

A HOUSEHOLD COST-BENEFIT ANALYSIS OF IMPACTS FROM FOG WATER ACCESS IN SOUTHWEST MOROCCO

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Morocco is quickly advancing the ways in which its population accesses water in order to meet growing demand and the changing climate. One important method of providing water is the process of fog harvesting. In the rural southwest region of Ait Baamrane is the world's largest fog harvesting infrastructure. This infrastructure has reduced the burden on the population – especially women – who, on average, spent three hours each day fetching water from wells. Using thirty-eight semi-structured household interviews, changes in daily household activities as well as in human capital and social capital were identified. Human capital improvements were considered to be the practical means in which life has changed since access to fog water has been given, i.e. improved access to education, health improvements from access to clean water, health improvements related to losing the physical burden of carrying water, social structures et cetera. These changes are a result of the obsolete opportunity cost of collecting water with traditional methods and the financial burden of buying water from private sellers. Social capital improvements relate to reduced outward migration and greater community cohesion--working-age males have been obliged to migrate to cities when their families cannot afford water. This research emphasizes empowerment and whether access to this water resource has an effect on the longevity of these indigenous Amazigh communities. Morocco's investments in water access have been primarily focused on desalination and dam construction, but geographically remote communities lack the infrastructure to connect to these methods. Ensuring access is the only way to make sure that rural Amazigh communities continue to thrive in the desert as they have for thousands of years in spite of reduced rainfall and declining ground and surface water levels. Key findings include increased sleep, reduced burden on mental health, increased house construction, and reduction in outward migration.

PRESENTER BIO: Sarah Strohminger is a graduate student in the Masters of Sustainable Development Practice (MDP) program with a diverse background in food security, environmental education, and research. As a graduate student, she spent three months researching community impacts as a result of fog water access as her MDP field practicum.