

## The Gravity Draining Floater

December 2012



**Small sized draining floater for small water rain water storage concrete reservoirs**



**Middle sized draining floater for middle dams (1000 till 10000 cubic meters)**



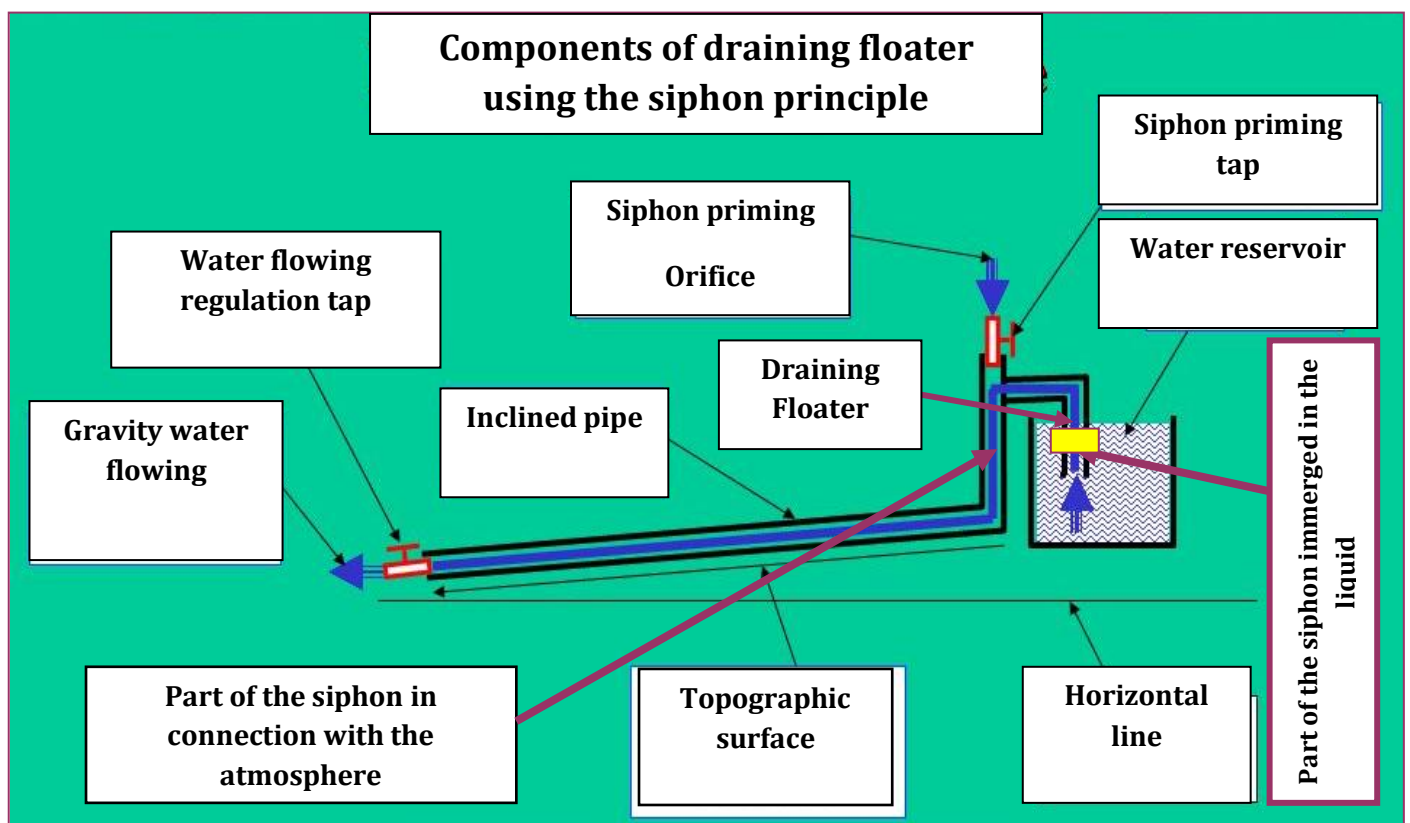
**Big sized draining floater for big dams and**

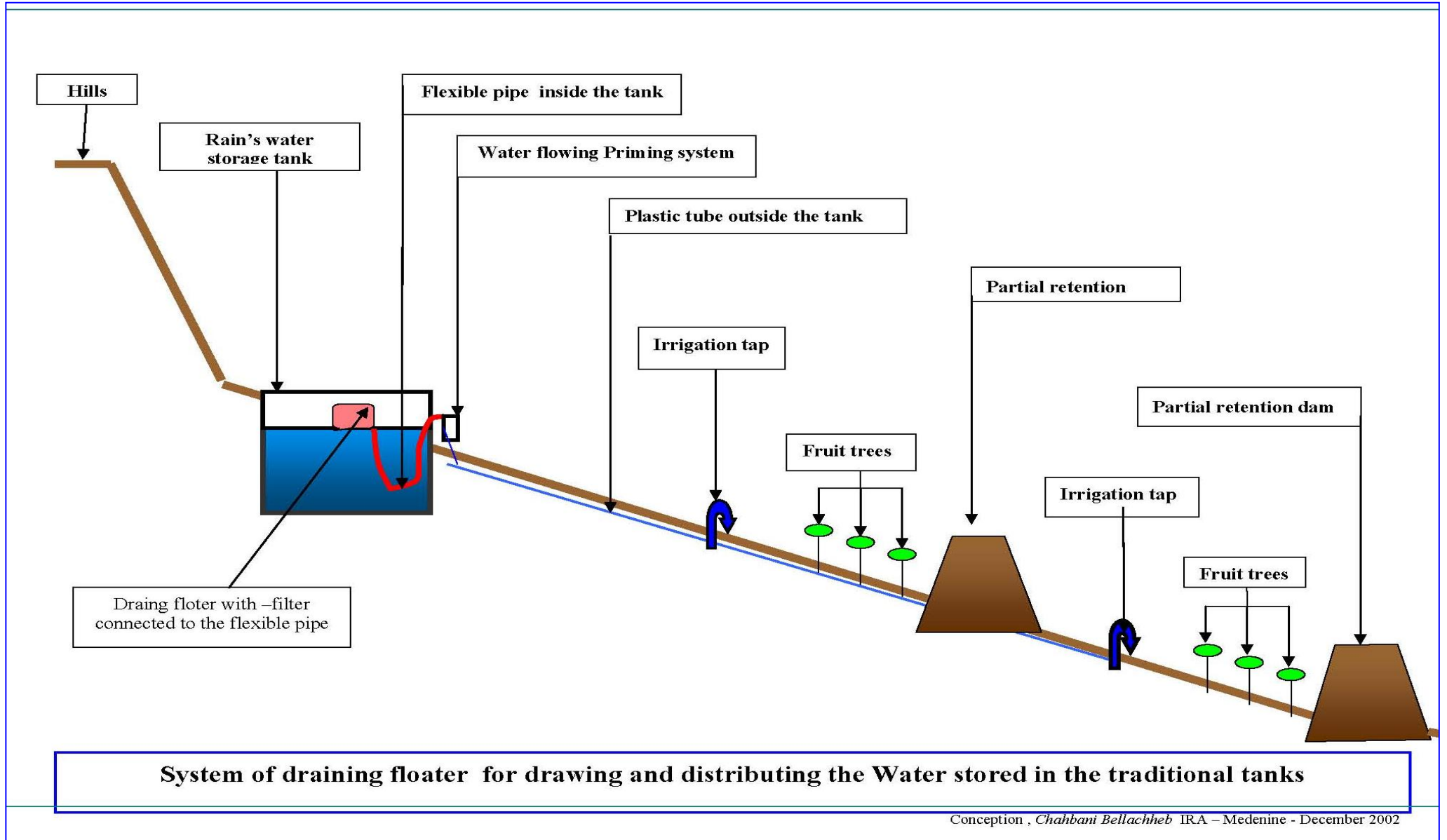
- “Pumping” and distribution of the natural springs water and rivers
- “Pumping” and distribution of the retention Water of the hill lakes, dams and other similar (small Sized) Runoff water retention managements

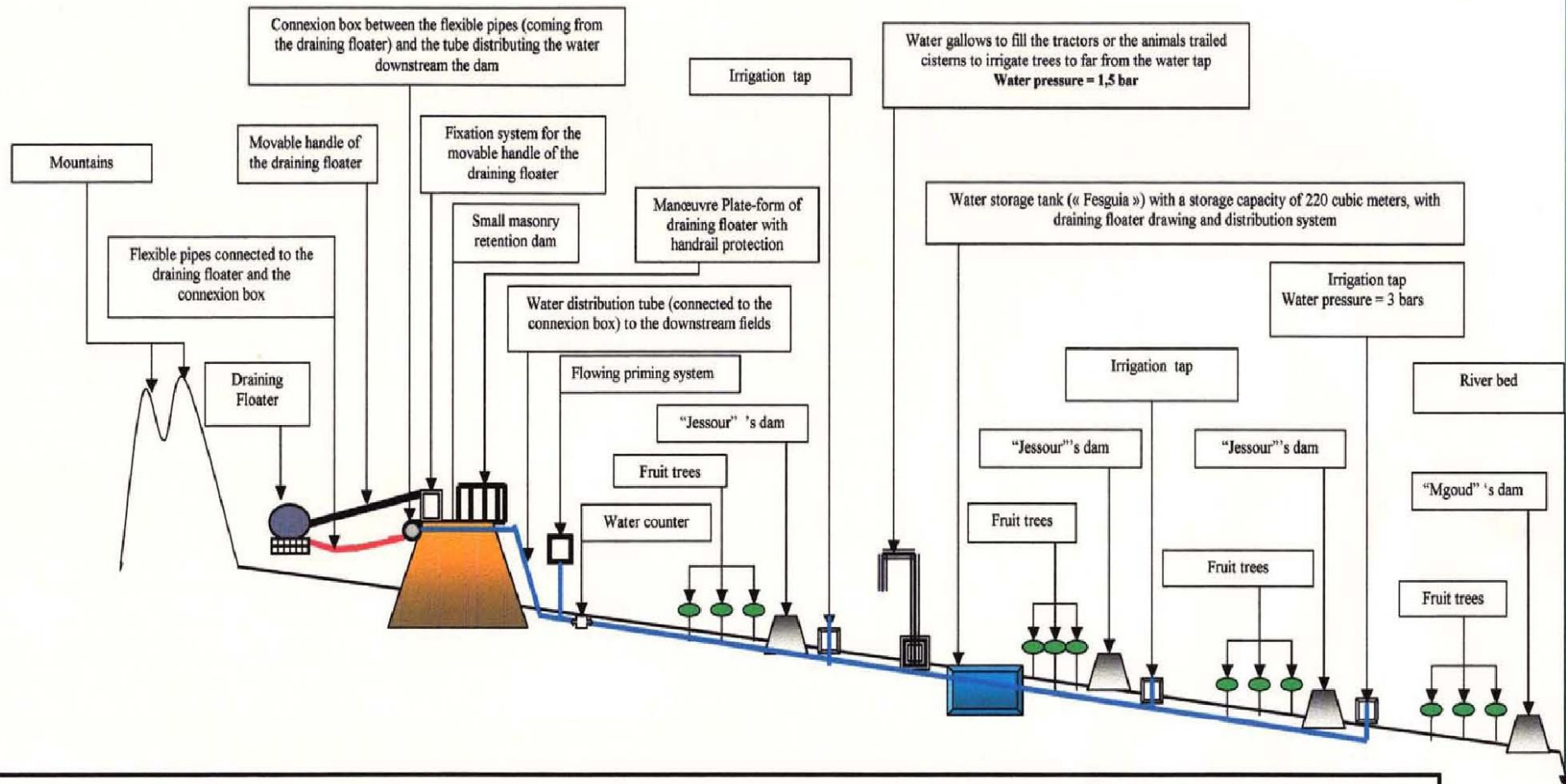
The draining floater allows to «pump» » and to distribute the water using the gravity. It uses **the siphon principle**. This principle works with a inversed « U » shaped pipe. This siphon pipe has a section with orifice immersed in the water of the reservoir to be emptied. The second section connected with the atmosphere. This second section should be 2 times longer then the first section. This second section is connected to water flowing regulation tap.

The first section is connected to a draining floater allowing the filtration of the “pumped” water. This draining floater is always floating even when the water level decreases. A second tap is connected to the siphon pipe in continuity with the vertical part of the second section. This tap is used to prime the “pumping” by filling the second section of the siphon through the orifice of the second tap (Siphon priming tap). When this section is filled the Siphon priming tap is closed.

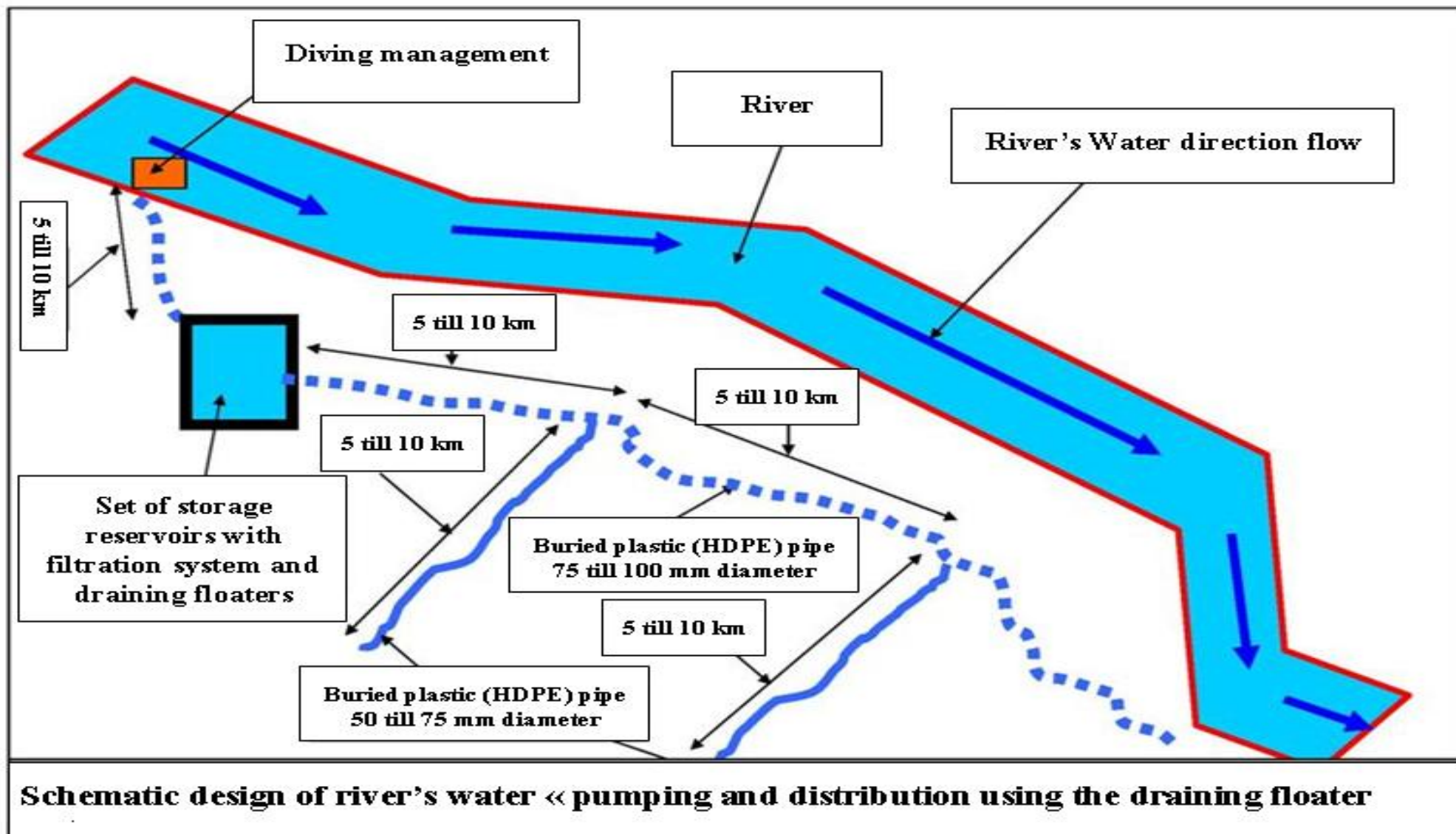
To begin the pumping and the distribution of the water using the gravity, the “Water flowing regulation tap” is opened and the water is pumped and distributed continuously without any intervention. The “Water flowing regulation tap” could be closed and opened at any time without priming the siphon.

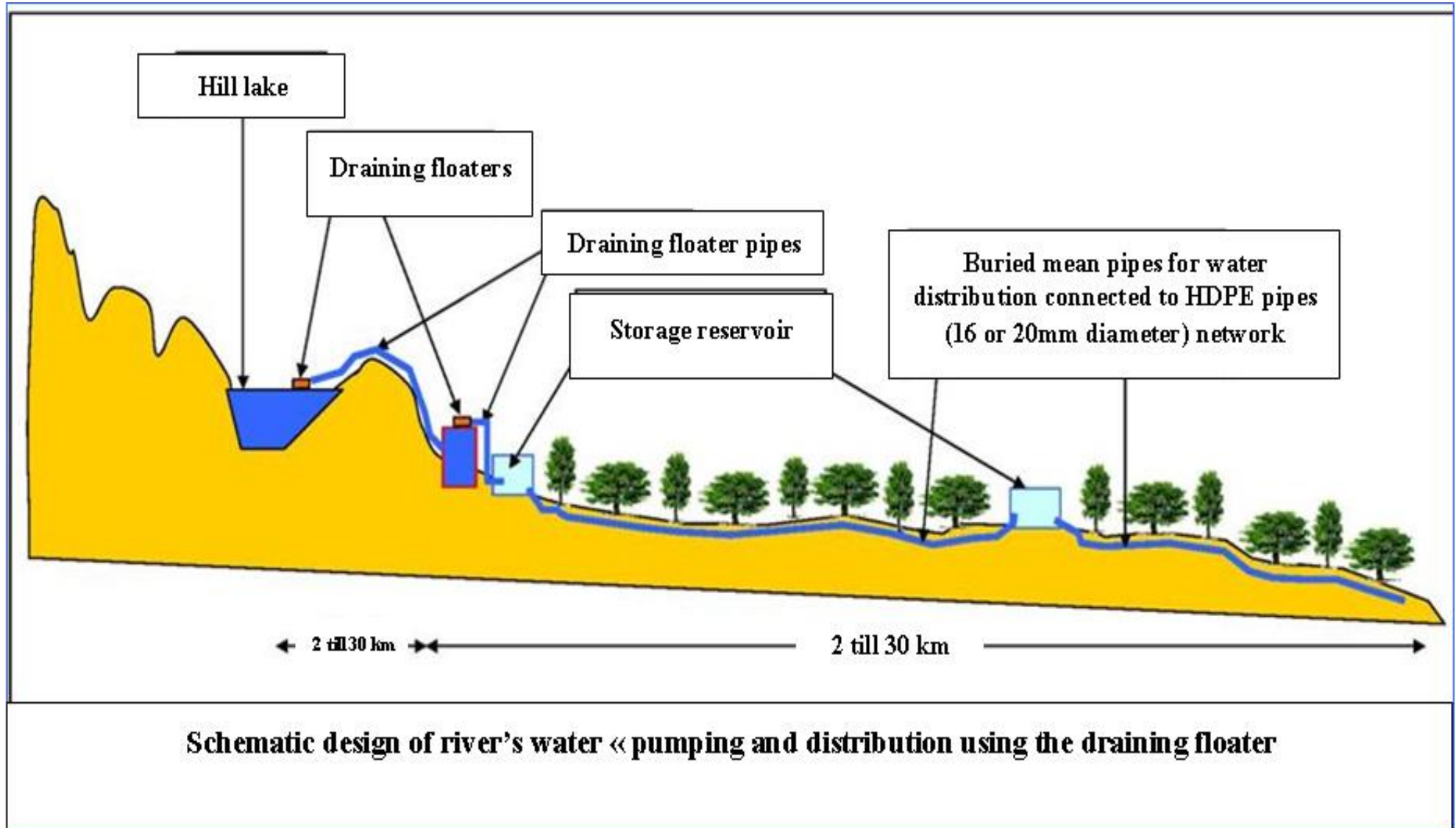






**Schematic section view of water drawing and distribution system, using the draining floater. This system is installed for a small masonry retention dam situated in upstream (hills) of a field (300 hectares) of the Farmer (Amor Boaoun) in Elguetar(Gafsa-South Tunisia)**







**Connection of tubes to the floater and the tubes collector**



**Draining floater**

**Fixing the handrail to footbridge**



**Draining floater**

**Attachment of the draining floater to a fixing system fixed to a footbridge**



**Water is flowing from a tap after priming the draining floater system**

**Installation and stating up the draining floater for a hill lake in Sidi Bouzid(center of Tunisia) with the collaboration of the technicians of the agriculture regional services**



**Tubing Gravity water distribution system for natural springs, installed in 2 villages(Tiniri and Tazla) in the region of Ighil Ali (Bejaia- Algeria).**



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