

## ABSTRACT

Globally, membrane processes including reverse osmosis (RO) are increasingly being used to filter water. The disadvantage of using such membrane systems is that they produce high volumes of reject water. Disposal of reject water is a huge challenge. It is highly saline and is currently disposed directly into the water bodies, negatively affecting aquatic and terrestrial ecosystems. The project envisaged the treatment and beneficial use of this saline water. The saline water was used for aquaponics; to raise fishes and the subsequent use of its excreta as nutrient to this rich saline reject to grow plants that can tolerate salinity. Plants that have biofuel potential and can be used as fodder for animals were tested in growing beds fed with this water.