Preliminary Feasibility of Large-Scale Treated Wastewater Re-use for Agriculture in Trinidad and Tobago

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Abstract: *Large expanse of agricultural land in Trinidad and Tobago (T&T) needs irrigation during the dry season, but cannot be cultivated during this period because of lack of sufficient water. This study examines the existing difficulties in allocating sufficient water for irrigated agriculture in T&T. The overall status of T&T's water resources and associated current and projected sectoral water demands, as well as the existing operational condition of its wastewater treatment and disposal facilities, were reviewed. This was done to investigate whether a national treated wastewater reuse scheme for agricultural irrigation could be supported based on existing local conditions. The study finds out that sufficient quantities of treatable wastewater exist, particularly in North Trinidad, and that these could be used to significantly address the agricultural water demand for agricultural lands in T&T. It concludes that although the effluents derivable from wastewater plants could augment irrigation water in T&T more tests should first be carried out to investigate the effect of these effluents on the soils, crops, persons and the environment. Proper legislation, effective treatment of wastewater from treatment plants, and public education to advise on the merits and demerits of using wastewater effluents as irrigation water, would be important.*

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