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Towards sustainable water management in Algeria

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Towards sustainable water management in Algeria

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ABSTRACT

Algeria aspires to protect its water resources and to provide a sustainable answer to water supply and management issues by carrying out a national water plan. This program is in line with all projects the Algerian Government is implementing to improve its water sector performance. The water strategy focuses on desalination for the coastal cities, medium-sized dams to irrigate the inland mountains and high plateau, and ambitious water transfer projects interconnecting Algeria's 65 dams to bring water to water scarce parts of the country. Waste water treatment and water reclamation technologies are also highly sought after. The main objective of the country's water policy consists on providing sufficient potable water for the population supply. This objective is undertaken by increasing the water resources and availability.

Keywords: Algeria; Water strategy; Desalination; IWRM; Water scarcity; Climate change

1. Introduction

Algeria, with a total area of 2,285,263 km², is located in North Africa. It is bordered by the Mediterranean in the North, Morocco, Western Sahara and Mauritania in the west, Mali and Niger in the south, and by Libya and Tunisia in the east.

Algeria population is 37.4 million in 2012. Approximately, 87% of the Algerian population in the cities has access to clean drinking water, not including the 13 million living in the rural areas.

It is a desert country without rivers. The climate is semi-arid and is prone to water scarcity [1]. In Alge-

ria, water is rapidly becoming the key development issue. The country has one of the highest average population growth rates in the world (around 1.17%) [2] and scarce natural water supplies. As a result, renewable available water in Algeria dropped from an average of 1,500 cubic meters per person per year (m³/p/y) in 1962 to 630 m³/p/y in 1998 and is expected to decline to 430 m³/p/y by 2020 [3].

The average availability for domestic consumption is 55 liters per inhabitant/day and the water is usually cut off in almost all the cities [4].

Agricultural irrigation is the primary water consuming sector followed by the domestic and industrial sectors. Water allocated for irrigation has dropped from 80% in 1960 to around 60% in 2002 [5].

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