



**“Appointment Congo”**

12417 Moriah Way  
Raleigh, NC 27614

“A Ministry in Association with

**“United Methodist Volunteers  
in Mission, SEJ”**



## **Lodja Mission Water Project**

Water is a necessity for life and the challenge of providing themselves with water is one that the Congolese face everyday. Tradition and experience have shown the Atetela people of Central Congo that healthy living requires them to build their villages on the plateau well above the valleys where the abundant streams flow with life giving water. This means that their water sources are far away from where they live and that the water they use must be carried up steep hills from the valleys below.

This difficult and arduous task of carrying water from the springs to their villages occupies much of their time and saps their energy daily. At any hour of the day one can encounter women and children climbing the steep hills with **buckets** or other containers **full of water on their heads!** While the water is abundant and pure in the springs flowing from the hillsides in the valleys, it is a long way from where it is needed.

There is a relatively simple solution to this problem and it is a technology that has been around for several hundred years. It is the Hydrum or “Ram”, as it is called, and it is a simple device that uses the inertia of falling water to pump itself up to significant elevations over long distances. An earthen dam or water falls that provides as little as 12 – 15 feet of drop is fed into a “Ram”. The Ram is designed to allow the water to flow momentarily and then suddenly shut off the flow in a way that forces the momentum of the falling column of water to seek another path to take. That path is through a heavy rubber check valve into an air chamber that cushions the shock of the abrupt blockage and forces a smaller quantity of water into a pipe that takes the water up the hill toward a holding tank or tower. The tower can then supply a village or station. While the quantity of water is relatively small, the fact that it pumps day and night and requires no costly fuel makes it an ideal method of providing water to a small community.

The Lodja Mission of the United Methodist Church in Central Congo had such a system in use for 20 years from the mid-1950’s until 1976. At that time, unusual rains and seepage from the hillside caused the dam to give way and the system was no longer functional. Villagers and mission personnel were once again forced to get their water from the valley one bucket at a time.

The project now being planned is to restore that hydrum water system at the Lodja mission of Diengenga. The original ram has been salvaged and with a minimum of parts can be put back into use. The PVC pipe from the original water system is still

available and useable. The primary need is to rebuild the dam that will provide the fall or “head” needed to activate the ram. It will once again be an earthen dam, but this time a concrete core is planned to stop seepage, drain tile will evacuate water from the back side of the dam and bamboo will be planted on the back of the dam to hold the soil.

The dam will be built mostly by hand and will require a team of men to work for many months. The salaries of these men will be the primary expense in addition to some parts for the ram and repairs to the distribution system on the station.

The estimate is that the entire project will cost \$20,000. The expectation is that once restored and functional the water system will serve the homes of several thousand people indefinitely. The maintenance of the water system will be simply replacing the rubber check valves on occasion and making certain that the air chamber does not become water logged. The dam will also be inspected regularly for any signs of deterioration.

This vital project is an opportunity for persons who care about the work of the Church in Central Congo and the lives of the Christians there to participate in improving their lives for years to come. Anyone who wishes to be a part of this project can.....

Make tax deductible donations out to:

***”Appointment Congo”***

12417 Moriah Way  
Raleigh, NC 27614