

Chapter 12

Best Practice in the Use of the Water Sources of Portoviejo Canton, Ecuador, and Its Parishes

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ABSTRACT

Water is a fundamental element for the sustenance of all living beings in nature, hence the importance of its conservation and the correct management of its sources. In the case of the Portoviejo River, water is used as a means of irrigation in plantations, a drinking water supply to the city, and a space for developing tourism. However, new settlements along the banks of the Portoviejo River have led to a rise in pollution levels and other misuses of the water. Owing to these circumstances, there was a clear need to evaluate the historical background and conservation mechanisms of water sources used by the canton authorities and its control bodies. The main objective

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of this study was to carry out an exhaustive analysis of good practices in the use of water sources within the Portoviejo Canton. The study used a hermeneutic research approach, which allows the researcher to perform a qualitative analysis of various interpretations of different texts through a dialectical process, which supports the investigation and substantiates the results obtained.

INTRODUCTION

Natural resources are of great importance because of the value they represent for human subsistence. According to the United Nations (UN) (2023), “water is at the epicenter of sustainable development and is fundamental for socioeconomic development, energy, food production, ecosystems and for the survival of human beings”. The care of these resources means the guarantee of survival on this planet. Nonetheless, currently 2.2 billion people lack access to safely managed drinking water services (World Health Organization (WHO), 2022a) and 4.2 billion people do not have safely managed sanitation services, while 3 billion lack basic hand-washing facilities (UNICEF, 2019). Water is the key to the life of all species of plants and animals, so its care should not be neglected anywhere in the world (Krause & Strang, 2016). The planet’s water is maintained in different reserves: oceans, lakes, rivers, groundwater, glaciers, the atmosphere, among others. Of these reservoirs, the oceans are the most important, storing 97% of the total water resource; however, this saltwater is of limited direct use. The availability of fresh water is therefore restricted and its distribution in the world is variable, which is why its care is essential (IICA, 2008).

Water sources offer a large number of benefits to social groups living along the banks of rivers or lakes, in addition to contributing to the local economy. Water is an economic resource for which there is a limited supply and a growing demand, one which tends to exceed the availability of the resource (Ortiz et al., 2017). Natural resources must be used responsibly and even more so when it comes to water for human consumption. A large part of the weight of this responsibility falls on public institutions, which are responsible for the proper administration and distribution of drinking water, as well as its treatment and distribution in optimal conditions for human consumption. However, all citizens have a duty to make good use of the resource that is being provided, either for the daily consumption of drinking water or for agricultural purposes.

According to the United Nations World Water Development Report 2023, cooperation and partnerships represent the key to fulfilling the water related aims (United Nations (UN), 2023). Also, according to specialists, access to clean water and sanitation represents a vital part in accomplishing the human rights in terms of a successful sustainable water management (World Water Week (WWW), 2022).

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