The Adventures of Buland Babu

A Sludge Story
THE ADVENTURES OF BULAND BABU

A SLUDGE STORY

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STORY, LAYOUT AND ILLUSTRATIONS BY TWIST OPEN INNOVATIONS
**THE SANITATION STAR CAST**

**BULAND BABU**
An ordinary man, he has the extraordinary determination to do the best for his city and fellow citizens... an everyday hero!

**RAHUL**
An engineer, he helps the sanitation department design and build the best possible solution for your waste!

**MRS. SWATI**
The local corporator, she must keep the people happy and help the city grow!

**MR. GOKHALE**
A journalist, he believes the media must be the voice of the people, a mirror to society and the conscience of the government!

**MR. RAO**
The municipal commissioner, he bears the burden and the praise of a well-planned city!

**MR. SHARMA**
The local sanitary inspector, he manages the tricky and often smelly solutions!

**MR. PATEL**
The owner and operator of a honeysucker truck, he gets your waste out of the way!
CONGRATULATIONS TO BULAND!

OUR SMALL CITY IS AMONG THE FASTEST GROWING CITIES IN THE COUNTRY. WE DESERVE THE ‘BRIGHT STAR’ CITY AWARD!

THAT IS TRUE, MADAM. OUR IMMIGRANT POPULATION IS GROWING, BUT WE HAVE MADE THE BEST USE OF OUR INFRASTRUCTURE. THE CREDIT FOR THIS AWARD GOES NOT ONLY TO CITIZENS AND CORPORATES, BUT ALSO TO GOVERNMENT PEOPLE. AFTER ALL, WE ARE THE ONES WHO DO THE ‘DIRTY’ WORK!

I AGREE, SHARMA. I’M VERY HAPPY WITH THIS NEWS. WE HAVE MET MANY OF THE MILESTONE GOALS THAT THE GOVERNMENT HAS SET FOR BULAND, BUT WE NEED MORE FUNDS FOR THAT. IT’S TIME TO ASK FOR MONEY THAT WILL MAKE BULAND EVEN GREATER!

MR. GOKHALE, I HOPE YOUR NEWSPAPER WILL GIVE THE AWARD FRONT PAGE COVERAGE? AFTER ALL, THE CITIZENS MUST FEEL PROUD OF THE CITY THEY LIVE IN!

YES! WE MUST CELEBRATE THIS RECOGNITION!
OF COURSE, SIR. THE PUBLIC IS VERY CONCERNED ABOUT THE ONGOING DIARRHEA EPIDEMIC, BUT THIS IS A MOMENT OF PRIDE FOR ALL OF US.

MR. GOKHALE, REALLY, YOU PRESS PEOPLE ARE ALWAYS SO NEGATIVE.

RAHUL, WHAT HAPPENED? WHY ARE YOU SO QUIET? AREN'T YOU HAPPY BULAND IS GROWING WITH LEAPS AND BOUNDS?

? I AM HAPPY, BUT SOME WORK-RELATED STUFF IS WORRYING ME.

WHAT HAPPENED MR. ENGINEER? ANYTHING I CAN DO TO HELP?

IT'S THE BULAND SAGAR, SIR. LOCALITIES AROUND THE LAKE HAVE BEEN COMPLAINING OF A BAD SMELL EMANATING FROM SOME SECTIONS. HAVE YOU BEEN TO THE LAKE LATELY? IT'S BECOME MURKIER...

EVEN TOURISTS REFRAIN FROM BOATING ON IT.
Yes, my daughter who was visiting last weekend, said the same thing. That the Buland Lake looks and smells different. What do you think is wrong? Do you think it’s garbage to blame?

Sludge disposal? Why is that happening?

Buland’s growth on the map has not been easy to keep up with, especially for public infrastructure, such as drainage networks. Like thousands of cities across India, Buland does not have a large enough treatment plant. We cannot handle the amount of faecal waste that Buland creates any more.

It’s not just garbage sir… There are many instances of open defecation around the lake. I’ve also come to know that there is rampant illegal sludge disposal happening at the lake.

Yes, we’re constantly facing complaints of blocked drains. The health board officials believe the diarrhea epidemic is because sewage is contaminating our ground water.

That’s it, Mr. Sharma. We’re doing shit about shit! No one gives a shit about shit! This way, Buland itself will go to shit!

Sludge disposal? Why is that happening?

Buland’s progress is at stake, I know, Rahul. But our hands are tied. We receive very little money from the government. We can’t afford to fight many battles at once!

How long will we wait, Mr Commissioner? You know how much time government matters take? It is high time we find a solution to protect our lakes and rivers.

We need to be proactive. There’s more to progress than what pleases the eye. Both our problem and progress is hidden underground.

Gokhale, open up this topic for discussion in your newspaper. Will you? Invite people to write in…

We need to put our heads together and come up with a plan that works for Buland.

Rao and the rest of the municipal commissioner’s office can bring in experts and find out best practices.

It’s time to get our hands dirty so that Buland can be clean, once more.
PEOPLE OF BULAND, THANK YOU FOR COMING HERE. TODAY, WE ALL HAVE A BIG PROBLEM IN FRONT OF US – A PROBLEM THAT IS THREATENING BULAND’S HEALTH AND GROWTH.

MR SHARMA, AS BULAND’S SANITATION OFFICER, CAN YOU PLEASE EXPLAIN WHY BULAND IS REELING UNDER INEFFICIENT SANITATION MANAGEMENT?

THERE IS NOTHING INEFFICIENT ABOUT OUR SANITATION PLAN. WHAT CAN I DO IF THE POPULATION OF BULAND HAS INCREASED SO MUCH?

LOOK AROUND YOU. WAS THERE A SINGLE SKYSCRAPER IN BULAND 10 YEARS AGO?

WHAT WAS ONCE THE CITY’S OUTSKIRTS, IS NOW ITS HEART!

WE HAVE BARELY MANAGED TO KEEP UP WITH DEMAND ABOVE GROUND. SEWERAGE IS A FAR FETCHED GOAL.
BUT BULAND HAS BUILT SO MANY NEW PUBLIC TOILETS. EVERY WHERE ONE GOES, WE SEE AND HEAR TALK OF BUILDING TOILETS AND PREVENTING OPEN DEFECATION.

YOU’RE RIGHT, MAAM. BUT HAVE YOU WONDERED WHAT HAPPENS UNDER THE TOILET? WHERE YOUR AND MY WASTE IS GOING?

THAT IS NOT OUR PROBLEM. THERE ARE PEOPLE WHO ARE RESPONSIBLE FOR CLEANING OUR GUTTERS AND SEWAGE PITS. THIS HAS ALWAYS BEEN OUR TRADITION. WE HAVE BETTER THINGS TO DO THAN WORRY ABOUT SHIT.

THAT’S WHERE SO MANY OF US ARE WRONG. NOT ONLY IS MANUAL SCAVENGING NOW BANNED BY THE GOVERNMENT OF INDIA, IT IS ABSOLUTELY INEFFECTIVE IN DEALING WITH OUR PROBLEM OF FECAL SLUDGE AND SEWERAGE.

SO TELL US HOW DOES BULAND CURRENTLY DISPOSE OF ITS WASTE?

AS YOU KNOW, BULAND DOES NOT HAVE A SEWAGE TREATMENT PLANT BIG ENOUGH TO HANDLE ALL OUR WASTE.

UNFORTUNATELY EVEN WITH THE DRAINAGE NETWORK, MUCH OF THE WASTE FAILS TO REACH THE WASTEWATER TREATMENT PLANT BECAUSE OF POOR MAINTENANCE.

YES, YES, GO ON AND COMPLAIN ALL YOU WANT. DO YOU EVEN KNOW HOW MUCH IT COSTS TO MAINTAIN SUCH A SYSTEM?

I DON’T UNDERSTAND WHY CAN’T WE HAVE A CENTRAL PLANT THAT CONNECTS ALL AREAS OF THE CITY?
WITH SO MUCH GROWTH, WHERE IS THE SPACE TO PUT UP SUCH A PLANT? WE CAN’T EVEN TALK ABOUT IT WITHOUT A GRIMACE; HOW MANY PEOPLE WILL WILLINGLY LIVE NEXT TO IT?

PLUS THERE ARE BIG FINANCIAL IMPLICATIONS. DO YOU KNOW THAT BULAND WOULD HAVE TO SPEND BETWEEN ₹6,000 TO ₹8,000 PER PERSON ON THE DEVELOPMENT OF A SEWERAGE NETWORK THAT CONNECTS TO A CENTRALIZED SYSTEM?

BUT SIR, WE HAVE OTHER SYSTEMS IN PLACE ALSO. MOST HOUSEHOLDS AND LOCALITIES IN THE SUBURBS HAVE THEIR OWN SEPTIC TANKS.

AND THAT’S WHERE PRIVATE DESLUDGING OPERATORS COME INTO PLAY. THESE GUYS ARE COMPLETELY IRRESPONSIBLE. THEY’RE TO BLAME FOR THE MESS THAT WE ARE IN.

PLEASE, SIR, DON’T ONLY BLAME US PRIVATE OPERATORS.

OF COURSE IT IS YOUR FAULT, MR. PATEL. YOU’RE NOT DOING YOUR JOB!

MR SHARMA, AND DEAR BULAND CITIZENS, WE HAVE ONE OF THE TOUGHEST JOBS POSSIBLE. WE ARE ASKED TO WORK ONLY AT NIGHT, WE WORK IN SMELLY AND DIFFICULT CONDITIONS...
So many new areas of Buland are haphazardly built... Low-income housing areas are so congested, that we are unable to bring in our trucks. A small-sized truck is not economically viable to most private operators.

The sludge that is accessible through the truck pumps is difficult to remove; it has been lying in the tank for a very long time and has become very hard.
But the biggest problem is that in most areas, we have not even been given a place to dump the sludge. This forces us to dump indiscriminately, and then we are fined for doing so! Fined and harassed by the local police for helping keep society clean! How ironic!

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OK, so why are you dumping in the city lake? Go outside of the city and dump!

That will cost me a lot to go so far. The consumer does not pay me to cover those costs as well.

So why don’t you desludge more often? You’ll get enough money then!

People don’t call us until the pit is full, sir.

Why should I call you to desludge frequently? That will cost me more!

It will not cost you more ma’am. On the contrary, if you desludge more often, it will turn out to be even cheaper.

Mr. Commissioner, can we make a rule that Buland’s citizens will be charged through property tax so that they desludge regularly? Wouldn’t that help solve your problems and your worries too?

Wait a minute: before we offer ideas, we need to get to the root of the problem.

I’ve invited some experts...
LIKE MOST CITIES AND RURAL AREAS ACROSS INDIA, BULAND HAS VERY LITTLE UNDERGROUND SEWERS AND TREATMENT PLANTS, WHICH MEANS THE MAJORITY OF SHIT IS TRANSPORTED BY TRUCKS. THERE IS AN URGENT NEED TO PROVIDE SAFE DUMPING SPOTS. THIS CAN BE DONE BY CREATING FSM CENTRES ACROSS THE CITY. THIS, I FEEL, WOULD SERVE BULAND’S NEEDS BEST.

I’M CONFUSED: WHAT IS FSM?

CONTAINMENT → EMPTYING → TRANSPORT → TREATMENT → REUSE/DISPOSAL

F&M, OR FECAL SLUDGE MANAGEMENT, IS A SET OF PRACTICES THAT ENSURE THAT SLUDGE FROM PITS AND SEPTIC TANKS IS COLLECTED, TRANSPORTED, TREATED AND DISPOSED SAFELY.

ALL THIS SOUNDS VERY EXPENSIVE, MR CONSULTANT.

ACTUALLY SIR, IF BULAND FOLLOWS THE FSM WAY THE COST OF SLUDGE TREATMENT WILL BE AS LITTLE AS ₹400 TO ₹700 PER CITIZEN.

THE COSTS SOUND GOOD. SO WHAT SHOULD WE DO TO ENSURE GOOD FSM?

THE FIRST STEP BEGINS IN THE HOMES OF EACH BULAND CITIZEN.

HAVE YOU ASKED YOURSELF WHERE THE WASTE GOES FROM YOUR TOILET? IF YOUR TOILET IS LINKED TO A cess pit, ENSURE THAT THE cess PIT IS CONSTRUCTED ACCORDING TO GOVERNMENT REGULATIONS TO PREVENT WASTE FROM POLLUTING THE SOIL OR GROUND WATER...

STEP TWO IS WHERE HONEYSUCKER TRUCKS COME INTO PLAY. MR PATEL, PRIVATE OPERATORS SUCH AS YOU SHOULD BE APPRECIATED FOR GETTING RID OF MANUAL SCAVENGING. SLUDGE COLLECTED BY THE TRUCKS MUST BE TAKEN TO THE REGULATED DISPOSAL AREA, NOT DUMPED IN ANY OPEN ENVIRONMENT OR GIVEN DIRECTLY TO FARMERS...
...next is the responsibility of municipalities. In places where there is no sewers network, faecal sludge treatment plants should be built. These plants can treat the sludge so that it is safe and can also actually create value.

What do you mean by creating value?

Well, the faecal sludge once treated can be used or sold as agricultural manure. Without treatment, it is extremely harmful! Not only to the farmer but also to the consumer of the food.

Additionally, sometimes the process of treating faecal sludge produces bio-gas, which can be used as fuel to power the treatment plant and even for cooking!

There are many other possibilities sir! Cleanliness is just the first benefit!

This is fantastic! So, how do we go about setting up an F&M Centre?

Actually, treatment plants are of all kinds. An F&M consultant can help you choose a faecal sludge treatment method that works best for Buland.

Wait a minute. A plant needs a lot of electricity and small cities like ours may not have the skilled manpower it takes to maintain and run such a complicated thing.

This is true recycling of waste products! Let’s plan to build such centres right away!

Not only can treatment plants be aesthetically appealing, they apply various treatment stages that ensure that there is no odor or contamination anywhere.

I wish it were that easy, ma'am. Unfortunately such centres do tend to face social roadblocks as people mistakenly assume that a faecal sludge management centre means that the area will be unattractive and stink. So they will protest. That is why it is up to corporators such as yourself to guide your voters so that an area for the plant can be found soon.

That is amazing! How do we get started?
1. The Right set of Regulations

- Containment systems should be made a part of building permission process
- Block existing black water outlets to drains
- Provide for subsidies for refurbishments of containment systems
- Municipality owns & runs the honey sucker trucks directly, or outsources the work to one/more reliable contractor who satisfies the selection criteria
- Desludging of all the containment units happen at proper intervals via scheduled system as well as on-demand

2. The Right Incentives

- To ensure desludging services are priced in a judicious manner for all citizens the pricing must include the charges for desludging as well as operation and management of treatment plant
- The Price paid to the truck operator can be dependent on the volume of the truck filled or on the distance from the fecal sludge treatment plant or both
- Alternatively, the price can depend on the building footprint, as decided by & paid at the municipality
- If desludging is on demand, there can be dynamic pricing fixed upon mutual agreements of the truck operator & customer
3 The Right Monitoring

To ensure the trucks deliver their service and dispose the faecal sludge at the plant check systems should be in place. For example, manual signature sheets at every interface, or coupons system or real time tracking of trucks on its routing & timing via GPS.

4 The Right Plant

- Does not require highly skilled human resources
- Requires minimal number of operation and management staff
- Consumes less energy

For the FSTPs optimal efficiency, records must be maintained, regular assessments to be done by third parties, or there can be online monitoring via sensors.
THANK YOU MR CONSULTANT, FOR OPENING OUR EYES AND MINDS TO THE CONSEQUENCES OF POOR SANITATION. BULAND IS NOT JUST A BRIGHT STAR CITY TODAY WE WILL ENSURE THAT THE FUTURE OF OUR CITY AND OUR PEOPLE IS JUST AS BRIGHT ABOVE THE GROUND AND BELOW IT!

HAVE YOU ALL BEEN TO YOUR LOCAL FSM CENTRE? I VISITED THE ONE NEAR MY HOUSE WITH MY CHILDREN THIS WEEKEND.

IT WAS SUCH A PLEASURE TO SEE THE WELL-MANICURED LAWNING AND THE GREENERY... AND NOW THAT BELOW OUR FEET, THE PLANT WAS WORKING PERFECTLY AND KEEPING OUR SOIL AND WATER CLEAN!

COME ON EVERYONE, YOU KNOW THAT SHARMA DOES NOT LIKE THIS TALK WHILE EATING FOOD... RIGHT SHARMA?

DID YOU KNOW THAT BY 2021, 69% OF INDIA'S TOILETS WILL HAVE SEPTIC TANKS OR PITS FOR ON-SITE STORAGE OF Fecal MATTER. MOST OF THIS FAECAL SLUDGE...

...WILL CONTINUE TO BE COLLECTED BY HONEYBUCKER TRUCKS AND DUMPED UNSAFELY IN WATER BODIES, OPEN LAND AND FIELDS -- UNLIKE BULAND, IT WORRIES ME!
I’m glad to see that you, Sharma, along with the citizens of Buland, have realized that planning for the treatment of waste is an important part of the planning for the growth and progress of our dear city.

Thanks to your efforts, Buland Babu, we were able to get the right advice from experts and involve all the stakeholders of the sanitation chain.

Yes, Buland Babu, you saved the day, yet again!

We all did.

End!
COMING SOON!
MORE ADVENTURES OF BULAND BABU...