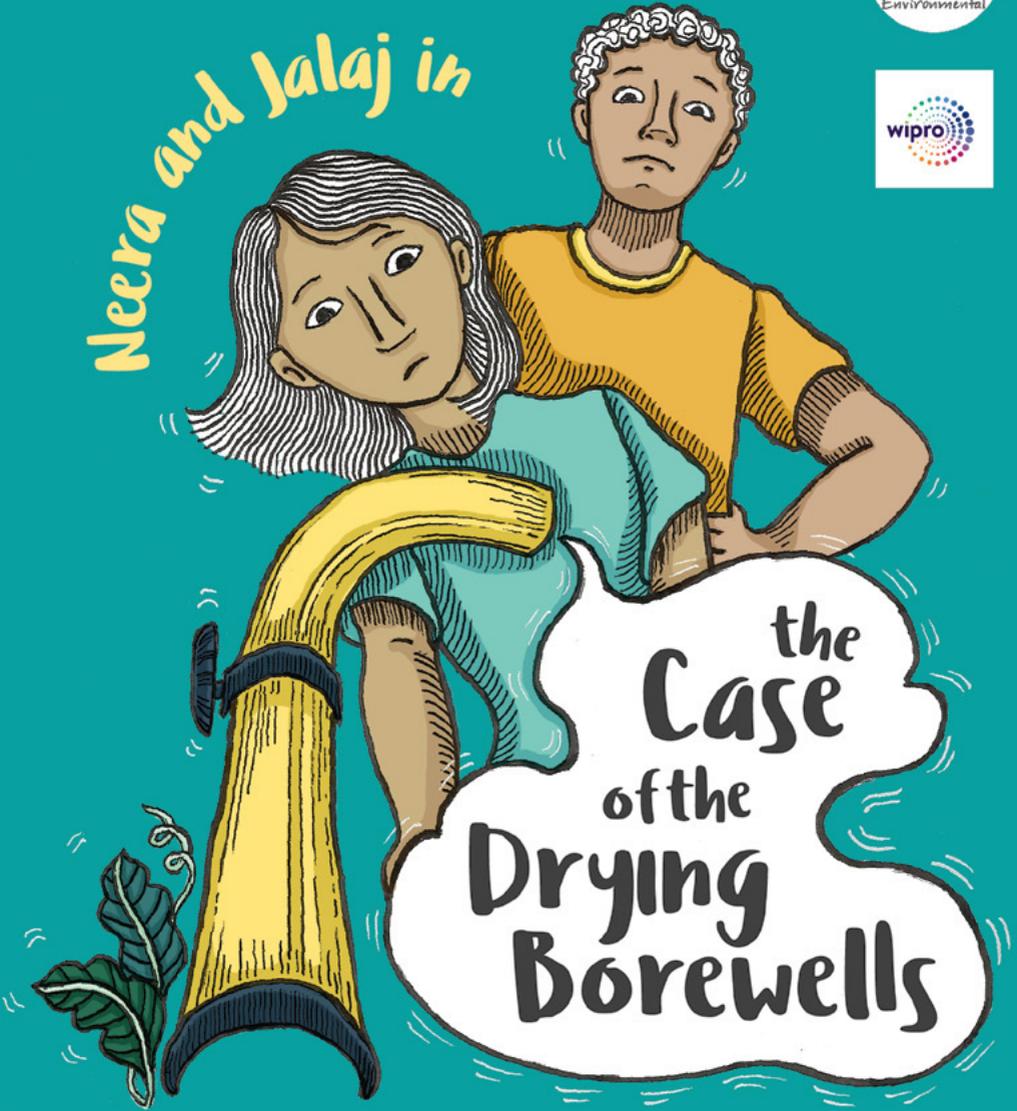




Neera and Jalaj in



the
Case
of the
Drying
Borewells

The Community that Saved Itself

This story is based on the real events and real efforts of communities in South East Bangalore.

The Case of the Drying Borewells

starring



Neera

her friend,
Jalaj

her
father,
Salil

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Supported by WIPRO.
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and her neighbours at Meghadoot Enclave

PROLOGUE



You guys have such a nice park in the enclave!

It's not a park - it's a waste water treatment plant!*

CLEAN IRRIGATION FOR GARDENS

STAGES OF TREATMENT

WASTE WATER FED INTO SETTLING TANK

*Did you know 80% of the water we use goes back as wastewater or sewage? The systems that treat this water are called sewage treatment or wastewater treatment plants.

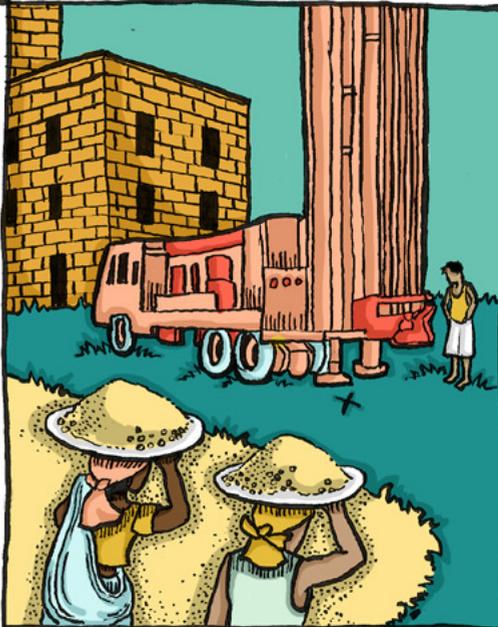


I. INTRODUCING MEGHADOOT ENCLAVE:

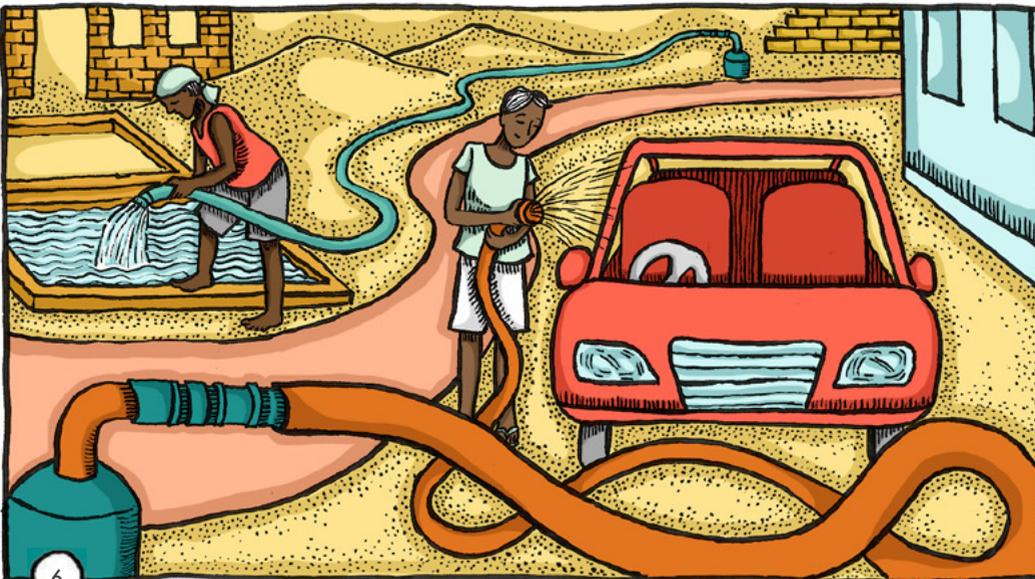
Back in 2000...



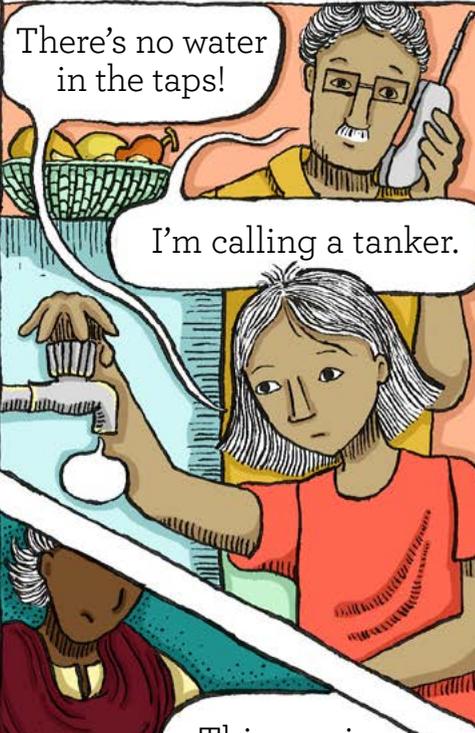
II. WATER: Meghadoot Enclave started off with piped water supply from 6 bountiful community borewells.



Some owners even dug their own borewells.



By 2005, Meghadoot Enclave was out of luck.



There's no water in the taps!

I'm calling a tanker.



This one is dry too.

Should we get another community borewell dug? Or call a tanker?



I have to call a tanker for water every day. My borewell has gone dry.

Why cant the builder dig a new borewell for the layout?

What's the long term solution?

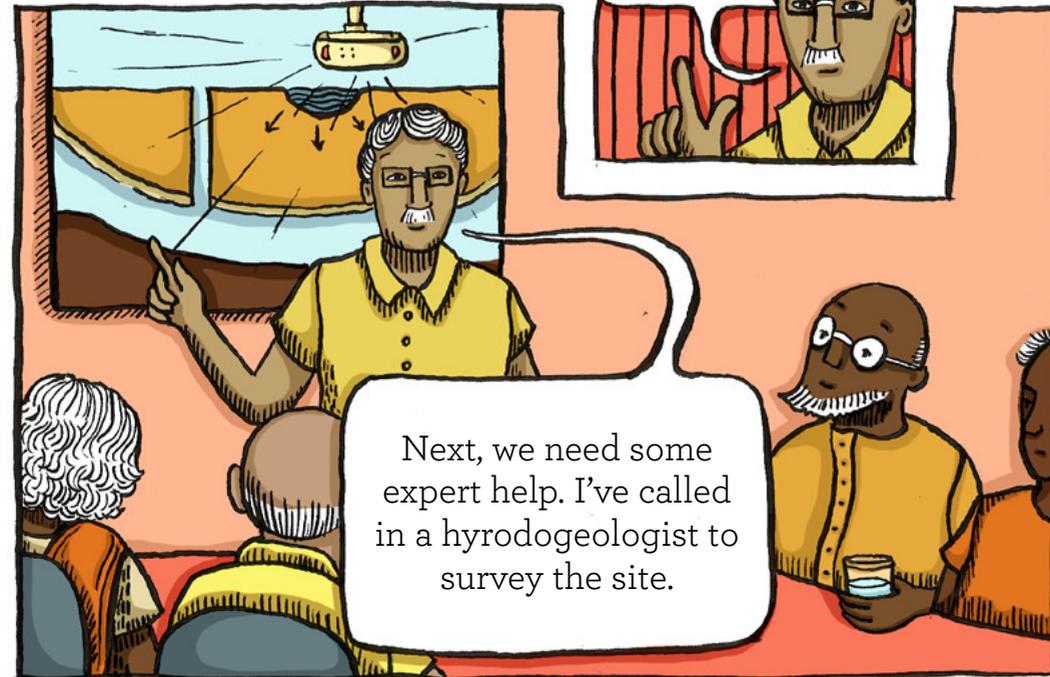
III. THE MONSOONS ARRIVE:



In 2006, things were heading towards disaster.



IV. THE PLOT OWNERS' ASSOCIATION (POA):



2007: At the first POA meeting.

V. NO PRIVATE BOREWELLS

By digging borewells you're not increasing the quantum of water. You're tapping into a common pool resource.

That means we should have only common borewells - and manage water centrally.

There's no water. I need these guys to build me another borewell!

Another private borewell will drain the aquifer.

None of us will have water left.

Fine. But you'd better have a plan.

By 2008, we had more questions to answer.

RECHARGE WELLS ARE MORE COST EFFECTIVE THAN DIGGING BOREWELLS

How do we tackle the flooding?

So recharge wells will collect the storm water and push this water back into the ground water system.

Why are we investing in recharge wells?

Because we should be putting back as much water into the ground as we take out.

VI. RECHARGE WELLS

Surveys were conducted and storm drains were cleaned.

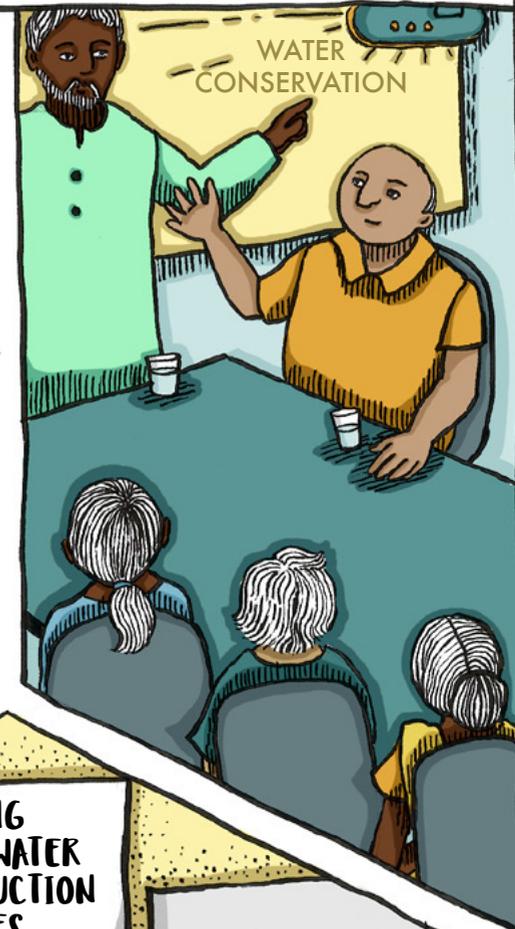
These are the places you should dig the wells.

If this doesn't work, we'll all need boats to get out of Meghadoot.



VII. WATER CONSERVATION:

In 2009, the water conservation measures began in earnest.



VIII. METERING CONSUMPTION:



We have to control water usage and meter consumption.



So we're all agreed. We'll price water at Rs. 6/kl.

All in favour!

WATER USAGE BREAKUP



IX. SUPPLY COSTS:

Even after billing the residents, we still haven't recovered the supply costs.

We must have miscalculated the costing.



We must have missed something.

We didn't cover leakages in the Rs. 6/kl.

Or sewage treatment.

Or the cost of bringing in experts.

Let's review the data and increase the tariff.

We should also meter all the borewells.

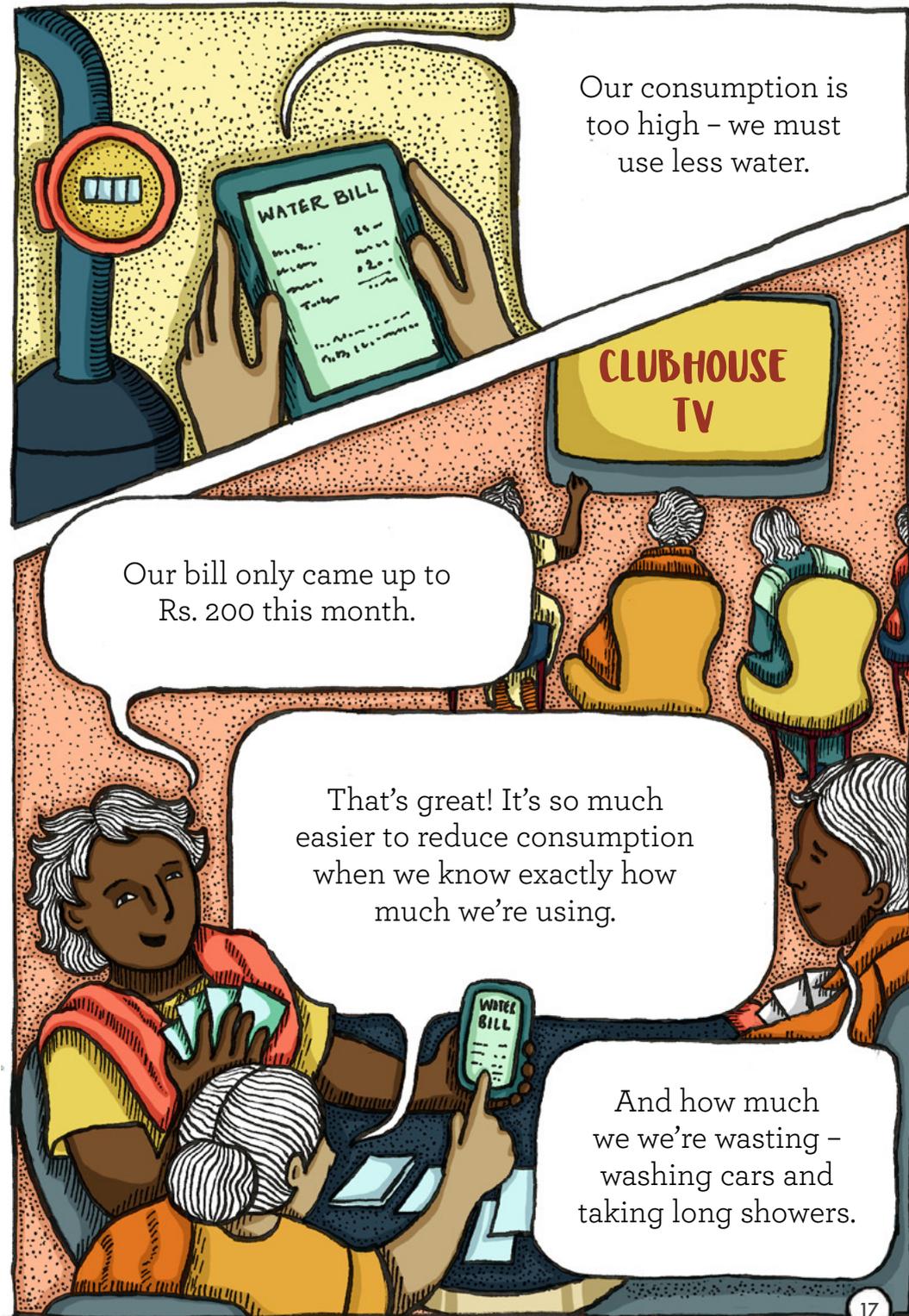
In 2011, the rates were revised accordingly.

NEW PRICING POLICY FOR WATER

The first 10,000 litres will be charged at **Rs.10/kl**

The next 10,000 litres at **Rs.15/kl**, and then **Rs.25/kl** for the next ten thousand litres, and then **40rs/kl** for the next ten thousand litres.

More than 60 kl, that water will cost **Rs. 60/kl**.
And for those who don't recharge their groundwater, rates will be equivalent to tanker rates.



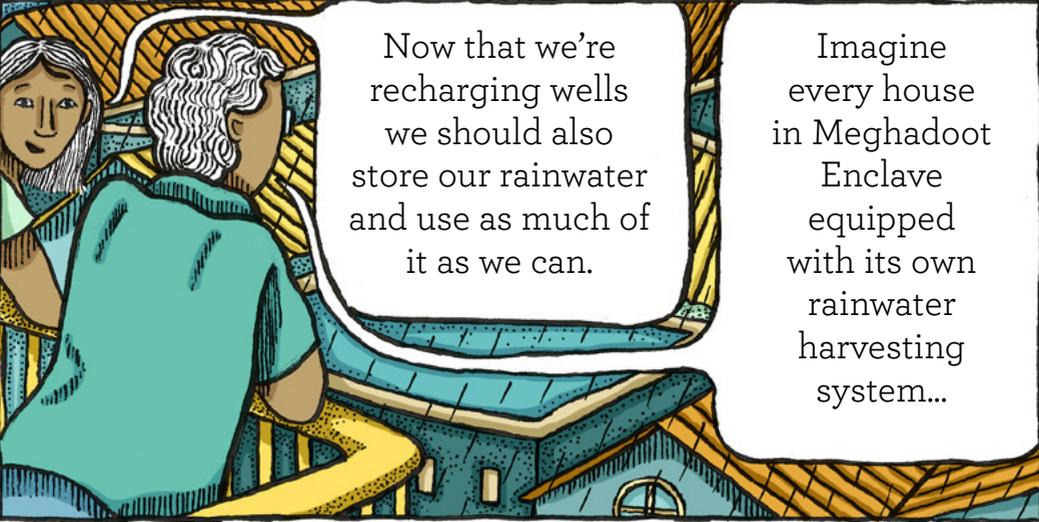
Our consumption is too high - we must use less water.

Our bill only came up to Rs. 200 this month.

That's great! It's so much easier to reduce consumption when we know exactly how much we're using.

And how much we we're wasting - washing cars and taking long showers.

X. RAINWATER HARVESTING:



Now that we're recharging wells we should also store our rainwater and use as much of it as we can.

Imagine every house in Meghadoot Enclave equipped with its own rainwater harvesting system...

Rooftop Rain Water Harvesting!



The plan is to equip every single house.

That will reduce our water consumption bill, too!

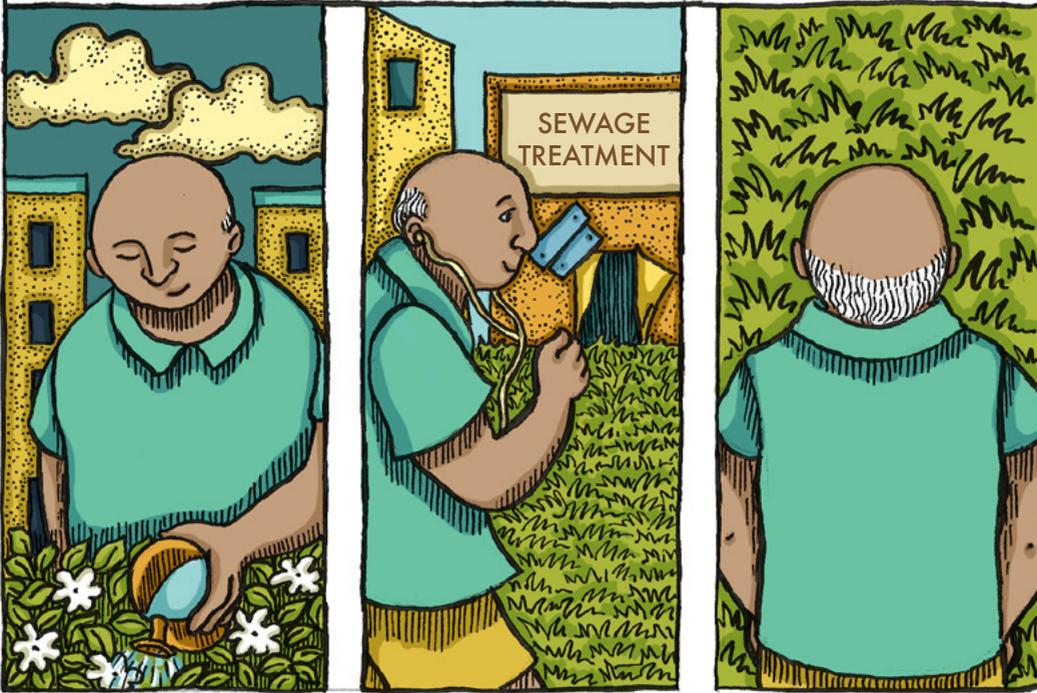


Household water consumption fell from 250 to 150l per person per day. The rainwater harvesting was set up in every house, the recharge wells were working and one day...

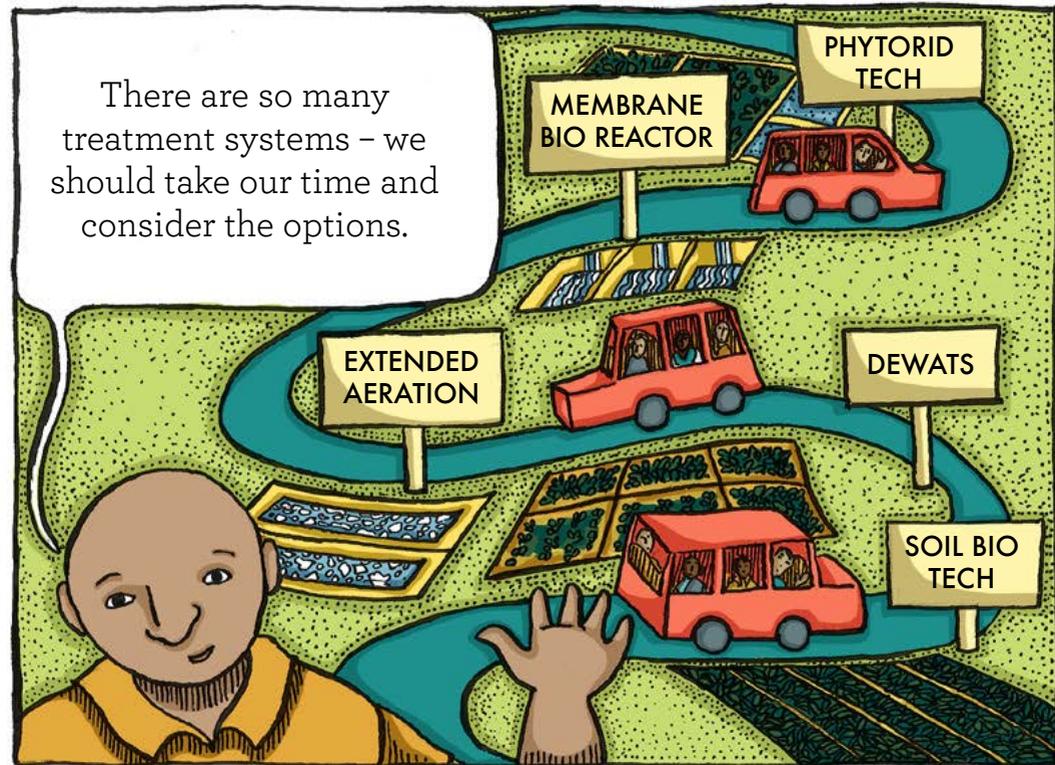


There's water in the old borewell again!

One day, in 2014...



There are so many treatment systems – we should take our time and consider the options.



We should be able to use treated waste water for gardening.

By KSPCB* law, we should be using 100% of treated waste water, to reduce polluting lakes and groundwater.



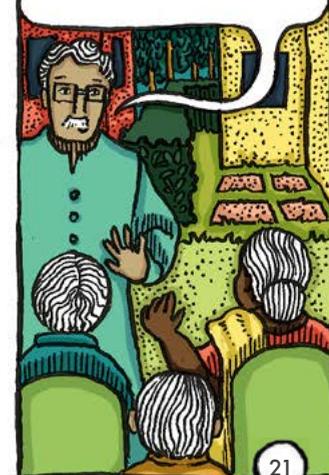
Then we need a better treatment process than what we have now. Our STP's** running cost is 1 lakh per month!

Biological treatments will be most cost-effective for us, easier to maintain.



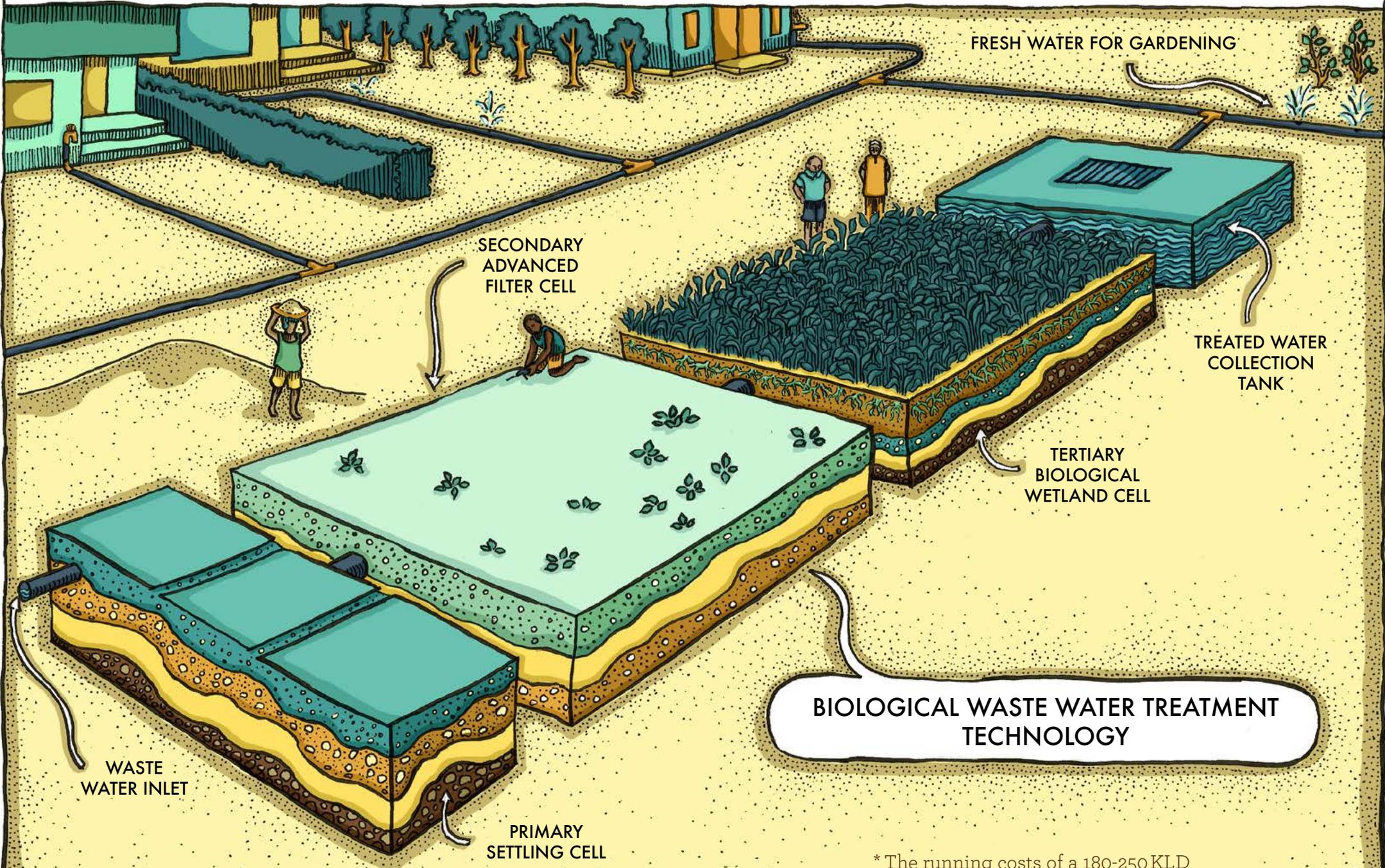
Will it be worth the capital cost of 80 lakh we'll all need to invest?

We'll be saving Rs. 80,000 per month with this.



*Karnataka State Pollution Control Board **Sewage Treatment Plant

And 1 year later:



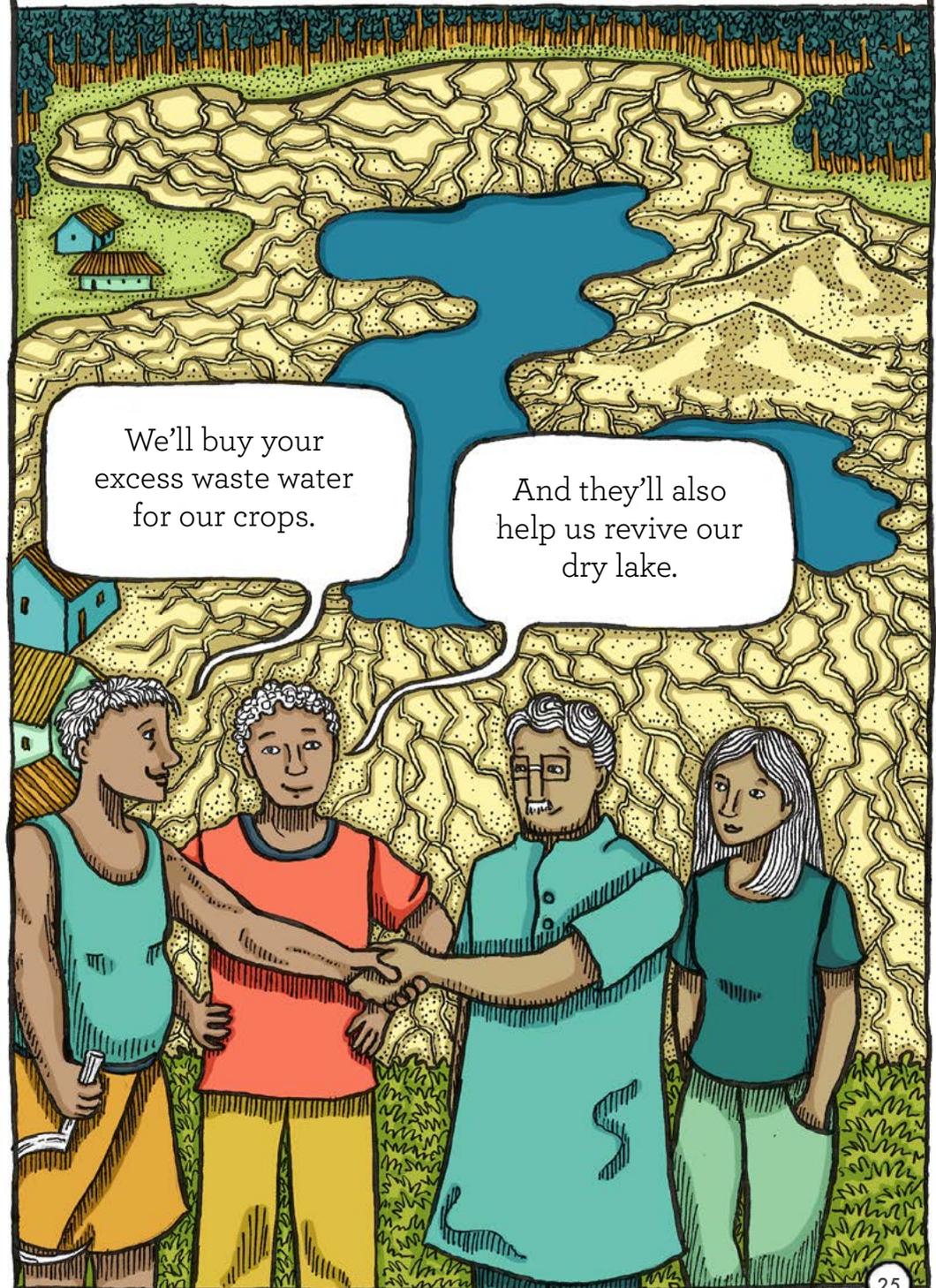
BIOLOGICAL WASTE WATER TREATMENT TECHNOLOGY

* The running costs of a 180-250 KLD plant are approximately Rs. 25,000 a month.

And 6 months later:



EPILOGUE



LAYOUT MAP OF MEGHADOOT ENCLAVE

