Quarter Report April-May 2025.

Rufford I.D: **45987-1**

The Title of Your Project**: Promoting Community-Led Afforestation for Soil Protection and Conservation of Oreochromis esculentus in Hombolo Dam, Dodoma, Tanzania**.

1.0 Reconnaissance Survey for the current status of the Hombolo Dam.

This involved establishing a clear baseline of the current condition of the dam and assessing the impacts it has been experiencing, in order to inform appropriate mechanisms for its restoration. The survey outlines the ongoing activities affecting Hombolo Dam, including the increasing rate of tree cutting along the dam's banks and shoreline. Many surrounding villages heavily overharvest these trees for firewood and construction purposes (Figure 01),contributing significantly to environmental degradation and reduced ecosystem stability.

Figure 01: Increase Deforestation of Trees surrounding the Hombolo Dam for Firewood and construction purposes. **Photo credit © Frank-UDOM 2025.**

2.0 There has been a growing trend of clearing land through shrub burning and tilling along the shoreline surrounding Hombolo Dam, primarily to establish vegetable gardens and other agricultural activities for various purposes.

Figure 02: Burning of the shrubs surrounding the dam shoreline at Hombolo Dam. **Photo credit © Frank-UDOM 2025.**

3.0 There has been a noticeable increase in livestock grazing around Hombolo Dam, with animals frequently accessing the water for drinking. This poses a significant concern for domestic water use in nearby villages and has intensified existing conflicts among grape farmers, vegetable growers, and fishers over declining water levels and increasing pollution.

Figure 03: Increasing numbers of livestock grazing along the shoreline of Hombolo Dam. **Photo credit © Frank–UDOM, 2025.**

4.0 There has been an increase in the unregulated construction of water channels used to extract water from the dam for agricultural purposes. These channels have contributed to undesirable levels of erosion and siltation, accelerating sediment accumulation in Hombolo Dam and further degrading its ecological condition.

Figure 04: Unregulated construction of water channels used to extract water from the dam for agricultural purposes. **Photo credit © Frank–UDOM, 2025.**

5.0 There has been a noticeable decline in water levels at Hombolo Dam, with the dam increasingly drying up. This is largely attributed to unsustainable multiple uses of the water resource, coupled with high rates of sediment deposition driven by shoreline tilling and rainfall runoff, which together reduce the dam's storage capacity and overall resilience.

Figure 05: Decline in water levels at Hombolo Dam, with the dam increasingly drying up. **Photo credit © Frank–UDOM, 2025.**

06. The survey also assessed current fishing activities at Hombolo Dam, including the types of gears used in relation to the size and species of fish caught (Figure 06). This provided insights into which species are being targeted for livelihoods, with particular attention to the exploitation patterns of *Oreochromis esculentus*.

Figure 06: Assessed current fishing activities at Hombolo Dam. **Photo credit © Frank–UDOM, 2025.**

Additionally, the project has initiated household data collection through structured questionnaires to capture village-level perspectives on the collective management of Hombolo Dam. This process aims to assess the varying levels of community engagement and understanding, helping to identify local priorities and inform more effective, inclusive strategies for addressing the dam's existing challenges.

Work on progress include

- Monitoring and data collection on fish populations and the dam's water quality
- Outreach and consultation meeting with the Hombolo community
- Planting trees and Monitoring
- Monitoring of the Wet season environmental changes at Hombolo Dam (Dec_2025 -April_2026)