An Apathetic Government Cannot Prevent an Epidemic

LEAD ESSAY:

- An Apathetic Government Cannot Prevent an Epidemic

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An Apathetic Government Cannot Prevent an Epidemic

The Vector Borne Disease (VBD) epidemic in India is the worst in the past six years.\textsuperscript{i} The number of positively identified cases has seen a sharp rise in the past few months and it begs the question, why was the Government not prepared?

The National Green Tribunal (NGT) stated that the Government, civic bodies and public authorities had failed to tackle the situation and that their answers to questions on efforts made to control the spread of vector borne diseases were \textit{unbelievable and vague}. They further stated that the claim made by these parties, that they have been making all possible efforts to control the diseases, was not based on any substantial facts. For Example: An officer of East Delhi Municipal Corporation stated that he had 700 domestic breeding checkers who have visited eight lakh houses seven times, meaning thereby there are 56 lakh visits by these persons.\textsuperscript{ii} Similar statements by North Delhi Municipal Corporation (NDMC) stating “We have pressed into service 1,500 domestic breeding checkers (DBCs), 1,000 employees for fumigation and 300 officials to monitor them and take stock of the situation. We have also deputed three lakh staff to spray larvicides. So far, to the best of my information, 1.42 crore houses in North Delhi Municipal Corporation (NDMC) have been checked and treated with mosquito repellents” follow the same pattern of exaggeration.\textsuperscript{iii}

The matter was addressed by the NGT when a petition was filed by Mr. Mahendra Pandey, former scientist of Central Pollution Control Board (CPCB), for issuance of various directions and setting up of Committees to implement precautionary, preventive and curative actions to ensure that the residents of Delhi are not exposed to serious diseases like Dengue, Chikungunya and other allied diseases.\textsuperscript{iv}

Vector borne diseases are endemic to India and they have been a public issue for decades. The cause for spread of these diseases is lack of sanitation, cleanliness and stagnant water, a breeding ground for mosquitoes. Considering the fact that India faces this issue every year post the rainy season, it would be expected that the Government would have a preemptive strategy in place to contain these outbreaks and minimize loss of life. But, the magnitude of the outbreak this year shows a severe crisis in policy making, planning, management and apathy on the part of the Government.

Vector Borne Diseases

National Vector Borne Disease Control Programme (NVBDCP), under the Ministry of Health, is the nodal central agency for the prevention and control of vector borne diseases i.e. Malaria, Dengue, Lymphatic Filariasis, Kala-azar, Japanese Encephalitis and Chikungunya in India. These diseases are communicable diseases and are spread by mosquitoes. Mosquito borne diseases are one of the most fatal diseases in the world today.\textsuperscript{v} As of 25th September 2016, there have been 45,490 Dengue cases, 19,617 clinically suspected Chikungunya cases and 88 Dengue deaths across India according to NVBDCP. While deaths have been reported in the case of Chikungunya as well, there is a big debate amongst members of the political and medical community whether the disease is fatal or not. But, it is clear that children, elders and pregnant women are groups of people with suppressed immunity who could suffer seriously adverse effects due to the disease.

State Wise Analysis

Lack of media attention on Karnataka, the state worst hit by Chikungunya and West Bengal, with the maximum Dengue cases and deaths in 2016 is a matter of concern. While Delhi and Maharashtra have received a lot of media coverage the fact remains that the problem in other states is even more intense and there has been a clear policy and implementation failure across the country to manage an outbreak that could have been minimized if not controlled.
**Lead Essay**

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* As per 25th September, 2016

**Loss to the Tourism Industry**

India is targeting to attract one per cent of world tourists by 2020 and about 2 percent by 2025, banking heavily on India's strong tourism potential but the spread of VBDs in India is affecting the tourism industry heavily. According to the Associated Chambers of Commerce of India (ASSOCHAM), monthly foreign exchange earnings from the foreign tourist arrivals are between $1.5-2 billion a month during the winter season. The cluster of months following October, are considered the peak season for tourists due to many festivals like Diwali, Dussehra, Christmas and New Year. But, due to the VBD epidemic people are travelling less, especially families with children. The embassies have issues health advisories and this will severely impact businesses such as hotels, airlines, taxi operators and restaurants.

Further, a study titled ‘Quantifying the Impact of Chikungunya and Dengue on Tourism Revenues’ conducted by IIM Ahmedabad states that “4% decline in tourists from non-endemic countries would result in a substantial loss of tourism revenues – at least US$ 8 million for Gujarat, US$ 65 million for Malaysia, and US$ 363 million for Thailand. The estimated immediate annual cost of Chikungunya and Dengue to these economies is US$ 90 million, US$ 133 million, and approximately US$ 127 million respectively, indicating that impact on tourism revenues should not be ignored when calculating the burden of infectious diseases. The impact on Gujarat is relatively less because its share of world tourism receipts is just 0.04%, whereas Malaysia and Thailand have healthy shares of 1.64% and 1.82% respectively. A 4% decline in tourists to Gujarat from other Indian states would amount to US$ 9.6 million loss in domestic tourism revenues to Gujarat.”

Thus, beyond the ramification on health, the control of VBDs in India is essential to prevent financial losses as it can impact the economy greatly.

**Policy and Implementation Failures:**

1. **Lack of Planning and Preparedness**

The Operational Guidelines for Urban VBD’s Scheme (2016) by the NVBDCP forms a part of the National Health Mission. It is a comprehensive document which covers various aspects of VBD management in India and lists the staffing requirements and functions, control strategy and main objectives of the scheme. It states that in order to control VBDs these measures need to be undertaken:

1. **Source Reduction:** Environmental methods of controlling mosquito breeding including source reduction by filling ditches, pits, low lying areas, streamlining channelizing, de-silting, de-weeding, trimming of drains, water disposal and sanitation, emptying water containers once in a week and observing weekly Dry Day etc.

2. **Anti-larval methods:**
   - **Chemical:** Recurrent anti-larval measures at weekly intervals with approved larvicides to control the vector mosquitoes are recommended.
   - **Biological control:** Biological control of mosquito breeding through biological agents especially larvivorous fishes and biolarvicides.
3. **Aerosol space spray**: Space spraying of pyrethrum extract (2%) in 50 houses in and around every Malaria positive cases to kill the infective mosquitoes.

4. **Early Diagnosis and Complete Treatment**: Anti-parasitic measures through passive agencies like hospitals, dispensaries, clinics and private practitioners to reduce the reservoir of infection, by early case diagnosis and complete treatment.

Taking the Delhi Government as an example, their first response to the Dengue outbreak was to start fogging. After that, it was to deal with the shortage of beds and finally a reminder was issued to the public at large to keep surroundings clean. The awareness campaign should have been the first step in order to make sure that the people are well informed and have accurate information; the arrangements for hospital beds should have been the next step to ensure that patients have access to proper health care. **Fogging has been declared expensive and ineffective** by various agencies but, it is still used by the Government for political impact, instead of using the measures mentioned in the guidelines more effectively. The fact that efforts towards vector management should have been started months prior to the rainy season but, were only announced midway through it clearly shows a lack of planning and preparedness on the Government’s part to deal with the epidemic.

II. **Use of Ineffective Measures**

Despite the NVBDCP guidelines, and even after decades of dealing with these diseases, the VBD epidemic was given attention only after it became a crisis. Even then, the action plan was mainly centered on fogging. The main cause for spread of these diseases is mosquito breeding in stagnant water which often accumulates at construction sites or in empty containers or in sewers due to water logging. **The main aim of the schemes should be prevention by eradicating these breeding grounds or in other words larvae eradication.** Fogging can kill adult mosquitoes but, is ineffective against larvae. Thus, fogging is an ineffective mechanism for dealing with VBD’s as per Dr SK Seth, Director, Hospital Administration, at the MCD Headquarters. He further states that “Fumigation is not a preventive measure; it is only a containment measure. A high-risk formula with only psychological effects — that is, it makes people feel safer.” Further, the insecticide used for fumigation, Malathion, is very dangerous for children, pregnant women and asthmatics. But, before fumigation no checks are made to ensure these groups are not adversely affected. Fogging is also known to contaminate ground water sources and soil. Thus, the Government is choosing to ignore better and more effective options of controlling VBDs and is using fogging machines instead, which have high political impact but, very low actual impact.

The Delhi Government and the Delhi Municipal Corporation have initiated an awareness campaign, a **Fever Clinic, Mobile Clinic and Mohalla Clinic**:

- Fever Clinic has been established in hospitals like AIIMS, Safdarjung, and Lok Nayak.
- Mobile clinics go door-to-door to provide treatment and free medicines.
- The mohalla clinics are for treatment and tests.

While the efforts being made to keep the epidemic in check are noble, many discrepancies have been found. The Mohalla Clinics particularly have been found to be short staffed with only one doctor and three other staff members treating 300 patients on an average.**A report has been filed with the Central Vigilance Commission alleging corruption, lack of mechanism for issuing prescriptions, or to record patient details. The Central Vigilance Commission is yet to comment on the same.**

III. **Population growth and Urbanization not matched by adequate staff**

A senior South Delhi Municipal Corporation official stated that they do not have dedicated staff for checking mosquito breeding, which reflects on their seriousness to tackle the public health crisis. He further stated that rapid urbanization and increasing population numbers have made the spread of VBDs easy in urban areas. His statement is
further substantiated by the Urban Malaria Scheme on NVBDCP website which states that rapid urbanization and population growth in urban areas has not been matched by growth in trained staff strength and led to inadequate service delivery. Lack of regular water supply, makes people store water, and these sites can become breeding ground for mosquitoes. The creation of ‘urban slums’ with poor housing and sanitation conditions have also encouraged mosquito breeding. Old villages in expanding urban centres were kept out of overall development (sullage & sewage disposal) with unrestricted land use maintain high mosquitoigenic potential. Anti-larval activities are restricted to chemical control and the focus is not on integrated source reduction measures. Further, development projects should have health impact assessments but, in their absence there have been outbreaks of VBDs in urban areas. The Environmental Impact Assessment Guidance Manual for Building, Construction, Townships and Area development Projects do not make mention of any precautions to be taken to ensure that the unfinished building do not become breeding grounds either. This is a major policy gap which needs to be fixed.

IV. Awareness campaigns countered by political statements

Awareness campaigns are by far the most effective mechanisms in controlling the spread of VBDs. If people know that mosquitoes breed in stagnant water, they can prevent it from happening in their homes and neighborhoods. Further, since there is no specific antibiotic or medicine to treat it or vaccine, the only way to protect oneself is to avoid being bitten by wearing long sleeves and pants. Awareness campaigns are very important but, the purpose of the campaign is defeated when politicians create confusion by making sweeping statements without offering detailed explanations. For example, Union health minister JP Nadda and Delhi health minister Satyendar Jain have both publically stated that Chikungunya is not fatal. This is despite the fact that 10 people have died post testing positive for this disease in Delhi. WHO data also confirms that while the possibility of dying from Chikungunya alone is very low, it can be fatal in certain cases. If people believe that the disease is not fatal, the likelihood of them getting tested for it decreases. The symptoms for Chikungunya and Dengue are the same and Dengue is definitely fatal. Thus, careless remarks by politicians can have the opposite effect of an awareness campaign, instead of spreading information, they can create confusion.

Another example is a statement made by East Delhi Municipal Corporation Mayor Harsh Deep Malhotra “Our hospitals are well-equipped and have been strictly instructed not to deny admission if it is needed. There is no shortage of beds and platelets in our blood bank.” This statement is contrary to various media reports which have highlighted the shortage of staff, infrastructure and the abysmal conditions faced by patients at the Government hospitals. This can affect the credibility of politicians in the eyes of the public and effect the overall credibility of the schemes as a consequence.

V. Chikungunya is not a ‘Notified Disease’

According to the Union Health ministry, private sector is the first point of contact for health services for 60% of Indians. The reason being, people in urban areas prefer private clinics over Government hospitals. Private hospitals are not obligated to report cases to the Government unless the disease is listed as a notified disease. The state Government can, by issuing a Gazette notification, add a disease to its list of notifiable diseases and they can even invoke the Epidemic Diseases Act, 1897 which gives the state and center the power to control and prevent spread of an epidemic. In case the orders as per this act are not followed, it is punishable under Section 188 of the Indian Penal Code for disobedience to order duly promulgated by public servant.

Chikungunya was recently listed as a notified disease but, it can be notified within a week of diagnosis. If the mosquito was infected, it can bite up to 21 people in a week. The mosquito container index (the percentage of water-holding containers infested with larvae or pupae) in Delhi is over 40 percent. Any index above five per cent requires a community-integrated cluster approach to reduce mosquito density along with effective anti-larval measures. Considering the gravity of the situation, within hours of a suspected case anti-larval actions must be taken to prevent further spread of the disease.
"We have failed because the government has been insisting that only ELISA-confirmed cases be notified. An SMS should be sent to all doctors practising in that PIN code areas with a case so that they can become a part of the public health action chain. When the first case is suspected in a state, colony or house, all public health measure should start”

- Indian Medical Association honorary secretary general K. K. Aggarwal. xxi

VI. Underreporting of cases

A report by the Comptroller and Auditor General (CAG) on the preparedness of Delhi government and municipal bodies in control and prevention of the vector-borne disease states that there is a case of severe underreporting of VBDs. For example, it states that while hospitals reported 409 Dengue deaths in 2015, the state’s committee, which includes city government doctors as well as municipal health officers, confirmed only 60 deaths – 46 from Delhi and 14 from other states. xxi

The following passage succinctly summarizes the situation that leads to underreporting of cases.

‘Threadbare and chronically understaffed clinics often turn sick patients away or refer them to overcrowded district hospitals. Mosquito nets and pesticide sprays are seldom deployed on time or in sufficient quantities. Overworked laboratory technicians race to keep up with unexamined stacks of blood tests for Malaria in public health laboratories. The country also faced a shortage of anti-Malarial drugs in 2014, and a longer shortage of life-saving mosquito nets. Meanwhile, we learned that government officials responsible for the programme succumbed to a culture of fear, afraid to report poor progress to their supervisors.” xxi The consequences of under reporting of cases are severe as they can affect surveillance measures and give an inaccurate picture of the situation.

VII. Ineffective surveillance mechanisms

To obtain reliable, representative information on severe cases of Malaria, hospitals in high endemic districts have been developed into sentinel sites. The overall objective of the sentinel surveillance hospital for severe Malaria is to improve the management of such cases in order to reduce case fatality. The specific objectives are:

- To assess the magnitude of severe cases of Malaria
- To know the patterns of severe cases of Malaria
- To analyze the reasons / situations which lead to complications of Malaria
- To improve referral from primary health care facilities to sentinel surveillance hospitals
- To improve the capacity of medical and paramedical staff in management of severe cases of Malaria
- To improve the infrastructure in identified hospitals for management of severe cases of Malaria xxiv

The surveillance mechanism for VBDs is entirely dependent on reporting of cases by these hospitals and in certain cases private hospitals can also be designated as sentinel hospitals. The underreporting of cases which is rampant in India as per multiple sources makes the surveillance mechanisms counterproductive as well. Instead of alarming the Government to an epidemic, it can put them in a false sense of comfort based on inaccurate figures. This would eventually lead to situations similar to our current situation, where the state Government was unable to handle the epidemic due to lack of preparedness. This also reflects on the Centre’s ineffective policy making. Despite suggestions from various groups and the clear lack of entomologists in India, nothing has been done to improve the situation.

VIII. Rural Areas

“Generally, the high risk areas for VBDs are rural and tribal areas and urban slums inhabited by the poor, marginalized and vulnerable groups with limited access to quality health care, communication and other basic amenities in those focal areas” x xv
Lead Essay

No schemes have been implemented with a special focus on health care and vector management in rural areas despite them being high risk areas.

IX. Allocation of Responsibility between Centre and State

The Central Government is responsible for policy/law making, fund allocation and planning while the State Government is responsible for the implementation of these policies. In the case of state subjects like health, the Centre provides financial support to the state for implementation of their schemes.

While the number of combined Malaria, Dengue and Chikungunya cases in India crosses 5 lakhs, under the National Health Mission, the allocation for VBDs has barely gone from 1.8% to 2.5%. Even these funds went unutilized as seen in 2015-2016 when out of the Rs.620cr allotted to VBDs only 42% was spent. This is peculiar considering the plans for spending sent by state Governments to the health ministry asked for much more than what was eventually given. For Example, Delhi Government asked for 6.7 crore but was allotted only 1.75 crore for “fighting Malaria and Dengue”. Further, Delhi made no request for anti-Malarial insecticides and requested Dengue testing kits under a wrong head. xxvi

The Centre has various means for tracking the utilization of the funds provided such as:

- Annual audit by Comptroller and Auditor General
- Submission of quarterly Financial Monitoring Reports by the States; Annual Statutory Audits; Concurrent Audits.
- Implementation of Public Management System (PFMS) for monitoring and management of funds on just in time basis.
- Regular reviews on financial matters with State/UT government officials.
- Visits by the team of Financial Management Group of the Department to States for periodical review.
- Annual visits to States by Common Review Mission, which inter-alia, looks at financial system and mechanisms.xxvii

Thus, it can be established that while the failure to implement the policies effectively may lie with the State Government, The Centre also had ample mechanisms in place to track funds allocated to the States and how they were being utilized. Is it not the Centre’s charter to check implementation of its policies at the state level? This shows the apathy of the current Government and the power tussle between the Centre and the State Governments which can be said to have lead to this epidemic.

X. Advice ignored while making policy

The Centre is responsible for policy making and, it has been criticized on the fact that the knowledge once gained through painstaking research and fieldwork by entomologists is ignored in Malaria control. Importance of entomologists is underscored even though vector control is impossible without entomologists as they are responsible for the study of the classification, life cycle, distribution, physiology, behavior, ecology and population dynamics of insects, on the basis of which vector control policies should be based. Further, important recommendations by WHO are yet to be followed up and implemented.

Another aspect is that India at present has a small number of experienced and expert entomologists. Their services are not used by the authorities since the system is dominated by medical people. The country has no entomology programmes at the undergraduate/university level these days, though some medical/public health entomology courses have been started by some institutes in recent times. But, since the degree is awarded by a university, restrictions have been placed on the syllabi, making the course itself more or less useless for work in the field. The net result is that only a limited number of those who take these courses are utilised by the programme. Specializing at a higher level is impossible without guidance from experienced mentors, of whom there are precious few.xxviiiThus, policies made by the Centre are often not based on expert advice which can lead to epidemics like the one being faced by India currently.
Policy Gaps that need to be addressed:

I. Global Learnings

Many countries around the world are facing the challenge of tackling VBDs and much can be learnt from their experience. In the early 1990s, a major shift was the change from vector control (mosquito control) to parasite control strategy to contain infection. “Where India fails is in providing consistent and quality public healthcare delivery system across states. Low visibility of primary healthcare services leads to their neglect by politicians as well as medical professionals,” said DR Srinath Reddy, president, Public Health Foundation of India. The lack of testing is a cause for concern with more dangerous viruses like the Zika virus infecting people around the world. These viruses can reach India via tourists and without testing, the disease cannot be identified and measures cannot be taken to control it. Zika virus does not show symptoms in 80% cases but, it can cause complications in pregnancies. Thus, “With 26 million babies born in India every year and most infected people not developing symptoms, the potential of disability is great for lakhs of unborn babies.”

In this context, a look at third world countries and the methods, techniques, and policies implemented by them is imperative. A few examples can be seen as follows:

Sri Lanka: Sri Lanka was recently declared Malaria free by WHO (World Health Organization). They have used various measures over the years to counter Malaria, such as DDT to kill mosquitoes and chloroquine to cure the disease during the 60’s and a mix of indoor spraying, bed nets, rapid diagnostic kits and medicines, that combined artemisinin, in the last decade. They also set up a nationwide electronic case reporting system and mobile clinics near labor camps, airports and ferry landings, offering diagnosis and treatment to all. “India in comparison uses very old school techniques and can benefit from Sri Lanka’s experience. India needs to encourage out-of-the-box thinking like Sri Lanka, which used live web-based surveillance to track, test and treat all suspected cases.

Africa: Africa has come up with Faso Soap which is a soap designed to repel mosquitoes. The soap works for up to 6 hours and the soapy water thrown after bathing prevents breeding. It was conceived as a simple and affordable solution to ending Malaria.

Singapore: Delhi has faced a massive development boom in the last few decades and the cost of this development has been paid by its health. The density of population in cities is very high, the quality of air in the cities is very poor and incomplete construction sites are prime breeding grounds for mosquitoes, especially after rains due to water collection. In order to deal with this side effect of urbanization, Singapore has followed measures for larval source reduction. It is recognized that it is easier to kill larvae than killing a flying mosquito. The National Environment Agency works with contractors and uses ‘Gravitrap’ at construction sites. Gravitrap is a cylindrical container with a sticky inner surface that attracts and traps egg-laying mosquitoes.

Similarly, in Delhi the municipal corporation, in collaboration with northern railway has introduced ‘Terminator Trains’ in order to spray insecticide and control larva formation near train tracks. “Terminator’ is a low lying platform added to the last wagon of the train, on top of which a high pressure spraying truck is mounted. The spraying machine can cover areas up to 50m with the nozzle. Each civic body will provide its own equipment while the train passes through its jurisdiction.

II. Vaccination

Unlike Malaria, Dengue does not have an established cure and therefore, vector control is the only option. In April, WHO approved the world’s first Dengue vaccination known as Dengvaxia. It was made based on research conducted by French-based Sanofi Pasteur. Mexico, Brazil, El Salvador and the Philippines have already licensed Dengvaxia. The vaccine is given in three doses throughout the year and results based on clinical trials show that the vaccine is 70
percent effective for those with pre-exposure to Dengue and 90-95 percent effective against severe hospitalization. xxxiv But, “India’s Health Ministry axed a proposal by Sanofi to skip phase 3 trials and introduce Dengvaxia in the country citing insufficient data about the vaccine’s performance and that it reportedly wasn’t equally protective against all strains of the disease.” xxxv

III. Climate Change

The correlation between Climate Change and VBDs is very important in understanding and predicting future outbreaks. The rise or fall in temperature, rainfall, and humidity can greatly affect the egg laying patterns of mosquitoes and increase or decrease survival of larvae into adulthood. The Intergovernmental Panel on Climate Change noted in its 2007 report that climate change may contribute to expanding risk areas for infectious diseases such as Dengue and may increase the burden of diarrheal diseases, putting more people at risk. xxxvi

“Studies undertaken in India on Malaria in the context of climate change impact reveal that transmission windows in Punjab, Haryana, Jammu and Kashmir and north-eastern states are likely to extend temporally by 2–3 months and in Orissa, Andhra Pradesh and Tamil Nadu there may be reduction in transmission windows.” xxxvii India must adopt a low carbon footprint approach in its policies as the expenditure on controlling the spread of diseases in India, will be much higher than taking small measures to counter climate change.

Way Forward:
Considering that VBDs are endemic to India and we have to counter the spread of disease post the rainy season every year, the Government should have a standard operating procedure in place to prevent an epidemic. Starting from awareness campaigns in the first few months of the year, anti-larval methods during and after the rainy season along with surveillance methods a procedure must be followed. The same is provided by the NVBDCP in their operational guidelines but, it is not being implemented. Efforts must be made to standardize a vector control program which can be implemented efficiently.

The main action plan in order to tackle VBDs in India depends on surveillance of the disease to ensure early diagnosis so that an epidemic can be prevented. Both these activities are not possible at the state level due to under reporting of figures. The states may want to prevent actual numbers from being made public in order to protect their image but, it cannot come at the cost of a health crisis in India. Further, in order to ensure community participation and social mobilization, the political parties must show a united front and the citizens must have access to accurate information from the politicians. The Centre must make policies which can be implemented by states fully, as can be seen in case of schemes on control vector diseases, the states may pick and choose easy to implement measures which may not be effective in curbing the spread of the disease. Further, Chikungunya has been made a ‘notified disease’ in order to better track and prevent future epidemics. But, this will only be effective if all suspected cases are reported. By the time a case is confirmed and control measures are implemented the disease could have spread extensively in the area thus, the purpose of listing Chikungunya as a notified disease is not served.

Containment in India is complicated by the blame-game played out by the Centre, state governments, health department and civic authorities during each outbreak; public accusations of mismanagement is followed by cleanliness drives to destroy the breeding grounds of mosquitoes, but all work stops when infection ends during the cold and dry winter months that bring down mosquito breeding. 1 Thus, the apathy of the Governments is the biggest roadblock to eradicating VBDs in India.

“Health responses have to be integrated and backed with an efficient public health delivery system and evidence based strategies to prevent and control diseases and improve people’s quality of lives.” The Centre must hold the states accountable for funds allocated to them, by conducting audits and make the information public. The CAG report to be presented in the winter session would shed light on the same. Further, the Government is planning to enact a law to ensure that patients are not denied treatment at hospitals, which a big step in the right direction. The Centre and the states hold collective responsibility in ensuring that such epidemics can be prevented in the future.

Prepared by:
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xxix ‘Climate change and threat of vector-borne diseases in India: are we prepared?’, Springer Link, March 2010, Available at: http://link.springer.com/article/10.1007/s00436-010-1767-4
Surgical Strikes: How the World Conducts Them and How India Did It
(Bhaswar Kumar, Business Standard, 30 September, 2016)

Indian armed forces conducted surgical strikes in the early hours of Thursday across the Line of Control (LoC), involving not more than 100 commandos, in what is seen as a paradigm shift in how this government plans to deal with terrorist camps across the border. The term "surgical strike" has been prevalent in the international media since the days of the Gulf War, and it came to typify operations conducted by the US thereafter. Going by the generally accepted definition offered by experts, a surgical strike comprises a swift, intelligence-driven attack on a specific target or targets with minimum collateral damage to structures, infrastructure or civilians in the target's vicinity.

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Economy

Smart City Financing Laden with Trouble
(Jigyasa Watwani, *Down to Earth*, September 23, 2016)

Even smart city proposals have neglected water, waste and energy. In Faridabad for instance, nearly 83 per cent of the funds (Rs 2218.96 crores out of the total Rs 2656.48 crores) are directed towards mobility, smart parking facilities, smart transit and smart urbanism viz development of open-air smart gyms and multimodal hubs. Fundamental issues such as water management, waste management and energy management have been neglected. A project on the redevelopment of Barahi talab by strengthening water supply, sewerage and drainage, and constructing smart toilets has been allotted only Rs 2.5 crores.


RBI Issues Circular on Aadhaar Usage in Banks
(Komal Gupta, *Live Mint*, September 30, 2016)

In an attempt to encourage the use of Aadhaar, the Reserve Bank of India (RBI) said on Thursday that all the banks should ensure that all new card acceptance infrastructure, deployed with effect from 1 January 2017, are also enabled for processing payment transactions using Aadhaar-based biometric authentication.

Read More: [http://www.livemint.com/Politics/8MBE1qhj8ElbOq0dkKXhXN/RBI-circular-on-Aadhaar-usage-in-banks.html](http://www.livemint.com/Politics/8MBE1qhj8ElbOq0dkKXhXN/RBI-circular-on-Aadhaar-usage-in-banks.html)
Date Accessed: 30.9.2016

Global Cost of India-Pakistan Nuclear War
(Abheet Singh Sethi, *Moneylife.in*, September 29, 2016)

If India and Pakistan fought a war detonating 100 nuclear warheads (around half of their combined arsenal), each equivalent to a 15-kiloton Hiroshima bomb, more than 21 million people will be directly killed, about half the world’s protective ozone layer would be destroyed, and a “nuclear winter” would cripple monsoons and agriculture worldwide.

Date Accessed: 03.10.2016
Governance & Development

DEVELOPMENT

After Four-Year Drought, Ten Days of Rain in Marathwada Causes Deluge
(Staff, The Wire, September 26, 2016)

At least eight people have died in Marathwada in the Beed district, after the area received heavy rain for nearly ten days in a row, the Indian Express reported. After four years of drought, the rain in Marathwada was a relief at first, with people and officials celebrating.

But the boon was quickly turned into a bane, with six villages getting inundated. The National Disaster Response Force also had to be called in for Beed. Smaller dams are either full or overflowing, while bigger dams in the region, such as the Bindusara dam, is full after nearly ten years.

Read More: http://thewire.in/68633/ten-days-of-rain-marathwada/
Date Accessed: 03.10.2016.

Skill Deprivation: Education Alone Won't Guarantee a Job, In-Demand Skills Need of Hour
(Mayank Kumar, Firstpost, September 26, 2016)

India is all set to power most of global growth in labour in the coming years. Enrolment in Indian higher education is 24 percent right now. With India attaining almost universal elementary education, and increased retention in secondary schools, the projected demand for higher education and jobs will only escalate. India has finally been placed on the world map with a solid advantage where labour supply is concerned.

Date Accessed 3/10/2016

GOVERNMENT

India Lacks Dispute-Resolution Mechanism Over Water: Experts
(Sahana Ghosh, Moneylife.in, September 29, 2016)

It is "crucial" for India to manage domestic water concerns for enhanced regional cooperation, opine experts, pointing to the urgent need of a "dispute-resolution mechanism" that engages multiple stakeholders and embraces an ecological view of the problem.

Read More: http://www.moneylife.in/article/india-lacks-dispute-resolution-mechanism-over-water-experts/48337.html
Date Accessed: 03.10.2016

Does democracy cause growth?
(Collums, Ideas for India, June 29, 2016)

Many analysts view democracy as a neutral or negative factor for growth. This column discusses new evidence showing that democracy has a robust and sizeable pro-growth effect. It finds that a country that switches from non-democracy to democracy achieves about 20% higher GDP per capita over the subsequent three decades.

Read More: http://www.ideasforindia.in/article.aspx?article_id=1642
Date Accessed: 03.10.2016
SECURITY

India Finally Awakens to New Approach to Tackle Pakistan
(Vivek Katju, The Wire, September 30, 2016)

Obviously unable to abruptly shift gears from bonhomie to aggression, Modi went with seeking Pakistan’s cooperation to punish the Jaish-e-Mohammad cadres who were responsible for the attack. This cooperation proved to be a charade since the Pakistan army did not deliver despite India’s great concession in allowing a Pakistani Joint Investigation Team to visit India, including the Pathankot airbase for investigative purposes. On September 18, nine months after Pathankot, the army’s brigade headquarters at Uri were attacked by four terrorists, resulting in the deaths of 18 Indian soldiers. Already angry at Pakistan for fanning the flames on the Kashmir issue, a combative and determined Modi delivered an assuring message to India’s outraged citizens following the Uri attack. He said, “I assure the nation that those behind this despicable act will not go unpunished”. Ten days later, in an unprecedented move, he permitted the army to launch surgical strikes against terrorist launch pads in Pakistan occupied Kashmir (PoK) by crossing the Line of Control (LoC) in Jammu and Kashmir.

Read More: http://thewire.in/69921/india-finally-awakens-new-approach-to-tackle-pakistan/

Could India and Pakistan Go to War?
(Michael Kugelman, The Diplomat, September 24, 2016)

The main deterrent to a hot war on the subcontinent is nuclear weapons. Pakistan refuses to adopt a no-first use policy, meaning that it could conceivably respond to India’s use of conventional military force with a nuclear strike. This means that for India, any substantive military action against Pakistan—and even modest uses of force such as targeted airstrikes—would be dangerously risky. To avoid crossing any nuclear red lines, Indian military actions would need to be very modest and targeted—thereby hampering efforts to degrade and destroy terrorist compounds, Pakistani military facilities, or whatever India’s desired target may be. And yet such actions could still prompt Pakistani responses—such as the sponsoring of terror attacks in India.

Date Accessed: 30.9.2016

EDUCATION

Saved by the Bill? Reform Aims to Fix India’s Medical Education
(Gurcharan Das, Times of India, September 25, 2016)

What is fresh, even revolutionary, in this reform is a new regulatory philosophy with a focus on outcomes — what the student is learning. The old thinking was fixated on inputs — student fees, teacher salaries, toilets — and neglected the quality of teaching and learning. If the reform succeeds, we shall have more and better-educated doctors. If this outcome-based approach infects the rest of India’s education, we shall indeed have a better-educated population.


HEALTH

A Low Priority Called Health
(Shah Alam Khan, The New Indian Express, September 30, 2016)

An article published in The Lancet on June 26 reveals the tragedy of India’s healthcare system in more objective terms. It evaluates the role of private players in the healthcare system of countries. The article brackets India with Nigeria in the group of nations with a “dominant private sector”. At the time of our “tryst with destiny,” we were made to believe that India was committing itself to
socialist principles of governance. What went wrong that private players are predominant in the country’s healthcare sector? Or was it that healthcare was purposefully left “unattended” so that private enterprise could run amok? Or perhaps, healthcare as a vital investment was — and is — beyond the imagination of the country’s rulers?


**What Numbers Tell Us About Open Defecation in India**
(Samarth Bansal, *The Hindu*, October 2, 2016)

This is one of the key policy questions regarding Open Defecation and also the one which is the most debated. Should the government focus on building more toilets—increase access, or on encouraging people to use toilets—behaviour change?

Based on findings from NSSO’s Swachhta Status Report, one can conclude that access implies usage. The survey found that among the households having a sanitary toilet, 95.6 percent people were using it. “It may be seen that for the rural households having a sanitary toilet, the usage percentage was very high across all categories [age, gender],” the report says.

Date Accessed: 3/10/2016

**Dengue Fear Grips City Slum Dwellers**
(Hemanta Pradhani, *The Times of India*, September 17, 2016)

The Salia Sahi slum area is staring at a major dengue outbreak after 20 people were afflicted with the disease in the past one month. In Janata Nagar slum, as many as 17 people have been affected within a week with the rest of the cases being reported from Mahavir Nagar. And the number is increasing daily.

With the slum areas falling under unauthorized category, the Bhubaneswar Municipal Corporation (BMC) shows very little interest in its upkeep, giving rise to breeding grounds of mosquitoes.

Date Accessed: 3/10/2016

**URBAN**

**Bright idea: India's Plan to Switch to LED streetlights Could Save it Rs 5,000 Crore a Year**
(India Spend, Scroll, 29 September, 2016)

The government is planning to replace almost 6% of conventional street lights nationwide by installing two million power-saving light emitting diode street lights during the financial year 2016-'17.

The plan is part of a 100-cities national programme, called the Street Lighting National Programme, or #SLNP, launched by Prime Minister Narendra Modi in January 2015. When finished, the LED street lights will save municipalities Rs 5,000 crore every year, according to this September 2015 note from the Press Information Bureau.

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Governance & Development

Slum Dwellers Wary of Smart City Plan
(TNN, The Times of India, October 3, 2016)

"The government has announced a list of smart cities but there is great secrecy around how the land would be acquired for the purpose. The residents of urban slums now have to be on their guard, as they could be asked to move. We have begun to spread awareness and slum dwellers are beginning to organize themselves in a bid to prevent forcible eviction," said Harkesh Bugalia of the CPI-M, who has been aiding the slum dwellers in forming a committee.

Date Accessed: 3/10/2016

Mindless City Expansion Hits Quality of Life Hard
(Krishnendu Bandyopadhyay, The Times of India, September 27, 2016)

There is a method in the madness - an agrarian low-lying land exchanges hand. It is declared a wasteland then. The conversion begins at the block land and land revenue office. Filling up the land ensues shortly and it is now ready for construction, said a land tout at Rajarhaat.


Urban Poor versus Rural Poor
(Shahiduzzaman Khan, Financial Express, October 1, 2016)

The urban poor often face deprivation of education and health services. This is happening despite the fact that urbanisation is occurring rapidly in the country, and that over 60 per cent of the national gross domestic product (GDP) comes from cities. Housing condition in Dhaka is far worse than national average, as 55 per cent of housing units in Dhaka are shanties, compared to 34 per cent for the overall urban areas nationally.

Date Accessed 3/10/2016

ENVIRONMENT

India Wants Aviation Carbon Cap to Follow Paris Pact
(Soumya Sarkar, The Wire, 29 September, 2016)

India has proposed key changes in an international deal to restrain aviation emissions so that measures by International Civil Aviation Organisation are in line with the Paris pact on climate change. Even as representatives from close to 200 nations meet in Montreal to hammer out a deal to contain aviation emissions, India has expressed its reservations on a global agreement unless some key concerns are addressed.

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Reservoirs are large contributors of Methane to the Atmosphere
(Down to Earth, September 30, 2016)

In a paper to be published in journal BioScience next week, researchers from Washington State University (WSU), US, have concluded that reservoirs formed by dams are an underappreciated source of greenhouse gas emissions. They say reservoirs produce the equivalent of 1 gigatonne of carbon dioxide a year, which is more than the greenhouse gas production of Canada. The researchers have also found that reservoirs largely produce methane, a gas which is 34 times more potent than CO2 over a period of 100 years. “It (methane) is contributing right around 80 per cent of the total global warming impact of all those gases from
reservoirs. It’s a pretty important piece of the budget,” says Bridget Deemer, WSU research associate and lead author, in an article on the university website.

Date Accessed: 30.9.2016

A New Greenprint on Climate Change
(Live Mint, September 30, 2016)

By retaining the “common but differentiated responsibilities” clause in the Paris Agreement, the world has acknowledged Indian concerns. However, as Shyam Saran, India’s former foreign secretary and the prime minister’s special envoy for climate change from 2007-10, points out in an article in The Indian Express last year, doing away with the distinction between developing and developed nations dilutes the differentiation principle—which puts the onus on developed countries to take greater responsibility for reducing emissions. Undue pressure is already being exerted on India as one of the largest polluters of the world. Though third in terms of total emissions, it ranks 140th globally in terms of per capita emissions.

Read More: http://www.livemint.com/Opinion/YqrnG4DCF1q8v4v08lDM8I/A-new-greenprint-on-climate-change.html
Date Accessed: 30.9.2016

LAW AND JUSTICE

Maharashtra May Seek Changes to Atrocities Act Following Maratha Protests
(The Wire, 29 September, 2016)

The BJP-led Maharashtra government is going to recommend that the Centre modify the SC/ST (Prevention of Atrocities) Act to make sure that the law is not “misused”, Indian Express reported. This has been one of the primary demands of the Maratha protests across the state after the rape and murder of a girl from the community in July in Ahmednagar district’s Kopardi village.

Read More: http://thewire.in/69593/maharashtra-atrocities-act-maratha/
Date of Access: 30.9.2016

Debate: Criminal Procedure Code and Judges Protection
(Bureaucracy Today, October 3, 2016)

In view of the alleged increasing corruption in the lower judiciary, the latest decisions of the Apex Court on liability under Section 197 of the CrPC and the ineffectiveness of vigilance cells of various High Courts, it is the time to reconsider the 104th Report of the Law Commission by making suitable amendments in the Judges (Protection) Act, 1985.

Date Accessed: 03.10.2016
GENDER

At BHU, Women are Being Restricted by RSS’s Chains
(Angelica Aribam, The Wire, September 22, 2016)

The university has been trying to subvert the idea of democracy for the last couple of years. It has escalated with the appointment of Girish Chandra Tripathi as the vice chancellor, after Narendra Modi’s government came to power. Students, teachers, workers are not represented democratically. Tripathi believes in a dictatorial mode of functioning and takes immense pride in his 40 years of candid association with the RSS. He has been accused of openly espousing RSS ideology and has expelled renowned social activist and Ramon Magsaysay award winner Sandeep Pandey for not toeing the Sangh parivar’s line. Similarly, when objections were raised to his use of the university as a unit for the RSS, Tripathi said, “When the Indian government itself is of the RSS, there is nothing wrong in establishing an RSS’ shakha in BHU.”

Read More: http://thewire.in/67205/bhu-rsss-new-education-lab-open-gender-discrimination/

Women to Go on Strike in Poland to Protest Anti-Abortion Law
(The Guardian, October 2, 2016)

Thousands of women are expected to go on strike across Poland in protest against a new law that would effectively ban abortion. A lot of women and girls in this country have felt that they don’t have any power, that they are not equal, that they don’t have the right to an opinion. Poland already has some of the most restrictive abortion laws in Europe, with terminations legally permitted only when the life of the foetus is under threat, when there is a grave threat to the health of the mother, and in the instance that the pregnancy resulted from rape or incest.

Read More: https://www.theguardian.com/world/2016/oct/02/women-to-go-on-strike-in-poland-abortion-law
Date Accessed: 03.10.2016

SOCIAL CONFLICT AND VIOLENCE

Why the Marathas Have Decided To Go Leaderless in their Fight for Reservation
(Aarefa Johari, Scroll, 30 September, 2016)

Last year, when the Patels and Jats agitated for caste-based reservations, their community members organised massive rallies that led to violent clashes with the state. In July, when Gujarat’s Dalits rose against cow vigilantism, they protested by leaving cattle carcasses to rot on the streets. Now, for nearly a month, the Marathas of Maharashtra have been drawing attention to their discontent through another strategic form of protest: “muk morchas” or silent marches by lakhs of protesters across the state.

Read More: http://scroll.in/article/817738/why-the-marathas-have-decided-to-go-leaderless-in-their-fight-for-reservation
Date of Access: 30.9.2016
**OPINIONS**

**Water Could be a Potent Weapon against Pakistan. But Will India Actually Use It?**
*(Catch News, 27 September, 2016)*

Water is shaping up as a potent weapon in India's arsenal to counter Pakistan-sponsored terror than military action. Prime Minister Narendra Modi Monday made it clear that water and blood could not flow together, in what is being interpreted as a strong message to Pakistan. Talks of the Indus Water Commission have reportedly been suspended "until terrorism ends", for the first time since the Indus Water Treaty was signed in 1960. An inter-ministerial task force may be formed to review India's rights on the west flowing rivers, including the Indus, Chenab and Jhelum, and India may aggressively start exploiting the full potential of the river systems, something it has not done so far. This strategy, the thinking in the ruling establishment goes, will be enough to unnerven Pakistan, which is massively dependent on the Indus basin.

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**The SAARC gambit**
*(The Hindu, September 29, 2016)*

India’s decision to pull out of the SAARC summit in Islamabad this November, with Afghanistan, Bhutan and Bangladesh deciding to follow suit, effectively draws the curtain on what was increasingly becoming a farce. Since the previous Nepal summit, Pakistan has blocked all protocols to better link the region, while India has pursued a “SAARC minus Pakistan” plan to push through with agreements it is keen on. Meetings in the run-up to Islamabad have been overshadowed by ongoing India-Pakistan tensions for months now.

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**Sectarian Politics and the Partition of India: The Targeting of Nehru and Congress**
*(Anil Naruiya, The Hindu Centre, September 27, 2016)*

The rise of Hindutva-related organisations in India, especially since the late 1980s, has witnessed frequent attacks by them on the pre-freedom Congress in relation to the partition of India in 1947. These attacks increased since 2013 in the run-up to the General Elections of 2014. Some Hindutva organisations have become less covert than before in their glorification of the assassins of Mahatma Gandhi. Simultaneously, other sections of Hindutva forces have sought to disclaim responsibility for Gandhi’s assassination and to shift the focus of their attack on Jawaharlal Nehru. In this essay, Supreme Court advocate and writer Anil Nauriya, explores some aspects of these phenomena. He underlines also a connection between these tendencies and a development on another plane. This is that certain somewhat dubious and one-sided critiques of the pre-freedom Congress in relation to partition fostered by late 20th century colonialist historiography have been feeding into the Hindutva narrative.

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