

Q. How the man-made wetlands act as a viable alternative to treat waste water coming from a point source of pollution? Explain
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Answer:—

→ A constructed wetland (CW) is an artificial (man-made) wetland to treat municipal or industrial wastewater, greywater or storm-water runoff.

→ How it act as a viable alternative to treat waste water?

- ① → It does not require 'electricity' for its 3-step process.
- ② It uses higher turbulence which gives better oxygen saturation and better quality of water.
- ③ In their last step, water passes through 25 species of plants including typha, ipomoea cyprus — which are effective in the treatment of heavy metals, including arsenic. Raw sewage is food for and these plants & they draw nutrients from it.
- ④ Constructing such man-made wetland near biodiversity park lake, it will help in increasing the concentration of dissolved

oxygen (DO).

⑤ More recently, estimated that developing countries will run out of water by 2050. This is a concern not only to communities but also to the scientist to find new ways of wastewater recycling. Constructed wetland is a viable option for this by avoiding water losses & more expenses.

→ Wetland system can achieve high treatment efficiencies with regard to both organic and inorganic nutrients as well as pathogen removal if properly managed.

→ Constructed wetland signify a step towards "Green technology" as this is environment friendly & sustainable.

Some steps have been taken in India:

① At the South Delhi Biodiversity Park Delhi Development Authority (DDA), set to plant 11 constructed wetland systems, one of which started functioning treating about 15 MLD of waste from the Kilo Kanidrain

→ Constructed wetland should be investigated & given a chance for use as an alternative technology in wastewater treatment by local municipalities & industries especially in the metropolitan cities like Mumbai, Delhi, Chennai, Kolkata, etc.