

GENERAL STUDIES-1

INDIAN CULTURE

RESTORING CULTURAL SYMBOLS BEYOND OUR SHORES

India has deep cultural ties with southeast Asian nations, and from time to time carries out restoration work at temples overseas. Funds are released through the Ministry of External Affairs as part of India's diplomatic outreach to these nations.

The ASI, under the Ministry of Culture, is the implementing agency. Work can go on for decades, and is often monitored by third-party agencies such as the UNESCO World Heritage Committee.

The 12th c Ananda Temple

Where: Bagan, Myanmar



The Buddhist temple, a masterpiece of Mon architecture, was built around 1105 by King Kyansittha of Burma. The project is near completion, and ASI has, in addition, restored several murals and pagodas that were damaged

in an earthquake last year.

<u>Ta Prohm Temple</u> <u>Where:</u> Angkor, CAMBODIA



Significant is the work on the Hall of Dancers.

<u>Cham Monuments</u> <u>Where:</u> VIETNAM

Constructed by the kings of Champa between the 4th and 14th centuries AD.

Page | 1

iasshiksha.com

PHONE:9986102277



Page | 2

<u>Thiruketeeswaram Temple</u> <u>Where:</u> Mannar, SRI LANKA



Temple dedicated to Lord Shiva. The stones for the mahamandapa were carved by craftsmen in Mamallapuram.

Wat Phou Temple Complex Where: LAOS





<u>Pashupatinath Temple</u> <u>Where:</u> Kathmandu, NEPAL

a.com

PHONE:9986102277



Page | 3

HISTORY

SOCIAL ISSUES AND INDIAN SOCIETY

BLUE WHALE CHALLENGE

Why in news?

Several individuals, in most cases teenagers, have committed suicide allegedly after playing Blue whale challenge game. It must be noted, however, that there still is no confirmation of the existence of the game, and suicides linked to it are from personal accounts of families/friends of those deceased

What is it?

The Blue Whale game or Blue Whale Challenge is believed to be a suicide game wherein a group of administrators or a certain curator gives a participant a task to complete daily — for a period of 50 days — the final of which is the participant committing suicide.

Participants are expected to share photos of the challenges/tasks completed by them.

These daily tasks start off easy — such as listening to certain genres of music, waking up at odd hours, watching a horror movie, among others, and then slowly escalate to carving out shapes on one's skin, self-mutilation and eventually suicide.

Modus operandi

There is still uncertainty over how a participant plays the game. While some say the user has to install some app on their smart phone, others say



Sep 8^{th} to 14^{th}

it's via social media platforms such as Instagram and Facebook where the administrators get in touch with the participant after those interested throw out postings on social media asking for a "curator".

Page | 4

GENERAL STUDIES-2

POLITY

SPECIAL STATUS TO STATES



In Constitution, a range of 'special provisions' for states other than I&K, too

Part XXI of the Indian Constitution, 'Temporary, Transitional and Special Provisions', includes, apart from Article 370 — Temporary Provisions with respect to the State of Jammu and Kashmir — special provisions for 11 other states, listed under Articles 371, 371A-H, and 371J.

Voices of concern

It has been long argued, by some sections, that the special status accorded to Jammu & Kashmir in the Constitution has prevented its "full integration" into the Indian Union.

Prominent among the "special privileges" available to J&K, the only Muslim-majority state in the country, are the ban on non-residents from acquiring property in the state and voting in the legislative Assembly elections, both of which are under challenge in the Supreme Court in a case against the constitutional validity of Article 35A.

I&K isn't the only one

However, Jammu & Kashmir is not the only state for which special provisions have been laid down in the Indian Constitution — a wide range of safeguards are available to as many as 11 other states.

Constitutional History

In 1947, Jammu & Kashmir negotiated the terms and conditions of its entry into the Indian Union. It acceded to the Union on Defence, Foreign Affairs and Communication, but wanted its own Constitution, to be drafted by its own Constituent Assembly.

Art 370, which determines the contours of J&K's relations with the Centre and exists as the constitutional cord between J&K and New Delhi, was introduced in the Indian Constitution in 1949.

Article 35A

Art 35A, which empowered the J&K Constitution to define "permanent residents" of the state, is an offshoot of Art 370 of the Indian Constitution. It was added to the Constitution through The Constitution (Application to Jammu and Kashmir) Order, 1954, issued by the President under Art 370.

Page | 5



While the special provisions laid down in Art 371, 371A-H, and 371J are not as farreaching as Art 370, the existence of these provisions shows that other princely states, too, negotiated the terms and conditions of their entry into the Union, or sought special constitutional protections in view of their unique needs and conditions. Each of these constitutional provisions is, in fact, rooted in historical reasons.

One important difference between Articles 370 and 371, and Articles 371A-H and 371J, is that while the latter set of provisions were incorporated into the Constitution by Parliament through amendments under Art 368 (which lays down the "power of Parliament to amend the Constitution and procedure therefor"), Articles 370 and 371 have been part of the Constitution from the time of its commencement on January 26, 1950.

Maharashtra & Gujarat (Art 371)

- ✓ "Special responsibility" to Governor to establish "separate development boards" for "Vidarbha, Marathwada, and the rest of Maharashtra", and Saurashtra and Kutch in Gujarat;
- ✓ "equitable allocation of funds for developmental expenditure over the said areas":
- ✓ "equitable arrangement providing adequate facilities for technical education and vocational training, and adequate opportunities for employment" under the state government.

Sikkim (Art 371F, 36th Amendment Act, 1975)

- ✓ The members of the legislative Assembly of Sikkim shall elect the representative of Sikkim in the House of the People.
- ✓ To protect the rights and interests of various sections of the population of Sikkim, Parliament may provide for the number of seats in the Assembly, which may be filled only by candidates from those sections.
- ✓ Governor shall have "special responsibility for peace and for an equitable arrangement for ensuring the social and economic advancement of different sections of the population".
- ✓ All earlier laws in territories that formed Sikkim shall continue, and any adaptation or modification shall not be questioned in any court.

Assam (Art 371B, 22nd Amendment Act, 1969)

Page | 6



✓ President may provide for the constitution and functions of a committee of the Assembly consisting of members elected from the tribal areas of the state.

Arunachal Pradesh (Art 371H, 55th Amendment Act, 1986)

- ✓ The Governor has a special responsibility with regard to law and order, and "he shall, after consulting the Council of Ministers, exercise his individual judgment as to the action to be taken".
- ✓ Should a question arise over whether a particular matter is one in which the Governor is "required to act in the exercise of his individual judgment, the decision of the Governor in his discretion shall be final", and "shall not be called in question...".

Nagaland (Art 371A, 13th Amendment Act, 1962)

✓ Parliament can't legislate in matters of Naga religion or social practices, the Naga customary law and procedure, administration of civil and criminal justice involving decisions according to Naga customary law, and ownership and transfer of land and its resources, without concurrence of the legislative Assembly. This provision was inserted in the Constitution after a 16-point agreement between the Centre and the Naga People's Convention in 1960, which led to the creation of Nagaland in 1963.

Mizoram (Art 371G, 53rd Amendment Act, 1986)

✓ Parliament cannot make laws on "religious or social practices of the Mizos, Mizo customary law and procedure, administration of civil and criminal justice involving decisions according to Mizo customary law, ownership and transfer of land... unless the Legislative Assembly... by a resolution so decides."

Manipur (Art 371C, 27th Amendment Act, 1971)

- ✓ President may provide for the constitution and functions of a committee of elected members from the Hill areas in the Assembly;
- ✓ entrust "special responsibility" to the Governor to ensure its proper functioning. The Governor has to file a report every year on this to the President.

Andhra Pradesh and Telangana (Art 371D, 32nd Amendment Act, 1973; substituted by the Andhra Pradesh Reorganisation Act, 2014)

✓ President must ensure "equitable opportunities and facilities" in "public employment and education to people from different parts of the state"; Page | 7



- ✓ he may require the state government to organise "any class or classes of posts in a civil service of, or any class or classes of civil posts under, the State into different local cadres for different parts of the State", and allot them.
- ✓ The President has similar powers vis-à-vis admissions in any university or state government-run educational institution.
- ✓ Also, he may provide for setting up of an administrative tribunal outside the jurisdiction of the High Court to deal with issues of appointment, allotment or promotion in state civil services.

Karnataka (Art 371J, 98th Amendment Act, 2012)

- ✓ There is a provision for the establishment of a separate development board for the Hyderabad-Karnataka region, the working of which will be reported annually to the Assembly;
- ✓ there shall be "equitable allocation of funds for developmental expenditure over the said region"; and "equitable opportunities and facilities" for people of this region in government jobs and education.
- ✓ An order can be made to provide for reservation "of a proportion" of seats and jobs in educational and vocational training institutions and state government organisations respectively in the Hyderabad-Karnataka region for individuals who belong to that region by birth or domicile.

GOVERNANCE ISSUES AND POLICIES

AADHAAR, DATA AND PRIVACY

A brief backgrounder

The government of India, in 2009, launched a new identification program, Aadhaar, that has become the largest biometric database in the world. The program systematically collects basic information and biometric datafingerprints, photographs, and iris scans—of more than 1 billion people. It has spread its tentacles to almost all the spheres of one's lifeschools to hospitals to banks

Viewpoints at odds: Panacea or surveillance?

The Indian government views Aadhaar as a key solution for a myriad number of societal challenges, but critics see it as a step toward a surveillance state.

Page | 8





The Aadhaar experiment has hit an obstacle with the Supreme Court ruling that privacy is a fundamental right. Privacy had emerged as a contentious issue while the apex court was hearing a batch of petitions challenging the Centre's move to make Aadhaar mandatory for availing government schemes.

The UIDAI, which runs Aadhaar, holds that the program is based on the premise that privacy is a fundamental right. Also, the judgment would not affect Aadhaar as the required safeguards were already in place.

AADHAAR

Aadhaar is a 12 digit unique-identity number issued to all Indian residents based on their biometric and demographic data.

<u>Collected by</u>: the Unique Identification Authority of India (UIDAI), a statutory authority, under the provisions of the Aadhaar (Targeted Delivery of Financial and other Subsidies, benefits and services) Act, 2016.

Ministry: Ministry of Electronics and Information Technology

Details to be furnished

- (i) biometric (photograph, finger print, iris scan)
- (ii) demographic (name, date of birth, address) information.

Pre-informed consent

At the time of enrolment, the individual will be informed of.

- (i) the manner in which the information will be used
- (ii) the nature of recipients with whom the information will be shared
- (iii) the right to access this information.

Any public or private entity can accept the Aadhaar number as a proof of identity of the Aadhaar number holder, for any purpose. Aadhaar number cannot be a proof of citizenship or domicile.

<u>A major threat to the fundamental right to privacy?</u>

Over time, Aadhaar has been used as a way to apply data-driven improvements to a wide range of government and private-sector services including filing taxes, opening bank accounts, receiving school lunch in the state of Uttar Pradesh, purchasing railway tickets online, accessing some

Page | 9



public Wi-Fi, participating in the state of Karnataka's universal health-care coverage apart from subsidies. This increased ambit of usage of Aadhaar has also raised privacy concerns.

1. Types of information

In the Aadhaar Act, biometric information essentially refers to photograph, fingerprints and iris scan, though it may also extend to "other biological attributes of an individual" specified by the UIDAI.

Among three different types of private information: biometric information, identity information and personal information. The first two are formally defined in the Aadhaar Act, and protected to some extent. Aadhaar's biggest threat to privacy, however, relates to the third type of information, which includes other information about a person, for instance where she travels, whom she talks to on the phone, how much she earns, what she buys, her Internet browsing history, and so on.

2. Sharing identity details

The Aadhaar Act puts in place a framework to share it with "requesting entities". Earlier, authentication involved nothing more than a Yes/No response to a query as to whether a person's Aadhaar number matches her fingerprints (or possibly, other biometric or demographic attributes). In the final version of the Act, however, authentication also involves a possible sharing of identity information with the requesting entity.

When biometric information is used to access a service via Aadhaar, such as purchasing a new cell phone, the service provider receives that person's demographic data (name, address, phone number), and the government receives the metadata—specifically, the date and time of the transaction, the form of identification used, and the company with which the transaction was carried out.

That information can paint an intimate long-term picture of a person's life, and raises concerns about both government surveillance and private-sector abuse.

3. <u>Safeguards</u>

Section 8, of course, includes some safeguards against possible misuse of identity information. A requesting entity is supposed to use identity information only with one's consent, and only for the purpose mentioned

Page | 10



in the consent statement. But it is difficult for anyone to read the fine print of the terms and conditions before ticking or clicking a consent box.

4. *In the name of security*

Aadhaar Act includes a blanket exemption from the safeguards applicable to biometric and identity information on "national security" grounds. Considering the elastic nature of the term, UIDAI may make identity information accessible to the government without major restrictions.

Evidence of misuse

- Several government agencies published full names, addresses, and Aadhaar numbers of welfare beneficiaries;
- Millions of users' Aadhaar information appears to have been leaked from the telecommunications company Reliance Jio;
- The government's e-hospital data base was hacked to access confidential Aadhaar information.

Way ahead

- Government should assure the citizens that it has the technology and systems to protect the data collected and curtail unauthorised disclosure of or access to such data.
- The data controller should be made accountable for the collection, processing and use to which data are put.

Consented identification

As an alternative to the collection of biometric information few experts have suggested shifting to smart cards.

 Biometrics allows for identification of citizens even when they don't want to be identified. Smart cards which require pins on the other hand require the citizens' conscious cooperation during the identification process.

In Conclusion:

A well balanced approach to accommodate the concerns of the citizens, with national security in mind, has to be devised. The very foundation of Aadhaar must be reconsidered in the light of the privacy judgment.

WELFARE SCHEMES AND DEVELOPMENTAL GROUPS

Page | 11



NIRF RANKING EXERCISE

The Centre is all set for a more comprehensive ranking of higher educational institutions in the next round of the National Institutional Ranking Framework in 2018.

How it works?

Instead of institutions choosing to take part in the exercise, they are being auto-registered through a large online database of institutions available with the Ministry of Human Resource Development.

✓ The institutions, however, have to provide details like patents, publications, research projects and campus placements that are not available on the portal.

What is NIRF?

The National Institutional Ranking Framework (NIRF) was approved by the MHRD and was launched in 2015. This framework outlines a methodology to rank institutions across the country.

 The parameters broadly cover "Teaching, Learning and Resources", "Research and Professional Practices", "Graduation Outcomes", "Outreach and Inclusivity" and "Perception".

The ranking of the Institutions will be done based on the parameters proposed by NIRF for different disciplines.

INDIA AND ITS INTERNATIONAL RELATIONS

FALL OUT OF ROHINGYA CRISIS

Myanmar does not recognize the Rohingya, preferring to refer to them as Bengali, which suggests they are from neighbouring Bangladesh. Apart from impinging upon Myanmar's internal security, the Rohingya crisis is also posing a security challenge to the South and Southeast Asia.

Page | 12



- Although Arakan Rohingya Salvation Army (ARSA) has reportedly denied any connection with the IS, suspicions persist about linkages between the two groups.
- The systematic deprivation and gross violations of basic human rights have forced Rohingyas to flee their native land and seek refuge in neighbouring states including Bangladesh, Indonesia, Thailand, Malaysia and India, which imposes economic strain on the host countries.
- The lack of opportunities provided by the host nations to contribute to the economy of that country even through semi-skilled and unskilled labour work as well, only exacerbates the economic strain.

India's stance on Rohingva Crisis:

The latest exodus began after Rohingya insurgents attacked police posts in Rakhine, leading to a violent offensive by the Myanmar Army.

- India also faces the problem of Rohingyas fleeing into the states bordering Myanmar.
- The government has said it would deport all Rohingyas living in India illegally.

India's tough stand on deporting Rohingyas back to Rakhine State in the midst of the ongoing violence has evoked criticism from national and international human rights activists.

Bali declaration

India called for restraint on the part of the Myanmar government to end the violence in Rakhine state – days after New Delhi dissociated itself from a joint statement by the Bali Declaration adopted at the World Parliamentary Forum on Sustainable Development held Indonesia.

The Bali Declaration, which was joined by India's neighbours Bangladesh, Bhutan, Nepal, Afghanistan, Pakistan and Sri Lanka, had expressed concern about the violence in Myanmar's Rakhine state.

The declaration had called on all parties to contribute to the restoration of stability and security, exercise maximum self-restraint from using violent means, respect the human rights of all people in Rakhine State regardless of their faith and ethnicity, as "there can be no sustainable development without peace".

Bangladesh's reaction

Bangladesh has received the most number of refugees in the recent crisis because

Page | 13



- 1. Geography makes it easier for Rohingyas to cross the border into Bangladesh.
- 2. Rohingya Muslims are culturally and ethnically closer to the people of Bangladesh, given that they are descendants of Bengali-Muslims from the Chittagong area who had migrated to present-day Myanmar during the British Raj.

Bangladesh has unveiled plans to make land available near the Myanmar border for camps to accommodate refugees. It has also urged the international community to put pressure on Myanmar to take back the refugees and stop the violence against them.

The Rohingya crisis is a regional issue and it needs to be tackled at the regional level in a more comprehensive way.

In Conclusion:

The statelessness of the Rohingyas and the lack of empathy towards the plight of the Rohingyas have contributed to the adoption of extremist methods by them. If not addressed pragmatically, the Rohingya crisis will only cause more violence, leading to more refugees and chronic instability in the region.

ASEAN, India and Bangladesh need to discuss the Rohingya crisis together to work for sustainable solution to the problem. The first step would be to convince the present government in Myanmar about the benefits of well-coordinated cooperation between ASEAN members, India and Bangladesh to tackle the issue.

The regional and sub-regional platforms like ASEAN Regional Forum (ARF) and the Bay of Bengal Initiative for Multi-Sectoral, Technical and Economic Cooperation (BIMSTEC) should be put to use, where the experiences of countries like India and Thailand who have long experience in dealing with insurgency and terrorism can be shared.

CHANGING LANDSCAPE AFTER DOKLAM

When China mobilized troops near Doklam, Bhutan asked India for help. For New Delhi, security of the "chicken neck" was a worry.

Several lessons can be drawn from the stand-off between India and China in Doklam.

1) It was the first time that India deployed troops on the Chinese border after a third party asked for help.

Page | 14



- 2) While such stand-offs have multiplied recently, it was by far the longest one suggesting that there was much at stake on both sides and that the mechanisms of border dispute resolution were not as effective as they used to be, or not even relevant in such a case.
- 3) India can claim that it has forced China to withdraw by showing determination-cum-restraint, a mix that has impressed other South Asian countries which are under Chinese pressure and may turn to India for preserving their sovereignty.

Page | 15

What India can do?

Beijing will use both the carrot and stick to influence the Himalayan kingdom that Chinese tourists are already visiting in large numbers. India can offer a credible military force.

The Bhutanese appreciate India's soft power in cultural and societal terms, but the cooperation of the countries in the domain of hydropower that represents 25-30 per cent of Bhutan's GDP is far from satisfactory. India will have to deliver more effectively on that front to retain Bhutanese trust.

Some observers have already emphasised that Bhutan should not alienate China and take the risk of breaking the dialogue between the two countries.

India is already getting closer to the US. But this strategy is not unproblematic, not just because of Trump's erratic behaviour and protectionist — even isolationist — policies, but also because such a rapprochement will further distance India from China and even Russia.

Besides the US, India is also turning to Japan. Recent overture being the Asia-Africa Growth Corridor, a project New Delhi and Tokyo have conceived together. Both the countries are willing to build an ambitious strategic partnership. This partnership could be the cornerstone of a larger coalition that may include other countries eager to resist China's "string of pearls" in the Asia-Pacific region.

Problems with what India does

The first major problem India may face in its attempt to resist China is economic: China is not only the first trade partner of India but a large investor too. Secondly, New Delhi cannot mobilise as many resources as Beijing to make inroads in third countries. Sri Lanka is a case in point: China acquired 70 per cent of the Hambantota deep sea port, in addition to

many other strategic locations, including Gwadar, because of a financial strike force India cannot compete with.

CHENNAI-VLADIVOSTOK SEA ROUTE

A key maritime route, connecting India with Northeast Asia and Western Pacific region has been proposed by Delhi.

Aim: To put in place a major connectivity initiative — direct shipping link between Chennai and Vladivostok amid China's ambitious Maritime Silk Route (MSR) connecting Asia with Africa.



Details

This proposed maritime route could be transformed into a corridor covering Indo-Japan Pacific forming an Indian Ocean Corridor. This could well match Beijing's OBOR of which MSR is a part.

This shipping link would enable to transfer cargo between Chennai and Vladivostok in 24 days in comparison to over 40 days currently taken to transport goods from India to Far East Russia via Europe, according to experts on the subject.

Backgrounder:

Page | 16



India was the first country to establish a resident Consulate in Vladivostok in 1992. Current engagement of India with the region is limited to isolated pockets investments by the likes of ONGC Videsh Limited.

- The region has a wealth of natural resources such as land, timber, mineral and other resources like tin, gold, diamonds and oil and natural gas.
- The Russian government has announced several initiatives to attract investments in the region, including an agricultural SEZ, Free Port Project and mining of the huge mineral resources.

CHAKMA. HAIONG REFUGEESTO GET INDIAN CITIZENSHIP

The Centre will soon grant citizenship to nearly one lakh Chakma and Hajong refugees, who came from the erstwhile East Pakistan five decades ago and are living in camps in the northeast.

This is a follow up to the 2015 Supreme Court direction to the Central government to grant citizenship to the Chakma and Hajong refugees, mostly staying in Arunachal Pradesh.

Who are they?

Chakmas and Hajongs were originally residents of Chittagong Hill Tracts in the erstwhile East Pakistan. They left their homeland when it was submerged by the Kaptai dam project in the 1960s.

- The Chakmas, who are Buddhists, and the Hajongs, who are Hindus, also allegedly faced religious persecution and entered India through the then Lushai Hills district of Assam (now Mizoram). The Centre moved the majority of them to the North East Frontier Agency (NEFA), which is now Arunachal Pradesh.
- Their numbers have gone up ever since. At present, they don't have citizenship and land rights but are provided basic amenities by the state government.

Ground situation

Several organisations and civil society in Arunachal Pradesh have been opposing citizenship to the refugees saying it would change the demography of the state. The Centre is trying to find a workable solution to the issue by proposing that Chakma and Hajong refugees will not be given rights, including ownership of land, enjoyed by Scheduled Tribes in Arunachal Pradesh. However, they may be given Inner Line permits, required for non-locals in Arunachal Pradesh to travel and work.

Page | 17



INTERNATIONAL AFFAIRS

UNANIMOUS SANCTIONS AGAINST NORTH KOREA

The United Nations Security Council unanimously stepped up sanctions against North Korea over the country's series of nuclear tests.

New set of sanctions

Limits on imports of crude oil and oil products. China, Pyongyang's main economic ally, supplies most of North Korea's crude oil.

- A ban on exports of textiles, which is Pyongyang's second-biggest export.
- Measures to limit North Koreans from working overseas.

Backgrounder:

Pyongyang has staged a series of missile tests in recent months that appeared to bring much of the US mainland into range. Recent test was claimed to be that of a miniaturized hydrogen bomb.

The United States and its allies argue that tougher sanctions will pile pressure on Kim's regime to come to the negotiation table to discuss an end to its nuclear and missile tests. Russia and China are pushing for talks with North Korea, but their proposal for a freeze on Pyongyang's missile and nuclear tests in exchange for suspending US-South Korean military drills has been rejected by the United States.

Page | 18



UNSC

The United Nations Security Council (UNSC) is one of the six principal organs of the United Nations and is charged with the maintenance of international peace and security.

<u>Membership</u>

The Security Council has 15 members, including five permanent, with a veto power-- China, France, Russia, the United Kingdom and the United States.

The Council's 10 non-permanent seats are allocated according to a rotation pattern set by the Assembly, to ensure a proportionate representation over time from the different parts of the world: five from African and Asian States; one from Eastern Europe; two from Latin American States; and two from Western European and Other States.

Powers

- Establishment of peacekeeping operations
- ✓ Establishment of international sanctions
- ✓ Authorization of military action through Security Council resolutions
- ✓ It is the only UN body with the authority to issue binding resolutions to member states

The Security Council is also responsible for determining the existence of a threat against peace and to respond to an act of aggression. It is also responsible for finding peaceful means to settle a conflict or a dispute between States. In some cases, the Council can resort to sanctions or even authorize the use of force to maintain or restore international peace and security.

THE AFGHAN GEOPOLITICS

Afghanistan is experiencing political, social and security instability, with extremists taking advantage of the turmoil in the country. The United States led military operation in Afghanistan in 2001, just after the 9/11 terror attacks, ended in 2014.

In 2015, NATO announced its new mission in the country, called Resolute Support, to train and assist the Afghan security forces. Despite staunch efforts, the Asian state is still being hit by multiple attacks against its civilians and military targets.

This year, again a new regional strategy was unveiled for Afghanistan in the wake of 2016 being the worst year of conflict

US strategy on Afghanistan

- Establishment of permanent US military bases in Afghanistan.
- Drawdown but not total withdrawal of American troops.
- Rejection of outright Taliban takeover and willingness to negotiate a settlement with the Taliban but from a position of advantage.

Page | 19



- Incremental reliance on the Afghan forces alongside training and capacity-building of the Afghan forces.
- Pressure on Pakistan to shut down "safe havens" and crack down on the Haqqani Network.
- Robust support to the Afghan National Unity Government.

Conferences on Afghanistan issue

1. Heart of Asia - Istanbul Process

It was established in 2011 to provide a platform to discuss regional issues, particularly encouraging security, political, and economic cooperation among Afghanistan and its neighbours. The targets included counterterrorism, counternarcotic, poverty, and extremism.

The 6th Ministerial Conference of Heart of Asia summit was held in Amritsar, India. The outcome, Amritsar Declaration, noted that the state-sponsored terrorism was a key challenge and members agreed upon a concerted effort to dismantle all kinds of terrorism. The regional meet unanimously named Terrorist groups in Pakistan and asked for action.

- Members expressed their commitment to the Universal Declaration of Human Rights.
- Members called up for leveraging the cultural heritage of the region to drive economic and social development.
- Members consented on eliminating non-tariff barriers to trade.

2. Tokyo Conference

The Afghan Government and the International Community met in 2012 in Tokyo to reaffirm and further consolidate their partnership from Transition to the Transformation Decade. The Tokyo Conference, together with the Chicago Summit of Afghanistan and ISAF (International Security Assistance Force) contributing countries, established a renewed stronger foundation for partnership to support sustainable growth and development of Afghanistan throughout the Transformation Decade (2015-2024).

Since the landmark Tokyo Conference of January 2012, with the steadfast and strong support of the International Community, financial and otherwise, Afghanistan has achieved substantial development and made notable progress in many fields of development, including education, health, roads, electricity, and telecommunication.

Page | 20



However, much remains to be done to realize the aspirations of the Afghan people for a peaceful, stable and self-sustaining Afghanistan.

*India's role in Afghanistan and significance of Afghanistan to India*For India, its main importance is its proximity to Afghanistan. Apart from that Afghanistan doesn't share a cordial relationship with Pakistan. India also has a lot of investment in the country. Many infrastructure projects are carried out by Indian corporations.

- Afghanistan has an estimated 1 trillion USD of untapped resources. If these resources get in the wrong hands, it can be disastrous. That is the reason behind not mining them in an unstable government regime.
- Afghanistan is our gateway to central Asia, which is a reservoir of energy resources.
- The *TAPI(Turkmenistan-Afghanistan-Pakistan-India)* gas pipeline passes through Afghanistan. Securing Afghanistan will result securing India's energy requirements.
- The Chabahar port in Iran and the railway line from Chabahar to Zahedan in Afghanistan envisages connecting New Delhi with Iran, Afghanistan, Central Asia and Europe.
- Afghanistan is in the initial stages of nation building. India can transfer its expertise in order to gain a trusted friend. The Salma Dam renamed as friendship dam, the Afghanistan Parliament that India has built are some welcome steps in this direction.

The importance of Afghanistan is multi-dimensional. It is geo strategic, energy guarantor as well as economical. Also, India understands that a peaceful Afghanistan will help in a peaceful India and South Asia in a world which is threatening to break into a war anytime.

How could be changed US strategy a game changer?

The core goal of the U.S. must be to disrupt, dismantle, and defeat al-Qaeda and its safe havens in Pakistan, and to prevent their return to Pakistan or Afghanistan.

The US is now calling its strategy a South Asia policy, to distinguish it from the Obama administration's so-called Af-Pak policy. It would include diplomacy with Pakistan, India and even Iran.

US's announcement of military commitment without a deadline in Afghanistan could be a game changer. This may allow creating a culture of peace, to build institutions and improve delivery of public services.

Page | 21



More than the number of American boots on the ground, the nature and quality of America's military presence has changed, and this could make a difference.

Pressure on Pakistan

The US singled out "valued partner" Pakistan by asking it to act against "agents of chaos" such as the Afghan Taliban and the Haqqani Network, if it wants \$255 million in military assistance

Larger role to be played by India

India can be seen as "Afghanistan's most reliable regional partner". US has called upon India to play a larger role by working with Afghanistan's domestic factions in widening and buttressing the political legitimacy of the current government, and helping it improve its governance. India, on its part, needs to create a positive view in the country about Afghanistan so that the private sector understands the economic opportunity in Afghanistan. India has been self-restrained — "for good reasons" — in its role in Afghanistan, though it had ample room

Criticism against New Strategy:

- Contrary to the expectations of announcement of a troop surge, vague details have been outlined
- New strategy in Afghanistan is aimed at preserving and strengthening the American presence in this country.
- The US will strengthen their presence in Afghanistan in connection with a new policy towards Iran, Pakistan, India and China. They will use Afghanistan as its base.

In conclusion

Any solution to Afghan problem must be regional. With many international conferences and meetings having failed to meet expectations, the sole goal of new strategy has to be to put an end to the war in Afghanistan.

There is a need to tie US strategy in Afghanistan to a much broader strategy for both counterterrorism and regional security. Any strategy for the Afghan war needs to be part of a broader strategy.

A valid Afghan strategy cannot be separate from what happens in Pakistan. It is clear that Afghanistan's future will play a critical role in defining Pakistan's security and vice versa.

Page | 22



Eventually, a political settlement with the Taliban is inevitable. However, this is to be achieved from a position of strength. All these require detailed plans and schedules for implementations, and credible measures for effectiveness.

Page | 23

INDIA RANKED LOW ON GLOBAL HUMAN CAPITAL INDEX

Released by: World Economic Forum, Geneva

GHC Index:

The Global Human Capital Index 2017 ranks 130 countries on how well they are developing their human capital on a scale from 0 (worst) to 100 (best). It aims to be used as a tool to assess progress within countries and point to opportunities for cross-country learning and exchange.

• It takes into account "the knowledge and skills people possess that enable them to create value in the global economic system" to measure the 'human capital' rank of a country.

Performance of India:

- ✓ India has been placed at a low 103 rank, the lowest among BRICS economies.
- ✓ India also ranks "among the lowest in the world" when it comes to the employment gender gap, but has fared well when it comes to development of skills needed for the future.
- ✓ Among the South Asian countries also, India was ranked lower than Sri Lanka and Nepal.
- ✓ India is held back by a number of factors, including low educational attainment (primary education attainment among 25 -54 year old) and low deployment of its human capital, meaning the skills available are not put to good use.
- ✓ The overall list was topped by Norway, followed by Finland and Switzerland in the second and third place respectively.



GENERAL STUDIES-3

INDIAN ECONOMY

TIME FOR COURSE CORRECTION

Data released by the Central Statistics Office (CSO) showed the economy grew 5.7% in April-June, the first quarter of the current fiscal year, slower than the previous quarter's 6.1% and much lower than the 7.9% growth registered in the first quarter of 2016-17. This steady declining trend in the growth rate is a matter of concern.

The most disappointing aspect of the first quarter numbers is the steep fall in the growth rate of manufacturing to 1.2%. Because of the good monsoon, agriculture will do better. Since agricultural growth rate last year was also good, the increase may not be that much. Sharp decline in growth rate noted in the last few quarters cannot be attributed to poor export performance.

Why the slowdown?

Decline in inventories ahead of the rollout of GST combined with the Demonetisation exercise. The rate has come down predominantly due to pre- GST effect as manufacturers were focusing more on clearing the existing stock.

The fundamental problem has been the sharp fall in the investment rate. GFCF (Gross fixed capital formation) is a measure of gross net investment (acquisitions less disposals) in fixed capital assets by enterprises, government and households within the domestic economy.

In India, Gross fixed capital formation rate stood at 34.3% in 2011-12. This started falling steadily and touched 29.3% in 2015-16. It fell further to 27.1% in 2016-17.

- In the first quarter of 2017-18, it stood at 27.5%.
- Since the public investment rate has not shown any decline (*it stands at 7.5% of* GDP), it is the decline in private investment, both corporate and households, that has been responsible for the steady fall.
- While the fall in corporate investment is steep compared to what was achieved in 2007-08, it has more or less stabilised at a lower level of around 13%.

Page | 24



 Household investment has continued to decline even in recent years. Household here includes not only pure households but also unincorporated enterprises.

It's not the export sector to blame

Growth is fueled broadly by two types of demand, domestic and external.

- High export growth has propelled the growth rate of many countries, including China's. In India's own experience, the high growth phase between 2005-06 and 2007-08 saw exports growing at an average annual rate exceeding 20%.
- India's declining growth rate has also coincided with poor export performance. Export demand has been weak because of the tepid growth rate of the advanced economies.
- Both in 2014-15 and 2015-16, the export growth rate was negative. However, the export growth rate has become positive since the second half of 2016-17.
- While undoubtedly export demand is critically important to sustain high growth, the sharp decline in growth rate noted in the last few quarters cannot be attributed to poor export performance. In fact, as compared to the previous year, the export performance has improved.

Declining growth rate and its effect on employment

Jobless growth is an economic phenomenon in which a macro economy experiences growth while maintaining or decreasing its level of employment. Deep concerns have been expressed about the fact that the growth that we have seen in recent years has not resulted in an increase in employment.

It may be noted that data on employment are not very reliable. Firm data are available only for the organised sector. The rest are estimated through surveys. In fact, in the case of unorganised sectors, very often the position is one of 'underemployment' rather than unemployment.

Growth can occur because of two reasons. One, it results from better utilisation of existing capacity. Two, it can come out of new investment. Whatever growth we have been seeing recently has come out of better utilisation of capacity rather than new investment. It is real growth spurred by new investment that generates more jobs.

Investment rate is the key

Page | 25



Investment, which is between 30 and 35% of the total pie, needs to grow at least in double digits. *Investment in future capacity creates GDP growth of the future*. It needs to be led by the private sector. Currently, that component is barely growing at 1.5%. As a result, capital formation is steadily declining for several years. Despite the push for 'Make in India', reforms for improving 'Ease of Doing Business', increased access to electricity, improvement in infrastructure and private investment are not picking up.

Another interesting factor about the falling investment rate is that the last few years have shown a steady and substantial increase in foreign direct investment (FDI). FDI inflows in 2016-17 were at an all-time peak of \$60 billion. With this type of inflow and if the investment rate has not grown, the one inference that one can make is that *much of the FDI has gone into acquiring old assets rather than going to Greenfield projects*. All this implies

Stimulating private investments

is that domestic investors continue to remain shy.

- Reforms play an important role. Some of the noteworthy changes that have happened in the last few years are the passing of the bankruptcy code and GST legislation, and modifications in FDI rules. We must continue with the reform agenda and there is still a lot to be done in the area of governance.
- Financing investment has taken a beating because of the poor health of banks. Banks in India today are universal banks providing both short-term and long-term credit. The sharp reduction in the flow of new credit has also put prospective investors in a difficult situation. To resolve the non-performing asset (NPA) problem and to bring banks back to good health, recapitalisation has become urgent.
- A closer look must be taken at stalled projects to see what can be done to revive those which are viable. This must be part of an overall effort to hold consultations in small groups with investors to understand and overcome the obstacles that come in the way of new investment. Industry-by-industry consultations and analyses are needed to pinpoint problems and their solutions.
- Even though the progress of small and medium industries is very much dependent on the fortunes of the large, a separate look at medium and small enterprises may be needed to prod them into new investment.

In Conclusion

Page | 26



The growth rate in 2017-18 is unlikely to exceed 6.5%. Perhaps in the coming quarters we may see a rebound. Once the glitches and fears of the GST are over, the growth rate may pick up. Our goal must be to achieve and sustain a growth rate of 8% and above over an extended period and what we need is an immediate stimulus to re-inject the momentum. That will crucially depend on a big pick-up in manufacturing and private investment spending.

Page | 27

There has been a slight pick-up in public investment recently. That is not enough. Only when the two engines of public and private investment function at full throttle will India fly high.

AGRICULTURE AND CROPPING PATTERNS

DAIRY PROCESSING & INFRASTRUCTURE DEVELOPMENT FUND

The Cabinet Committee on Economic Affairs has approved a Dairy Processing & Infrastructure Development Fund" (DIDF) with an outlay of over Rs. 10,000 crore during the period from 2017-18 to 2028-29.

DIDF Activities:

- ✓ Focus on building an efficient milk procurement system
- ✓ Setting up of chilling infrastructure & installation of electronic milk adulteration testing equipment
- ✓ Creation/modernization/expansion of processing infrastructure and manufacturing faculties for Value Added Products for the Milk Unions/ Milk Producer Companies.

Management

The project will be implemented by National Dairy Development Board (NDDB) and National Dairy Development Cooperation (NCDC).

- An Implementation and Monitoring Cell (IMC) located at NDDB, Anand, will manage the implementation and monitoring of day-to-day project activities.
- The end borrowers will get the loan @ 6.5% per annum. The period of repayment will be 10 years with initial two years moratorium.
- The respective State Government will be the guarantor of loan repayment.

Benefits from DIDF:



95,00,000 farmers in about 50,000 villages would be benefitted alongside additional Milk processing capacity, milk chilling capacity and value added products manufacturing capacity.

It will generate direct and indirect employment opportunities for skilled, semi-skilled and unskilled manpower.

Page | 28

INDUSTRY, INFRASTRUCTURE AND INVESTMENT

EXTENSION OF FAME-INDIA SCHEME

The centre is considering the extension of FAME- India scheme to promote electric and hybrid vehicles by another six months.

Ministry: Heavy Industries and Public Enterprises Ministry

About the Scheme

The Faster Adoption and Manufacturing of Hybrid and Electric vehicles in India scheme was introduced from in 2015-16 till 2016-17.

- ✓ It is a part of the National Electric Mobility Mission Plan.
- ✓ The scheme has four focus areas, technology development, demand creation, pilot projects and charging infrastructure.

SCIENCE AND TECHNOLOGY

TENZING NORGAY, EDMUND HILLARY- THE NEW MOUNTAINS ON PLUTO

Two mountain ranges on Pluto have been named after Tenzing Norgay and Edmund Hillary by the International Astronomical Union.

Naming for the first time



This is for the first time features have been named, 14 in number, on the icy dwarf planet. The features have been captured by close flybys by the New Horizons spacecraft of NASA in 2015.



Tenzing and Hillary

Tenzing Norgay (1914-1986) and Sir Edmund Hillary (1919-2008), the Indian/Nepali Sherpa and New Zealand mountaineer were the first to reach the summit of Mount Everest and return safely.

IAU:

The International Astronomical Union (IAU) has a mission to promote and safeguard the science of astronomy in all its aspects through international cooperation. Its individual members are professional astronomers from all over the world. Among other activities, it acts as the internationally recognized authority for assigning designations to celestial bodies (stars, planets, asteroids, etc.) and any surface features on them.

COPING WITH HOSPITAL INFECTIONS

Why in news?

A Bengaluru firm became India's first to receive the international CARB-X grant to develop antibiotics to treat hospital-acquired infections.

About CARB X

CARB-X, or Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator, is a public-private international partnership, set up in 2016, to focus on innovations to improve diagnosis and treatment of drugresistant infections.

Initiative by: Inspired by Bara Obama's 2015 Combating Ant		Gram-negative bacteria Bacteria are classified as Gram- positive and Gram-negative, based
iasshiksha.blog	iasshiksha.co	on a structural difference in their cell walls. Gram-negative bacteria are responsible for 20-25% of infections, and are multi drug

resistant.

Page | 29

277



Page | 30

Sep 8th to 14th

Resistant Bacteria (CARB) initiative. Funded by Wellcome Trust of London and the US Department of Health and Human Services.

<u>Aim:</u> To speed research, development and delivery of new antibiotics, vaccines, diagnostics, and other innovative products to address the urgent global problem of drug-resistant bacterial infections.

All CARB-X funding so far is focused on projects to address the most resistant "Gram-negative" bacteria.

3RD GEN NAG MISSILE

Developed by: Defence Research and Development Organisation (DRDO)

Details

- ✓ The 3rd gen Nag Anti Tank Guided Missile(ATGM) has fire and forget capability
- ✓ It has a launcher system called NAMICA
- ✓ The missile is developed to support both mechanised infantry and airborne forces of the Indian Army.

INDIA'S FIRST HYPERLOOP

Where? Andhra Pradesh

<u>Collaboration:</u> Govt. of AP and California-based Hyperloop Transportation Technologies (HTT)

Proposed connectivity: Vijayawada and Amaravati

Details

- ✓ The project will use a Public Private Partnership (PPP) model.
- ✓ The Hyperloop is expected to give rise to development of various state-of-the-art technology parks and software clusters in Amaravati, helping to fortify the city's image as a world class leader in science and technology.

Hyperloop Technology: How it works?

It is a transportation system where a pod-like vehicle is propelled through a near-vacuum tube connecting cities at speeds matching that of an aircraft.





 These capsules are expected to be driverless with estimated speeds of 1,000 km/h.

SPACECRAFT TO CLEAN JUNK

The Brane Craft, being developed by US-based Aerospace Corporation, is a flexible and less than half the thickness of a human hair. This ultra-thin spacecraft can remove space debris – which potentially threaten satellites or astronauts – by enveloping junk in the Earth's orbit and dragging it through the atmosphere, causing it to burn up.

Details

The spacecraft is resilient with fabrication to ensure that if one component gets damaged, the others will continue to work.

 Brane Crafts will be powered by ultra-thin solar cells as well as a little bit of propellant.

The menace of space debris

According to NASA, there are over 50,000 pieces of debris (space junk) traveling at speeds up to 17,500 mph around the Earth.

 The rising population of space debris increases the potential danger to all space vehicles, but especially to the International Space Station (ISS), space shuttles, satellites and other spacecraft.

Page | 31



 In 2013, Russian satellite, Blits, was damaged after colliding with debris created when China shot down an old weather satellite in 2007.

CASSINI'S GOODBYE KISS TO TITAN

Cassini spacecraft has completed a final, distant flyby of Saturn's giant moon, Titan.

- The spacecraft's mission is all set to end when it enters the planet's atmosphere and disintegrates.
- Cassini will relay as much data as it can back to Earth before it dies.
- The data collected will allow scientists to understand more about the planet's atmosphere and interior.

Backgrounder:

Launched in 1997, the Cassini mission — a cooperation between NASA, the European Space Agency and the Italian Space Agency — has sent back stunning images and made numerous discoveries about the ringed planet and its moons.

Objectives:

• Determine the three-dimensional structure and dynamic behavior of the rings of Saturn, composition of the satellite.

Discovery

The probe has been crucial to findings that Saturn's moons are among the most hospitable places in the Solar System for potentially supporting life. Recently, NASA also announced that Cassini had detected chemical reactions happening below the icy surface, suggesting life is possible there. The mission also found that the moon Titan contains many earthlike features such as wind, rain and seas.

ENVIRONMENT

SAND DUNES TO FARM

Name of the project: Sahara Forest Project

Where? Jordan.

Page | 32



<u>Aim:</u> To turn Jordan's sand dunes into farming land to produce food using sun and sea water.

Funders: Norway and the European Union

Details

- ✓ The idea is to produce organic vegetables, as also fresh water.
- ✓ It will use solar panels to provide power, saltwater-cooled greenhouses, a water desalination unit and salt ponds for salt production.

More of such innovations needed

According to United Nations estimations, deserts are expanding 30 times faster than at any time in history. With world's population expected to touch 9 billion by 2050, land for food production is growing scarce, more so in Africa, where the worst effects of climate changes are already visible

The Sahara Forest Project demonstrates that innovative application of technology has the potential to revolutionize our land systems in a way that benefits human populace at large.

AN ISLAND IN LAKSHADWEEP DISAPPEARS

A study has revealed that one of Lakshadweep's bio-diversity rich islands Parali I has vanished.

Location: Parali I island, part of Bangaram atoll

Reasons:

Complete erosion and inundation due to sea level rise, an outcome of global warming

In conclusion

The results are indicative of the urgent measures to be implemented on each islet of the atoll to check further erosion. It is recommended to check the feasibility of a bio protection strategy using mangroves, in addition to the conventional physical protection measures.

India's coasts and islands, which are densely populated, are highly vulnerable. With the sea levels predicted to rise further, we should start preparing for building defenses to protect our coastlines and islands.

Page | 33



MONITOR LIZARD

Why in news?

A joint operation by the Wildlife Crime Control Bureau (WCCB) and the Odisha Forest Department recovered sambar deer antlers, bear nails, a rock python and "hatha jodi".

<u>Hatha jodi</u>

Peddled as a rare plant root in shady shops and on e-commerce sites, hatha jodi is claimed to possess magical powers that ensure prosperity for its owner. But they are hemipenises — the forked male reproductive organ — of the monitor lizard, one of India's most threatened wildlife species.

Details about the lizard

India is home to four varieties of monitor lizard — Agra, Yellow, Water, and Large Bengal. They are protected under Schedule 1 of the Wildlife Protection Act, 1972, and their trade is restricted under Appendix 1 of the Convention on International Trade in Endangered Species (CITES).

Monitor lizards share their Schedule 1 status with tigers, rhinos, elephants and leopards, and hunting or harming them can attract jail terms of at least 3-7 years

MOUSE DEER

Why in news?

The Telangana State Forest Department has re-introduced the endangered 'mouse deer' into the forests of Nallamalla in Amrabad Tiger Reserve.

Page | 34





Page | 35

Also called 'spotted Chevrotain', it is one of the endangered species usually found in deciduous and evergreen forests of the country. It has its own family called Tragulidae.

- These animals are nocturnal in habitat and because of their small size they are called 'smallest ungulates' too.
- Also called "Jarini Pandi" in Telugu, their number has been decreasing at an alarming rate in recent years because of destruction of habitat and poaching.

SECURITY CHALLENGES

ALL WOMEN CREW TO CIRCUMNAVIGATE

Name of the expedition: Navika Sagar Parikrama

Vessel: INSV Tarini

Details:

The all-women crew comprises six-members, all women team, will circumnavigate the globe in approximately 165 days.

- ✓ This is the first ever Indian circumnavigation of the globe by an allwomen crew.
- ✓ The project depicts Government of India's thrust for 'Nari Shakti', aimed at women empowerment in the country and ocean sailing by the Indian Navy.





- ✓ This would also help to discard the societal attitudes and mindset towards women in India by raising visibility of participation by women in challenging environment.
- ✓ The voyage also aims to show case the 'Make in India' initiative by sailing onboard the indigenously built INSV Tarini.
- ✓ The crew would also collate and update Meteorological/ Ocean/ Wave data on a daily basis for subsequent analysis by research and development organisations.
- ✓ The crew would monitor and report marine pollution on the high seas.

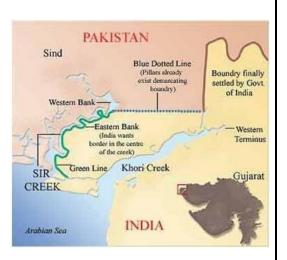
SIR CREEK AND NATIONAL SECURITY

The resolution to the Sir Creek dispute has been considered a low-hanging fruit for sometime now. The demarcation of this strip of water in the Rann of Kutch marshlands was one of the factors that contributed to the 1965 India-Pakistan war. It is considered to be significant in national security, more so of Gujarat's security.

 India and Pakistan have discussed about the land boundary in the Sir Creek area and also delimitation of International Maritime Boundary and have expressed their desire to find an amicable solution of the Sir Creek issue through sustained and result- oriented dialogue.

Sir Creek

Sir Creek is a 96-km strip of water disputed between India and Pakistan in the Rann of Kutch marshlands. Originally named Ban Ganga, Sir Creek is named after a British representative. The Creek opens up in the Arabian Sea and roughly divides the Kutch region of Gujarat from the Sindh Province of Pakistan.



The dispute

The dispute lies in the interpretation of the maritime boundary line between Kutch and Sindh. Before India's independence, the provincial region was a part of the Bombay Presidency of British India. But after Page | 36



India's independence in 1947, Sindh became a part of Pakistan while Kutch remained a part of India.

Pakistan claims the entire creek. The resolution, which demarcated the boundaries between the two territories, included the creek as part of Sindh, thus setting the boundary as the eastern flank of the creek popularly known as Green Line. But India claims that the boundary lies mid-channel as depicted in another map drawn in 1925, and implemented by the installation of mid-channel pillars back in 1924.

Importance of Sir Creek

Apart from strategic location, Sir Creek's is considered to be among the largest fishing grounds in Asia. Another vital reason for two countries locking horns over this creek is the possible presence of great oil and gas concentration under the sea, which are currently unexploited thanks to the impending deadlock on the issue.

DISASTER MANAGEMENT

MUMBAI FLOODS AND LESSONS

Flooding occurred in Mumbai on 29th August 2017 as the metro city saw water-logging, halting of all three modes of transport, power-cuts and some casualties as well. Big cities like Delhi, Chennai and Bengaluru also have slowed down during heavy rains.

<u>Hindsight can help</u>

Though flooding occurred because of heavy rains, but lessons had to be learnt from the earlier 2005 flooding and failures in Mumbai. The 2013 North India floods due to cloudburst in Uttarakhand, and 2015 South Indian floods resulting from NE monsoon that mainly hit Chennai had caused huge losses as well.

Causes and solutions

Such disasters of urban flooding are bound to come, which are man-made disasters.

- 1. Haphazard development projects being carried out by builders in these cities.
- 2. Drainages, both natural and man-made, get blocked due to fillings by mud, plastic, etc. To prevent havoc of flooding, these

Page | 37



drainages should be cleaned in advance as a preventive action and awareness should be created among people as well.

- 3. Issues like encroachments in river bed and dumping of garbage, and other pollutants in rivers and lakes also need to be solved.
- 4. Several decades old drainage system in India should be improved as they are unfit to meet the demands of the present population. Urban government should use technology like satellite imagery data through Bhuvan (a software application developed by ISRO) and National Urban Information System (NUIS) to map natural drains.
- 5. Unauthorised construction activities in natural drainage areas should be checked. This will help the water to take its natural course.
- 6. Water should be taken as a factor while constructing and making architectures of buildings (water-centric approach).
- 7. Mumbai faces high tides which result in backflow of water. Improvements like construction of gates should be done to prevent this from causing losses to human lives.
- 8. Various agencies of governments should coordinate their works with municipality. Schemes like AMRUT (2015) and JNNURM (2005) aimed at improving infrastructure and ensure adequate robust sewage network for urban transformation.
- 9. The NDRF, under Ministry of Home Affairs formed under Disaster Management Act, 2005 has well trained, equipped and energetic personnel of CRPF, BSF, etc. It has given commendable performance during various disasters. The SDRF at state level, on the other hand, is only 'filling the gap' and needs to improve a lot. Also, communication and co-ordination of various government agencies and NGOs should be improved.
- 10. Technology for forecasting floods of urban cities needs to be made available like the one for river flooding present with Central Water Commission. A model needs to be developed by Indian Meteorological Department relating occurrence of flood in cities with rainfall to increase the lead time available for response.

In Conclusion:

Though climate change and other effects on environment may be the reason for these floods, they are also aggravated and occur frequently in big cities because of anthropogenic activities. There is a need to integrate

Page | 38



 $Sep~8^{th}~to~14^{th}$

all the development activities and urban governance. Various organizations and NGOs need to be better equipped and also coordinate with each other. Disaster management consists of various steps in which early preparedness must be focused upon to prevent such incidents in future.

Page | 39