

The Patna Waterlogging 2019: A Classic Case of Administrative Failure Doubled with Public Negligence

Supported by:

CRD - Centre for Research and Dialogue



Ground Work: Sanjit Bharti, Satyam Kr. Jha and Reetu Rohini

Authored by: Reetu Rohini

Guided By: Pushya Mitra (Senior Journalist)

Acknowledgement:

This research project would have not been possible without the support of CRD- Centre for Research and Dialogue.

This project involved a lot of travelling to and from various offices located in the city. I would like to thank them for their cordial support and prompt responses. Be it the staff and officers of Patna Municipal Corporation (PMC) and Bihar Urban Infrastructure Development Corporation (BUIDCO) at its various offices or the on-duty staff at various Sump Houses in the city, everybody provided adequate amount of help.

Special Mention: Deputy Mayor, PMC- Mrs. Meera Devi.

The officers and staff of the Patna Smart City Mission and Namami Gange Project operating under PMC and BUIDCO also proved helpful as they provided me with necessary documents.

I would like to thank various eminent personalities and social workers associated with the city, who enriched this report with their valuable inputs. To name a few, Ranjiv Kumar, Convenor of Nadi Wapsi Abhiyan, Dr. Deepak Kumar, Professor.

I would also like to acknowledge the work done by various reporters and staff members of the newspapers and websites. Had it not been for their reports, finding the minute details would have really been a difficult task.

Special Mention to: Prabhat Khabar (Patna), Times of India (Patna), newsonair.com

Also, this could have never been possible without the hard work of my teammates Sanjit Bharti and Satyam Kr. Jha. And last but not at all the least, I would like to thank, Pushya Mitra sir, Senior Journalist, for trusting me and guiding me throughout the project.

Purpose of Research:

The purpose of undertaking this research was to ascertain the pertaining factors behind never before seen level of waterlogging in the capital city of Bihar in the month of September-October, 2019. This research's main idea was to establish that the waterlogging which claimed several lives and crippled a vibrant and bustling city like Patna, was not only due to the natural phenomenon of rain, but rather a result of years of mismanagement, negligence and zero accountability of the Patna Municipal Corporation (PMC) and Bihar Urban Infrastructure Development Corporation (BUIDCO), the two agencies responsible for running the city.

It also questions the role and social responsibilities of the people of Patna and how they have neglected their duties of being aware citizens

The report is being released just before the start of the new monsoon season so that it serves as a reminder for both people and authorities. A reminder of how cruel and gruesome was the last year's monsoon and therefore it is now their responsibility to make sure that this year people do not suffer in the same way.

INTRODUCTION:

On the night of 27th September 2019, Patna witnessed the wrath of the rain which soon converted itself into a fury of flood. Within a span of 24 hours there was water everywhere, on the roads, in the parking stands, even on the first floor. It was as if the Ganga herself had chosen to make Patna her abode.

In the words of Satish Verma, of Kankarbagh, he had never seen anything like that. “I thought it was normal rainfall, so I left my shop as it is and went home, just so that if by any chance it increases its volume, I will return to set the shop straight and save the valuable items. But I couldn’t just return. It started at about 11 in the night and just continued to pour heavily. At 2.30 am I thought, let’s just see if someone is outside, then I will see to my shop. But no one was there to be found. There was nothing but dead silence all over the place. I couldn’t save my shop,” concludes Verma with a deserted look on his face.

But Verma was not the only one to suffer. A look at the headlines of the newspapers would be enough to gauge at the gory look that Patna was forced to wear for days past that fury of the rain. It was mayhem so to say. The rainfall no doubt was natural, but not the calamity that the city had to suffer.

On 29th September, a local newspaper, Prabhat Khabar reported that the city had received an average of 205 mm of rainfall in the past 36 hours. Although it was still 27% less than of what was expected of the monsoon, since it poured down so heavily in just 36 hours that it became difficult to contain. 70 billion litres of water remained stagnant in Patna as more than 350 mm of rainfall was recorded till 1st of October. The teams of National Disaster Response Force (NDRF) and State Disaster Response Force (SDRF) were rushed to the spot. Help was being sought from everywhere, but was hard to come by.

What added salt to the injury were the unfavourable comments from the Chief Minister himself. Instead of calling to provide all the support and direct all his departments for co-ordination, he stated the huge rainfall as a common thing and wrath of nature, simply pulling away from all his responsibilities.

“The climate is changing and this heavy rainfall is due to the Hathiya Nakshatra. Such rainfall is common during the Hathiya”, claimed Nitish Kumar, the Chief Minister of Bihar. By this he would have thought that he had dispelled all his duties and responsibilities. Unfortunately though, he was not the only one who was thinking on this line. There were many, rather all the stakeholders, who were responsible for fighting the rain menace, were pulling away from their responsibilities.

Patna Municipal Corporation (PMC), the nodal body, designated for the upkeep of the city, in association with Bihar Urban Infrastructure Development Corporation Limited (BUIDCO) issues a Standard Operating Procedure or the SOP for monsoon every year. In 2019 as well, the SOP was issued. A closer look at the SOP would tell that the authorities which created the SOP were themselves lacking at every front.

PMC- BUIDCO JOINT SOP for 2019 MONSOONS:

The standard Operation Procedure (SOP) for the Monsoons of 2019 was issued on 4th of July 2019, 83 days prior to the damaging night of 27th September, the night when heavens opened up and rained havoc on the city of Patna which continued for the next 48 hours leading to unprecedented levels of water logging.

In the SOP it has been recognised that Patna as a city faces water logging during the Monsoon ever year. The PMC and BUIDCO are also aware of the fact that Rajendra Nagar, Kankarbagh, New Bypass and areas nearby are low lying and their level is below Ganga's highest water level, due to which they always suffer water logging. It has also been mentioned that the water in these areas does not flow out naturally and thus 38 drainage sewage pumps come to the rescue of the people.

The SOP manual claims that all the transformers and pumps are being inspected and their repair is going on so that they are fully ready for the upcoming monsoon season.

The authorities claim that portable diesel pumps are being set up in enough quantities so as to deal with all kinds of water logging issues.

The SOP also claims that all the drainages were cleaned and de-silted.

But did all that really happen? There are evidences that quash every claim of the PMC-BUIDCO, made in their SOP. The SOP is rather a manual that tells how badly the authorities failed at every claim of theirs.

Sump Houses: How the lungs of the city failed it?

As many as 38 out of the 39 sump houses in the Patna Municipal Area failed to work as they were all found to be defunct due to some reason or the other.

Patna is geographically bound by water bodies on three sides. It is situated at a lower slope than the surrounding water bodies, in the shape of a bowl.

Dr. Deepak Kumar, assistant professor of Geography in Daudnagar College of Magadh University says, “In situations where the ground is at a lower level, a sump plays an important role in sucking out storm water and thereby minimising water logging”.

Even the SOP of the PMC and BUIDCO mentions that posh areas of the city like Kankarbagh and Ranjendra Nagar are low lying and therefore there is a requirement of Water Sucking pumps and Sumps Houses to suck the water out.

Apart from these smaller sump houses the big ones in Jogipur, Saidpur and the NBCC sumps in Kankarbagh were non-functional as well. In total, these pumps with a combined power of 22,645 Horse Power (HP) could have pumped out 10,689 million litres per day (MLD).

All this came to nought as none of the pumps worked in the initial few days, thereby becoming the most prominent reason for water logging in Kankarbagh and Rajendra Nagar Colonies.

The tall claims of PMC and BUIDCO of repairing the Sump Houses and its transformers, before the beginning of the Monsoon season were nothing but just tall claims. No work was done on the transformers as many of them failed and so did the Sump Houses.

In the SOP, it has been mentioned that 39 sump houses and 82 motors would pump out 10 million litres of water per day. However, only six inches of water was pumped out in two days. It is also important to know that out of the 39 Sump Houses, 28 come under BUIDCO and 11 under PMC.

Saidpur Sump House, the largest in the area of Ranjendra Nagar, remained water logged for more than two days. It has sumps with 1478 HP capacity, but only 198 and 375 HP diesel pumps were working. It has a capacity of pushing out 131 MLD, but wasn't even able to push out 50 MLD.

The Sump House in Yogipur, which was of 2178 HP and had the capacity of pushing out 471 MLD of water, did not even work as its transformer was burnt.

Other Sump houses also had the similar fate as most of them were situated in the water logged areas. The ones in Rajapur, NBCC, Pahadi, RK Avenue, RMRI, Rampur, TV Tower and Sandalpur were water logged and could not work properly for days.

But who is responsible for all this?

One of the PMC workers, at one of its Sump Houses, told us on the condition of anonymity told that the Mayor is nothing but a rubber stamp.

Seeing the utter negligence on the part of the authorities, the Urban Development and Housing minister, Suresh Sharma said that a technical wing and plan would be ready for next year to deal with situations

It was also mentioned in BUIDCO's SOP that Junior engineers and Assistant engineers must be available 24x7 at all the drainage pumping stations to ensure regular functioning of the pumps, however, they were clearly found lacking as most of the sump houses could not be operated, not just because of water logging, but also because they were damaged beyond repair, as no care was taken of them.

The PMC had to organize work shop for repairing the motor, pump, transformers, tractors and tippers under its aegis. And it was also given the responsibility to identify the repairmen for the same. But no such workshop was ever organized.

Staff of the PMC kept on denying any of its doings saying that they worked all hours and it was as if PMC was being made the scapegoat. And then one of the staffer picked up a word that was mostly in use those days and said that PMC was being "lynched" for others mistake.

It was also a common knowledge and was mentioned properly in the SOP that all pumping stations need to have spare parts, diesel and Mobil in large amounts to ensure smooth functioning. Well, forget spare parts, even the diesel had to be arranged at the last moment. What happened though, that all the alternate system of diesel pump jets, super sucker machines, and flood de watering machine failed as reported by Prabhat Khabar.

It was BUIDCO's prime concern to ensure repairing of all the motors, pumps, transformers, both of the PMC and BUIDCO, but as is clear, it failed miserably at that. There could have been a saving grace had they at least fulfilled their second duty which was to make sure that if there were cases of electricity blockage; diesel engines must be started immediately. But unfortunately it could not perform either of its duties as neither the maintenance and repairing was done on time, nor were the diesel engines arranged at the earliest as Patna remained stranded in the dirty, foul smelling, dengue prone waters.

Out of frustration, or should it be called a smart decision, BUIDCO decided that all sump houses must be ordered to start functioning together for 24 hours. And it failed miserably at that too.

While the Sump Houses did prove to be one of the most damaging factors in the Patna Water logging, there were other things that would further keep the city and its citizens in knee deep water for days.

De-Silting the budget instead of drains: How the Municipality docked the city by its negligence of drainage

The non-functional sump houses and the unplanned construction of sewer lines could have still been cured had there been proper preparedness for the situation. The authorities were sleeping when the India Meteorological Department warned of heavy rains 72 hours prior to the actual rains.

The authorities took the warning very lightly and did not bother to prepare. The unpreparedness was so much that even the drains were not de-silted properly. A proper budget had been allocated for the de-silting of the drains; however, they were not done properly, as a result of which most of the water did not reach sump houses quickly.

A report published in Prabhat Khabar alleges that PMC had spent 6 crores in Drainage cleaning at subdivision level. There are 6 subdivisions in PMC and each got rupees 1 crore for de-silting.

Patna has been divided into subdivisions by the PMC, so that there is decentralization of power and all wings work smartly and effectively to achieve the target of a clean and green Patna. While on paper it looks so darn amazing, in reality it is the ugliest vision as was evident during the water logging.

A report in the Prabhat Khabar claimed that most of the drains were blocked and in some, like Bakarganj drain, flow had been reversed, mostly due to water logging in the areas of its natural flow. Now who would be called responsible for it?

According to the SOP of the PMC, the authority was designated to identify and enlist the areas which could be the most affected due to water logging. It was also to conduct full cleaning and de-silting of all drains in its catchment area.

It was also mentioned in the SOP that ward level workers would be present on the ground and would see to it that all the catch-pits, manholes, drainages in their ward are free of silt and any other kind of blockages, such as plastic. That all are in the working conditions

It was also clearly written that over and above the inspection of work by the ward workers, chief sanitation inspector along with working officer and chief engineer would carry out regular inspections so that to identify and repair damages, if any found at later stages.

But did all this happen? And the answer is obviously a big NO.

According to report by Prabhat Khabar, very few ward commissioners were present in their area during the water logging. It was also found that Saidpur canal overflowed and caused flooding in the adjoining Rajendra Nagar, mostly because it wasn't de-silted at all. Forget full cleaning of the drains as most of the catch-pits and chambers were blocked with plastics that were mostly the negligence of the common people, but also that of the authorities.

While this was the case with the areas in which there is at least some kind of drainage facility. What about those areas where there is none. It was reported and can easily be seen if you ever happen to go to Patna that there is no proper drainage facilities in the newly built localities spread from Beur Jail to Zero mile in the new Bypass area of Patna. While this is in the South East, the South West is no different either.

The southern areas of Kankarbagh faced problems mostly because the Badshahi canal, one of the most important sources of water flow from the city to the river PunPun, which flows south off Patna, has been encroached upon and damaged.

According to the SOP, it was designated to the Irrigation Department that the decision of cleaning, de-silting, repairing and maintenance of Khanua and Badshahi canals, taken during the Task-force meetings were to be implemented with immediate effect, but it wasn't.

On being asked about the negligence of duties and mishandling of the funds, PMC officials had nothing but denial to offer.

While one official claimed that everything had become normal in the city from the 1st of October, another denied any negligence on the part of PMC. "The drains are filled with polythene bags and a lot of garbage," said an employee of the PMC, indicating that it is the fault of people that they throw garbage in the catch-pits and manholes and open drains.

There is no denying of the fact that people have been negligent or rather insolent. But at the same time it is no reason for the administration to forgo its duties and let people suffer.

The PMC officials had high praises for Municipal Commissioner, but no answer for the dereliction of their duties. Firstly, they denied having any information about heavy rainfall in between 25th to 29th September and then they were adamant at saying that they cleaned the drains, which was as plain a lie as there could ever be. Furthermore, they vehemently denied about not doing proper de-silting.

While most of the officials simply did not entertain any further questions after offering plain denial, one of the employees, seeking anonymity revealed that the Mayor has no role in decision making and works as a rubber stamp. He said in chaste Hindi, "Sab golmaal hota hai Nagar Nigam me," meaning that everything in the Municipal Corporation is manipulated and falsified.

The utilization of funds was done in such an opaque manner that even the Deputy Mayor had no idea about how they were spent. "Where did the Rs 6 crore allocated for de-silting go? Even I want to know about it," said a clueless Meera Devi.

The Smart City plan; which was anything but smart:

Along with the sump house failure, what hampered the drainage system, (if there exists any) was the ongoing works of development for the 'smart city project'.

Smart City mission was launched by the Government of India as "100 Smart Cities Mission" was inaugurated by the Prime Minister Narendra Modi on 25 June 2015. According to the mission, the purpose of the Smart Cities Mission is to drive economic growth and improve the quality of life of people by enabling local area development and harnessing technology, especially technology that leads to Smart outcomes.

Area based development will transform existing areas (retrofit and redevelop), including slums, into better planned ones, thereby improving live-ability of the whole City.

Patna was selected in the list of Smart City in third round on 28-6-2017. It has received funding of 1011 crores for its Smart city mission.

'Namami Gange', one of the dream projects of Prime Minister Narendra Modi, has also played its part in keeping Patna stranded for four days. Sewer pipelines are being laid down in the entire city and this has led to damage of the previous drainage system by breaking drainage pipes, creating manholes, puddles and ditches which have further assisted the accumulation of water in the city.

The Namami Gange project comes directly under BUIDCO, while the drainage system is being controlled by the PMC. Another tussle of agencies was seen and non-coordination resulted in making situations even worse.

On being asked about the construction of drains and thereafter leaving it in the midway, the Smart City Mission's Patna office said that smart city has nothing related to drainage. However, on being pointed that in the documents of the Patna Smart City mission's road map, it was mentioned that Mandiri Nala and Bakarganj drain project work was started and at many places it was dug only to be stayed mid way, the mission clarified that it has indeed started the work, since the work required building of rods and underpasses on the already built Nalas.

The mission further clarified that collecting waste from people's houses in the earmarked Area Based Development (ABD) area and having a clean and green ABD was the main aim of the Smart City Mission. It was also confirmed that 800metre square is the catchment area of Smart City and rest of the areas are not part of the Patna Smart city mission. The mission denied any role in areas of Kankarbagh and Rajendra Nagar.

The mission also told that a global tender for a drainage plan by urban development ministry of Bihar has been floated.

Among all this, one thing that the mission agreed to is that Mandiri and Bakarganj drains were to be converted into roads, but water logging forced a stay. Though, the sentence could also be read as the digging up of pit holes and rods for that construction played a major part

in the water logging. Another thing that mission agreed to was that no Non- Objection- Certificate was obtained for the Namami Gange project from the Patna Municipal Corporation.

Even the R-Block 4-lane road construction became a major road block in water flow in the New Capital region.

Although the mission denies its involvement in the construction going on in the New Patna region, which was one of the worst affected, but the reasons given in the denial were more than enough to tell the long tale of neglect.

It was partly because of this, that even on the 7th day of water logging many localities remained affected from it.

Name of the Locality	Water Logging in (FEET)
Buddhmurti	5
MP Sinha Road	3
Patliputra	1
Ramlakhan Road	2
Congress Maidan	1.5

A construction site called Patna: How unorganized, illegal construction led to accumulation of water in the city

Flyovers after flyovers have created an ugly looking 'net' in the lower skies of Patna. Then there are the roads, suspended in a state of being built. Rather than beautifying the city or decreasing pollution or the number of traffic jams, these projects have turned the city into a messy construction site.

Three major road construction projects are going on in the city, the R-Block-Digha road, the Lohia Pathchakra in Biale Road and the Mithapur-Karbigahiya Flyover in Mithapur. The R-Block-Digha Road project was majorly responsible for water logging in various localities

The road between R-Block and Digha is being constructed on the R-Block-Digha railway line. This railway line crosses various underpasses and nullahs in the journey. However, the road is being built in a haphazard manner. At the time of the rains, many of the underpasses and nullahs were choked and broken by debris accumulated by construction of the road, which consequently block the flow of water. This led to unprecedented water logging in colonies such as Patel Nagar, Indrapuri, Shivpuri, Rajiv Nagar etc.

While it is a common knowledge that at the time of monsoons, no construction work takes place, rather the mess from the drains is cleared so that the city can be saved from water logging. It was also mentioned in the SOP.

The manual says that it is the responsibility of the Public Works Department or what is commonly known among the people as PwD, that manholes and sewage lines which might be filled and jammed with left over construction debris must be cleared. The SOP also mentions that construction material must be stored in such a way that it does not obstruct the traffic.

Forget traffic, the nullahs, manholes, nothing was taken care of. The Indian meteorological department's work was to broadcast about rain forecasts twice a day and also about the next five days rain forecast between 1 June and 15th October. It did ring the bell before the onset of the rains on 27th. As the warning for heavy rain was given on 25th September, the PWD department kept sleeping and didn't even bother to shift the construction material or clear away the manholes and catch-pits. The least it could have done is inform the Municipal Corporation about the clearing. Since it had not obtained any permission for the digging that it and BUIDCO did, it was consequential that they would not inform the PMC.

Larson and Turbo, the company which was chosen for instilling the 180 KM sewerage line for the Namami Gange project is one of the main reasons responsible for huge level of water logging in the Rrajendra Nagar area of the capital.

In a report published on 17th July 2017 in Times of India, the then BUIDCO chief claimed, "This sewerage project would rid Patna of water logging in the coming years." However, it is only ironical that, it became one of the major reasons for the water logging.

Since a lot of places were dug up, as this is a three year project and was in its middle, when the heavens rained havoc on the city. This happened in an area which is already low lying and

remains waterlogged most of the times. The earth that was dug up was now filled with water. Residents also claimed that it was the main reason why the area remained waterlogged for days, even when the rain had stopped.

‘Har Ghar Nal ka Jal’ one amongst the seven promises that the Bihar Chief Minister Nitish Kumar made, is also considered to be among the top reasons of why such huge level of construction was going on. Even common people know that construction was going on for the plan, and it was going on at a start-stop, snail pace like all other government plans.

It is not just situational mismanagement that could be regarded as the sole reason for the disease epidemic that’s going to break in Patna now. The disease that the city is suffering from has its roots in the unplanned structure of the city.

Uncontrolled and unplanned expansion: The spread of the city spread the calamity as well

From Khemnichak and Brahmpur in the south to New Azimabad in north and Saguna More and Gola Road in the west, localities have been built by filling up ponds, wetlands and low-lying areas which served as the drainage system and maintained the ground water table of the city. Nearly 2.5 lakh people live in a dozen colonies in the area located south of the Bypass Road in Patna.

Bihar's capital is reeling under population pressure, and situations like the current water logging expose this weakness of the city.

Although it was the highest average rainfall for a 36 hour period in the last 10 years, but the amount of people affected were way more than anyone could have ever imagined 10 years ago. Gola Road presented a gory sight with nothing but water visible till almost the first floor of the newly constructed buildings.

Blind construction had taken place in the city in the past 25 years. There has been no consideration for drainage or sewerage in the newly built colonies.

Ranjiv Kumar, convener of the Nadi Wapsi Abhiyan Samiti, is not surprised by the grim situation. He feels that over the years, Patna has been developed in such a way that situations like this would become the new normal.

“Patna is a city built on the grave of its ponds. Be it Tara Mandal, Indira Gandhi Institute of Medical Sciences (IGIMS), Nalanda Medical College and Hospital (NMCH) or the newly built colonies such as Hanuman Nagar, Rajiv Nagar etc. they are all built by filling up of the ponds and wetlands. In such a situation, where would the water go, it has no way to seep into the earth; it stays right on to the road, giving the ugly picture of development to the citizens”.

What Ranjiv Kumar said turned out to be right as all the places he mentioned were flooded to the core during the water logging. Prabhat Khabar reported that NMCH's critical patients were shifted to Patna Medical College and Hospital, which was a safe zone, as it is situated at a higher slope. 20 beds had to be increased in PMCH to accommodate more patients considering the water logging in the NMCH, which is located in the Old Bypass road.

Further, the Patna Bus Stand at Mithapur, National Institute of Fashion Technology (NIFT), Chanakya National Law University (CNLU), Aryabhatta Knowledge University and Chandra Gupta Institute of Management (CIMP), are all built on what was previously known as the Mithapur Wetlands, giving weight age to Ranjiv Kumar's claims of 'blind development'.

And now thanks to the smart city plan, the remaining ponds are either being filled to make big buildings or are being converted into recreational spots under the Patna Smart City scheme. Ranjiv is perturbed by this decision making of the government but he is not surprised.

“Managal Talab in Patna city is an example of how ponds are best suited for the drainage of this city. Even in this era of submersible pumps, the ground water level near this pond is a constant at 150 meters. Not only this, during heavy rains, it comes as a respite for the locals as the problem of water logging is also minimized through the pond. Instead of learning from this, the government is busy commercializing everything,” says the scholar.

With all this blind development, the slums in the city are increasing day by day. And they were the most affected places during the water logging. As reported by Prabhat Khabar, more than 500 families in Nand Nagar slum were forced to live in corroding and rotten water for days. If this was the case of Nand Nagar, Bind Toli, another slum area, created out of the blind urbanisation of spaces, was probably the most affected, with water staying till almost a week in that area.

The SOP mentions that Municipality would put in all its efforts to control the spread of mosquitoes. But that was obviously not done as dengue spread like anything after the water receded and even during the water logging. 823 cases were registered in only 48 hours after between 8th and 10th October in Patna alone. This was just one week after the rains had stopped.

The SOP says that the health department of the government would put out camps for free medical check up and free medicines should be distributed. People though never saw much help. Few camps though were put, but not in the quantity that they were required in.

Such appalling were the conditions of the city that 90% of the area that fell under the Patna Municipal Corporation was converted into ponds.

It is mentioned in the SOP that before the onset of the monsoon, the municipal corporation would ensure the provision of street lights so that accidents during the water logging could be avoided. This was never put into place as much of the area affected did not come under the PMC, all because of the unplanned construction.

After the catastrophe that took place in the city, the government finally woke up as it has announced a 130 square km of drainage system is being planned and selection of consultants for the same would take place soon. The department has said that they are trying to build a system.

The PPP model of encroachment: People must also take the responsibility for their fault

While the government is commercializing commons, privatizing ponds, and bulldozing green pastures, there is no dearth of private encroachments on drains, footpaths and even the manholes.

The alarming situation of encroachment of the government land can be gauged from the fact that as reported by Prabhat Khabar, PMC had sent out a notice 13 years ago regarding encroachment on drainages, but the same notice remains being sent every year. A clear indication of how PMC is unable to work in the case of freeing Patna of encroachments. But it also indicates that how people have kept on neglecting the notices sent to them, and it also shows how people only look at their own petty benefits, instead of working for the greater good of the society.

The government is responsible no doubt, but some accountability has to be fixed upon the public as well. In connivance with the government authorities, people try to grab every piece of land. Commenting on this nature of the public, Dr. Deepak, a resident of Patna says, “People in Patna have become selfish with their land. They have tried to grab the common land as well. Encroachment has reached such a level that apart from parks and government buildings, there is hardly any open space in the city. In such a situation, only an overhaul of planning can save the city.”

It is therefore no rocket science as to how the localities that faced the fury of the rains are also the worst hit by encroachment.

The BUIDCO & PMC also know of the situation. Their joint SOP mentions that over the years, natural drains and the path of water flow have been damaged and encroached upon. At few places they have been converted into roads. All this is known, but neither the PMC, nor the BUIDCO tries to do anything regarding that.

The two main canals of Patna, Khanua and Badshahi which take out the city’s water and put it into Punpun river down south, were also encroached and became major reasons for the water logging.

On paper, use of polythene bags and plastic is banned in Patna, but the same is sold indiscriminately on the roads of the capital. People use it and authorities do nothing but seek “hafta” from sellers. This plastic has played a major role in blocking sewers and paralyzing the drainage of the city.

Ranjiv observes that urban planning is an art that Bihar needs to learn.

Once a self- sufficient economy based on agriculture, Bihar had the means to tackle every kind of natural calamity. Today however, the mad race of urban development has converted Patna and most other cities in Bihar into an unhygienic, unplanned filth that can never be regarded as a city.

Another city planner, JK Lall believes that there is a need to improve the drainage system of the city to deal with any such calamity in near future. “We need to improve drainage systems. There was a time when river Son flew nearby place where old secretariat is located. It is evident from the red sand, which can be still dug beneath the soil,” says JK Lall.

He also agrees to the fact that there were water bodies in the area near bypass 25 years ago- The city developed, population increased, but from planning drainage system did not expand.

Lacklustre Attitude of Administration: How Patna was mismanaged

The lacklustre attitude of the administration can be gauged from the fact that in almost 120 general meetings of the Patna Municipal Corporation in last 12 years, no local MLA or MP made any appearance, even after being intimated about and invited for the meeting every time. This non-serious attitude was even visible during the water logging as not many of the MLAs or MPs or even the ward commissioners were present to help the masses.

One citizen citing anonymity said that various treatment plants were broken and then were not maintained or repaired. He claimed that it was one of the biggest reasons for the water logging. It was also revealed that just after the water logging, a meeting of the core committee was held, but PMC did not put the event for discussion on its agenda for the meeting.

The authority was so negligent that the mayor of the city had no idea about how the money for the de-silting of the drain was spent. She had no answers to the questions posed on how to cope with the situation ahead of the PMC.

Prior to last year, the sump house system was under the administrative control of Bihar Rajya Jal Parishad.

But with the absorption of the Jal Parishad into the BUIDCO, the responsibility of running the sump houses was outsourced to private agencies.

Meera Devi, the deputy mayor of Patna Municipal Corporation, is of the view that outsourcing of the sump houses was a grave mistake by BUIDCO. "After the Jal Board was amalgamated with BUIDCO, the contract for running the sump house system was given to those who didn't even know the functioning of it...the result is in front of you... none of the sumps worked. Rather, parts of many sumps were missing and gallons of diesel were never to be found," she said.

The administrative units lacked co-ordination as BUIDCO and PMC were on two different planes regarding preparedness before the heavy rains and also during rescue. While it has been clearly mentioned in the SOP that all the working office bearers will coordinate with various departments, most of the co-ordination was not to be seen anywhere.

The only thing common between the two was that both were clueless about the steps to be taken. On being asked about the co-ordination between the two, Meera Devi says, "During my tenure, there were no meetings of BUIDCO and PMC, let alone discussions on preparedness for rains or plans on rescue operations".

It is also evident from the fact that A 10 HP Pump in New Capital area of the PMC was missing. It not only showcases neglect but also the gall of the authority to defend them.

The employees of the PMC also denied any lack of co-ordination between different govt. departments and itself. The PMC alleging that BUIDCO dug up the earth at many places and

left it without filling the pits and calling it a big reason for the water logging, is in itself contradicting their claim of having no co-ordination issues.

The PMC even went on to say that historically, there never have been such levels of rainfall, which is right, but then it also says that various pumps were running 24x7, but localities remaining waterlogged painted a different picture altogether.

The lack of coordination was its peak when the PMC employees denied having any advice or information of heavy rain from the Indian Meteorological Department.

In the joint SOP of BUIDCO and PMC, it was also mentioned that a control room would be made during monsoon and the in-charge of that control room would have to inform all the concerned departments. However, existence of any such control room prior to the water logging was unheard of. It was also mentioned in the SOP that a media centre would be developed within the control room so that all the information is relayed to the citizens, well within time through, print, electronic and digital media, but since the control room itself was on papers, the media centre too remained on it.

The chaos ran to so much that a power Sub-Station in Gulzarbagh area in Patna City remained operational even after being water logged, giving fears to the people of the nearby houses. And once it was shut down, it wasn't made operational quickly, even after the water logging had ended, causing more displeasure and problems to the citizens.

Sanjay Singh, a resident of Rajendra Nagar said that the PMC has no map regarding the encroachments that have taken place. He further said all the contour and drainage maps are available with him, but nobody asked for his help. Singh blames the PMC of shielding a person, who was very much responsible the water logging, especially because he took measure decisions of neither repairing, nor rebuilding the drainage and water treatment plants. I have map of the drainage system.

After all this, now the PMC employees are planning to work on how to reduce the runoff, as the tree cover as well as the natural ponds in the city, which were the sources of water absorption, are getting reduced. One employee said that it was one of their main agendas.

Rescue and Relief Measures: Less relief, more disbelief

The reasons for the water logging were many, but what happened in the relief work, after and during the water logging is equally important. It not only appreciates the efforts put in by the government, but also questions the intent where it was found lacking. In the SOP it was mentioned that temporary settlements must be made by the PMC for the people affected by water logging. While temporary settlements were made, but they were made in an area where the sucked out water from the posh societies was thrown in through the tanks.

To provide relief to people, several measures were taken by the government and its various departments, as reported by Prabhat Khabar

Measures:

1. The government formed Quick Reaction Teams (QRTs) for different areas of Patna.
2. The Chief Minister asked all District Magistrates, including that of Patna were asked to be ready to deal with any kind of rain and flood situation
3. Various trains were diverted while routes of many trains were changed to avoid accidents.
4. The State Disaster Response Force (SDRF) along with the National Disaster Response Force (NDRF) was asked to intervene and save precious lives, as more than 40 people died in the catastrophe.
5. While NDRF and SDRF rescued 12 thousand people and distributed 27 thousand food packets, 50 thousand litres of water, food and candles were also distributed to the people by the administration.
6. In total, 37 thousand people rescued over three days.

While the government did try to salvage some respect by providing relief, having not been able to prepare for the monsoons, these efforts were not as fruitful as they were supposed to be.

Dharmsheela Devi, who is from Fatuha, a rural area in the Patna district said that the conditions were very difficult to survive and they could get nothing but only Chura (dry rice flake) that too was distributed for few days only.

Cases of theft were recorded even during the water logging and domesticated animals were stranded in water as well, which further led to a loss of livestock.

Devi alleged that nobody from the government came to them even as their shops were all filled with water and everything inside was rendered useless. She further says that it has led to huge losses ranging up to 1 lakh and for a family hers, which could hardly earn Rupees 300 a day, a loss of 1 lakh was back breaking.

Women who were menstruating at the time of the water logging were hugely affected because of non availability of sanitary napkins. This was the case especially in the slums and low lying areas of Rajendra Nagar and Kankarbagh. In the absence of those napkins, they were forced to use cloth, which could cause a lot of diseases. A young woman, citing

anonymity said that, government didn't even bother to think about it, let alone providing sanitary napkins.

While people were thankful to the NDRF team and the government for their support, but incidences of corrupt practices like hoarding of milk, even during a calamity like that made people criticise the govt and hoarders using the social media sites.

Problems were already a plenty adding to them for the people who lived in rented apartments were the landlords. People residing in Kankarbagh complained that their landlord was adamant for rent and they had to pay the dues of rupees 3000. Sushila, while describing the situation said, "I mean it was like all the difficulties had lined up against us. There was water everywhere and the vegetable prices were souring as well."

People near Dinkar Golambar area blamed that the water had accumulated to almost up to 3 feet from the road and the people from NDRF and other authorities were throwing the eatables in there, which was getting wasted.

In Kankabagh, people alleged that while water logging had started on Saturday itself, they were provided food only on Monday. Babita Devi, a resident of the area claimed that government provided them with no help. She further complained that it was promised to them that government will provide relief fund before Diwali, but even after the arrival of the festival of light, there was no ray of hope for people like Babita.

While common people not being facilitated, is quite common in India, it is when VIPs face difficulties that we realise the graveness of an issue. It was not Patna-Gaya rail route remained almost shut for three days, for the first time since 1980, that people felt the reality with their naked eye. Rather it was when Deputy Chief Minister Sushil Modi, famous singer Sharda Sinha and Professor Jober Hussain, the former speaker of the Bihar Assembly were seen stranded on the TV that the graveness of the situation was realised.

At Malahi Pakri, people said that water bottle, milk and mixture biscuit, bread etc. Were given to them, but this water logging seemed more dangerous than the floods of 2008.

Help From Other Sources:

It was natural that government would not suffice in matters of providing help and thus the civil societies played a major role in providing relief and support to the citizens. Organisations like Mahavir Sansthan and the political party of Pappu Yadav were quite visible and rightly appreciated by the people for the help.

But it wasn't all hunky-dory for these social help groups either. The help that they required from the government was not provided to them. The members of a hospital in the Kankarbagh area which had 27 patients on the 28th September and which used its own boat to help were allegedly harassed by the members of a political party for refusing to take in certain patients.

The hospital owner even said that they provided food and water supply to Prayas, an NGO for annihilation of Child Labour. Not only that, the hospital also alleged NDRF of taking money to work beyond duty hours. Apart from these allegations, the NDRF soldiers also faced the wrath of the nature as their feet got infected from the stagnant water.

While people complained of the youth for treating the catastrophe as a Photo opportunity, certain youngsters were also hailed for their innovative ideas such as the use of drones for the distributing relief packets.

After the water was seeped and sucked out of the sight of the people Insurance companies did held camps for the claim settlement of people. Krishna Shankar, one of the insurers told that various claims including damage to household and vehicles were settled. Documents of the costumers were collected and on the spot inspection took place to settle the claims.

Government's Action against the Office Bearers held Responsible for Negligence of Duty:

The negligence of the govt. came to fore during this water logging and to cover-up that, the government initiated action against 45 officials including 11 engineers of Bihar Urban Infrastructure Development Corporation (BUDCO) in October, just days after the water had started reseeded from the capital.

According to a report by newsonair.com, these actions were taken after a high level meeting chaired by Chief Minister Nitish Kumar.

The show-cause notices were served to 22 employees, who were posted at different water pumping houses in Kankarbagh and other localities under Patna Municipal Corporation.

Bihar's Chief Secretary Deepak Kumar had said that four sanitation inspectors of Kankarbagh and two from other localities were suspended besides 22 other employees and show cause notice was served to the project manager of Namami Gange project.

The government admitted that the drainages were not cleaned properly before the rainy season and pump-houses were not functional, as was quite evident.

Just after these prompt actions of cover up, a three member committee was set up by the Bihar Government which comprised of UDHD Special Secretary Sanjay Kumar, Bihar Urban Infrastructure Development Corporation Limited (BUIDCO) Managing Director Amrendra Prasad Singh and Commissioner of Patna Municipal Corporation (PMC) Amit Kumar Pandey.

However, later in a finding by another four member committee, it was revealed that Amrendra Parsad Singh, the then MD of BUIDCO is one of the main culprits and was suspended by the government.

It shows the level of negligence and incompetence among the authorities of the Bihar Govt. that the head of a department in question of the entire goof up, was made member of a fact finding committee.

In February, a four member committee headed by Development Commissioner, Arun Kumar Singh submitted its findings to the government and acting upon it, the Bihar Government suspended 20 officers and dismissed seven engineers for their lapses.

The suspended officers include one from Indian Administrative Service, the then Bihar Urban Infrastructure Development Corporation (BUIDCO) Managing Director Amarendra Prasad Singh and one Indian Revenue Service officer Anupam Kumar Suman who was deputed as Patna Municipal Commissioner. Mr Suman is on Central deputation now. Three Deputy Collectors were also suspended. The State Government has started proceedings against suspended officials.

The other suspended officials are:

The then executive officer of Patna Municipal Corporation (PMC)'s Bankipore circle Birendra Kumar Tarun, the then executive officer of PMC's New Capital circle Shailesh Kumar, Poonam Kumari, (then EO of Kankarbagh circle, PMC), Bhawani Nandan, (then chief engineer), Om Prakash Singh (superintending engineer), Suryakant (superintending engineer-in-charge), Sanjiv Choudhary and Yogendra Kumar (both executive engineers), Ram Chandra Prasad (SE-HQ), Santosh Kumar (then executive engineer), Daya Shankar Prasad (EE), Sudarshan Prasad (EE-Mechanical), Anil Kumar Mahto and Vijay Singh (both junior engineers) in BUIDCO.

Earlier in October last year, the state government had removed urban development and housing department's principal secretary Chaitanya Prasad and Patna divisional commissioner Anand Kishor, Times of India's report of 11 February mentions.

CONCLUSION:

A chief minister blaming astrology and climate change for water logging in the capital city of his state could be the worst nightmare for the citizens of that state. In its early course of action, instead of fixing responsibility, the administration tried to paint its humungous failure into a natural calamity.

From the above research we also reached to the conclusion that the water logging or urban floods in the city of Patna were not at all a natural calamity as was being claimed by 'Sushasan Babu' and his administration.

These floods, however, exemplify how man-made disasters are created by a lacklustre, almost non-existent municipal corporation and corrupt urban development authorities.

The chief minister also said that when water logging happens in Mumbai and America no one is bothered enough to raise questions. But 'Mr. Good Governance' needs to know that unlike Mumbai and America, water logged Patna is living evidence of how 15 years of urban development has resulted in nothing but the concretisation of the city.

In a Nutshell, the entire episode of the Patna Water logging could be summed up in the following points:

- The CM first blamed it on the 'Nakshatra' and then tried to cover it up with suspensions
- SOP issued by the PMC and BUIDCO misleading at places where it mentions that inspection of Sump houses and de-silting of drainages was going on, which wasn't actually the case. Because both the fact finding committee of the government and independent observers have claimed that there was no thorough inspection done as then BUIDCO MD, Amrendra Pratap Singh has been suspended for not maintaining the sump houses.
- Also the Centre has been asked to take action against ex Municipal Commissioner of Patna, Anupam Kumar Suman, who had gone back to his parent IRS cadre, for lacking in his responsibilities of de-silting and cleaning of drainages on time.
- The unmaintained and not working Sump houses were the main reason for the Water-logging in the city. As many as 38 out of the 39 sump houses in the Patna Municipal Area failed to work as they were all found to be defunct due to some reason or the other.
- Out of the 39 Sump Houses, 28 come under BUIDCO and 11 under PMC. BUIDCO which has the ownership of most of the Sump Houses has therefore been held responsible. As a result seven of its Engineers were dismissed, while many including Chief Engineer, Bhawani Nandan.
- The officials of both PMC and BUIDCO have been reprimanded in form of suspensions not only because of the negligence prior to the water logging, but also during it.

- The Hindu had reported citing anonymity that ₹49 crore was spent in the last 13 years by the government just to prepare the survey map of the drainage system in Patna and even that map is faulty.
- PMC had spent 6 crores in Drainage cleaning at subdivision level. There are 6 subdivisions in PMC and each got rupees 1 crore for de-silting. But the reality is no such cleaning took place and as a result most of the Nullahs were choked and led to spillage water in their adjoining areas, causing the water logging.
- This was mainly the case in Rajendra Nagar and Kankarbagh. Taking into account this negligence, the then executive officer of Patna Municipal Corporation (PMC)'s Bankipore circle Birendra Kumar Tarun and Poonam Kumari, (then EO of Kankarbagh circle, PMC) has been suspended.
- The Patna Smart City Mission and Namami Gange Project had their due share in making sure that Water logging persisted. Mandiri and Bakarganj drains were to be converted into roads. Digging up of pit holes and rods for the construction involved in these projects played a major part in the water logging.
- There was no Non- Objection-Certificate obtained for the Namami Gange project from the Patna Municipal Corporation. Thus it shows the lack of co-ordination and negligence on the part of both the authorities, BUIDCO, under whose tutelage the mission worked, as well as PMC, which was supposed to provide the NOC. Due to this, in its cover up of the entire mismanagement, the state government also served a show cause notice to the project manager of Namami Gange project.
- The unplanned and unmaintained road construction also played a huge role in exceeding the problem of Water Logging. At the time of the rains, many of the underpasses and nullahs were choked and broken by debris accumulated by construction of the road, which consequently block the flow of water. This led to unprecedented water logging in colonies such as Patel Nagar, Indrapuri, Shivpuri, Rajiv Nagar etc.
- The warning for heavy rain was given on 25th September, the PWD department kept sleeping and didn't even bother to shift the construction material or clear away the manholes and catch-pits.
- However, it is surprising that no member of the PWD has been suspended or been reprimanded, although many engineers of the BUIDCO, which was partner in crime with PwD for the construction have been dismissed or suspended.
- The authorities did not just mismanage the entire PMC and BUIDCO's work but it has also allowed blind construction, which has taken place in the city in the past 25 years. There has been no consideration for drainage or sewerage in the newly built colonies and thus when it rained havoc, it was all but impossible that water logging wouldn't take place.
- The fact that Patna's natural ponds and water reservoirs have also been converted into high rise buildings, did no good as water accumulated in the city at those places, which were supposed to be the exit points for logged water.

- Such appalling were the conditions of the city that 90% of the area that fell under the Patna Municipal Corporation was converted into ponds. This further led to the spread of diseases like dengue and malaria due to mosquito bites, which increased due to water logging. Sadly though, no one was held responsible for choking a city by taking away its reservoirs and adding a hell lot of population to it.
- The alarming situation of encroachment of the government land, commons and pastures for animals can be gauged from the fact that as reported by Prabhat Khabar, PMC had sent out a notice 13 years ago regarding encroachment on drainages, but the same notice remains being sent every year. A clear indication of how PMC is unable to work in the case of freeing Patna of encroachments.
- The two main canals of Patna, Khanua and Badshahi which take out the city's water and put it into Punpun river down south, were also encroached and became major reasons for the water logging. But who should be punished for the encroachments- People? PMC? Or both?
- The lacklustre attitude of the administration can be gauged from the fact that in almost 120 general meetings of the Patna Municipal Corporation in last 12 years, no local MLA or MP made any appearance, even after being intimated about and invited for the meeting every time.
- The authority was so negligent that the mayor of the city had no idea about how the money for the de-silting of the drain was spent. But did the Mayor Offer resignation? NO! Even if she would have on moral grounds, it would set up an example at least, because in reality, her being there on the post is a mere puppetry as the PMC is usually run by the 'Sarkari Babus'.
- While the government did try to salvage some respect by providing relief, having not been able to prepare for the monsoons, these efforts were not as fruitful as they were supposed to be. Providing only dry chura, setting up of temporary settlements in areas already flooded, not taking any care for slum areas, especially of women and children, exposed government's face of calling itself a relief provider.
- Civil societies played a major role in providing relief and support to the citizens. Organisations like Mahavir Sansthan and the political party of Pappu Yadav were quite visible and rightly appreciated by the people for the help.
- However, as all this got over, the government decided to provide people with the names of the culprits, which were nothing more than filling the blanks and pretence of showing that it has really punished the people responsible for the embarrassment, the pain and the deaths that the city and citizens of Patna went through.
- In February, a four member committee headed by Development Commissioner, Arun Kumar Singh submitted its findings to the government and acting upon it, the Bihar Government suspended 20 officers and dismissed seven engineers for their lapses.
- The government in its efforts to make sure that no such embarrassing and shameful situation for it occurs again has decided to build 73 new concrete drains as reported by Prabhat Khabar. These are to be built in six different subdivisions of the Patna Municipal Corporation, the most (20) being built in Bankipur circle. A total of 84 crore and 38 lakh rupees have been allocated for the same.

Now when will those drains see the light of the day is really a question of Million Dollars, because with the sign things that have taken place, it's really hard to be sure that they would be complete by their due date (31st May), which by the way has passed by the time this report reaches you.

What Patna reaped and will continue to reap are not the results of natural calamity; but the fruits of neglect by and corruption in the same administration that citizens have nurtured in the name of development.

Urban development has never been on the agenda of the Bihar government. All that it has done in its name is the concretisation of cities. And this formula of urban planning was bound to fail.

And as Dr. Deppak Kumar also observes that if we do not take lessons from such historic blunders on the part of administration, the city is bound to be doomed. But there is still time though...to learn from the mistakes.