

Prospects for Water Harvesting in Northern Senegal

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ABSTRACT

Water scarcity is a major constraint in agricultural development and in the management of natural resources of northern Senegal. Located in Africa's Sahel Zone, northern Senegal is characterized by low rainfall, averaging less than 300 mm/year. Rainfall is unevenly distributed over time and space. As a result, rain-fed agriculture is normally possible for only three to four months each year. In an environment of growing scarcity and competition for water, a comprehensive strategy is needed to improve agricultural productivity. One options is that of developing water harvesting systems to provide water for livestock. Water harvesting is a technique used to collect and store water from an area that has been treated to increase rainfall runoff. This paper considers the prospects for developing pilot water harvesting systems in the Ndiass area, located 45 km south east of the capital city of Dakar. An assessment of costs and benefits of a water harvesting system for 32 dairy cattle is presented. Finally, recommendations are proposed in the context of overall water and livestock management in northern Senegal.