

Water . What are we doing about it ?

About 80 % of our water usage end up as sewage !

Mahatma Gandhi Stated

Trivandrum is the ever green city of INDIA

Trivandrum city

1928 - town spanned 29 sq km . population barely 0.065Million

1961 the population doubled city expanded to 75 sq km

The water

Total demand	153MLD (2011 survey)
Water supply	176 MLD
Leakage loss	35%
Population served by pipeline	67%
Water from open well	18 %

Sewage

Connected to Sewer network - 40 %

Flush toilets with septic tanks - 25%

Single pit pour flush toilets - 18%

No Facilities - 7 % (2011) Now - ODF (Can we really say ?)

Bore Hole latrines - 10%

Sewage

Generated as per CPCB	130MLD
Sewer network	20 sqkm
Area & Population covered	30 % of TMC Area & 40%
Treatment	?
Disposal	Arabian Sea .

The sewage route

Gravity & 9 pumping stations to Stilling chamber @ Muttathara .

Chamber by gravity flow to Valiyathura fodder cultivation farm (41ha)

The sewage farm has only 24 MLD capacity . It is overloaded

Overflow goes to parvathy puthanar

Sewage from City is disposed @ Moonattumukku (same canal)

Finally reaching the Arabian Sea .

The effective system of 1960`s have long gone with the increase in population

When the life line is threatened

Karamana ,Killi ,Parvathy puthanar . Boundaries encroached upon .

City sewer as well as individuals let off waste into them

The 5 canals receiving surface water run off empties to them (They are sewage carriers)

May 2007



The KSPCB Issued a notice to TVM corporation

Leachates were entering the Karamana river from the dump yard near vilappil sala

Open wells are key source of water

Piped water system was commissioned in 1933 - Vellayambalam or willingdon net works

18 % of the trivandrum population gets water from shallow open wells

The sewer network covers only 40 % of the city .

Most of the houses use septic tanks & soak pits

Soak pits in turn contaminates the open wells .



What can be Done for toilet discharge ?

Environment sanitation

Treat waste @ source .

There are best practices in the country . Like education and our literacy achievements , Kerala can also become a model for INDIA .

DRDO Approved Bio digester systems is a proven cost effective technology which is 100 % environment friendly



Thank you