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From Streams to Struggles: Using Dfid Sustainable Framework to Access the Impact of Rural Water Poverty on Residents Sustainable Livelihoods

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Abstract

The availability and access to safe and clean water is critical for human flourishing in diverse ways. Nonetheless, rural communities continue to experience water poverty. Using a case study of 'Deve', a deprived rural community in Ghana's North Tongu District, this study assessed the multidimensional impact of rural water poverty on residents' livelihoods. The study employed the United Kingdom Department for International Development (DFID) Sustainable Livelihood Framework and drawing on field data analysed qualitative semi-structured in-depth interview responses from 36 participants sampled purposively. This includes 29 households (170 people), group interviews sampled, and 7 secondary stakeholders, who are people in local governments in charge of designing programmes and policies, as well as promoting well-being for the overall development of the district. The findings showed that 86 per cent of the households used water from two small earth dams not only for drinking but also for domestic purposes, although it is unprotected. The study further provides evidence that rural water poverty has a detrimental impact on livelihoods through increasing vulnerability, as water-related illnesses alone account for 85 per cent of households' health conditions. Similarly, children and women must walk for nearly 90 minutes or more to collect water, especially during dry seasons. Although all livelihood assets were affected, 100 per cent of the respondents said that financial capital was the most affected. Furthermore, the study provided additional evidence of differently weighted impact along several social axes of difference, such as disability. Overall, the study situates Deve's experience within broader frameworks of rural development and environmental justice, arguing that water poverty is not merely a technical issue but a structural one with deep socioeconomic implications. Findings point to the need for integrated water governance, participatory planning, and targeted investment in climate-resilient water infrastructure. The paper concludes that the current situation in Deve necessitates

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immediate efforts not only on the part of the local district assembly and NGOs to adhere to water policies and prioritise expenditure to provide sustainable access to safe water, but also on the part of residents in Deve to leverage local resource mobilisation to initiate water projects that will necessitate global support. Taken together, this will contribute to enhancing water security as a foundation for sustainable rural livelihoods in Ghana and similar contexts.

Keywords: Water Poverty, Safe and Clean Water, Livelihoods, Sustainable Livelihood Framework (SLF), Households, Accessible, Access