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Rainwater Harvesting

Innovation

- A new way of thinking, sometimes blend with 500 years of technologies
- Design for present and future
- Work together with Architects, Town planners and governments.
- Selling the ideas beyond profit – win-win situation
- Creating values (Credits and Recognition)

The Role of Rain Water in Low Carbon Cities

- Can rain water harvesting reduce energy usage?
- What's the connection between water and Electricity?
- Is there any connection between climate change and rain water?
- Is rain water harvesting solely on cost and energy saving?

We need to be clear.

Rain Water Harvesting

- Imagine if our house has no tap
- No pump needed
- No water transmission needed
- As such, Zero energy needed

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- That's how 1000 years ago people survived.
 - Well, underground, river, lake and rain water. That's how people survived.
 - We cannot live like that now a days.
 - But we can still harvest and the energy usage can be mitigated.
 - However, the mitigation can cost us in different way by saving energy.
 - How big is natural water recourses storage compared to pipe water?

Let's look at the disadvantageous first

- We need bigger storage.
- We need some kind of technology to purify the rain water.
- The rain water before reach us, it has sediments and invisible particles
- We need to eliminate the sediments and impurities.
- We need to eliminate the odor.
- Are they easy? Are they economical? It may not. We need to spend in order to get benefits.

Turn the disadvantageous into Opportunities

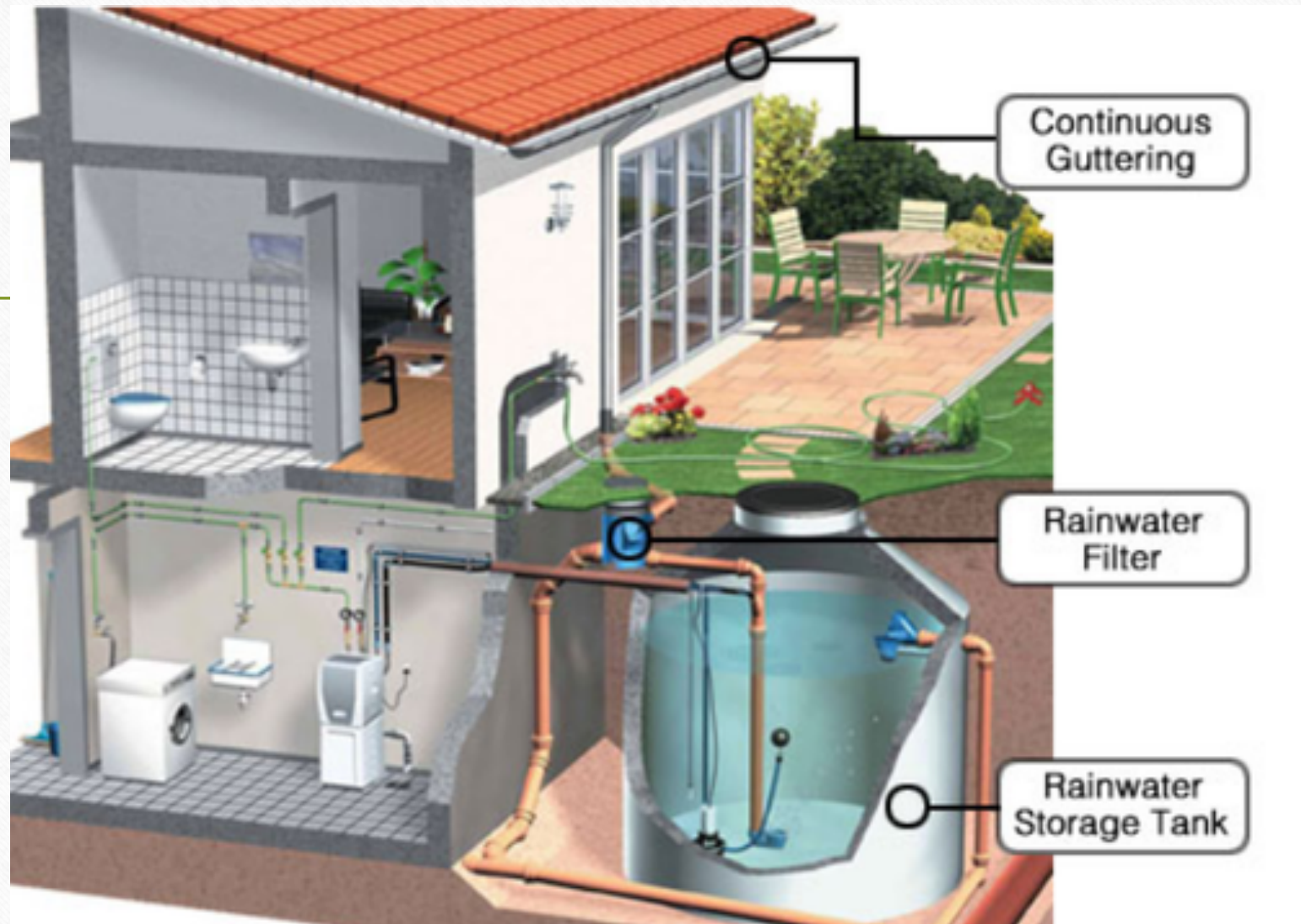
- Have rainwater tanks that can be shared with neighbors.
- The reason is, the water cannot be kept for a long time.
- It shall work like community services. The management shall only charge for the services and facilities.
- We can have underground tanks, where it is cheaper to built while the house/building is in construction stage itself.
- Do not put the tank at the roof or elevated, as it is too heavy/costly.

Where's is more applicable?

- In a bigger facilities like factories, hotels, hospitals and transportation stations.
- They need more water for facilities, process and landscape
- May not for consumptions or indoor usage as it is exposed to germs.
- Even if we can treat the bacteria, it is difficult to maintain the quality.
- In Middle-East, rain water, grey water and sea water are being used for non domestic usages.

Smaller scale

For Housing



Bigger scale

Bigger Facilities

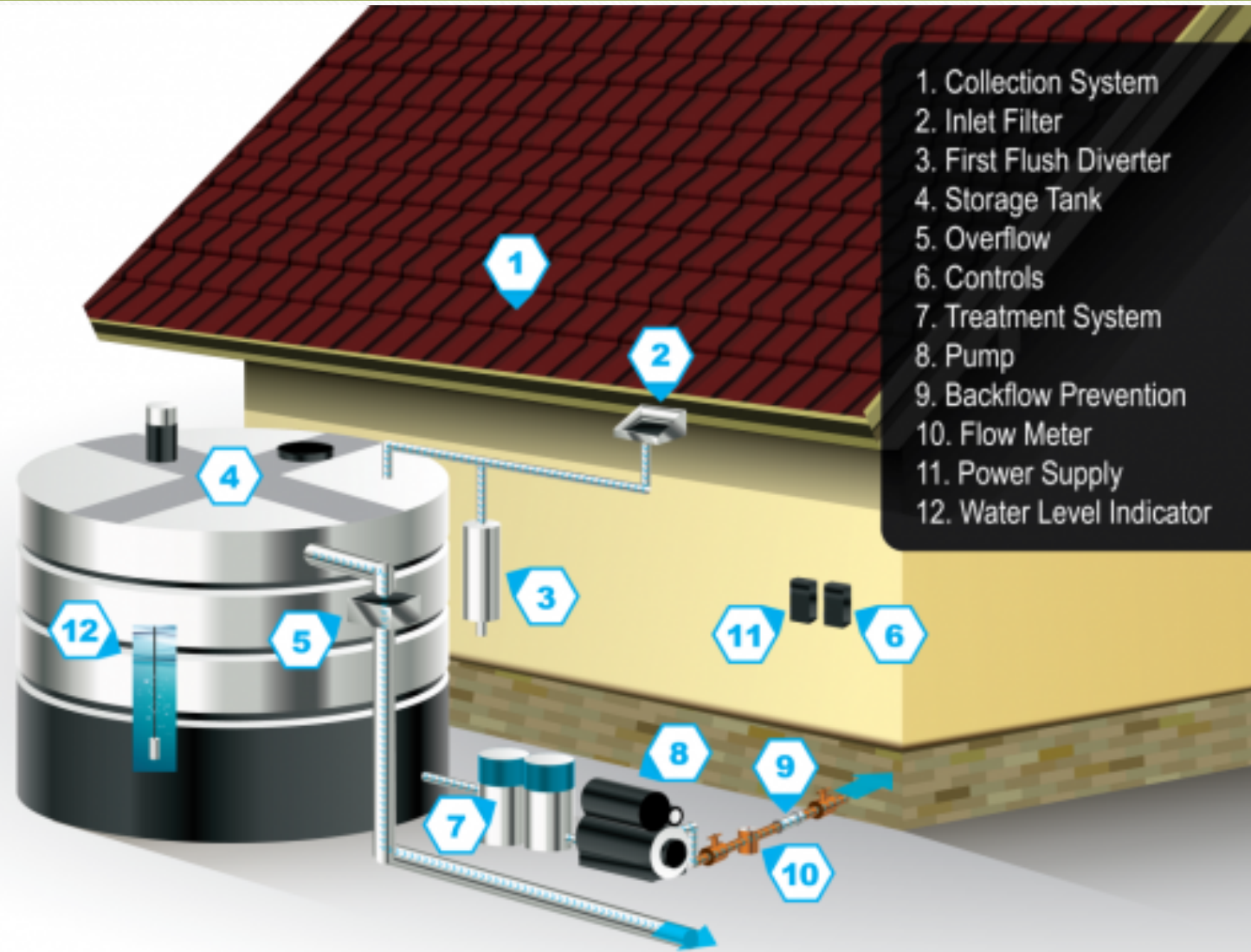


Much Bigger Scale



Rain Water Harvesting

Concept Illustration



City Infrastructure for Rain Water Harvesting



Thank
You