

growth the university will increase the population of the region by 120 students in 6 years and provision must be made to supply their need for water.

In the vicinity of the University of Fondwa there are three permanent springs, called Sous Makaya, that are located in close proximity to each other and that produce a stable flow year round. The individual output from each of them is less than 0.20 liters/sec., but their combined output is 0.33 liters/sec. The source with the largest flow has been slightly improved with PVC piping and is the only one used by residents of the area at this time.

In the summer of 2003 APF commissioned an engineering study to determine the feasibility of capturing water from the Makaya sources in order to provide for the needs of the university students. The resulting "Makaya Water Project" calls for water to be conducted from all three sources to a reservoir at the APF commercial center in order to meet the needs of up to 120 students of the University of Fondwa and, additionally, a determined number of peasants from the area. The additional number of beneficiaries of the project depends on the number of students and the ration of water assigned to each.

Although water flows from the Makaya sources 24 hours a day, residents do not draw water between 6 pm and 3 am. During this period the flowing water can be readily collected into a cistern. Accordingly, plans for the Makaya Project call for water to be channeled through galvanized iron pipe measuring 1.5" in diameter to a cistern that can hold 28 cu m (7400 gal) located at a distance of 400 m (1300') from the principal source.

Water from the cistern will then be pumped upwards to an altitude of approximately 50 m (164') to the reservoir at the APF commercial center. (The unevenness of the terrain between the location chosen for the cistern and the location of the reservoir combined with the lack of suitable measuring instruments and the unavailability of precise topographical maps of the region made exact determination of distances impossible.) Galvanized pipe (instead of PVC pipe) will be used because the pipeline will pass through an area with a high traffic of people and animals and will therefore be vulnerable to damage. Additional