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Nature's Water Towers

Watershed Management Harnesses Mountains for Freshwater Source

The Karitawuha watershed in Kalay *kebele*, in West Belesa *woreda*, there is much to be enjoyed by way of scenery. There is greenery surrounding the area, and the namesake mountain after which the watershed is named stands tall with visible contour lines. Melaketseye Masresha, a priest in his early 70's, lives inside the church he planted on the mountain itself nearly three years ago, and he says the greenery is fairly recent. He's referring to the **contour lines** that have been put in place as part of SWEEP, a project implemented by CARE through the financial assistance of the Austrian Development Agency. As part of its objective, SWEEP aims to **increase household access to water** in the targeted *woredas* by implementing **sustainable water resource management** and **environmental conservation practices** in the communities. The hillside terraces have been helping with **conserving the rainwater** that falls during the rainy season in the area which lasts no more than two months. Due to their large **storage** potential, by harnessing their natural features, the mountain ranges now serve as water towers and provide important **freshwater resources** for a large number of people living in the mountain regions and surrounding lowlands.

Before the **installation of the hillside terraces** in 2017 **to conserve soil and water**, which were put in place with massive cooperation from residents of the area like Melaketseye, the area was an arid desert with no trees or shrubs in sight. With no soil and water conservation plan or work in place, the mountain and the

As part of SWEEP, local residents installed contour lines and hillside terraces to conserve rainwater and prevent soil degradation. SWEEP provided community members with training on natural resource management by establishing watershed management committees, which helped to regenerate the vegetation, increase the ground water level, and improve discharge at the water distribution points.



surrounding area was degraded, affecting the **groundwater** potential. This resulted in **poor water supply** through water supply posts that were in place previously, and which were already few and far in between. This meant that **residents** of the area **had to commute for up to five hours to a water supply post** that was in service. This caused unbearable strain especially on the women of the area who are burdened with household chores including fetching water. Moreover, when the rain did fall during the rainy season, there would be no structure to hold the runoff and so the **soil** would be severely **eroded**. The runoff would also threaten to flood the road below the mountain ranges connecting East and West Belesa.

Ayenew Derese, 19, a fellow priest serving alongside Melaketseye, says the rain that falls during the rainy season keeps their *kebele* supplied with fresh water for the rest of the year. Living quite near the mountain with his wife, he says the **newly installed water pump** makes the entire conservation mechanism real and applicable to him. "Not wanting to strain my wife, I used to have to pay for water to be brought to our house on donkeys," he adds, "but even then, we had very little understanding about sanitation and so waterborne diseases were rampant in the area." Alongside the installation of the contour lines and the **water pump**, SWEEP provided community members with **training** on natural resource management by establishing **watershed management committees** to ensure community members maintain their sense of ownership and buy-in. Furthermore, the watershed management work helped to **regenerate the vegetation** in the area, **increase the ground water level**, and **improve discharge** at the various water distribution points.

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The access to fresh water has created opportunities for community members to engage in income generation activities. Ayenew, along with other young men in his *kebele*, **harvests the grass** that now grows along the mountain ranges and sells it to farmers in the area as hay. Because residents were also equipped with knowledge on how to harness the water supply from the mountain ranges through irrigation systems, farmers in the area now **harvest twice a year** because they're not entirely dependent on the natural cycle of seasons.

This has significantly **improved the quality of life** and resilience of Kalay's residents as evidenced by Ayenew's progress in life. He now **farms throughout the year** and has made enough money so he can begin saving some of it. "My wife and I used to live just for today. We just didn't have enough to put aside for a bad day. Now, we are slowly coming out of that. We are saving both money and grains for a rainy day, and we have these contour lines to thank!" says Ayenew, glancing up at the mountains that are sustaining life in Kalay *kebele*.

It is precisely this **resilience and capacity to adapt to environmental and financial shocks** that SWEEP aims to foster within the community. The contours, which were built through the manpower and resources of the community, have created a water source which has allowed community members to think beyond their immediate needs. With this, residents are also invested in the wellness of their environment. They are implementing **environmentally friendly methods of farming and grazing**, enhancing and sustaining productivity of land for varied uses over longer periods of time.