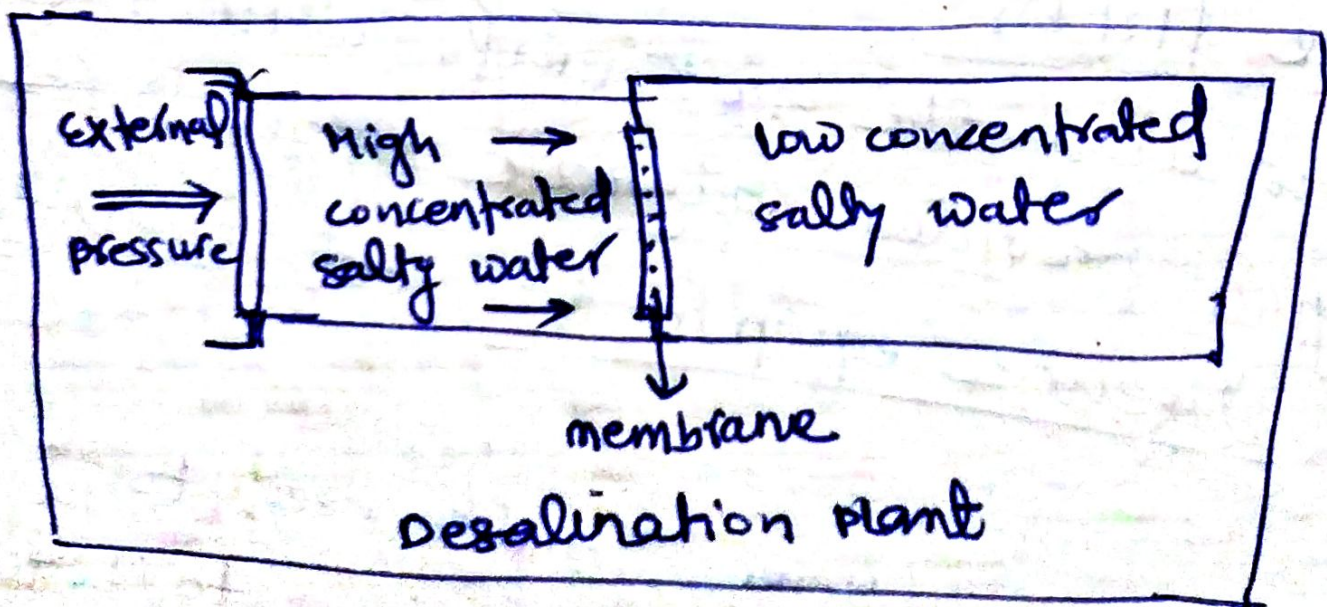


Recently, Maharashtra government gave nod to build a desalination plant in Mumbai.

Desalination is a method to turn saline water into potable water by

using technology called Reverse osmosis

in which external pressure is applied to move solvent from high concentration to low concentration through a membrane



Desalination plants are largely concentrated in high income middle east countries like Israel, UAE, Kuwait etc, but Indian states like TN and Qatar too had the plant of about 100MLD capacity.

These plants are avoided in countries like India mostly due to

(i) High initial capital - for example Mumbai plant alone will require 1600 cr if completed in time.

(ii) Environmental concerns (UN study)

a) Brine water which has 5% salt unlike sea water which has 3.5% causes pollution.

b) Hot water creates situation like hypoxia - low oxygen which creates dead zones in the sea.

c) Salty water being dense settle down at bottom and affect life at bottom.

(iii) land requirement for such water near coast and inbetween cities is a challenging task.

(iv) low R&D affect adaptation of these plants in accordance with local needs.

However the growing population of country has exhausted all traditional water sources and desalination provides

(i) opportunity to meet water demand for today and future realising SDG 6.

ii) Brine water contain magnesium
Copper, Uranium, Strontium which
can be mined.

Thus with suitable EIA
and RED there is a need to turn
environmental concerns into economic
opportunities of Desalination plants.