of literature, not its freedom. The free nature of the creation of literature and its appreciation remains, even in censored works.

Nevertheless, since Literature undeniably influences human conduct, the claims of other human interests—also prima facie instruments of a better life to impose restrictions upon artistic expression have long been recognized or asserted. It is insisted that Literature must yield to the superior or equal claims of morality and government. It will be most useful if we proceed

directly to a consideration of the force of the arguments in favor of the repression of literature in the interests of morals and government.



Public order, national unity and social or religious harmony are the principles commonly invoked against the practice of literary freedom. Freedom of expression is often considered an amorphous thing, supposedly guarded by the Constitution, but in reality it extends only to a short distance of someone else's feelings of outrage and hurt. The power or right to express one's opinions without censorship, restraint, or legal penalty is known as 'Freedom of Speech'. Unhindered flow of words in an open forum is the essence of free society and needs to be safeguarded at all times. One's opinions may, therefore, be expressed by words of mouth, in writing, printing, pictures, or any other mode. This freedom includes a person's right to propagate or publish the views of other people. Threats to free expression, especially artistic freedom, in our times mainly come from those claiming to espouse the interests of a particular religion or social group.

In India, freedom of speech and expression is guaranteed under Article 19(1) (a) of the Constitution of India. Apart from this, provisions

relating to freedom of speech and expression are also contained under various international conventions like Universal Declaration of Human Rights (UDHR), European Convention on Human Rights and Fundamental Freedoms, International Covenant on Civil and Political Rights, etc.

What is 'Freedom of Literature Bill'?

The Freedom of Literature Bill, 2018, puts on the government the onus of explaining why a book needs to be banned and removes the government's right to ban books indefinitely. "The purpose of the Bill is to amend and remove the existing provisions of the laws which can be misused to harass authors by vested interests. Freedom of Literature Bill, 2018 seek to protect freedom of literature. Its objective — that "authors must be guaranteed the freedom to express their work without fear of punitive action by the State or by sections of society" commends itself to any society that upholds liberal values.

According to the Bill, Banning works of literature is not congruent with the essence of democracy, and violates the right to information of individuals. Such powers must be exercised in exceptional situations, with sufficient judicial oversight to prevent censorship based on political expediency. Provisions in various enactments such as the Indian Penal Code (IPC), Code of Criminal Procedure (CrPC) Customs Act, Young Persons (Harmful Publications) Act, Information Technology Act and the Indecent Representation of Women (Prohibition) Act, shall be omitted and amended, in order to ensure and guarantee literary freedom in India.

Reasons and Objective of The Bill

The spirit of questioning and dissent is essential for social, cultural and political reform and for the overall enhancement of a constitutional democracy. The exceptions to the freedom of speech and expression must be strictly and narrowly defined. The recognition of the importance of dissent and expression of opinions, which may be irreverent or even unpopular, by the law is essential to prevent the legal process from being used to suppress reform and progress of society.

Literary freedom includes the right to criticize and question all bodies of thought, including one based on religious belief and cultural traditions. The State must recognize the right of an adult to consume literature of his or her choice, even if such works of literature are frowned upon by social norms. The laws must preserve and deepen constitutional morality and must not act as a tool to enforce majoritarian morality.

Key Highlights of the Bill

- ◆ The bill seeks to amend IPC, CrPC, Customs Act 1962, Information Technology Act, 2000, to enhance literary freedom. The bill seeks to remove “outdated provisions which are not congruent with the spirit of democracy, such as the anti-blasphemy and obscenity laws”.
- ◆ The Bill seeks omission of Section 295A, 298 of IPC. These sections punish the acts done to outrage religious sentiments. It also seeks to omit Section 292 that punishes publication of obscene material.
- ◆ Section 295A is a grossly misused section, often invoked in trivial ways to hound individuals, harass writers and curtail free expression. It deserves to be scrapped. Sections

that relate to the sale of obscene books and uttering words that hurt religious feelings are also sought to be omitted.

- ◆ Furthermore, the Bill seeks to amend Section 293 of IPC, which deals with the distribution of obscene material. The Bill seeks to make such an act an offence only if it is targeted at people below 18 years of age.
- ◆ It favours the scrapping of the provision in the Customs Act to ban the import of books, but makes public order exception.
- ◆ Section 67 of the Information Technology Act, which deals with online obscenity, is proposed to be amended to cover only child pornography.
- ◆ The Indecent Representation of Women (Prohibition) Act, 1986 is also sought to be amended by the Bill to state that indecent representation is any depiction which is derogatory to women, i.e. encouraging misogyny or discrimination. The obscenity element is removed from the definition.
- ◆ The Bill also lists an amendment to the Code of Criminal Procedure 1973 to introduce a provision for state government “to temporarily prohibit publication, circulation or distribution of the document for a period of 30 days on the grounds that it attracts provisions of section 124A or section 153A or section 153B of the Indian Penal Code, 1860.” The amendment proposes that government make an application to the high court for the permanent prohibition of “publication, circulation, and distribution of the document.”

Grounds of Restriction

The arguments for control will be considered under the two topics: (1) the moral and (2) the political. They will

be discussed as applicable to literature expression generally and not to any particular form.

The Claims of Morality

In its most general form, the moral argument asserts that every manifestation of the literature impulse influences moral conduct or affects moral sensibilities, and it is precisely the function of ethics to criticize and delimit such an influence. In recent times the question of morals that literature has, for practical purposes, been much reduced in scope. A more serious matter, however, is the jurisdiction which morals and other forms of human activity have asserted over literature and art at various times in the history.

The Claims of Government

More insistent today than the claims of morality is the demand of government to control art/literature expression. Behind this demand is the general conviction that if art/literature is unfettered it will obstruct the program the government is seeking to realize. In opposition to this principle it is asserted that freedom of expression is a necessary condition for the attainment of great literature. Between those who are committed to the principle of state control and those who insist upon artistic freedom there is an irreconcilable conflict both in practice and in theory. A conception of what men hold to be desirable is at the basis of the conflict, and in such matters the powers of rational persuasion are notoriously limited.

Some Book ban in India

- Wendy Doniger's *The Hindus: An Alternative History* was withdrawn from circulation.
- A.K. Ramanujan's essay 'Three Hundred Ramayanas' was dropped from a Delhi University syllabus.
- Tamil writer Perumal Murugan's *Madhorubagan (One Part Woman)* was withdrawn by the author under mob pressure but resurrected by a Madras High Court verdict.

Restrictive Legislation

The vague and overbroad phrasing of several sections of the Indian Penal Code (IPC) and the Code of Criminal Procedure (CCP) can be used to restrict freedom of expression, not only by governments, but by almost anyone who wishes to silence another. These include:

Section 95 of the CCP

It empowers state governments to seize and prohibit publications that “appear” to violate six discrete sections of the IPC. Although explicit grounds must be given for a forfeiture declaration, the burden of proof for underlying offences does not even rise to a balance of probabilities in court.

Section 124A of the IPC

It criminalises seditious. Throughout India’s history this overbroad provision has been used to silence public figures, including Mahatma Gandhi.

Section 153A of the IPC

It attempts to preserve “harmony” between a variety of enumerated groups by barring speech and several other acts.

Section 499

It criminalises defamation, can be used to secure a conviction without proof that actual harm has occurred – the intent or knowledge that harm would likely result is sufficient. Predictably, this provision has been used to silence political speech.

Obscenity and Blasphemy

India’s obscenity laws side with the offended party and are easily leveraged by aggrieved groups or individuals. Blasphemy, which is criminalised by section 295A of the IPC, is defined as expression that is “intended to outrage religious feelings of any class by insulting its religion or religious beliefs.”

Way Forward

Literary freedom is taken for granted in democracies, but forces that threaten or undermine it are always at work. Each age has to fight the battle afresh. In recent times, several attempts to get books withdrawn, pulped or sanitised of offending content have achieved full or partial success in India.

The claims of freedom for literature can have no expectation of prevailing against the counterclaims of governments embarked upon

definite and far-reaching schemes of social amelioration. They have never prevailed in the past, they do not prevail at the present time, and there is no reasonable likelihood that the situation will be different in the future.

Literary freedom or the freedom to express through works of literature is an integral component of the freedom of speech and expression under article 19(1)(a) of the Constitution of India. Authors must be guaranteed the freedom to express their work without fear of punitive action by the State or by sections of society. As a private member’s Bill, the legislation has hardly any hope of passing, but it reflects the contested terrain of freedom of speech and expression despite constitutional safeguards. Seen in this light, It is most welcome as a step towards removing or diluting penal provisions that inhibit literary freedom.

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.



5. INDIAN BRIDGE MANAGEMENT SYSTEM: TOWARDS SAFER BRIDGES

Why in News?

Minister of Road Transport & Highways and Shipping Shri Nitin Gadkari has launched the Indian Bridge Management System (IBMS) in New Delhi. IBMS is being developed to create an inventory of all bridges in the country and rate their structural condition so that timely repair and rehabilitation work can be carried out based on the criticality of the structure.

Introduction

The maintenance of bridges as a key element in transportation infrastructure has become a major concern due to increasing traffic volumes, deterioration of existing bridges and well-publicised bridge failures. Bridges are often subjected to high loads, harsh environments and accidental damage. Determining what level of repair is required to achieve

the most economical lifespan from a bridge structure has been a source of dilemma for asset managers and owners for many years.

There are approximately 2.5 million bridges on the global transportation network. Due to changes and increases in traffic load, structural degradation and design code, many of these bridges do not meet the current international standards. When it comes to India,

the story is more abysmal. In India, many bridges are now half a century or even a century old and what's needed is methodical earmarking of funds for rehabilitation, strengthening and overhaul.

A lack of any data base on bridges in the country has led to a situation where we are neither clear about the exact number and location of nor have we been able to maintain this asset in proper working condition. Poor condition of bridges hampers efficient transport and has also led to accidents and loss of lives on several occasions. IBMS aims to fill this gap by preparing a data base of all bridges in the country and detailing their structural condition so that timely action can be taken to repair the structures or build new ones in their place.

Indian Bridge Management System

IBMS – Indian Bridge Management Systems is developed to create an inventory of all bridge assets whether on the National Highways (NH or on the State Highway or on a District Road) in India, and apply a technical logic to manage the bridge assets during its life cycle. It generates detailed inventory data and condition ratings of assets, ensuring the dynamics of deterioration process are captured. This dynamism, in the deterioration process guides the inspection and rehabilitation of bridges. The system allows the users to assign priority to maintenance activity, based on the present condition of the bridge. The progressive improvement of all bridge assets is ensured over a period of time, as worst bridges, are first rehabilitated and then the less damaged bridges.

It is based on asset management technique. Asset management in the engineering environment is a practice of managing public infrastructure assets, to achieve high returns by monitoring and maintaining the

infrastructure with the objective of providing the best possible services to end-users.

IBMS is the largest platform in the world owned by a single owner, with database that could exceed 1,50,000 bridge structures. So far 1,15,000 bridges have been inventorized, of which 85,000 are culverts and the rest are bridges.

During inventory creation each bridge is assigned a unique identification number or National Identity Number based on the state, RTO zone and whether it is situated on a National Highway, State Highway or is a District Road. Then the precise location of the bridge in terms of latitude-longitude is collected through GPS and based on this, the bridge is assigned a 'Bridge Location Number'.

There after, engineering characteristics like the design, materials, type of bridge, its age, loading, traffic lane, length, width of carriage way etc are collected and are used to assign a 'Bridge Classification Number' to the structure. These are then used to do a structural rating of the structure on a scale of 0 to 9, and each bridge is assigned a 'Structural Rating Number'.

The rating is done for each component of the structure like integral and non integral deck, superstructure, substructure, bank and channel, structural evaluation, deck geometry, vertical clearance, waterway efficiency etc. In addition to the structural rating, the bridges are also being assigned 'Socio-Economic Bridge Rating Number' which will decide the importance of the structure in relation to its contribution to daily socio-economic activity of the area in its vicinity.

Who are the Beneficiaries?

Major stakeholders in the IBMS are the government department, which owns the bridge assets and the general public, who use the bridges. Each

stakeholder has benefits, in short-term and the long-term.

Government benefits by the creation of database of all bridges in immediate present (6 months since IBMS initiation). This is the short-term benefit. In the long-term, it optimizes the utility of funds available for rehabilitation/ maintenance of the bridges.

Over a period of time, the department will be able to monitor the bridges and ensure all such bridges, which are critical are rehabilitated first and then the focus of rehabilitation will shift to those bridges, which are showing marginal distress. Once all such bridges are repaired/ rehabilitated, then, the overall efficiency of the bridges in our country will improve along with its longevity, because of its timely proper maintenance. IBMS uses the principle of 'FRWD – First Repair the Worst Damaged', to ensure the entire bridge inventory is rendered safe. The fear of major sudden catastrophe can be reduced to a large extent. This will assure prolonged utilization of assets.

General public, is assured over time that all bridges are being maintained immaculately and are safe for usage. They are assured proper protocol exists for inspection of any bridge, which shows signs of distress. Dynamism of distress is negated by timely and focused maintenance. Alternate routes can be identified in times of natural disaster or calamity, to enable the public travel from point A to point B.

Reasons Responsible for Bridge Collapses

Bridge-building is not just spanning a river or gully. It's a matter of combining different aspects. The increase in the quantum of traffic, changes in river flow and urbanisation of surrounding areas have to be considered before starting construction. But such things are alien to Indian bridge building. The inadequate detailing before

construction, fancy concepts like slender sections more vulnerable to vibrations and lack of strict quality control during construction are some of the reasons why the bridges are so inefficient.

The cost of building a bridge with a long lifespan is phenomenal. Therefore, bridges with shorter lifespans are constructed. But this is based on the assumption that within a certain period another bridge would be constructed to share the load. But it never happens. There is either lack of funds or they are delayed.

Many experts are not happy with the technology used to build the bridges. In India, we have switched over to the prestressed concrete technology. We are at par with international standards as far as the knowhow is concerned. But we fail when it comes to implementing it, mostly because of rampant corruption.

There is no check on material management when the bridge is constructed. The ratios of concrete, steel and other components are changed and the fitting is not done according to specifications. Site selection is sometimes done ignoring geological conditions. The Nizamuddin bridge in Delhi where there have been problems with the foundations due to the differential settlement of the strata, can serve a good example in this regard.

The trend to construct lightweight bridges with highly stressed designs has not worked well. These include the Mahatma Gandhi Setu over the Ganga near Patna and the new ISBT bridge over the Yamuna in Delhi. The older design structures have larger reserve strength. Further there is a need to adopt technology suitable to India, not just ape Western trends in structural design.

New materials and techniques like neoprene expansion joints, pot cantilevers and cable-stayed have

been developed in recent years. But these modern structures are quite complicated and need trained technicians. The reliability of concrete, the common material used to construct bridges in India, greatly depends on its method of construction, which is done by untrained persons. A small pocket of un-compacted concrete or a small change in the levels of reinforcements or insufficiently cured concrete can result in higher failure risks.

Further, the repair and rehabilitation of bridges is yet to come of age in India. There is a dearth of experienced agencies as well as of technical knowhow to carry out detailed investigations.

What can be Done?

Bridge building involves two aspects - conceptual and computational. The first requires considerable application, engineering, judgement and experience. The conceptual design, the materials to be used and the combinations to be chosen to produce an economical structure which will meet safety standards have to be considered. Although we are building lots of bridges, there is still a need for combining all these aspects.

Bridge technology should not be considered in isolation. Factors like better weather forecast systems should be incorporated in bridge technical. Drainage management and effluent treatment have to be upgraded as these have direct bearing on the bridge. New avenues for resource allocation for bridge maintenance need to be explored and acted upon. It is possible that state public works departments can often be lax when it comes to maintaining and replacing bridges, for want of budgetary funds. In such instances, public-private partnerships need to be duly formalised.

There's also a parallel need for central oversight for bridge maintenance. Although there is a

paucity of funds, general apathy towards the bridges is one of the most important reasons why disasters occur or premature aging affects the serviceability. This is also because of poor inspection standards. Most experts agree that if inspection is carried out properly and is followed up with proper maintenance, the bridges will survive longer.

Modern satellite systems can now monitor bridge deformations down to the millimeter level in real time. The use of such systems for bridge monitoring must be made routine. We must leverage our satellite expertise to better maintain bridges pan-India and beyond.

Some major bridge collapses:

Kadalundi River rail bridge- In 2001, one of the biggest train accidents had claimed the lives of at least 57 people while injuring between 117 and 300.

Rafiganj rail bridge- On September 10, 2002, the high speed Rajdhani Express was derailed on the bridge over the Dhawe river in North-Central India. The accident had led to the death of approximately 130 people.

Bhagalpur- A 150-year-old over bridge collapsed on the Howrah Jamalpur superfast express in December 2006. The incident had led to the death of around 30 people.

Panjagutta bridge- An under construction flyover at Panjagutta in Hyderabad had come crashing down in September 2007. Apart from damaging the various vehicles passing by underneath the bridge, the collapse had also led to the death of 15 people.

Kolkata flyover- On March 31, 2016, the Vivekananda flyover in Kolkata that was under construction collapsed claiming the lives of 27 people and injuring about 80. A case of murder was charged against the construction firm, IVRCL that was in charge of the bridge.

Two such major infrastructure disaster in India happened in the year 2018 alone, when a part of a flyover in Varanasi, Uttar Pradesh, came down, and an overbridge connecting train stations in India's financial capital Mumbai collapsed. Both incidents claimed several lives and injured many more.

Way Forward

Bridges bridge people, trade and enhance connectivity. Frequent auditing of bridges by third party / insurance / state agents in all major states are needed since most of the bridges are standing from colonial era too. Coordination between departments is needed to resolve the issue of auditing, funds approval, project monitoring etc. Quality materials, proper safety and construction standards needed to follow while constructing a new bridge with skilled masons and engineers.

The volume of traffic the bridge going to handle also needed to be considered while designing a new bridge so that it sustain long time. Bridges must not be constructed in rush to meet the deadlines for political mileage to be curbed. Contracts have to be given to experienced

constructing companies for bridges or other structures.

We need to revisit current standards with the benefit of much more extensive research. We need to install monitoring devices to record stresses on bridges. We need to examine what happens during catastrophic failure such as the Rafiganj rail bridge collapse, but we also need to study and learn from incidents of lesser damage and close calls.

All reinforced concrete (RCC) structures, including bridges, are prone to corrosive deterioration. It is a known fact that under hot and humid conditions, the build-up of internal pressure can reduce concrete stiffness and strength, particularly in bridges with huge moving loads on their decks. Hence the pressing need for efficient maintenance, which calls for proper identification of the

problem and prompt follow-through action. There's an urgent need to systematically and thoroughly fill up gaps in bridge maintenance and renewal nationwide. There are many bridges in the country which have been identified as 'most vulnerable', calling for prompt institutional revamp and close oversight. The need is to swiftly identify structurally deficient bridges, especially those in dense urban centres with speedily rising vehicular traffic, and better allocate resources for the specific and express purpose of repair and replacement. IBMS is the right step in this direction.

General Studies Paper- III

Topic: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.



6. CLIMATE CHANGE PERFORMANCE INDEX-2019

Why in News?

The Climate Change Performance Index (CCPI)-2019 has been released by New Climate Institute, Germanwatch and Climate Action Network. Sweden (4th) was in top position, followed by Morocco and Lithuania in the CCPI 2019. India has been ranked 11th in this year CCPI, improving its standing by three places compared to the previous edition.

Introduction

Corresponding to the record-breaking global emissions of the last years, the carbon dioxide (CO₂) concentration in our atmosphere already exceeds the historic value of 400ppm. If this trend is not inverted, our chances to keep global warming well below 2°C and to pursue efforts to limit the increase to 1.5°C thus avoid climate change with all its expected impacts are virtually zero.

The special report on Global Warming of 1.5°C, released by the International Panel on Climate Change (IPCC), sheds light on the substantial difference in impacts between warming of 1.5°C and 2°C.

With business as usual (BAU) scenarios, we are at the moment even heading towards an average global warming of 4 to 6°C and still towards an up to 3°C, if countries fulfil their publicly announced mitigation targets.

After three consecutive years of stable CO₂ emissions, emissions are rising again. The Climate Change Performance Index 2019 (CCPI), shows only few countries have started to implement strategies to limit global warming well below 2 or even 1.5°C. While there is a continued growth and competitiveness of renewable energy, especially in countries that had low shares before, the CCPI

shows a lack of political will of most governments to phase out fossil fuels with the necessary speed. Because of that, in most countries the climate policy evaluation by national experts is significantly lower than in the last years. Germanwatch, commented: "Based on techno-economic developments in the last years, delay in implementation of low-carbon solutions can hardly be justified. While the G20 summit has shown strong support of 19 countries to support the Paris Agreement, the political will of those Governments to set the right frameworks and incentives for its national implementation is not yet reflected in these words."

To implement the Paris Agreement, countries must raise their ambitions and enact concrete measures to make their individual contributions to the global goal.

Climate Change Performance Index - 2019

The Climate Change Performance Index (CCPI) is an instrument designed to enhance transparency in international climate politics. Its aim is to put political and social pressure on those countries that have, until now, failed to take ambitious action on climate protection and to highlight those countries with best practice climate policies.

CCPI is a ranking of the 56 countries and the European Union (EU), which are together responsible for about 90% of global GHG emissions. The climate change performance is measured via fourteen indicators, classified into four categories:

1. **"GHG Emissions" (40%):** For the first time, the CCPI covers all major categories of GHG emissions. This includes energy-related CO₂ emissions, CO₂ emissions from land use, land use change and forestry (LULUCF), methane (CH₄), nitrous oxide (N₂O), and the so-called F-gases hydro-fluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).
2. **"Renewable Energy" (20%):** The "renewable energy" category assesses whether a country is making use of this potential for emissions reduction.
3. **"Energy Use" (20%):** The more efficient energy can be used, the faster and easier countries can reach net-zero emissions.
4. Climate policy has an overall weight of 20%, with national and international policy making up 10% each.

The index now is even better suited to measure how well countries are on track to meet the global goals of the Paris Agreement. It does this not only by comparing countries by their development and current status in the three categories "GHG Emissions", "Renewable Energy" and "Energy Use",

but also on the Paris-compatibility of their current status and future targets in each of these categories. With its globally unique policy section, the index also continues to evaluate countries' ambition and progress in the field of climate policy.

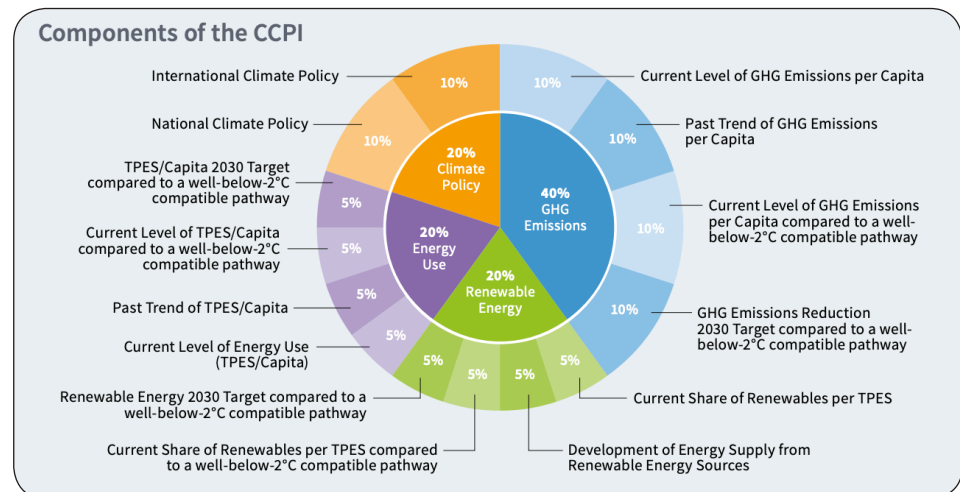
Key Results of CCPI-2019

The CCPI-2019 results illustrate the main regional differences in climate protection and performance within the 56 evaluated countries and the EU. No country performed well enough to reach the ranking very good in this year's index, meaning that no country has yet made it to one of the top three places in the rankings.

emissions category, emissions have not decreased since 2009. It is rated medium regarding renewable energy and climate policy.

- ◆ China climbs to rank 33, being in the group of the medium-performing countries for the first time. China performed relatively well regarding its emissions trend from 2014 to 2016, but emissions started to increase again recently. The overall high rating in the climate policy category reflects the government's progress on regulating industrial emissions, building emissions and a successful renewable energy support scheme.

In the group of very low performers almost half of the G20 countries has



- ◆ The top three of the CCPI-2019 are still unoccupied, because none of the 56 countries or the EU are clearly on a well below 2°C pathway in their overall performance. With comparably good ratings in emissions and renewables Sweden again leads the ranking (Rank 4), followed by Morocco that significantly increased its share of renewable energy capacity and has an ambitious national climate target.
- ◆ Germany falls again, from place 22 to place 27 and is now in the middle of medium-performing countries. The country shows a relatively low performance in the

fallon in this category Japan (49), Turkey (50), Russian Federation (52), Canada (54), Australia (55), Korea (57) and - at the bottom of the index - USA (59) and Saudi Arabia (60). The USA again lost several places due to its low to very low-rated performance in the GHG Emissions, Renewable Energy and Energy Use. The experts rated the climate policy of the Trump administration very low, but they highlight some positive signals because of climate action in several states and cities.

India's Performance

India ranks 11th in this year's CCPI, improving its standing by three places

compared to the previous edition. Most notably India improved its performance in the renewable energy category, joining the group of medium performers. Comparatively low levels of per capita GHG emissions and a relatively ambitious mitigation target for 2030 give India an overall high rating in the emissions category.

Climate Change in India

India is highly prone to climate related catastrophes like floods, droughts, heat waves and cyclones. India has a number of social welfare programs to counter the brunt and prevention & control of climate risks. Further, the main objective of poverty alleviation and rural programs is reduction of vulnerability to climate risks. Climate Change can be closely linked with the economic growth and development of a Nation. The key areas where the impact of climate change has proved to be calamitous in Indian Sub-continent:

- ◆ **Forests:** Climate Change brings about shift in natural vegetation, thereby deteriorating the forests.
- ◆ **Agriculture:** Rain-deficit monsoon and unseasonal rains have disturbed the crop-cycles.
- ◆ **Water:** Some parts of India are facing shrinking of water supplies, others are facing rising seas.
- ◆ **Biodiversity:** Climate change, along with habitat loss and fragmentation is a major threat to biodiversity.

India is a large developing country with nearly two-thirds of the population depending directly on the climate sensitive sectors such as agriculture, fisheries and forests. The projected climate change under various scenarios is likely to have implications on food production, water supply, biodiversity and livelihoods. Thus, India has a significant stake in scientific advancement as well as an international understanding to promote mitigation and adaptation.

How Far from Implementing the Paris Agreement?

The IPCC special report on Global Warming of 1.5°C underlines that the upcoming years are crucial in setting the world on track to achieve the targets agreed three years ago in Paris. Still, a huge ambition gap between countries' greenhouse gas (GHG) reduction targets and what is needed to keep global warming to well below 2°C, and to pursue efforts to aim for a 1.5°C limit.

Decarbonisation of the Global Energy System

The decarbonisation of energy systems plays a key role in limiting emissions and in reducing them in the future. Last year, despite increasing coal prices, both coal production and consumption increased for the first time since 2013. Fossil fuel consumption subsidies rose by 12% in 2017, accounting for US\$300 billion. Estimates are also seeing an increase for 2018 more likely than a decrease. Nevertheless, there are encouraging signs that a global energy transition is under way. The year 2017 saw the largest annual increase in renewable power generation capacity with the increase in added capacity from solar photovoltaic (PV) alone higher than net additions of coal, gas and nuclear combined. At the same time, the total number of people without access to electricity fell below 1 billion. Emerging economies as well as developing countries continue to play an increasingly crucial role in the global energy transition with Asia, accounting for 64% of new capacity in 2017. Shrinking costs of renewable energies further increase developing countries' potential to leapfrog fossil fuel-based industrialisation. By 2020, all major renewable power generation technologies will be competitive or even undercutting fossil fuels in their generation cost.

Formation of Frontrunner Alliances

As a result of (geo)political dynamics and resistance against ambitious climate action in some countries, new ways of cooperating among (non-) state actors outside the formal climate negotiation context are gaining importance. After US President Donald Trump's withdrawal from the 'Paris Agreement' in June 2017, towns, states and companies in the United States, as well as actors on financial markets started to implement their own strategies to uphold the 'Paris Agreement'. Further promising signals include an increasing number of countries that support the introduction of CO₂ pricing and initiatives like the "Powering Past Coal Alliance", with more than 50 member states, and the International Solar Alliance enhancing international cooperation for a global energy transition.

Green Climate Fund

The imperative of making communities resilient in the face of global warming and the focus on novel technologies require that urgency is accorded to shoring up climate finances. Unfortunately, however, funding has been the Achilles' heel of global climate change negotiations. As of December 2017, the Green Climate Fund (GCF) — the main instrument of fulfilling the developed countries' collective promise of putting \$100 billion annually into the hat by 2020 — had disbursed less than 10 per cent of its commitment. A growing and persistent need to reduce carbon emissions has led to an increase in funding for innovative green projects in India. With its plans, policies and projects, the Asia Pacific region has the highest climate smart investment potential of any region in the world, with by far the biggest opportunity in green buildings, estimated at a \$17.8 trillion opportunity by 2030.

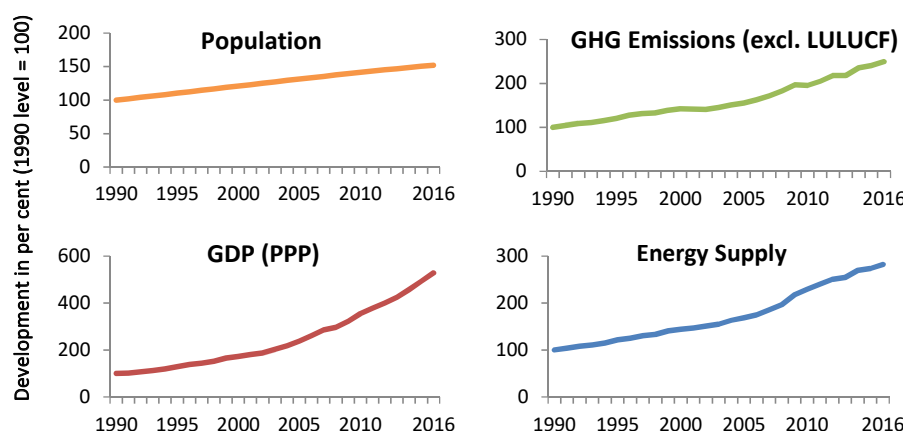
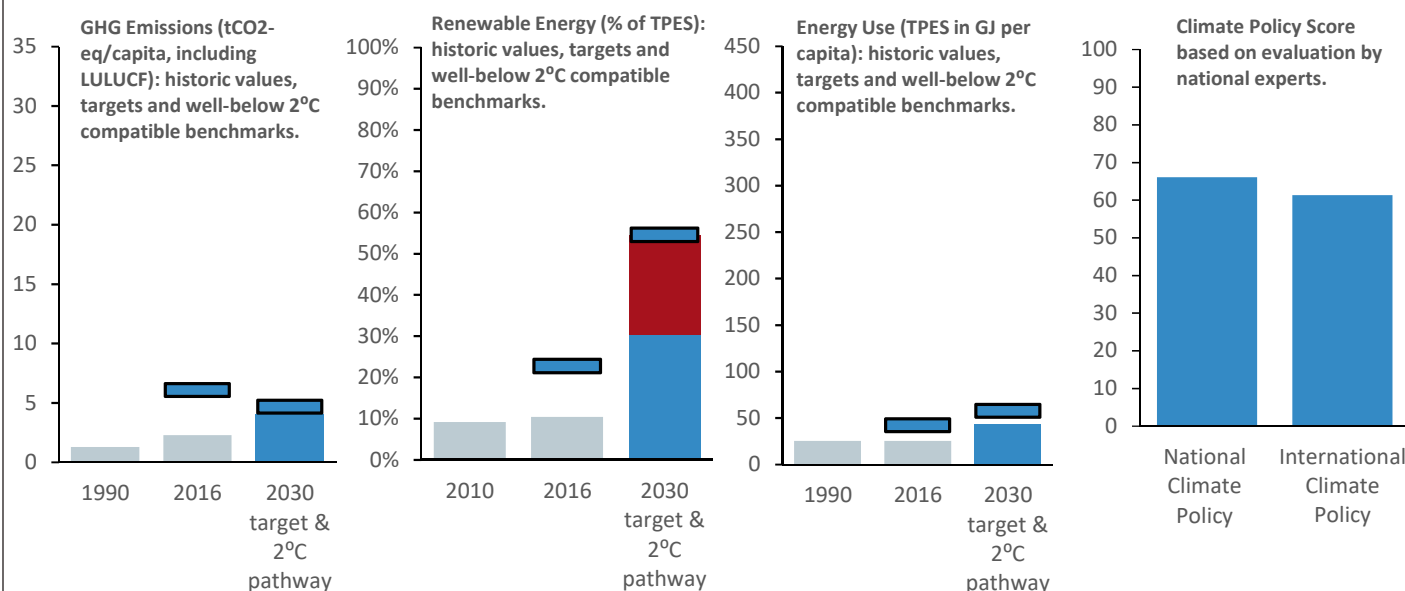
Growing Global Climate Movement

The sense of urgency to take immediate action to protect the global

India

14

▲ 11



Key Indicators	2016
Population [million]	1324.20
GDP per capita (PPP) [US\$]	5969.26
CO ₂ per capita (excl. LULUCF) [t]	1.57
CO ₂ per GDP (PPP) [t/1000US\$]	0.80
TPES per GDP (PPP) [MJ/US\$]	4.57
CO ₂ per TPES [t/TJ]	57.52
Share of Renewable Energy of TPES	24.22%

GHG = Greenhouse Gases
TPES = Total Primary Energy Supply
PPP = Purchasing Power Parity in prices of 2005
LULUCF = Land Use, Land Use Change and Forestry
Sources: IEA (2018), PRIMAP (2018)

climate is being increasingly taken up by a growing global climate movement. The extreme weather phenomena all around the globe with drought, fires and extreme rainfall have been a wakeup call for many citizens. They increasingly put governments under pressure to make climate policy a priority.

Way Forward

Climate change is one of the most important global environmental challenges, with implications for food production, water-supply, health, energy, etc. Addressing climate change requires a good scientific understanding as well as coordinated action at national and global level. The adaptive capacity of communities likely to be

impacted by climate change is low in developing countries. The efforts made by the UNFCCC and the Kyoto Protocol provisions are clearly inadequate to address the climate change challenge. The most effective way to address climate change is to adopt a sustainable development pathway by shifting to environmentally sustainable technologies and promotion of energy efficiency, renewable energy, forest conservation, reforestation, water conservation, etc.

The issue of highest importance to developing countries is reducing the vulnerability of their natural and socio-economic systems to the projected climate change. India and other developing countries will face the challenge of promoting mitigation and

adaptation strategies, bearing the cost of such an effort, and its implications for economic development.

However, India has signaled that it is ready to update its nationally determined contributions (NDCs) if other countries also do so and also playing a crucial role to mitigate climate change and other environmental challenges. India has also won global accolades for opting for green technologies.

General Studies Paper- III

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



7. FINDING WAYS TO MAKE KASHMIR VIOLENCE FREE

Why in News?

Recently, the Governor of Jammu and Kashmir Satya Pal Malik has denied that there was anything like 'Operation All Out' being pursued by the state government in Kashmir. He called it 'a wrong term' to describe the anti-militancy operations in the state.

Introduction

The State of Jammu & Kashmir (J&K) has been affected by terrorist and secessionist violence, sponsored and supported from across the border, for more than two and half decades. The ongoing militancy in the state of Jammu and Kashmir is intrinsically linked with infiltration of terrorists from across the border both from the "International Border" as well as the "Line of Control" in J&K. The LoC is separating the Indian and Pakistani part of the Kashmir region.

An explosive mix of cross-border terrorism, proxy warfare, insurgency and persistent civil unrest has converted the Kashmir Valley into a 'hybrid' conflict zone in which many junior and middle ranking officers of India's security forces consisting of state police and the Central paramilitary organisations realize early that the way they have been trained to fight will not work in this environment, and that their institutional leadership does not have all the answers they need.

However, recent counter-insurgency operations in Kashmir have experienced considerable success in eliminating both the Pakistan-based terrorists and the local militants. But that is not the whole part of the story as despite successful operations, militancy has not taken a back seat. The measuring of success by the number of terrorists and militants killed was not only deceptive but also oversimplification of Kashmir's extremely complicated reality.

Background: Evolution of Insurgency

Jammu and Kashmir (J&K) has a distinct history and consists of three parts: Jammu, Kashmir also known as the valley and Ladakh. Those three parts are different from each other by composition of the population, historical background and the language. The state of J&K has been the reason for three short wars between India and Pakistan (1947, 1965 and 1999) over the territory. India and Pakistan claim the region for themselves. This is known as the Kashmir connect or sometimes as a "proxy war" between India and Pakistan with skirmishes around the Line of Control (LoC).

Today the insurgency itself is embedded in the dispute between these two powers (i.e. Indian and Pakistan). J&K experienced economic improvements during the late Seventies and Eighties but many in the valley felt left out.

Militancy started to show up during the Eighties e.g. kidnapping of politicians but became more frequent in the late Eighties after a disappointing outcome for the Muslim United Front (MUF) in the 1987 state assembly election. The official start of the insurgency is after the December 1989 kidnapping of Rubaiya Sayeed, the daughter of then Indian Home Minister Mufti Mohammad Sayeed. After her release, the Central government sent in security forces to J&K to break down any form of rebellion.

Phases of Insurgency J&K

Experts have categorised the Kashmir insurgency in three phases: first, from 1990 to 1996 when militancy focused on urban areas; second, from the late 1990s to 2002 when it moved to rural areas and districts of

Jammu; and third, the 'low-intensity insurgency' from 2002 onwards.

- ◆ During the first phase most violent events took place in urban areas of Kashmir especially the capital Srinagar city and other smaller cities. The insurgency was a movement for independence. Up to 100,000 Hindus left the valley in the first two years because of the militancy and settled down in camps around Jammu and New Delhi. By the mid Nineties Indian security forces controlled the cities and militancy died out slowly.
- ◆ The second phase is from the late Nineties to the early 2000's. Foreign groups with own agendas like the Lashkar-e-Taiba entered the militancy and it became a "jihad" against India. Militancy moved to rural areas of the valley, but also to the Doda, Rajouri and Poonch district of Jammu in the later Nineties. Hindus were targeted and got massacred, as well suicide attacks against security forces became a common strategy early in 2000.
- ◆ The third phase is a low-level insurgency without any major incidences. Civilians in Jammu and Kashmir have learned to cope with the presence of security forces and sporadic incidences.

So Called 'Operation All-out'

Over the last decade, the number of active insurgents hovered around 200, even touching a low of 78 in 2013 – lowest since 1990. A report compiled by J&K Police in August 2018 projected the number of active insurgent to be 327 of which majority, 211, are locals. While Hizb-ul- Mujahideen (HM) and Lashkar-e-Toiba (LeT) – estimated cadres 141 and 128 respectively- retain their dominance, Jaish-e-Mohammed (JeM)

too have strengthened its base this year. At the beginning of 2016, there were around 100 active militants in the valley, which rose to about 150 at the beginning of 2018.

Overall numbers of victims of the insurgency from 1990 to 2011 cost the lives of 14634 civilians, 6007 security forces and 22535 militants, as well the destruction of local infrastructure in the last two decades. Kashmir's relationship with violence spans many decades. Even now, some "military strategists" emphasise that unrestrained use of military force—a security driven mindset calls it operation clean out—against any traces of armed militancy is the sole way to make Kashmir violence-free. However, what they fail to understand is that armed militancy in Kashmir is a manifestation of a deeper contradiction that has been thrust on the "political-self" of Kashmir. Whenever this contradiction comes to a head, there is a surge in violence.

The Indian armed forces in Kashmir operate with impunity provided by law – the Armed Forces (Special Powers) Act – under which they can shoot anybody on mere suspicion. But the increasing trend of locals taking up militancy, lack of political outreach from New Delhi to Srinagar and the polarised state of national politics along the lines of religion, ensures that India loses the battle in the planes of counter-extremism and counter-radicalisation. The ultimate battle of any counter-insurgency campaign lies on the psychological front. Not acknowledging or addressing the issue of local support ensures that there is a recurring security cost for India, regional deterrence stability is cyclically impacted and external actors both state and non-state view the insurgency as a feasible enterprise.

Challenges in Counter-Insurgency

- ◆ In a nutshell, Pro-militant Kashmiri Muslims and Pakistani support are the primary reasons behind the longevity of the Kashmiri resistance.
- ◆ According to the widely-cited reports, each encounter in the valley triggers a surge in militant recruitment which far exceeds militants killed in counter-insurgency operations.
- ◆ More disturbing than the rise in local recruitment into militancy is the rising public support for militancy.
- ◆ Stone pelting has already been converted into a mass ritual with girls and children as new participants, too young to be aware of what it means.
- ◆ Open support by locals to trapped militants – particularly during encounters – enabling their easy escape, has entirely changed the relationship between the locals and the militants.
- ◆ Many encounters have also led to the death of non-combatant civilians who got trapped in the crossfire. And each civilian death leads to further violent protests and at times a vicious cycle in which every death leads to more deaths.
- ◆ The lack of a political initiative that complements the tactical military effort is a consistent feature in India's handling of the conflict.

Peace Process for J & K

The initiation of dialogue is the cornerstone of any solution to the Kashmir conflict. Kashmir has been most stable only at times when there has been an active peace process occurring on the ground. However, dialogue is usually seen in statist terms, that is, the engagement between the governments of India and Pakistan. This

leaves the most important stakeholders of the conflict, the people of Kashmir, out of the purview of the peace process. The political engagement should include all political fractions, both mainstream and separatist. The lack of prioritising the engagement with the people of Jammu and Kashmir (J&K) has not only proven perilous for centre–state relations but has also negatively affected the resolution of the conflict by strengthening the hand of Pakistan. There needs to be a three-pronged dialogue process working simultaneously on the ground that may address the root causes of the conflict in a more meaningful and comprehensive manner.

The most important part of the dialogue process is the engagement of different shades of political spectrum in Kashmir. The regular dialogue between India and Pakistan is crucial for the overall resolution of the Kashmir conflict. Former Prime Minister Atal Bihari Vajpayee's brilliant move to allow Hurriyat leaders act as a bridge to Pakistan was partly informed by this consideration. The peace process, or what can also be called an India–Pakistan dialogue, divided the resistance leadership into hawks and doves at the very outset. But, the process created a new atmosphere for Kashmiris. The military footprint in the civilian areas diminished, giving people a long awaited relief. In the subsequent years, Kashmir witnessed an unfolding of a kind of peace process. This process did not deliver and significantly contributed to the return of violence to Kashmir. Though this new phase of violence cannot be explained solely in the backdrop of a failed peace process, a keen analysis of what went wrong with that process can yield some useful insights into understanding the pattern of present violence in Kashmir.

The dialogue between the three regions of J&K is the most ignored aspect of the Kashmir issue. Due to

years of continuous negligence, it has now snowballed into a major hurdle to evolve any consensus on all levels of policy. In the absence of a sustained dialogue, the different political attitudes in the Valley, Jammu and Ladakh have and can serve as a major bottleneck to a lasting peace in the state. This has the prospect of producing a potentially explosive situation, which may not be in the best interest of the country.

Dialogue is essential to harmonise the relations between different regions of J&K. In the absence of such a sustained dialogue, any solution would be unimaginable or impractical.

Government Initiatives

The government of India in tandem with the state government, has adopted a multi-pronged approach to contain cross border infiltration, which, inter-alia, includes strengthening of the infrastructure, multitiered and multimodal deployment along International Border /Line of Control, and near the ever changing infiltration routes, construction of border fencing, improved technological surveillance, weapons and equipment for Security Forces (SFs) improved intelligence and operational coordination, synergized intelligence flow and pro-active action against terrorists within the state.

The government has adopted various counter measures to neutralise the efforts and capabilities of militants to disturb peace in the state. The government has also encouraged

policies to mainstream the youth, including providing employment opportunities to wean them away from militancy. The authorities have been providing the youth with skill training and vocational opportunities, and engaging the populace through various welfare programs for example 'UDAAN Scheme' committed to train more than 80,000 youth from the state, covering organized retail, banking, financial services, IT, ITES, sports, infrastructure, telecommunications, hospitality, manufacturing, paramedics and life sciences sectors etc.

Way Forward

It is always difficult to assess the strength of an ongoing insurgency since due to its sheer nature. Fighting insurgency is altogether different from fighting a conventional battle. Thus, the number of militants killed during an insurgency can't be the true barometer of the success quotient of a counterinsurgency campaign. As the centre of gravity is in the minds of the people, the security strategy should normally remain one of containment rather than the pursuit of an illusory victory to be secured by a massive application of military force to reverse the thrust of insurgency.

The use of force is often unavoidable under as disturbed circumstances as prevailing in Kashmir, but measures to address people's grievances have been largely symbolic. The current troubled situation in J&K is a result of youth

alienation, political issues and a sense of neglect. The Pakistan Army has also significantly stepped up its efforts to destabilise J&K. In these circumstances, the overall strategy has to be two-pronged: acting tough with Pakistan; and winning back the confidence of the population. This battle will be won not only by the number of terrorists killed, but when the youth find more solace in the fruits of peace rather than pride in confronting security forces with stones in their hands. This is certainly a challenge but not impossible to achieve, if politics takes a back seat and there is a genuine attempt at conflict resolution.

Lastly, some part of the credibility gap is inadvertent, resulting from the combination of poor communication strategies, a media that is ignorant and/or dismissive of the very real hurdles that obstruct peace processes, and a political climate that seeks to damage rather than construct. The wear and tear engendered by this combination of negativities should not be underestimated. A new communications strategy needs to be developed, in which peace process reporting is at the core.

General Studies Paper- III

Topic: Security challenges and their management in border areas; -linkages of organized crime with terrorism.



SEVEN SUBJECTIVE QUESTIONS WITH MODEL ANSWERS

Women's Participation in Politics: A Silent Feminisation

Q1. Despite significant advances in education and political participation, women remain underrepresented in leadership positions in politics and business across the globe. Critically analyze.

Hints:

- ◆ According to the World Economic Forum's study, across the 149 countries assessed, there are just 17 that currently have women as heads of state while, on average, just 18% of ministers and 24% of parliamentarians globally are women.
- ◆ The evolution of Indian democracy through sixteen general elections so far has reflected a low representation of women in parliament, state legislatures, political parties & other decision making bodies. Despite a secular increase in the number of female politicians, women generally remain underrepresented in Indian federal and state politics. The reasons behind are historical, social and cultural factors that have always restricted woman to utilize her capabilities and nurture her talent for the growth and development in almost every sphere of life.
- ◆ According to the Indian Constitution women being the weaker section are eligible for reservation wherever necessary. Till date, women's representation in the legislative bodies is literally being obstructed by male domination. Constitutional and political action has to play a positive role to solve the problem. Unfortunately in India, no political party has come forward with the suggestion of reserving the candidature for women. Also the Indian political parties arriving at a consensus on the issue is remote.
- ◆ The 2011 UN General Assembly resolution on women's political participation reiterated that to eliminate the multi-faceted problem like gender inequality, a multi-pronged approach must be adopted; and among the various initiatives, political empowerment of women could act as a catalyst. The Sustainable Development Goals also took into account women's representation

in parliament to measure progress towards gender equality.

- ◆ Political institutions are aware that the role that women are playing cannot be ignored and because of that there is a general tendency in social and political contexts to push for at least a discussion about feminism and the feminisation of politics. Women's political rights must be considered in the overall context of human rights and cannot be dissociated therefrom. Men and women politicians, governments and parliaments must pursue their efforts towards the recognition of these rights and the implementation of the international instruments which relate to them.

The 'No-detention Policy' Conundrum

Q2. What do you understand by 'no detention policy'? Discuss the advantage and disadvantage of no detention policy in India.

Hints:

- ◆ The Right to Education Amendment Bill, 2019 has been passed by Parliament. It has empowered the states to detain weak students in the same class if they fail to pass annual exams. This was not permitted earlier under the Right of Children to Free and Compulsory Education (RTE) Act and is expected to impact more than 180 million students across 1.4 million elementary schools.
- ◆ Under the Right of Children to Free and Compulsory Education (RTE) Act, 2009, all children between the ages of six and 14 years have the right to elementary education (class 1-8) in a neighbourhood school. Among other provisions, the RTE Act states that a child cannot be detained in any class till the completion of elementary education.
- ◆ There are differing views on whether children should be detained for failing examinations in elementary school. Some argue that automatic promotion reduces incentive for children to learn and for teachers to teach. There is also social stigma associated with "failing", and this has deeply damaging effects on a child. Others argue that detaining a child leads to drop

outs and does not focus on the systemic factors that affect learning such as quality of teachers, schools and assessment.

- ◆ The Central Advisory Board on Education (CABE, 2014), National Achievement Survey (2012) and the Economic Survey (2016-17) observed declining learning levels in elementary education even after the implementation of the RTE Act. In 2016, 58% of children in class 3 were unable to read a class 1 level text. At the national level, 73% of children in class 3 were unable to do basic arithmetic.
- ◆ Detaining a child could be counterproductive as it is demotivating and leads to them dropping out of school. And fear of any kind, including that of exams and failing, has detrimental effect on curricular learning for children. Experts have highlighted that repeating a class on failing an exam presumes that the child is at fault and does not acknowledge the role of other factors that affect learning outcomes of children. Poor learning outcomes could be due to lack of professionally qualified teachers, teacher absenteeism, limited infrastructure and inadequate roll out of the Continuous and Comprehensive Evaluation method of teaching and assessment.
- ◆ It is good decision to roll-back of the no-detention policy by the government but the approach is partial. In either situation of detention or no-detention, the educational efforts required for the child to learn remain the same; formative assessment combined with no-detention helps in these efforts, whereas detention harms the child and helps only in easy labelling required for administrative reasons. There is enough evidence to show that uninspiring curricula, poorly-trained teachers and inadequate infrastructure are the real bottlenecks in improving learning outcomes. Removing these snags will require creative solutions.

Reservation for Economically Weaker Section: An Analysis

Q3. 'Introduction of economic criteria for reservation, in addition to the existing caste-criteria made the reservation policy more complicated.' Critically examine the statement in context of 103rd Constitutional Amendment Act.

Hints:

- ◆ Parliament during the last leg of winter session cleared the Constitutional (124th Amendment) Bill, 2019 guaranteeing 10% quota in education and

employment to economically weaker sections (EWS) in the general category. Clarifying the Bill's provisions, Law Minister Ravi Shankar Prasad said the reservation would be applicable to jobs in both Central and State governments, adding that the legislation gave powers to States to determine the economic criteria for identification of beneficiaries.

- ◆ Scheduled castes constitute 20 per cent of the entire population in India, corner 15 per cent reservation in the government sector. Scheduled Tribes, who constitute 9 per cent of the population, are provided with 7.5 per cent reservation while communities in the Other Backward Caste, who constitute more than 50% of population (1931 Census), corner the lion's share of 27 per cent reservation. Thus altogether about 70 per cent of the population, are provided with 49.5 per cent reservation in the government sector. It is among the rest 30 per cent or 39 crore, who fall under the general category, which will be eligible to avail the 10 per cent reservation announced by the Centre.
- ◆ The constitution bench had categorically ruled that a backward class cannot be determined only and exclusively with reference to economic criterion. The bench had held that economic criterion may be a consideration or basis along with and in addition to, social backwardness, but it can never be the sole criterion. The bench in its judgement declared 50% quota as the rule unless extraordinary situations "inherent in the great diversity of this country and the people" happen. Even then, the court stated that extreme caution is to be exercised and a special case should be made out.
- ◆ The proposed 10% poor forward quota will take the reservation ceiling higher than 50%. Reservation in Tamil Nadu, which is 69% of the total, is protected from judicial review by the Ninth Schedule; however, the Supreme Court, in *I R Coelho v State of Tamil Nadu* (2007), has ruled that laws that violate the basic structure of the Constitution would be open to judicial review, including any law added to the Ninth Schedule after April 24, 1973.
- ◆ Reform in the reservation system of India is the need of the hour. However, as the subject of reservation revolves around a lot of votes, parties are reluctant to disrupt the existing system. There is no doubt that unequals should not be treated equally. However, is the current system of unequal treatment perfect? Is it creating more injustice? Is it the only way out in a welfare-nation? It's time to introspect.

Freedom of Literature Bill, 2018: An Introduction

Q4. Literary freedom is taken for granted in democracies, but forces that threaten or undermine it are always at work. Discuss how 'Freedom of Literature Bill, 2018' seeks to protect freedom of literature.

Hints:

- ◆ MP Shashi Tharoor has introduced Freedom of Literature Bill, 2018 (Private Member's Bill) in Lok Sabha, to "amend certain enactment to guarantee and protect literary freedom in the country".
- ◆ Literature is a medium which conveys, maintains and appreciates freedom between writers and readers. Compared to other forms of Literature, it is the most modest, relying on words only. The way it connects people - writers and readers or readers and readers - is through freedom.
- ◆ For writers, creativity in their writing itself always helps to expand the boundary of freedom permitted by censorship. And for readers, creativity in their imagination helps them to read between the lines, among words or even inside a vocabulary. For this, they just need freedom in their imaginative power. Writers, too, do not need to get permission from the censorship board in order to be creative. Writers and readers remain free in their own creative and imaginative power under a period of heavy censorship. Thus, literature is an art which holds freedom.
- ◆ The Freedom of Literature Bill, 2018, puts on the government the onus of explaining why a book needs to be banned and removes the government's right to ban books indefinitely. The purpose of the Bill is to amend and remove the existing provisions of the laws which can be misused to harass authors by vested interests.
- ◆ Literary freedom includes the right to criticize and question all bodies of thought, including ones based on religious belief and cultural traditions. The State must recognize the right of an adult to consume literature of his or her choice, even if such works of literature are frowned upon by social norms. The laws must preserve and deepen constitutional morality and must not act as a tool to enforce majoritarian morality.
- ◆ The arguments for control will be considered under the two topics: (1) the moral and (2) the political. They will be discussed as applicable to literature expression generally and not to any particular form.
- ◆ Literary freedom is taken for granted in democracies, but forces that threaten or undermine it are always at

work. Each age has to fight the battle afresh. In recent times, several attempts to get books withdrawn, pulped or sanitised of offending content have achieved full or partial success in India.

Indian Bridge Management System: Towards Safer Bridges

Q5. Discuss some of the reasons behind the proneness of Indian bridges to disaster. Also examine how the recently introduced Indian Bridge Management System (IBMS) try to fill these lacunas.

Hints:

- ◆ Minister of Road Transport & Highways and Shipping Shri Nitin Gadkari has launched the Indian Bridge Management System (IBMS) in New Delhi. IBMS is being developed to create an inventory of all bridges in the country and rate their structural condition so that timely repair and rehabilitation work can be carried out based on the criticality of the structure.
- ◆ The maintenance of bridges as a key element in transportation infrastructure has become a major concern due to increasing traffic volumes, deterioration of existing bridges and well-publicised bridge failures. Bridges are often subjected to high loads, harsh environments and accidental damage. Determining what level of repair is required to achieve the most economical lifespan from a bridge structure has been a source of dilemma for asset managers and owners for many years.
- ◆ IBMS is developed to create an inventory of all bridge assets (whether on the National Highways (NH), or on the State Highway or on a District Road in India) and apply a technical logic to manage the bridge assets during its life cycle. It generates detailed inventory data and condition ratings of assets, ensuring the dynamics of deterioration process are captured. IBMS is the largest platform in the world owned by a single owner, with database that could exceed 1,50,000 bridge structures. So far 1,15,000 bridges have been inventorized, of which 85,000 are culverts and the rest are bridges.
- ◆ During inventory creation each bridge is assigned a unique identification number or National Identity Number based on the state, RTO zone and whether it is situated on a National Highway, State Highway or is a District Road. Then the precise location of the bridge in terms of latitude-longitude is collected through GPS and based on this, the bridge is assigned a 'Bridge Location Number'.

- ◆ The inadequate detailing before construction, fancy concepts like slender sections more vulnerable to vibrations and lack of strict quality control during construction are some of the reasons why the bridges are so inefficient.
- ◆ The cost of building a bridge with a long lifespan is phenomenal. Therefore, bridges with shorter lifespans are constructed. But this is based on the assumption that within a certain period another bridge would be constructed to share the load. But it never happens. There is either lack of funds or they are delayed.
- ◆ There's an urgent need to systematically and thoroughly fill up gaps in bridge maintenance and renewal nationwide. There are many bridges in the country which have been identified as 'most vulnerable', calling for prompt institutional revamp and close oversight. The need is to swiftly identify structurally deficient bridges, especially those in dense urban centres with speedily rising vehicular traffic and better allocate resources for the specific and express purpose of repair and replacement. IBMS is the right step in this direction.
- ◆ The projected climate change under various scenarios is likely to have implications on food production, water supply, coastal settlements, forest ecosystems, health, energy security, etc. The adaptive capacity of communities likely to be impacted by climate change is low in developing countries.
- ◆ The efforts made by the UNFCCC and the Kyoto Protocol provisions are clearly inadequate to address the climate change challenge. The most effective way to address climate change is to adopt a sustainable development pathway by shifting to environmentally sustainable technologies and promotion of energy efficiency, renewable energy, forest conservation, reforestation, water conservation, etc.
- ◆ The issue of highest importance to developing countries is reducing the vulnerability of their natural and socio-economic systems to the projected climate change. India and other developing countries will face the challenge of promoting mitigation and adaptation strategies, bearing the cost of such an effort, and its implications for economic development.

Climate Change Performance Index-2019

Q6. Climate change is one of the most important global environmental challenges, evaluate India's ambition and progress in the field of climate policy.

Hints:

- ◆ The climate change Performance index (CCPI) -2019 has been released by New Climate Institute, Germanwatch and Climate Action Network. India has been ranked 11th in this year CCPI, improving its standing by three places compared to the previous edition.
- ◆ Most notably India improved its performance in the renewable energy category, joining the group of medium performers. Comparatively low levels of per capita Green House Gas (GHG) emissions and a relatively ambitious mitigation target for 2030 give India an overall high rating in the emissions category.
- ◆ India is highly prone to climate related catastrophes like floods, droughts, heat waves and cyclones. India has a number of social welfare programs to counter the brunt and prevention & control of climate risks. Further, the main objective of poverty alleviation and rural programs is reduction of vulnerability to climate risks. Climate Change' can be closely linked with the economic growth and development of a Nation.

Finding Ways to Make Kashmir Violence Free

Q7. Recent counter-insurgency operations in Kashmir have experienced considerable success in eliminating both the Pakistan-based terrorists and the local militants. What are the current challenges and what should be multipronged strategy to deal with insurgent and militant activities in the region.

Hints:

- ◆ The State of Jammu & Kashmir (J&K) has been affected by terrorist and secessionist violence, sponsored and supported from across the border, for more than two and half decades. The ongoing militancy in the state of Jammu and Kashmir is intrinsically linked with infiltration of terrorists from across the border both from the "International Border" as well as the "Line of Control" in J&K.
- ◆ Challenges in Counter-Insurgency:
 - ◆ In a nutshell, Pro-militant Kashmiri Muslims and Pakistani support are the primary reasons behind the longevity of the Kashmiri resistance to the occupation by the regional superpower India.
 - ◆ According to the widely-cited reports, each encounter in the valley triggers a surge in militant recruitment which far exceeds militants killed in counter-insurgency operations.

- ◆ More disturbing than the rise in local recruitment into militancy is the rising public support for militancy.
- ◆ Stone pelting has already been converted into a mass ritual with girls and children as new participants, too young to be aware of what it means.
- ◆ Open support by locals to trapped militants – particularly during encounters – enabling their easy escape, has entirely changed the relationship between the locals and the militants.
- ◆ Many encounters have also led to the death of non-combatant civilians who got trapped in the crossfire. And each civilian death leads to further violent protests and at times a vicious cycle in which every death leads to more deaths.
- ◆ The lack of a political initiative that complements the tactical military effort is a consistent feature in India's handling of the conflict.
- ◆ The government of India in tandem with the state government, has adopted a multi-pronged approach to contain cross border infiltration, which, inter-alia, includes strengthening of the border infrastructure, multi-tiered and multimodal deployment along International Border /Line of Control and near the ever changing infiltration routes, construction of border fencing, improved technological surveillance, weapons and equipment for Security Forces (SFs), improved intelligence and operational coordination, synergized intelligence flow and pro-active action against terrorists within the State. The government has adopted various counter measures to neutralise the efforts and capabilities of militants to disturb peace in the State.
- ◆ The government has also encouraged policies to mainstream the youth, including providing employment opportunities to wean them away from militancy. The authorities have been providing the youth with skill training and vocational opportunities, and engaging the populace through various welfare programs for example 'UDAAN Scheme' commitment to train more than 80,000 youth from the state, covering organized retail, banking, financial services, IT, ITES, sports, infrastructure, telecommunications, hospitality, manufacturing, paramedics and life sciences sectors etc.
- ◆ The use of force is often unavoidable under as disturbed circumstances as prevailing in Kashmir, but measures to address people's grievances have been largely symbolic.
- ◆ The current troubled situation in J&K is a result of youth alienation, political issues and a sense of neglect. The Pakistan Army has also significantly stepped up its efforts to destabilise J&K. In these circumstances, the overall strategy has to be two-pronged: acting tough with Pakistan; and winning back the confidence of the population. This battle will be won not only by the number of terrorists killed, but when the youth find more solace in the fruits of peace rather than pride in confronting security forces with stones in their hands. This is certainly a challenge but not impossible to achieve, if politics takes a back seat and there is a genuine attempt at conflict resolution.



SEVEN IMPORTANT NATIONAL & INTERNATIONAL NEWS

NATIONAL

1. Irrigation Projects Delay led to Jump in Costs: CAG

According to a comptroller and Auditor General (CAG) report, the Centre's ambitious the Accelerated Irrigation Benefit Programme (AIBP) between 2008-2017 led to an almost threefold jump in the cost of these projects to Rs. 1.20 lakh crore. This programme was started 22 years ago in 1996 to execute 201 major and medium irrigation project including dams and canals across India, especially those which were beyond the resource capability of the States.

In between 2008-2017, of the 201 major and medium (M&M) projects approved, only 62 were completed. Of

the 11,291 minor irrigation (MI) schemes sanctioned, only 8,014 were completed. As a result, only about 35% of India's irrigation potential was utilised. Of the 118 major projects surveyed by the CAG, 105 suffered from a "time overrun" with some projects being delayed by more than 18 years.

The CAG also pointed out "financial irregularities" such as diversion of funds amounting to Rs. 1,578.55 crore, parking of funds totalling Rs. 1,112.56 crore and "fictitious and fraudulent expenditure" of Rs. 7.58 crore. There were also instances of short/non-realisation of revenue amounting to Rs. 1,251.39 crore.

Lacunae

The audit of the AIBP revealed lacunae in the planning, implementation and monitoring of the programme. Projects and schemes were included under AIBP in violation of the programme's guidelines. There were also deficiencies in the preparation and processing of Detailed Project Reports such as inadequate surveys, inaccurate assessment of water availability, Irrigation Potential and Command Area and the lack of activity-wise construction plans.

2. Production of Gas Hydrates under 'Space' Conditions

Researchers at Indian Institute of Technology (IIT) Madras has produced gas hydrates under 'space' conditions. Researchers have experimentally shown that methane and carbon dioxide (CO₂) can exist as gas hydrates at temperatures and pressures seen in interstellar atmosphere.

Gas Hydrates

Gas hydrates are formed when a gas such as methane gets trapped in well-defined cages of water molecules forming crystalline solids. In terrestrial conditions, gas hydrates are formed naturally under the sea bed and glaciers under high pressure and low

temperature conditions. Methane hydrate is a potential source of natural gas. The methane and CO₂ hydrates were produced in the lab at very low pressures (ten thousand billionth of atmospheric pressure) and temperature (as low as -263 degree C) to simulate the conditions of deep space. Hydrates are usually stable at moderate temperatures and pressures when compared to the conditions required for LNG and CNG.

Applications

- ◆ CO₂ hydrate is thermodynamically more stable than methane hydrate. So if methane hydrate

has remained stable for millions of years under the sea bed, it would be possible to sequester gaseous CO₂ as solid hydrate under the sea bed.

- ◆ Trapping carbon dioxide in hydrates is a way to reduce global warming.
- ◆ In hydrates, molecular confinement can result in new chemistry, especially in presence of cosmic light present in interstellar environment. Understanding this chemistry may be important to better understand the origins of life.

3. Defence Manufacture Licensing Simplified

The government has issued a notification for simplifying the manufacturing of a range of defence and aerospace equipment and components by private industry, by bringing them under the licensing authority of the Department of Industrial Policy and Promotion (DIPP).

Items are listed in three categories — defence aircraft, warships of all kinds and allied items of defence equipment. The most significant aspect is that warships of all kinds, surface and sub-surface, have been included in the listing. With the list of defence items requiring industrial licenses being pruned down by removing the requirement of licensing for 'parts and components of the equipment', this

would accrue benefits towards Tier-I/ Tier-II vendors giving a boost to the small and medium enterprises (SMEs).

This notification, which supersedes DIPP's earlier press note of June 2014 on this issue, segregates defence items in two categories covered by two different Acts — the Industries (Development and Regulation) Act, 1951, and the Arms Act, 1959.

Benefits

This move is also expected to help foreign Original Equipment Manufacturers (OEM) looking for partnerships with the private sector. The Defence Ministry has formulated an ambitious Strategic Partnership (SP) model under the Defence Procurement

Procedure (DPP), covering four specific areas to promote role of private sector in defence manufacturing. However, progress on finalising the projects under the SP model has been slow.

About DIPP

The Department of Industrial Policy & Promotion was established in 1995 and has been reconstituted in the year 2000 with the merger of the Department of Industrial Development. It is responsible for formulation and implementation of promotional and development measures for growth of the industrial sector, keeping in view the national priorities and socio-economic objectives.

4. ODF++ to Seven Cities

Seven cities have received the ODF++ certification, under the Swachh Bharat Mission (Urban). Of the seven cities, three are from Madhya Pradesh — Indore, Ujjain, Khargone, three from Chhattisgarh — Rajnandgaon, Ambikapur and Bhilai and one from Uttar Pradesh — Shahganj. The certification, an extension of the ODF or Open Defecation Free protocol means that all the faecal sludge and sewage in these cities is treated scientifically before discharge.

These cities have 100% of their faecal matter treated by sewage

treatment plants or faecal sludge treatment plants. They are also free of open defecation and open urination, with at least 25% of the community and public toilets in excellent condition. These are the first cities to qualify under the government's new extended protocol to sustain gains made under the basic ODF protocol. 12 other cities are being assessed, while 533 cities have applied for the certification.

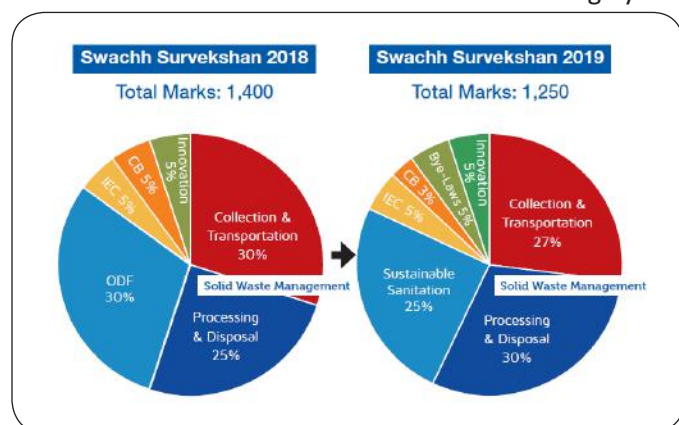
Background

In many cities the clearing, conveyance, treatment and disposal of fecal sludge has largely been left to unregulated private, informal service providers. To address this neglected but crucial part of urban sanitation, the government had introduced the Open Defecation Free Plus Plus (ODF++) protocol under the Swachh Bharat Mission-Urban (SBM-U) in August

last year. As per this protocol, every civic body has to focus on achieving sanitation sustainability by addressing complete sanitation value chain, including safe and complete fecal sludge management.

About Swachh Survekshan

The objective of the survey is to encourage large scale citizen participation, ensure sustainability of initiatives taken towards garbage free and open defecation free cities, provide credible outcomes which would be validated by third party certification, institutionalize existing systems through online processes and create awareness amongst all sections of society about the importance of working together towards making towns and cities a better place to live in. Additionally, the survey also intends to foster a spirit of healthy competition among towns and cities to improve their service delivery to citizens, towards creating cleaner cities.



5. Second Largest Rock Art Trove found in Andhra Pradesh

Andhra Pradesh's second largest petroglyph site, containing about 80 petroglyphs, has been discovered at Mekala Benchi, a spot near Aspari town, north of the Kurnool-Ballari highway in Kurnool district. These petroglyphs, or rock carvings, underscore Kurnool's importance as a major site of Neolithic settlements in south India.

About Art Trove

- ◆ Two boulders, one known locally as 'Boodida Konda' (ash-coloured hill) and the other an unnamed granite hillock, mostly have images of bulls or bull-riding, in addition to

human figures, an elephant, tiger-like animals and cupules.

- ◆ The present day native bulls of western Kurnool district are known for their 'long horns', as depicted in the petroglyphs. Settled village life and the finished stone axe are salient features of the Neolithic age.
- ◆ The current archeological site, at the granite foothills of Boodida Konda, fits the description of a Neolithic settlement.
- ◆ The present day Gollas and Kurubas (grazing communities), who are predominant in this region, are

the living examples of the first pastoralists. Incidentally, the Gollas also use beautifully finished axes made of iron, which look very similar to the fine polished stone axes of the Neolithic era.

About Petroglyphs

Petroglyphs are rock carvings (rock paintings are called pictographs) made by pecking directly on the rock surface using a stone chisel and a hammer stone. When the desert varnish (or patina) on the surface of the rock was chipped off, the lighter rock underneath was exposed, creating the petroglyph. ■

6. Discovery of Grave of Ancient Couple at Harappan Site

Near-complete skeletal remains of a young male and female, believed to be a couple, have been discovered at a recently excavated archaeological site in Rakhigarhi village in Haryana. This discovery has brought forth the suggestion that the institution of marriage developed in the Indus Valley civilisation. The researchers believe the couples were buried at almost the same time, perhaps even together, following their deaths which could have occurred about 4,700 years ago.

The 'Marriage'

The only joint burial of a couple discovered earlier has been from Lothal in Gujarat. But there, the skeletal remains of the male and female were

found placed over one other, indicating that they may have been buried at the same place, but at different times. In addition, the female skeletal remains were found to have lesions or injury marks, leading archaeologists to conclude that her death could have been the result of a social practice such as Sati. In the present case, however, the skeletal remains were found in a supine position with arms and legs extended. The head of the male was found facing towards the female's, possibly indicating an intimate relationship.

Remains of pots and stone-bead jewellery found close to the burial site of the couple point to the possibility of a ceremonial burial with rituals. These

remains also suggest they belonged to a middle-class family.

Other graves

Broadly, three types of graves have been discovered at Harappan sites. In primary grave, archaeologists have found full-body remains of the person placed inside a pit. Secondary pits were those that contained partial remains of a few bones placed in the pit. In the third type of the grave, skeletal remains were completely missing in the burial pit. Instead, there were some accessories, presumably the belongings of the deceased person. Perhaps the body could not be ever retrieved, possibly in cases of deaths caused by wild animals or during wars. ■

7. "Web- Wonder Women" Campaign

The Ministry of Women and Child Development has launched an online campaign, '#www : Web-WonderWomen'. The Campaign aims to discover and celebrate the exceptional achievements of women, who have been driving positive agenda of social change via social media.

Through the campaign, the Ministry and the Campaign's Partners (NGO Breakthrough and Twitter India)

aim to recognize the fortitude of Indian women stalwarts from across the globe who have used the power of social media to run positive & niche campaigns to steer a change in society. This Campaign will recognize and acknowledge the efforts of these meritorious Women.

#www: WebWonderWomen is a campaign to specially honour and encourage such voices that have in

their own capacity driven a positive impact on social media platforms.

Nominations have been invited in a large number of categories including Health, Media, Literature, Art, Sports, Environmental protection and fashion among others. The shortlisted entries will be open for public voting on Twitter and the finalists will be selected by a specialized panel of judges. ■

INTERNATIONAL

1. New Planet - HD 21749b

NASA's Transiting Exoplanet Survey Satellite (TESS) has found three confirmed exoplanets, or worlds beyond our solar system, in its first three months of observations.

About HD 21749b

- ◆ The newly discovered planet orbits a bright and nearby star which is about 53 light years away in the constellation Reticulum. The surface of the new planet is hotter than 100 degrees Celsius. The surface of HD 21749b is likely around 150 degrees Celsius,

however, the surface is relatively cool given its proximity to its star.

- ◆ HD 21749b is about three times Earth's size and 23 times its mass, orbits every 36 days. This planet has a greater density than Neptune, but it isn't rocky. It could be a water planet or have some other type of substantial atmosphere.
- ◆ It is the longest-period transiting planet within 100 light-years of the solar system and it has the coolest surface temperature of a transiting exoplanet around a star brighter than 10th magnitude, or about

25 times fainter than the limit of unaided human vision.

About TESS

TESS was launched on April 18, 2018. TESS is the next step in the search for planets outside of our solar system, including those that could support life. The mission will find exoplanets that periodically block part of the light from their host stars, events called transits. TESS will survey 200,000 of the brightest stars near the Sun to search for transiting exoplanets.

2. 'Flayed god' Temple Uncovered in Mexico

Archaeologists in Mexico have found the first temple to the pre-Hispanic deity XipeTotec, a god of fertility and war who was worshipped by sacrificing and skinning captives.

Evidence indicates that priests ritually sacrificed their victims on one of the temple's two circular altars, then flayed them on the other and draped themselves in their skin. Historians have long known that XipeTotec ("the flayed god") was worshipped by numerous peoples across what is now central and Western Mexico and the Gulf coast. But the discovery -- made

among the ruins of the Ndachjian-Tehuacan archeological site in the central state of Puebla -- is the first time a temple dedicated to the god has been found.

- ◆ The artefacts uncovered at the site include three stone sculptures of XipeTotec: two skinned heads and a torso, whose back is covered in engravings representing the sacrificial skins worn by the god.
- ◆ The skulls measure about 70 centimeters tall and weigh some 200 kilograms (440 pounds).
- ◆ The temple would have been used

from around the year 1000 until about 1260. The Spanish takeover of Mexico began in 1519 with the arrival of the conquistador Hernan Cortes.

- ◆ Sacrificial victims were killed either through gladiatorial combat matches or by being shot with arrows and then flayed to glorify XipeTotec. Their skins were then buried at the foot of the altars. Two holes filled in with earth were found in front of the altars at the Ndachjian-Tehuacan site.

3. Henley Passport Index - 2019

Henley Passport Index - 2019 has been released recently.

Key Findings

- ◆ Japan, for the second time in a row, has topped a global index for the world's most powerful passport in 2019.
- ◆ India jumped two positions from 81st in 2018 to 79th this year. Afghanistan, Pakistan and Nepal ranked further low at 104, 102 and 94 respectively.

- ◆ In Asia, China jumped almost 20 places in just two years, from 85th in 2017 to 69th this year.
- ◆ European countries also performed favourably, with European Union member states along with Norway and the US filling in the places behind the top three nations although the UK continues to drop down the rankings, along with the US.

About Index

It is a global ranking of countries according to the travel freedom for their citizens. It started in 2006 as Henley & Partners Visa Restrictions Index (HVRI) and was modified and renamed in January 2018. It is based on data provided by the International Air Transport Authority (IATA) and covers 199 passports and 227 travel destinations.

4. Mosquito Birth Control Drug

In a major step toward developing a mosquito birth control drug, scientists at the University of Arizona has blocked a protein that causes the female insects to lay defective eggs. When the scientists blocked the protein, the females laid eggs with defective shells causing the embryos inside to die.

Significance

Developing drugs which targeted the protein could provide a way to reduce mosquito populations without harming beneficial insects such as bees. This gets around mosquito resistance and also has a much better chance of being bio-safe (than other methods).

Need

Mosquitoes are one of the world's deadliest insects, according to the World Health Organization (WHO) which has warned that global progress

against malaria is stalling. The disease infected around 216 million people in 2016, killing 445,000 of them, predominantly babies and young children in sub-Saharan Africa. Other diseases spread by mosquitoes include Zika, chikungunya, yellow fever, West Nile virus and dengue, which has risen 30-fold in recent decades.

About Malaria

Malaria is a common and life-threatening disease in many tropical and subtropical areas. Malaria is caused by the protozoan parasite Plasmodium. Human malaria is caused by four different species of Plasmodium: *P. falciparum*, *P. malariae*, *P. ovale* and *P. vivax*.

MALARIA-LINKED DEATHS DOWN

India recorded a **24% reduction** in malaria cases in 2017 compared to 2016



Till Sept 2018, India reported **2,76,488** malaria cases

Malaria deaths **declined to 29** in 2018 (till Sept) from 194 in 2017

India accounts for **4% of the global** malaria burden

15 countries in sub-Saharan Africa and **India carried almost 80%** of the global malaria burden

Globally, an estimated **219 million cases** of malaria occurred worldwide in 2017

Humans occasionally become infected with Plasmodium species that normally infect animals, such as *P. knowlesi*. As yet, there are no reports of human-mosquito-human transmission of such "zoonotic" forms of malaria. The malaria parasite is transmitted by female Anopheles mosquitoes, which bite mainly between dusk and dawn. ■

5. Persian Gulf Regional Dialogue Forum

In a diplomatic initiative to address the lingering conflicts and mistrust in the Gulf region, Iran has proposed a new platform for regional peace building. The announcement of Persian Gulf Regional Dialogue Forum is significant as it comes in the wake of continued erosion of the Gulf Cooperation Council, which in the recent years has been divided between the Iranian and the Saudi spheres. The proposal is among the set of fresh initiatives that Iran has taken in recent months that also included Tehran connecting with the Taliban for peace talks.

Key Points

- ◆ The new forum could focus on promotion of peace and prosperity in the region.
- ◆ Admission to such a forum should

be based on accepting generally-recognised principles and shared objectives, notably respect for sovereignty, territorial integrity and the political independence of all states.

- ◆ It could connect people of various member countries cutting across all traditional boundaries. The effectiveness of such a forum is in dealing with threats like terrorism and extremism that has left the countries of the region in a state of continuous state of insecurity.
- ◆ The member countries will have to consider various measures in this forum. These measures could include freedom of navigation, assurance of free flow of energy and other resources and protection

of the fragile marine ecology of the Gulf.

- ◆ It could ensure popular legitimacy of the member country's governments and harmony among various groups and identities in these countries.

About GCC

The GCC was established in Riyadh, Saudi Arabia, in May 1981. Its member states are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. The purpose of the GCC is to achieve unity among its members based on their common objectives and their similar political and cultural identities, which are rooted in Arab and Islamic cultures. Presidency of the council rotates annually. ■

6. Removal of Rosewood from CITES

India has proposed to remove rosewood (*Dalbergiasissoo*) from Appendix II of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The species is currently part of Appendix II of CITES that has species not necessarily threatened with extinction, but in which trade must be controlled to avoid utilisation incompatible with their survival. But, India doesn't want that for rosewood. India sent the proposal ahead of the 18th Conference of Parties (COP) of CITES, which will be held in Colombo from May 23 to June 3.

Apart from *Dalbergiasissoo*, India has also proposed to transfer small clawed otters (*Aonyxcinereus*), smooth coated otters (*Lutrogaleperspicillata*), Indian Star Tortoise (*Geocheloneelegans*) from

Appendix II to Appendix I, thereby giving more protection to the species.

Why?

The species grows at a very fast rate and has the capacity to become naturalised outside its native range, even it is invasive in some parts of the world. The regulation of trade in the species is not necessary to avoid it becoming eligible for inclusion in Appendix I in the near future and the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

About CITES

It is an international agreement between governments. Its aim is to ensure that international trade in

specimens of wild animals and plants does not threaten their survival. It has three appendices:

- ◆ Appendix I have species threatened with extinction. Appendix I include species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances.
- ◆ Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival.
- ◆ Appendix III contains species that are protected in at least one country, which has asked other CITES parties for assistance in controlling trade.

■

7. Polar Vortex

Weather experts are predicting an extremely cold January and February for the Northeastern United States, much of Northern Europe and parts of Asia. The reason being given is the polar vortex. In this decade, the polar vortex has also been blamed on extremely cold weather in the United States, Western Europe and the UK.

What is Polar Vortex?

It is described as a whirling cone of low pressure over the poles that is strongest in the winter months due to the increased temperature contrast between the polar regions and the mid-latitudes, such as the US and Europe.

The polar vortex spins in the stratosphere, a layer of the atmosphere

10-48 km above the ground and above the troposphere, where most familiar weather patterns develop.

Usually, when the vortex is strongest, cold air is less-likely to plunge deep into North America or Europe. In other words, it forms a wall that protects the mid-latitudes from cold Arctic air. But occasionally, the polar vortex is disrupted and weakens, due to wave energy propagating upward from the lower atmosphere. When this happens, the stratosphere warms sharply in an event known as sudden stratospheric warming, in just a few days, miles above the Earth's surface.

The warming weakens the polar vortex, shifting its location somewhat South of the pole or, in some instances,

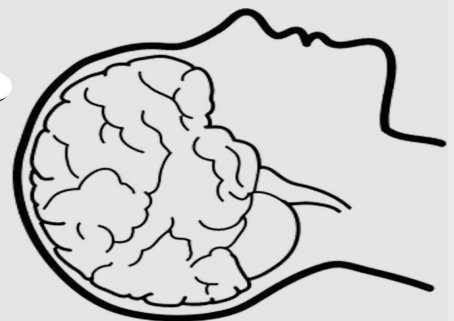
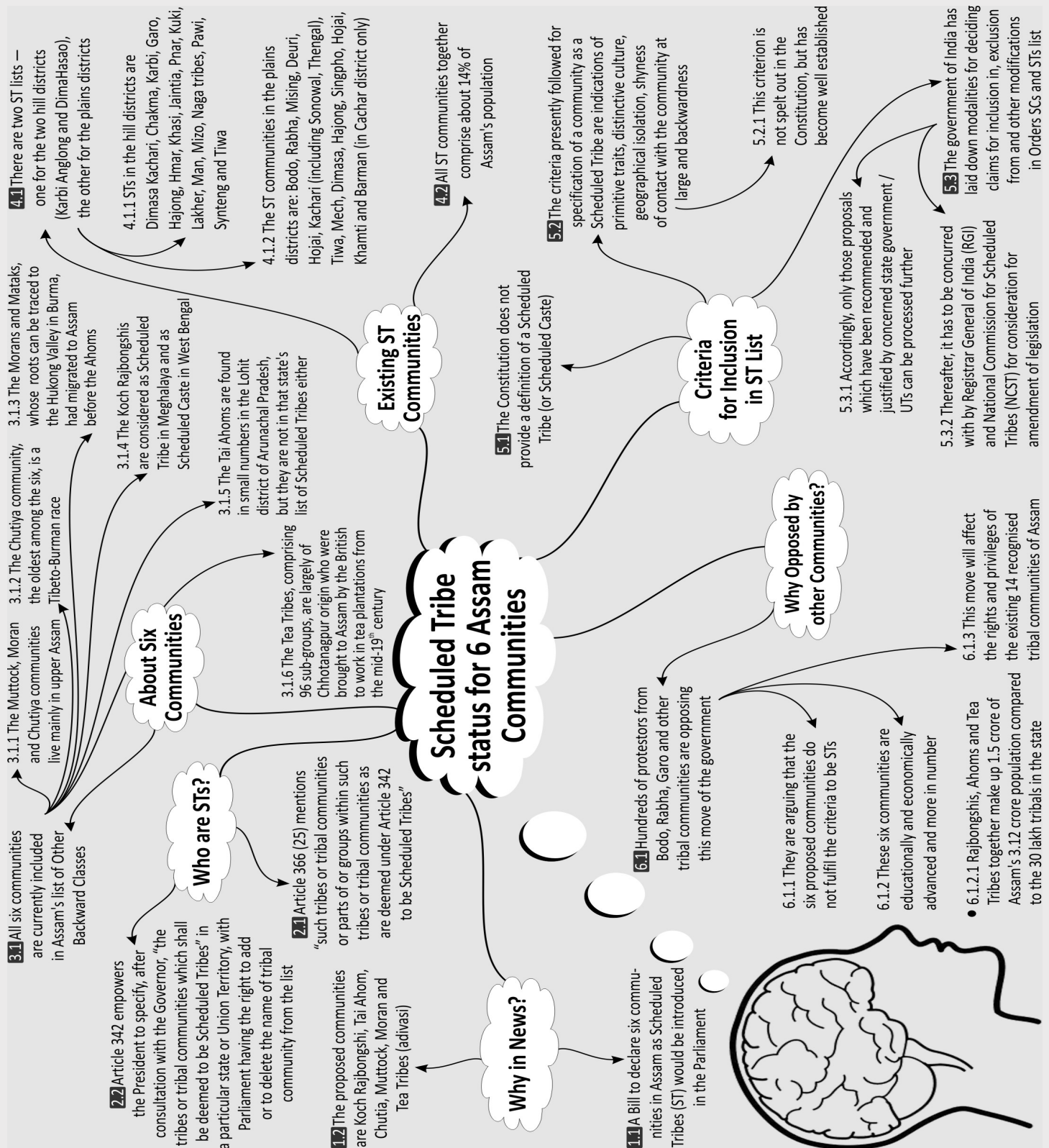
'splitting' the vortex up into 'sister vortices'.

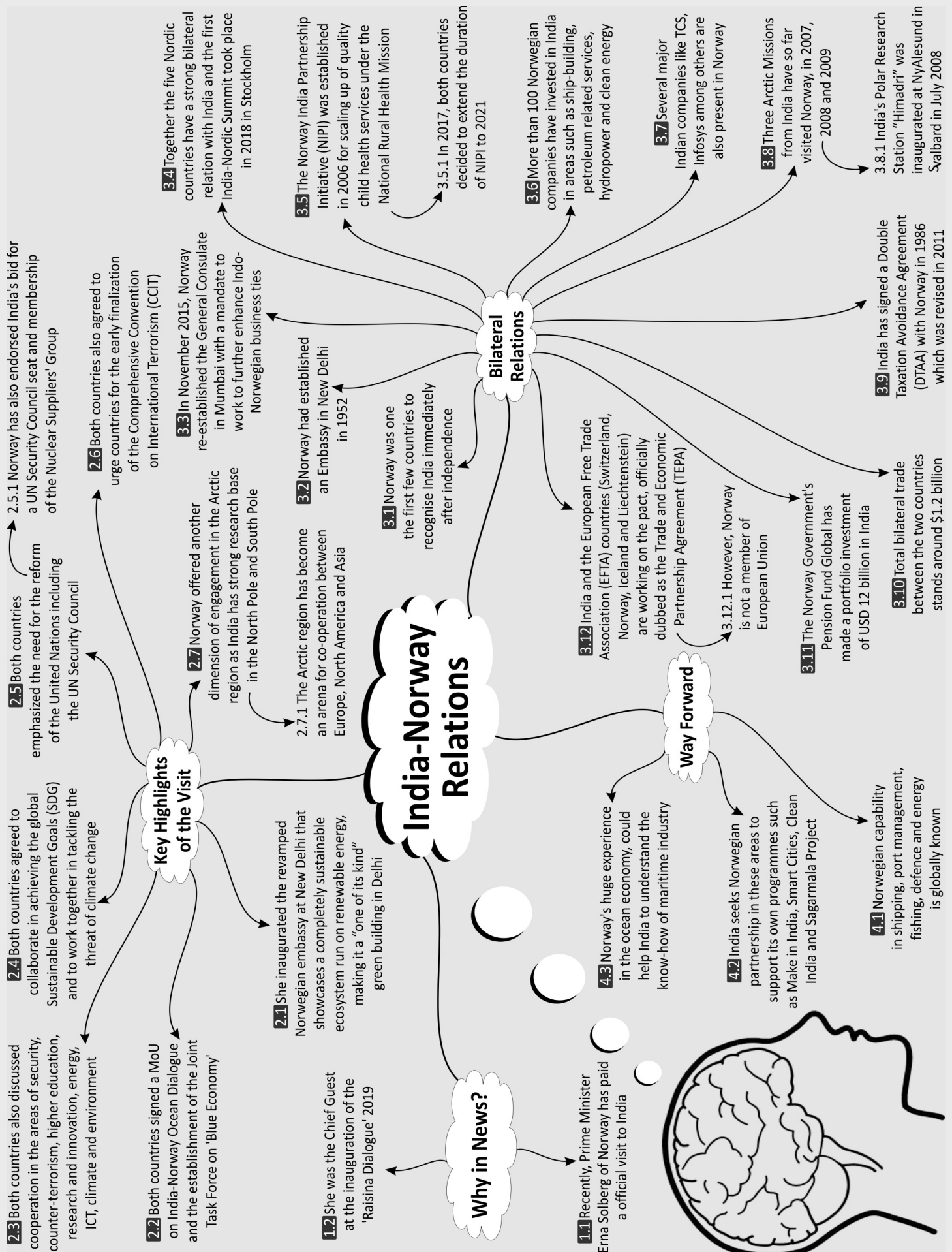
The split higher up in the atmosphere can give rise to both, sudden and delayed effects, much of which involves declining temperatures and extreme winter weather in the Eastern US along with Northern and Western Europe.

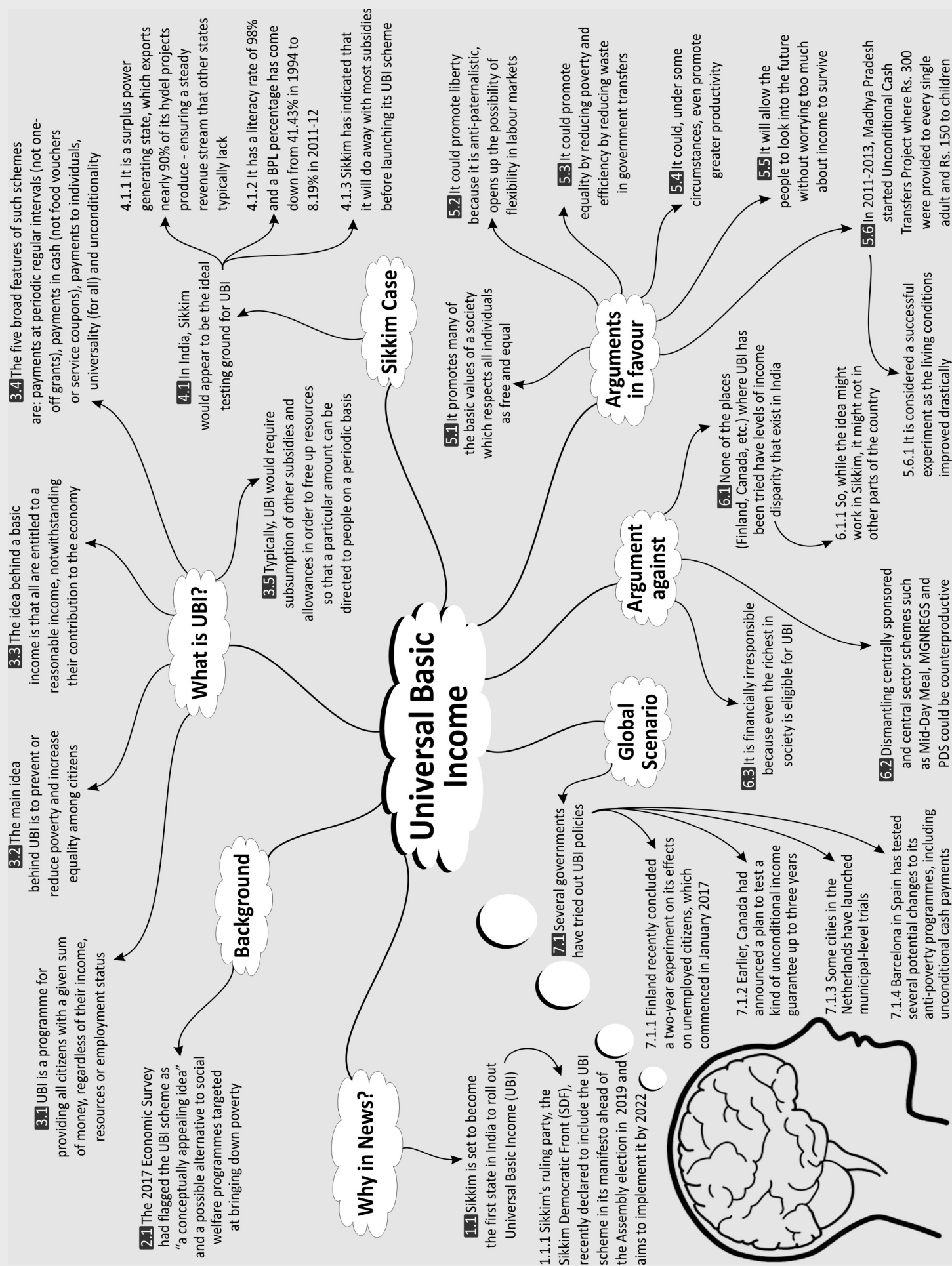
A sudden stratospheric warming also leads to a warm Arctic not only in the stratosphere but also in the troposphere as well. A warmer Arctic, in turn, favour more severe winter weather in the Northern Hemisphere mid-latitudes including the Eastern US. But the polar vortex is not a recent phenomenon. It has been tormenting the Earth's northern regions for well over four billion years.

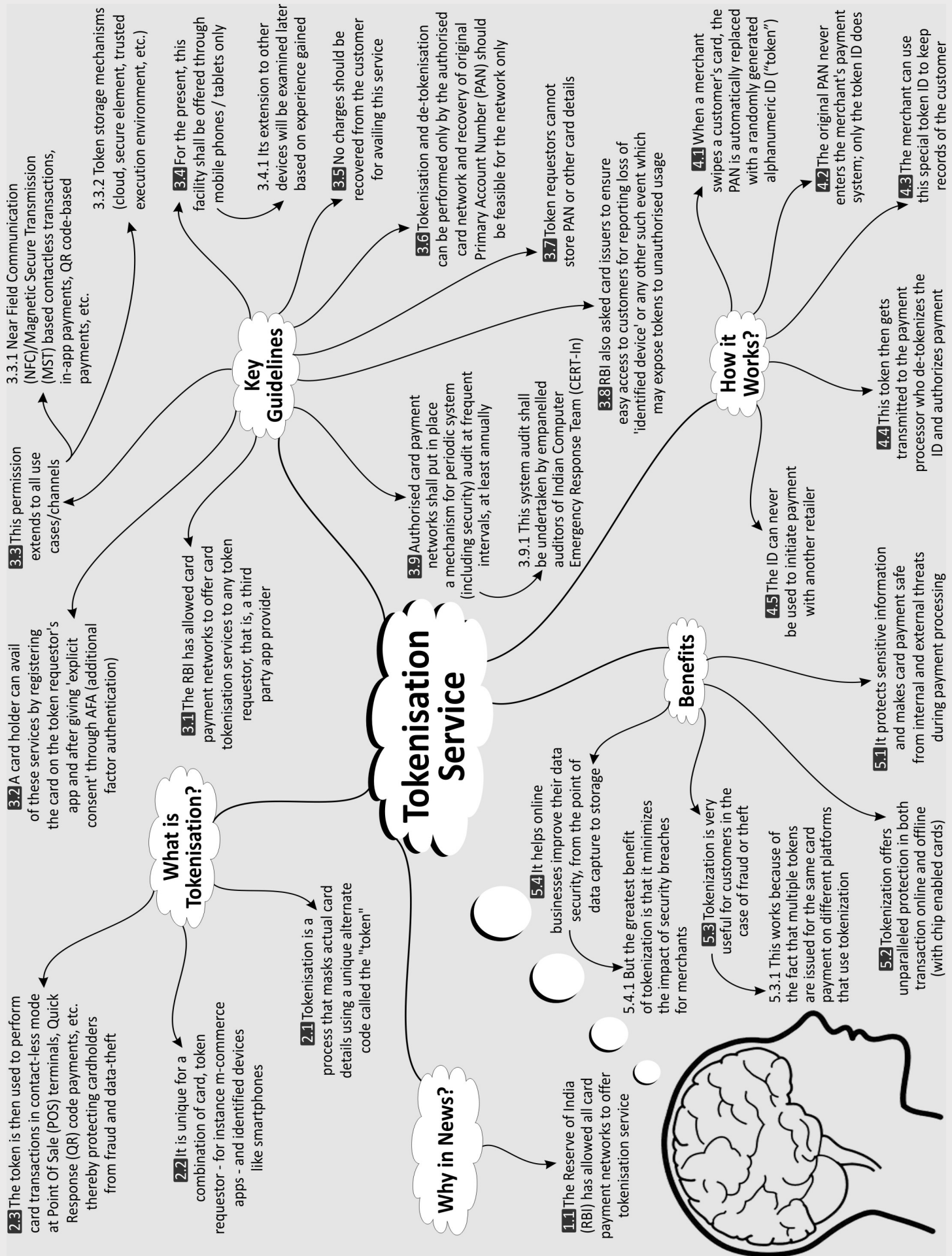
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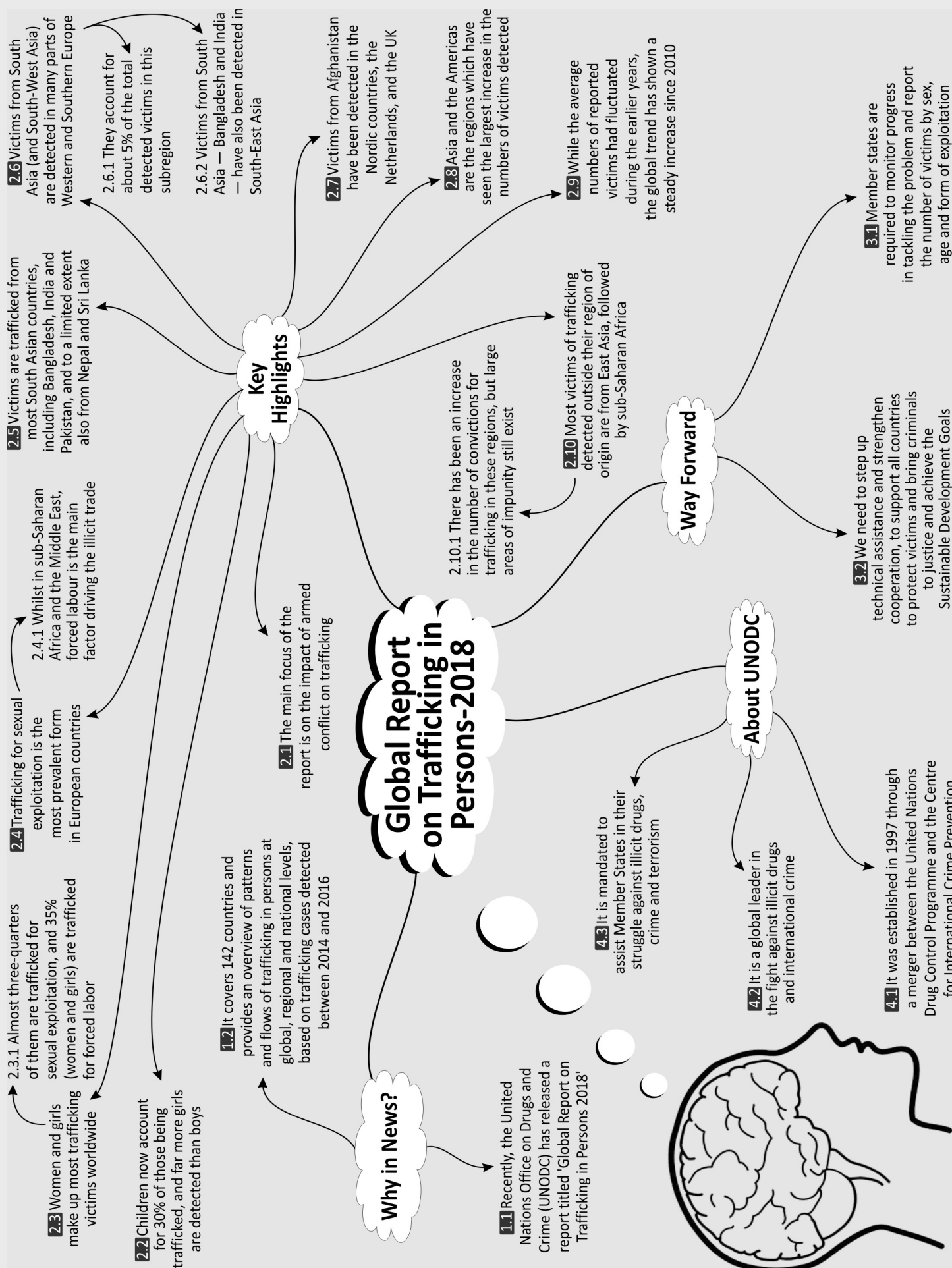
SEVEN BRAIN BOOSTERS

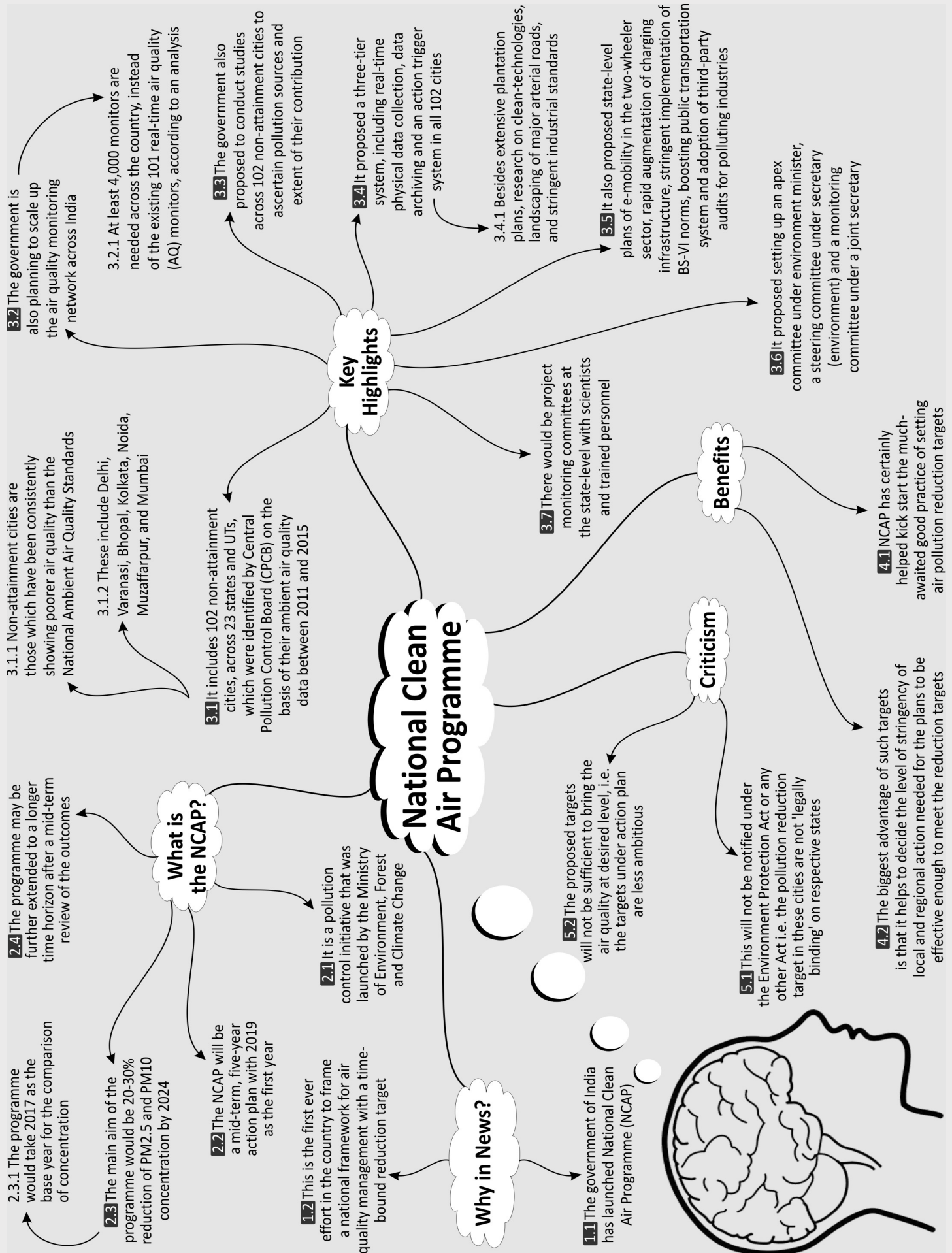


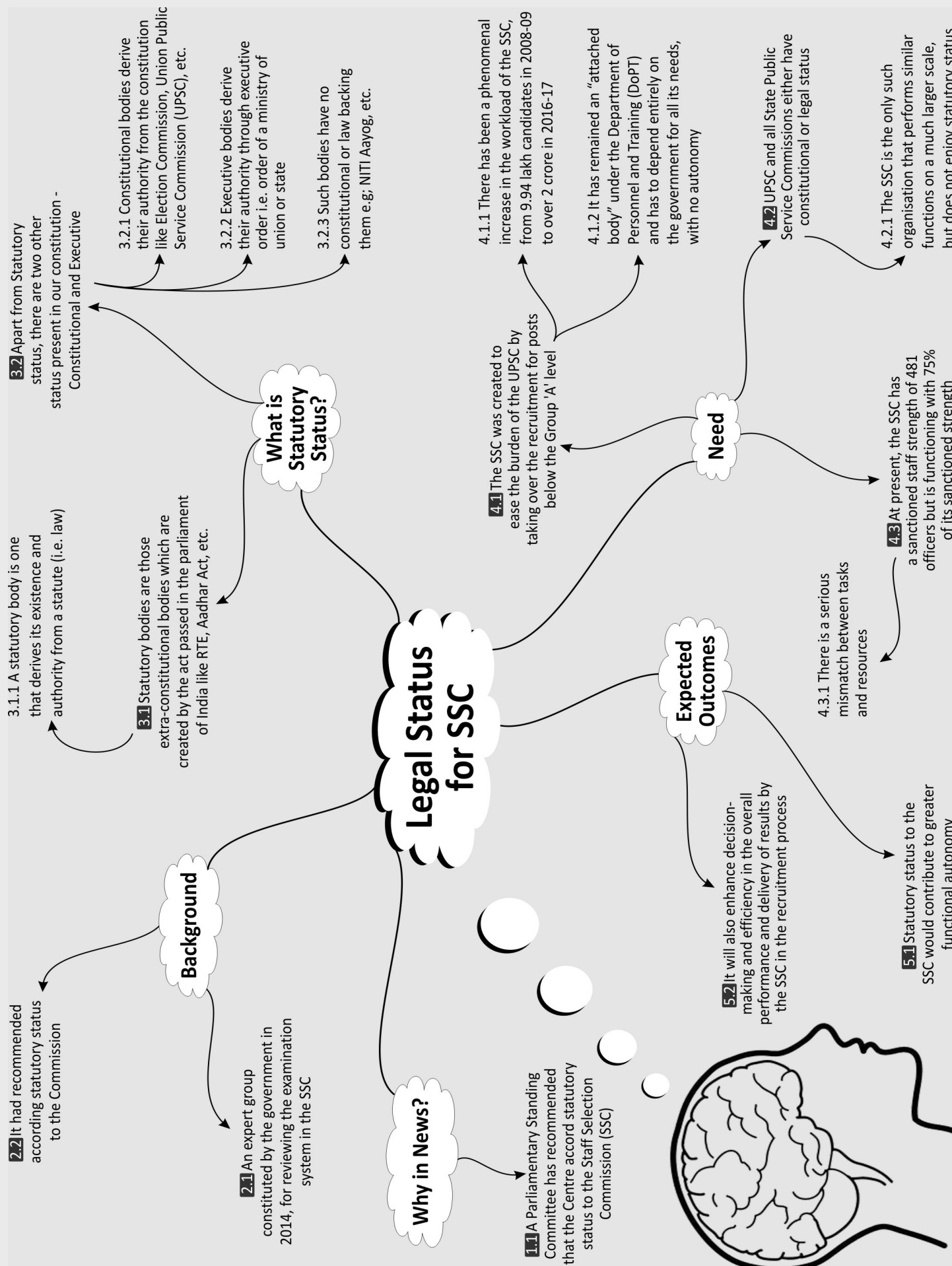












SEVEN MCQ's WITH EXPLANATORY ANSWERS

(Based on Brain Boosters)

Scheduled Tribe status for 6 Assam Communities

Q1. Consider the following statements:

1. Recently, Central government has proposed to give the ST status to Koch Rajbongshi, Tai Ahom, Chutia, Muttok, Moran and Tea Tribes.
2. According to the 2011 Census, the tribal population comprises more than 13% of Assam's 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: (c)

Explanation: Both statements are correct. A Bill to declare six communities in Assam as Scheduled Tribes (ST) would be introduced in the Parliament. The proposed communities are Koch Rajbongshi, Tai Ahom, Chutia, Muttok, Moran and 36 Tea Tribes (adivasi).

All ST communities together comprise more than 13% of Assam's population. According to the 2011 Census, the tribal population of the state is estimated to be around 40 lakh, accounting for little less than 13% of the state's total population. If and when these six communities are extended Scheduled Tribe status, the state's tribal population is expected to balloon to over 50% of the total population.

India-Norway Relations

Q2. Consider the following statements in respect of 'India-Norway relations':

1. India and the European Free Trade Association (EFTA) countries are working on the pact, officially dubbed as the Trade and Economic Partnership Agreement (TEPA).
2. Norway's huge experience in the ocean economy could help India to understand the know-how of maritime industry.

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. India and the European Free Trade Association (EFTA) countries (Switzerland, Norway, Iceland and Liechtenstein) are working on the pact, officially dubbed as the Trade and Economic Partnership Agreement (TEPA). However, Norway is not a member of European Union.

Norway's immense experience in the ocean economy (70 per cent of that Norway's exports is in the maritime industry), could help India to understand the know-how of maritime industry.

Universal Basic Income

Q3. Consider the following statements in respect of 'universal basic income (UBI)':

1. UBI is a programme for providing all citizens with a given sum of money, regardless of their income, resources or employment status.
2. It does not require any subsumption of other subsidies and allowances.

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: (a)

Explanation: Statement 1 is correct. UBI is a programme for providing all citizens with a given sum of money, regardless of their income, resources or employment status. The main idea behind UBI is to prevent or reduce poverty and increase equality among citizens. The five broad features of such schemes are: payments at periodic regular intervals (not one-off grants), payments in cash (not food vouchers or service coupons), payments to individuals, universality (for all) and unconditionality.

Statement 2 is not correct. Typically, UBI would require subsumption of other subsidies and allowances in order to free up resources so that a particular amount can be directed to people on a periodic basis.

Tokenisation Service

Q4. Consider the following statements in respect of 'tokenisation service':

1. Tokenisation is a process that masks actual card details using a unique alternate code called the "token".
2. The RBI has now permitted authorised card payment networks covering credit, debit as well as prepaid cards to offer tokenisation services to their customers with reasonable charges.

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: (a)

Explanation: Statement 1 is correct. Tokenisation involves a process in which a unique token masks sensitive card details. The token is then used to perform card transactions in contact-less mode at Point Of Sale (POS) terminals, Quick Response (QR) code payments, etc.

Statement 2 is not correct. The Reserve of India (RBI) has allowed all card payment networks to offer tokenisation service. However, the central bank has made it clear that no charges should be recovered from the customer for availing this service.

Global Report on Trafficking in Persons 2018

Q5. Consider the following statements in respect of 'Global Report on Trafficking in Persons- 2018':

1. It is a flagship report of the United Nations Office on Drugs and Crime (UNODC) and Amnesty International.
2. Women and girls make up most trafficking victims worldwide for sexual exploitation and forced labour.

Which of the statements given above is/are correct?

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

Answer: (b)

Explanation: Statement 1 is not correct. The United Nations Office on Drugs and Crime (UNODC) has released a report titled 'Global Report on Trafficking in Persons 2018'. It is the fourth of its kind mandated by the General Assembly through the 2010 United Nations Global Plan of Action to Combat Trafficking in Persons.

Statement 2 is correct. Women and girls make up most trafficking victims worldwide: almost three-quarters of them are trafficked for sexual exploitation, and 35% (women and girls) are trafficked for forced labour.

National Clean Air Programme

Q6. With reference to the 'National Clean Air Programme', consider the following statements:

1. The main aim of the programme would be 20-30% reduction of PM_{2.5} and PM₁₀ concentration by 2025.
2. It includes all non-attainment cities, across the country, which were identified by Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015.

Which of the statements given above is/are correct?

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

Answer: (d)

Explanation: Both statements are incorrect. The government of India has launched National Clean Air Programme (NCAP). This is the first ever effort in the country to frame a national framework for air quality management with a time-bound reduction target. The main aim of the programme would be 20-30% reduction of PM_{2.5} and PM₁₀ concentration by 2024. It includes 102 non-attainment cities, across 23 states and UTs, which were identified by Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015. These include Delhi, Varanasi, Bhopal, Kolkata, Noida, Muzaffarpur, and Mumbai.

Legal Status for SSC

Q7. Consider the following statements:

1. The Staff Selection Commission (SSC) is an extra-constitutional bodies which were created to ease the burden of the UPSC by taking over the recruitment for posts below the Group 'A' level.
2. A statutory body is one that derives its existence and authority from a statute (i.e. law).

Which of the statements given above is/are correct?

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

Answer: (b)

Explanation: Statement 1 is not correct. The Staff Selection Commission (SSC) is an "attached body" under the Department of Personnel and Training (DoPT), and has to depend entirely on the government for all its needs, with no autonomy.

Statement 2 is correct. Statutory bodies are those extra-constitutional bodies which are created by the act passed in the parliament of India like RTE, Aadhar Act, etc. A statutory body is one that derives its existence and authority from a statute (i.e. law).



SEVEN IMPORTANT FACTS FOR PRELIMS

1. The government has proposed three new AIIMS, under the 'Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)' scheme in which states?

–Two in Jammu and Kashmir and one in Gujarat

2. Who has been appointed as Taiwan Prime Minister?

–Su Tseng-chang

3. Recently, the government has released recombinant 'Enzyme-linked immune sorbent assay (ELISA)' kits for which animal diseases?

–One for Glanders and other for Equine Infectious Anaemia

4. Which country will host '2019 African Cup of Nations'?

–Egypt

5. Which nation hosted 'First India-Central Asia Dialogue'?

–Uzbekistan

6. On which date 'World Hindi Day' is celebrated every year?

–10 January

7. Ministry of Information & Broadcasting has approved what percentage of hike in advertisement rates for print media?

–25 per cent



SEVEN IMPORTANT PROTECTED AREAS - II

1. Khangchendzonga Biosphere Reserve

Why in News?

- ◆ The Khangchendzonga Biosphere Reserve of Sikkim has been included in the UNESCO's World Network of Biosphere Reserve (WNBR).
- ◆ India has 18 Biosphere Reserves and with the inclusion of Khangchendzonga, the number of internationally designated WNBR has become 11, with 7 Biosphere Reserves being domestic Biosphere Reserves.

About Khangchendzonga Biosphere Reserve

- ◆ It is one of the highest ecosystems in the world, reaching elevations of 1, 220 metres above sea-level. It includes the third highest mountain peak in the world, Kanchenjunga (8,586 m) and range of ecolines, varying from sub-tropic to Arctic, as well as natural forests in different biomes, that support an immensely rich diversity of forest types and habitats.
- ◆ The Southern and central landscape, which makes up 86% of the core area, is situated in the Greater Himalayas.
- ◆ The Northern part of the area accounts for 14% is characterized by trans-Himalayan features.
- ◆ The core zone – Khangchendzonga National Park was designated a World Heritage Site in 2016 under the 'mixed' category.
- ◆ It is one of the world's 34 biodiversity hotspots that has good species diversity with high levels of endemism, with many mountains, peaks, lakes, caves, rocks, stupas (shrines) and hot springs.
- ◆ According to the Sikkim Forest Department, there are 4,500 species of flowering plants in

the KBR, including 424 medicinal plants and 36 rhododendrons, 60 species of primulas and 11 varieties of oaks.

- ◆ The biosphere reserve has also listed 362 species of ferns. Over 118 species of the large number of medicinal plants are found in Dzongu Valley in North Sikkim.
- ◆ It houses many species protected under the Wildlife Protection Act - Red Panda, Snow Leopard, Himalayan Black Bear and herbivores species of Musk deer, Great Tibetan Sheep, Blue Sheep, Boral and Barking Deer.
- ◆ Over 500 species and sub-species of birds, including high-altitude pheasants — Monal Pheasants, Tragopan Pheasants and Blood Pheasants (the State Bird) — are also found in the reserve.
- ◆ The last biosphere reserve to be included in UNESCO's WNBR was the Agasthyamalai Biosphere Reserve in Kerala in 2016. The Nilgiri Biosphere Reserve was the first reserve from the country to be included in the WNBR.

2. Bandipur Tiger Reserve

Why in News?

- ◆ The Centre has said that it will not take up the project of constructing elevated corridors in the Bandipur Tiger Reserve.
- ◆ This comes three days after the Karnataka government opposed the move at the Supreme Court, citing the potential harm to Asiatic elephants, tigers and other wildlife animals.

About Bandipur Tiger Reserve

- ◆ The reserve was brought under Project Tiger in 1973.
- ◆ Together with Mudumalai Wildlife Sanctuary in Tamil Nadu, Wayanad Wildlife Sanctuary

in Kerala and Nagarhole National Park in the North, it creates the India's biggest biosphere reserve popularly known as the 'Nilgiri Biosphere Reserve'.

- ◆ Bandipur also has a sizable number of Tigers. Other natural inhabitants of this lovely forest are gaur (a type of bull), sambhar, chital, mouse deer, four-horned antelope, wild dogs, wild boar, jackal, sloth bear, panther, malabar squirrel and porcupines.
- ◆ The park is flanked by the Kabini river in the North and the Moyar river in the South. The Nugu river runs through the park.
- ◆ Bandipur supports a wide range of timber trees including: teak, rosewood, sandalwood, Indian-laurel, Indian kino tree, giant clumping bamboo, clumping bamboo.
- ◆ There are also several notable flowering and fruiting trees and shrubs including: kadam tree, Indian gooseberry, golden shower tree and satinwood.
- ◆ It supports a good population of endangered and vulnerable species like Indian elephants, gaurs, tigers, sloth bears, muggers, Indian rock pythons, four-horned antelopes, jackals and dholes.

3. Gir National Park

Why in News?

- ◆ Three lions were mowed down by a goods train in Gir forest in Gujarat. The incident took place at Borala village that falls under Gir (East) forest division in Amreli district.
- ◆ The International Union for Conservation of Nature (IUCN) has said India's lions are "the only living representatives of the lions once found throughout much of South-West Asia".

About Gir National Park

- ◆ It was established in 1965.
- ◆ It was declared as a National park in 1975.
- ◆ The Gir National Park and Sanctuary lie in the south-west of the Saurashtra peninsula in the state of Gujarat.
- ◆ It is part of the Kathiawar-Gir dry deciduous forests ecoregion.

- ◆ The topography of Gir supports semi-evergreen and evergreen flora, acacia, scrub jungle, plateaus, valleys, grasslands, isolated hills and rocky hills.
- ◆ The seven major perennial rivers of the Gir region are Hiran, Shetrunji, Datardi, Shingoda, Machhundri, Godavari and Raval. The four reservoirs of the area are at four dams, one each on Hiran, Machhundri, Raval and Shingoda rivers, including the biggest reservoir in the area, the Kamleshwar Dam, dubbed 'the lifeline of Gir'.
- ◆ The main attraction in the Gir National Park is the Asiatic Lions.
- ◆ As per the new statistics of 2015, the entire Saurashtra Region is inhabited by 523 Lions and more than 300 Leopards.
- ◆ Beside lion, the park is a home to two different species of Deer. The Sambar is counted largest Indian Deer. The Gir forest is also known for Chowsingha – the world's only four horned antelope.
- ◆ The Kankai Mata temple and Tulishyam Hot Springs are also very beautiful places to watch in the sanctuary.

4. Keibul Lamjao National Park

Why in News?

- ◆ In a recent study, researchers from the Wildlife Institute of India, Dehradun, have discovered a new subspecies of hog deer in Northeast India, which was earlier thought to have been found only in Southeast Asia.
- ◆ The researchers report the discovery of the Eastern race subspecies, *A. p. annamiticus*, from the Keibul Lamjao National Park (KLNPN) in Manipur.
- ◆ There are two previously known subspecies of hog deer. *Axis porcinusporcinus*, or the 'Western race', is found in parts of Pakistan and along the Terai grasslands along the Himalayan foothills stretching up to Nepal and Myanmar. The other subspecies, *A. p. annamiticus*, or the 'Eastern race', is found in parts of Thailand, Indo-China, Laos, Cambodia, and Vietnam. As the Eastern race

has a bleak distribution, its range in India is not well-known.

About Keibul Lamjao National Park

- ◆ It was declared as a National Park in the year of 1977.
- ◆ The park is situated on the southern shore of the Loktak Lake – the largest fresh water lake in Eastern India. A large portion of which falls within the park.
- ◆ The Loktak Lake has a unique ecosystem called 'Phumdi' (a Manipuri word meaning floating mats of soil and vegetation). The largest area of the Phumdi in the Loktak lake is in the Keibul Lamjao National Park, which is home to Manipur brow-antlered deer (*Rucervus eldii*) also popularly known as the Sangai.
- ◆ The brow-antlered deer is also called the dancing deer. The deer has also been inspiration for Manipuri dance traditions.
- ◆ The park encompasses three hills of Pabot, Toya and Chingiao. The park is surrounded by marshes and hillocks. The hills provide shelter for its large mammals during the monsoons.
- ◆ The lake is rich in biodiversity and has been designated as a wetland under RAMSAR Convention in 1990. Subsequently, it was also included in Montreux Record.
- ◆ Some of the species of hornbills found here include the Brownbacked Hornbill, Rufusnecked Hornbill, Wreathed Hornbill, the Pied Hornbill and the Great Pied Hornbill.

5. Gulf of Mannar Marine National Park

Why in News?

- ◆ Cyclones Gaja and Ockhi which battered the southern coast of Tamil Nadu have adversely affected the nesting of the vulnerable Olive Ridley turtles along the Gulf of Mannar Marine National Park in Rameswaram, Tuticorin and Kanyakumari coasts, the prime locations for egg-laying turtles in the state.

About Gulf of Mannar Marine National Park

- ◆ It was initially declared a Marine National Park in the year of 1980. In 1989, the National Park was given the status of a Biosphere Reserve.
- ◆ This is the first marine Biosphere Reserve in India.
- ◆ It is located in the Ramanathapuram & Tuticorin districts of the state of Tamil Nadu. The park is the core area of the Gulf of Mannar Biosphere Reserve.
- ◆ Gulf of Mannar Biosphere Reserve is located in the Southeastern tip of Tamil Nadu extending from Rameswaram in the North to Kanyakumari in the south.
- ◆ The Gulf of Mannar Marine National Park comprises of 21 islands surrounded by coral reef areas along with shallow water habitat of unique marine biodiversity. As all the 21 islands come under the Marine National Park sphere, tourism and other related activities are not allowed.
- ◆ The park includes estuaries, mudflats, beaches and forests of the near shore environment. It also includes marine components such as coral reefs, seaweed communities, sea grasses, salt marshes and mangroves.
- ◆ The Gulf of Mannar is disunited with Palk Strait by a series of closely linked group of islands with Coral origin and reefs popularly referred to as the Adam's Bridge or the Rama's Bridge.
- ◆ Tambaraparani River from the coast of India and the Aruvi Aru from the coast of Sri Lanka merge with the Indian Ocean on both sides of the park.
- ◆ The Park also forms a part of the third largest of the world's oceanic divisions i.e. Indian Ocean.
- ◆ The Park provides shelter to 3600 species of flora and fauna out of which many are in their virgin forms.
- ◆ The Turtles, Pearl Oysters, Sea Cucumbers, Balano-Glossus, Dolphins, Sea horses, Barracuda, Herrings and Sprats are sheltered by the reefs.

6. Nagarhole National Park

Why in News?

- ◆ A wild elephant was killed near Karnataka's Nagarhole National Park as it was trying to flee chasing villagers, adding to the spiralling count of deaths caused by human-animal conflicts.

About Nagarhole National Park

- ◆ It was established as a wildlife sanctuary in 1955 and was upgraded into a national park in 1988.
- ◆ It is also known as Rajiv Gandhi National Park.
- ◆ It is located in Kodagu district and Mysore district in Karnataka state in South India. It is one of India's premier Tiger Reserves along with the adjoining Bandipur Tiger Reserve.
- ◆ Nagarhole is named after Nagarhole (Cobra river in the local language, Kannada), a winding river which runs eastwards through its centre.
- ◆ Together with the adjoining Bandipur National Park, Mudumalai National Park and Wayanad Wildlife Sanctuary, it forms the largest protected area in Southern India.
- ◆ The River Kabini flows through the park.
- ◆ This entire forest cover is abode to the largest herbivorous density in Asia and largest Asiatic Elephant density in the entire world.
- ◆ The park is also full of herbivorous animals like Spotted Deer, Barking Deer, Four-Horned Antelope, Sambar, Elephant, Gaur and Wild Boar.
- ◆ The main trees found here are the commercially important rosewood, teak, sandalwood and silver oak. Species of trees of the dry deciduous forest include crocodile bark, Indian kino tree, rosewood and axlewood. Other tree species that are seen in the forests are kadam, cotton tree, Schleicheria trijuga and some species of ficus.

7. Eravikulam National Park

Why in News?

- ◆ The upper reaches of Munnar have been experiencing temperatures below 0°C since the start of the January month, which is unusual and mercury dropped to - 4°C after a decade in the region.
- ◆ The cold wave has not only affected tea plantations in Munnar but also the grasslands of the Eravikulam National Park (ENP), the natural habitat of the Nilgiri tahr.

About Eravikulam National Park

- ◆ Eravikulam National Park is the first of its kind located in Munnar, Kerala. It is Kerala's first national park.
- ◆ It is located in the High Ranges (Kannan Devan Hills) of the Southern Western Ghats in the Devikulam Taluk of Idukki District, Kerala.
- ◆ It was elevated to the status of a National Park in 1978.
- ◆ This park is famous for its collection of tahr. Nilgiri tahr is a goat like species that is endangered.
- ◆ Three major types of plant communities found in the park are: Grasslands, Shrub Land and Shola Forests.
- ◆ The park is also famous for great view of tea plantation, rolling hills and neelakurunji.
- ◆ Neelakurunji is a blue colored kurunjiflower, which blooms once in 12 years.
- ◆ The park is also famous for Anamudi peak, which is the highest peak in South India.
- ◆ Eravikulam National Park is a UNESCO World Heritage Site.
- ◆ Many perennial streams criss-cross the park. They merge to form tributaries of the Periyar river in the west and of the Cauvery River in the east.
- ◆ Lakkom Water falls is in this region.



SEVEN PRACTICE QUESTIONS FOR MAIN EXAM

Answer each of the following questions in 200 words:

- Q1. We are now headed to a situation where the central bank will be, a branch of the finance ministry. Critically examine why the Reserve Bank of India needs de jure independence.
- Q2. 'Quota politics is the legacy of flawed priorities.' Comment.
- Q3. The window of demographic dividend in India points to a differential approach to socio-economic policy planning because of differential behaviour of the population parameters. Critically analyse how India's demographic dividend will play out over a longer span.
- Q4. 'SAARC holds the key to South Asia's economic integration.' Discuss why SAARC is still relevant.
- Q5. What do you understand by 'universal basic income'? Is this concept feasible for India? Critically discuss it with suitable examples.
- Q6. 'Election-season temptations for populist spending pose a challenge to the economy.' Discuss.
- Q7. It is ironical that the mainstream feminist movement in India does not acknowledge women like Savitribai Phule. We need to understand that we cannot fight for "women's rights" without acknowledging the intersections of gender and caste. Discuss it in the context of fighting of Savitribai Phule to Manuwadi culture.





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**02
Dec.**

Test-1 - (12:00Noon-3:00pm)

Modern India, India After Independence,
World History, History of Uttar Pradesh

**09
Dec.**

Test-2 - (12:00Noon-3:00pm)

Social Issues, Art & Culture ,
Uttar Pradesh (Social Issues, Art & Culture)

**16
Dec.**

Test-3 - (12:00Noon-3:00pm)

World Geography, Indian Geography,
Geography of Uttar Pradesh

**23
Dec.**

Test-4 - (12:00Noon-3:00pm)

Indian Polity, Constitution,
In special reference of Uttar Pradesh

**30
Dec.**

Test-5 - (12:00Noon-3:00pm)

Governance and Public Policy,
International Relation
In Special Reference of Uttar Pradesh

**06
Jan.**

Test-6 - (12:00Noon-3:00pm)

Indian Economy, Internal Security
in Special Reference of Uttar Pradesh

**13
Jan.**

Test-7 - (12:00Noon-3:00pm)

Science & Tech., Disaster Management,
Ecology & Environment

**20
Jan.**

Test-8 - (12:00Noon-3:00pm)

Ethics (Paper-I)
Ethics and Human Interface, Attitude,
E.I. and Thinkers with Case Study

**27
Jan.**

Test-9 - (12:00Noon-3:00pm)

Ethics (Paper-II)
Aptitude and Value of Civil Services, Ethics
in P.A., Probity in Govt. with Case Study

**03
Feb.**

Test-10 - (12:00Noon-3:00pm)

General Studies (Paper-I) Full Test

Test-11 - (3:30pm-6:30pm)

Hindi Full Test

**10
Feb.**

Test-12 - (12:00Noon-3:00pm)

General Studies (Paper-II) Full Test

Test-13 - (3:30pm-6:30pm)

Essay

**17
Feb.**

Test-14 - (12:00Noon-3:00pm)

General Studies (Paper-III) Full Test

Test-15 - (3:30pm-6:30pm)

Hindi Full Test

**24
Feb.**

Test-16 - (12:00Noon-3:00pm)

General Studies (Paper-IV) Full Test

Test-17 - (3:30pm-6:30pm)

Essay

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