

Kenya aspires to become a middle income country as envisioned in Kenya vision 2030. This means better living standards powered by the middle level income population. This will translate to many cars on our roads, highly consumptive economy that generates more solid and liquid wastes drained into water sources, air and land. Currently the estimated number of cars on Kenyan roads is 935,000 and each of them is at least valeted two or three times a week, either in a constructed car wash, along rivers, urban pavements, or within the compound. The by-products of car valeting in form of grease, tar, detergents, oils, soil, heavy metals such as chromium from paint, lead from acid accumulators, mercury from stabilization system accompanies storm water or drainage systems and enter into the urban water systems (rivers, lagoons, fish ponds and pans) Water contaminants such as grease (kills fish, micro and macro-organisms) heavy metals such as iron and mercury have bioaccumulation properties entering the food chains destroying the spectrum of food webs. Solid particles i.e. grease, oil and soil lower water quality and associated economic costs of water usability affecting businesses and downstream use of the river water systems. Therefore the eco-sensitive carwash technology is a new innovation with the following objectives: To clean and improve water quality of urban water systems, Increase biodiversity in urban water systems, Increase clean water supplies for domestic, industrial and agricultural use and decrease the disease burden of water borne diseases. The technology works based on four scientific principles of physical filtration, contaminant adsorption, recycling and backwashing as a cleanup mechanism. ESCT design constitute of a cylindrical container that assumes a man hole like structure arranged from top-bottom materials of decreasing sizes as follows: large gravel, pebbles, sand, cellulose, activated carbon and cellulose to do filtration, adsorption and backwashing as regenerative clean up mechanism. Successive implementation of the technology will lead to; Carwash activities being accepted and legitimized by the county, other counties and international governments, sources of employment in terms of people doing construction and training, source of clean water for domestic, industrial and agricultural use, boost urban farming associated with urban irrigation.

Key words; eco-sensitive, carwash, physical filtration, water quality, biodiversity and technology