EZPack Model for the African Village

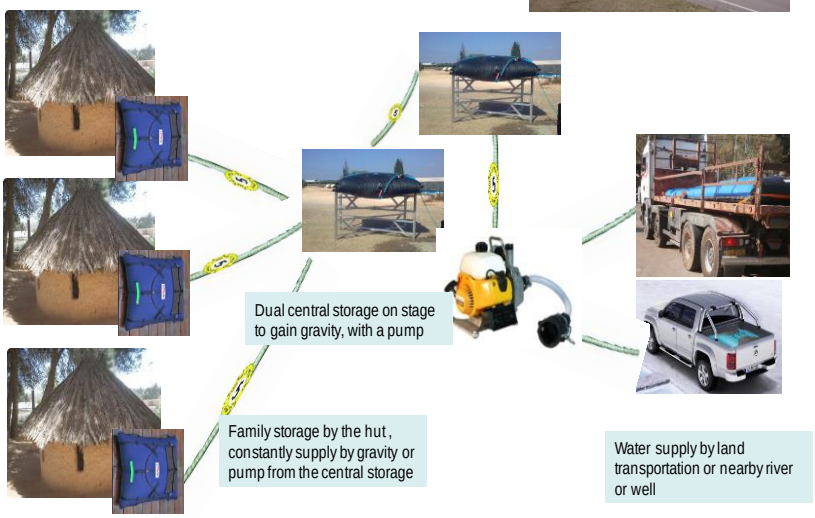
Water distribution and transportation in Africa is a major issue for many years. Water is supplied from rivers, wells or reservoirs to villages by pumps or hauling from a very long distance by tracks or pickups. Getting water is always a task for women and children and it consumes large portion of their time on a daily basis. EZPack water storage systems present an effective mean for water distribution within the villages and up to the family huts connecting the bladders with standard flexible water pipes.

The UN Secretary General announced that two billion people have gained access to safe drinking water in the last 20 years, and that the Millennium Development Goal target on water had been achieved five years early. ……However, despite this success, 783 million people continue to live without clean drinking water. To put that figure into context, that's around one and a half times the population of the 27 countries within the European Union. …….. getting water to every person on the planet is within our grasp and with the right political will and investment this could become a reality.(http://blogs.dfid.gov.uk/2012/03/safe-water-for-everyone-is-within-our-grasp/)

A system setup for a village of 1,000 inhabitants (for example)

- Water Storage
  - Central water storage that contains two EZPack bladders (for backup reasons) in parallel.
  - Recommended volume of single bladders should be calculated by 10 liter per day per person. The village will need 10,000 liter bladder. For backup reasons an array of 5,000 liters is recommended.

  - One flat-bed truck (7 meter) will be used for delivering the water from the central storage to the 500 liter bladders. Using the EZPack Truck Module the truck will carry 12,000 liter. On the truck will be installed 500 liter/minute fuel pump.
  - The family (4-5 huts) storage should be calculated by the same rule. So a family habitat of 25 members will need 250 liters per day. A bladder of 500 liter is recommended.
  - The total count for such a village will therefore be –
    - 4 bladders 5,000 liter (central)
    - 40 bladders of 500 liter (one per family)



- Pumping and Piping
  - A fuel power pump of 500 liter / minute.
  - The pump will be used to elevate the water from the river water level.
  - No additional pumping is needed since in most flat areas a proper design can use gravity as the best mean to transfer water from the main reservoir to the family water storage.
  - EZPack developed a modular set of aluminum stages that can carry 2000, 3000, 5000 or more liters bladders. The cost of those items is very affordable but and some parts might be possible to produce locally.
  - Pipe lines and accessories (like taps) are all standard water approved system

- Foundation

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- Since the bladder by its nature has a large foot print, the pressure on square meter of ground is very small and it does not require any expensive preparation. (leveling the ground is required)

Water Quality

- EZPack bladders are closed (the nature of water bladder) and it requires no maintenance. The insert is made of food-graded materials. From time to time, the inner liner can be replaced and by that ensure high quality water storage and distribution.

Cost Analysis

Item	No. of Units	Total
5000 liter bladder	4	$6,000
6 meter flat-bed truck module	1	$40,000
500 liter bladder	40	$25,000
500 liter stage	40	$40,000
4 taps stand	40	$12,000
500 liter/minute fuel pump	2	$3,000
Pumps, accessories		$10,000
Total		**$136,000**

Conclusion

The Water Distribution System (WDS) from EZPack incorporates every advantage of water portable supply: easy storage, quick and convenient transportation and effective, rapid, high quality water supply. WDS includes all the necessary accessories for simple and easy operation. All of those elements have turned the WDS from EZPack Water to the best system of its kind in the world, enabling water companies, councils, municipalities, institutes, NGOs and government agencies to provide comprehensive and immediate response to any water supply needs.

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