# **DOMESTIC WASTE WATER PURIFIER**

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#### **ABSTRACT**

The researcher has developed domestic waste water purifier to purify domestic waste water (human waste water). Usually purification of domestic water at 100% quite expensive but here in economy base we can purify water up to 60%. Because 60% purifying water is not use to human purpose. And this make it as a goal researcher has invent a domestic a domestic waste water purifier. Decreases excessive level of salt. (From 1000 TDS to 300-400 TDS)If pH value increases (up to 10-12) purifier reduce pH value (Maintain pH 6.5-7.5). Waste Water purifies capacity 150 liters in 24 hours. Use of natural substance for filtration. Minimum cost Rs.600 and easy to maintenance.

**Keywords:** domestic waste water, purifier, pH, level of salt



#### INTRODUCTION

Now a day water is a big issue in the world and it is getting worse day by day. As we know the importance of water but the same way we are facing many problems like water pollution and in metropolitan cities and on the contrary in village's shortage water and even not getting pure water to drink.

Less use of water is not a smart solution because water consumption is different person to person. One person less use of water as soon as second person has been used more water. In this case we cannot restrict to use less water in this kind of case, but reuse of water can be a best way. For reuse of water need purification plant this kind of plants we need place, time & money. These plants establish in metropolitan cities but cannot include other kind of waste water (domestic) so plant cannot working effectively, so it's necessary to develop waste water purification plant which purify domestic waste water.

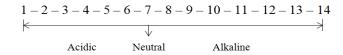
So here the researcher has developed "DOMESTIC WASTE WATER PURIFIER" to purify domestic waste water (human waste water). Usually purification of domestic water at 100% quite expensive but here in economy base we can purify water up to 60%. Because 60% purifying water is not use to human purpose, and this make it as a goal researcher has invent a domestic a domestic waste water purifier, which purifies the bathing, waste water after washing cloths and utensils which can be purify and use next day for plants and farming.

#### **Domestic Waste Water Purifier**

This purifier make from easily available things. The minimum cost to make it is Rs.500-600. So everyone can easily afford it and use it. The purifier decrease the solids (TDS) level in the washed water, who those adding washing soda in the water for washing clothes. And maintain / balance PH value or level in washed water. Approximately pH value is increase when we have adding washing soda in the water. pH value increase 7 to 10. But plants & human have base water (pH Value 6.5 to 7.5). "DOMESTIC WASTE WATER PURIFIER" has been maintain pH value 7 to 7.5.



# pH Scale



#### **Material To Be Needed**

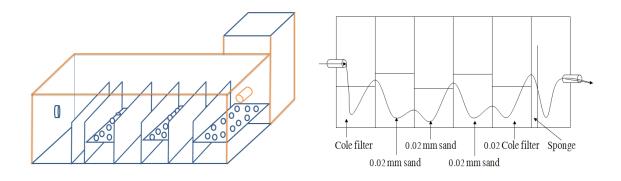
- 1) 0.2 to 0.02 micron Sand in Rajasthan river
- 2) Sponge
- 3) Wooden / Stone coal
- 4) Foam sheet
- 5) Solution (glue for sticking)

# **Problem of reusing of waste water (without purification)**

- 1) Household waste water (Domestic) contains chemical elements after washing cloth and utensils, the water gate contaminated with salts and it is also increases pH level. This water cannot be used for gardening or farming. If we use it the soil get destroyed by chemical elements.
- 2) Tree and plants become stunted or undersized.
- 3) House surrounded with drain water.
- 4) Abnormality in plants and tree.
- 5) Fruits and vegetable contains more amounts of chemical elements.

These are the problem which occurs by using domestic waste water.

# **Internal Structure of Domestic Waste Water Purifier**





#### **Best Remedy on Waste Water**

For reuse of water it should be filter properly, because the domestic water contains excessive chemical and salt. These chemicals and salt needs to be separate with the help of sand filter than 60% of water get purified and maintain good pH.

So, this way we get 60% clean (Purified) water which can be used for gardening and farming.

# **Features of Purifier**

- 1) Decreases excessive level of salt. (From 1000 TDS to 300-400 TDS)
- 2) If pH value increases (up to 10-12) purifier reduce pH value (Maintain pH 6.5-7.5)
- 3) Waste Waterpurifies capacity 150 liters in 24 hours.
- 4) Use of natural substance for filtration.
- 5) Minimum cost Rs.600 and easy to use.
- 6) Minimum maintenance.

# Use and consumption

- 1) Those houses surrounded with plants and tree or have garden the can easily get water in summer season.
- 2) Tribal and unreachable area where people get water from bore well and wells to drink, this kind of places we use the "**DOMESTIC WASTE WATER PURIFIER**" to reduce (saline) salt and maintains pH level.
- 3) With the help of this water purifier in cities and in urban areas it is useful to filter daily domestic water and this water can be use the next day for plants, farming or gardening.
- 4) Reduce up to the 50% of domestic water from overall (Total) domestic water which flows daily from cities and rural areas.

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