

Using data gathered by the WASHCost project in Ghana, this study uses cost functions to predict capital expenditure for construction of piped water systems for small towns in Ghana. The data was collected from 45 small towns in peri-urban areas in the Volta, Ashanti and Northern regions of Ghana. Correlation and multiple regression analyses are used to derive cost functions for both the complete and components of water systems. The aim is to derive functions for the total capital expenditure of a small town water system and for the fixed assets components: mechanised borehole, water reservoir, pipe work and stand post. The results are presented as eight functions, representing the total capital expenditure for a water system and capital expenditure for the infrastructure components water reservoirs, pipework and stand posts. Explaining variables identified are design population, length of pipeline, volume of reservoir and dummy variables for region (location). The functions vary in accuracy with an explanation coefficient R^2 varying from 0.42 to 0.88 with limited data, but the functions are indicative for the cost of water systems with mechanised boreholes which are increasingly being used as small town water supply systems in Ghana. Key words – Ghana, small town water system, cost function, capital expenditure, multiple regression analysis