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**Section:CSE F**

**Topic:Chennai’s Water Crisis**

**Title of the assignment:Overcoming water crisis, providing a global solution for Chennai’s water crisis**

#rightproblem

The Chennai’s water crisis is one of the most ecological and economic loses in India as a nation has faced it during 2019, there are many complicated issues related to the crisis but due to lack of urban planning, misuse, and mismanagement of water resources, scarcity of water reservoirs, shortage of perception and the execution of rainwater harvesting techniques, absence of reuse of water, dependency on water tankers, recharge of groundwater etc .These are the main reasons impacting water . To supply of water to a metropolitan city like Chennai by increasing the infrastructure of water reservoirs, rainwater harvesting techniques and bringing awareness regarding reuses of water and rainwater harvesting, developing methodologies to increase recharge of groundwater and wetlands, ideally to reach the sufficient water supply target for the people of Chennai. To get government permissions for more meticulous urban planning, increasing the number of water reservoirs, inducing knowledge of rainwater harvesting techniques, reuse of water, decreasing dependency on water tankers, getting the financial funds needed to strengthen groundwater. The scale of the problem is a metropolitan city if overlooked can become a state-level concern.

#breakitdown

The water crisis in Chennai:

-Empty reservoirs

-Due to Lack of Urban water management

-Due to Lack of infrastructures

-Due to Lack of planning

-Chennai's vanishing groundwater

-Due toLack of awareness

-Overuse of water

-The Removal of forest cover

-Dependence on tankers

-Due to Lack of planning

-Careless attitude towards water resources management

-Provoking knowledge of rainwater harvesting procedures

-By Generating awareness

-And Upgrading technology

-Reuse of water

-Bringing conscious approach to use water

#gapanalysis and #constraints

If the constraints are outlined, obstacles can be resolved by creating arrangements to please all of the restrictions at the equivalent time, the water crisis is one of the complex problem but in the present scenario of Chennai, the possible constraints are urban planning, a small number of water reservoirs, lack of knowledge on rainwater harvesting techniques, insufficient reuse of water, dependency on water tankers, depleting groundwater. To satisfy every constraint one needs to rationally utilize critical thinking and examine for ways in which constraints can be used as our advantages rather than impediments.

A gap analysis is composed of the resolution study, the outcome of an efficient gap analysis is both identifying current solutions that can be adopted or generating innovative solutions. To provide a solution for water crisis is complex and many people think that it involves a single solution but in fact, there are many solutions which can be tied together to create a unified and simple solution with the use of technology, spreading awareness about rainwater harvesting techniques because during 2000's rainwater harvesting is what kept the Chennai safe from water crisis but people were not conscious at that time of how to use it, overuse of water is another issue at personal scale which must be addressed by increasing knowledge through digital programs. (Lacasse, Michael. (2020). Managing rainwater - an update on flanged window installation)

Water reservoirs management can be handled with the most advanced technology which can predict when they will run out of water which will invariably reduce the dependency on the water tankers to supply the required amount water, artificial intelligence can be employed for understanding where most amount of water is being misused and thereby can be amended with proper followup operations

To handle the situation of depletion of the groundwater table, one needs to spread awareness in digital programs about the ecological importance of groundwater table and reforestation which can dramatically increase the water level, so through a crowdfunding campaign and digital consciousness change can be brought in this phase of handling water crisis.

Chennai has sufficient digital technology to handle awareness campaigns and enough proficient labour to exercise executable artificial intelligence to tackle with the integrated problem of water management. (Petersen, C.E.. (2006). Recharging groundwater. 98.)

#analogies and #heuristics

I used an analogy to approach the water crisis problem An analogy is simply a resolution that can carry from its initial environment to unfamiliar circumstances. The essential elements of analogical thinking is an original obstacle that has to be solved or a fresh possibility that pleads to be obtained. I would like to utilize the analogy of researchers from Water, Peace and Security Partnership, the Netherlands have formulated an artificial intelligence device that could foretell where disputes emerging from water uncertainty are prone to break out by handling pattern recognition of geophysical and socio-economic data foretelling the Syrian civil war in 2011 as a consequence of a five-year drought When it comes to Chennai’s water crisis a comparable strategy can be operated as artificial intelligence can be executed to identify areas which use the most amount of water and the least amount of water, predicting the water reservoir systems to produce required better urban management systems and spreading awareness on use of water and rainwater harvesting techniques on digital platforms making Chennai free from water crisis.