Rural Water Supply Construction

Inter Aide Standards and Innovations

1) Springs -

Frequently observed Weaknesses

Spring catchment – Example of Inter Aide Standards

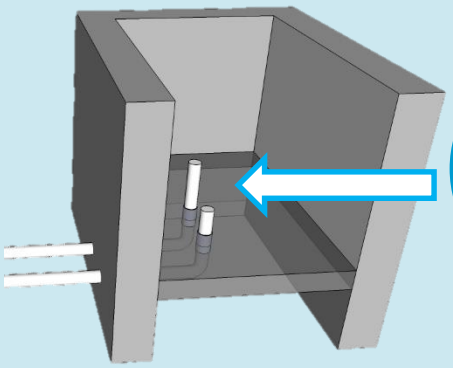
Spring Outside View:
Close protection and catchment perimeter fenced (against animals)

Spring Catchment Box Inside View

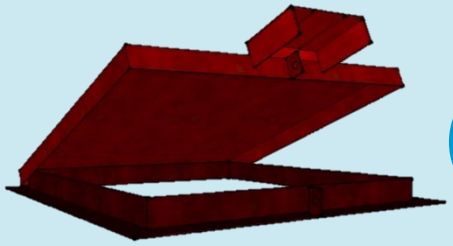
Springs – Inter Aide Standards

Deep Excavation to insure:
- Water preferential path is toward spring Box
- Good spring water quality

Vegetative or Constructed upstream protection
(Fence not visible on this photo)



Removable overflow pipe serve as simple and robust washout for easy cleaning operations



Strong Metallic door with padlock allows easy access for regular cleaning the of spring catchmlent box.

2) Network – classical design in rural areas

If pipe to Water Point (WP) 5 is broken → The entire system fails

Large pipeline are needed → Expensive investment & Difficult to maintain

Storage is shared between far away communities → No ownership towards water savings (faucets remains open)

Very difficult to have water in WP → *when the other WP faucets are open, a*ll water goes downstream

Pressure on the WP5 is huge → Risk of faucets and pipes burst

Spring Box

Head Tank

WP 1

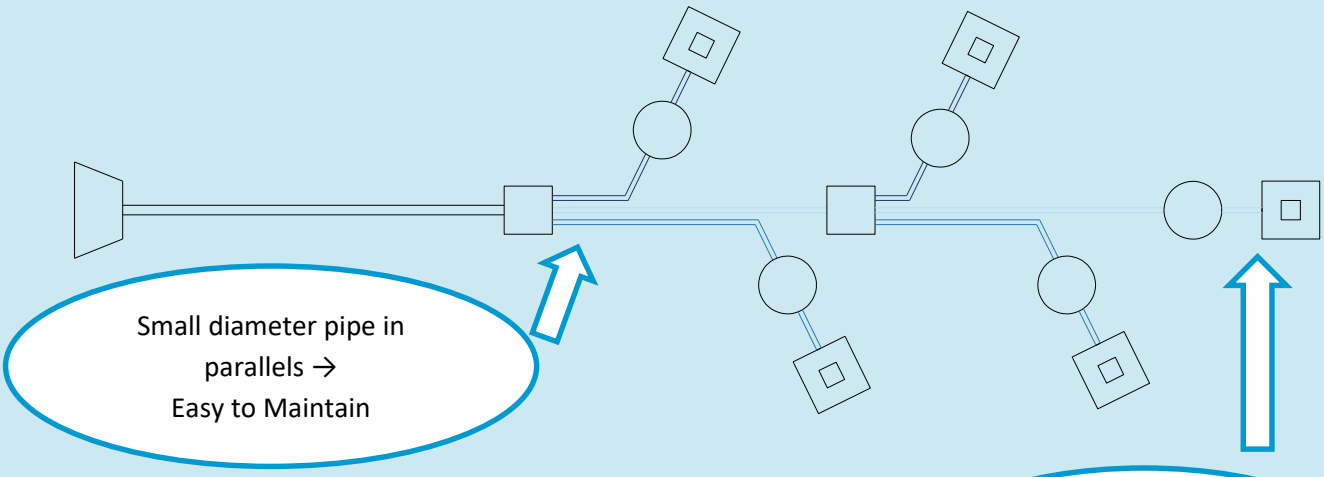
WP 2

WP 3

WP 4

WP 5

Network – Inter Aide Design

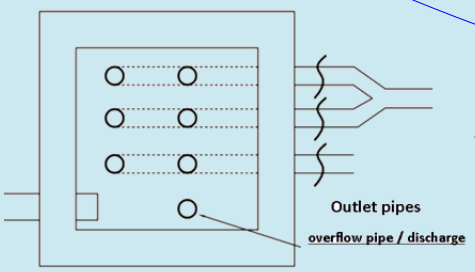


Small diameter pipe in parallels →
Easy to Maintain

If one pipe brake →
Only this WP is non functional

Distribution Box:
Perfect repartition of Water adjusted to each WP population need →
Limit conflict between communities

Each community manage its storage →
Real interest to maintain properly and close the faucets (water saving)



No pipe are under high pressure

Spring Box

Distribution Box

Reservoir WP 1

Reservoir WP 2

Distribution Box

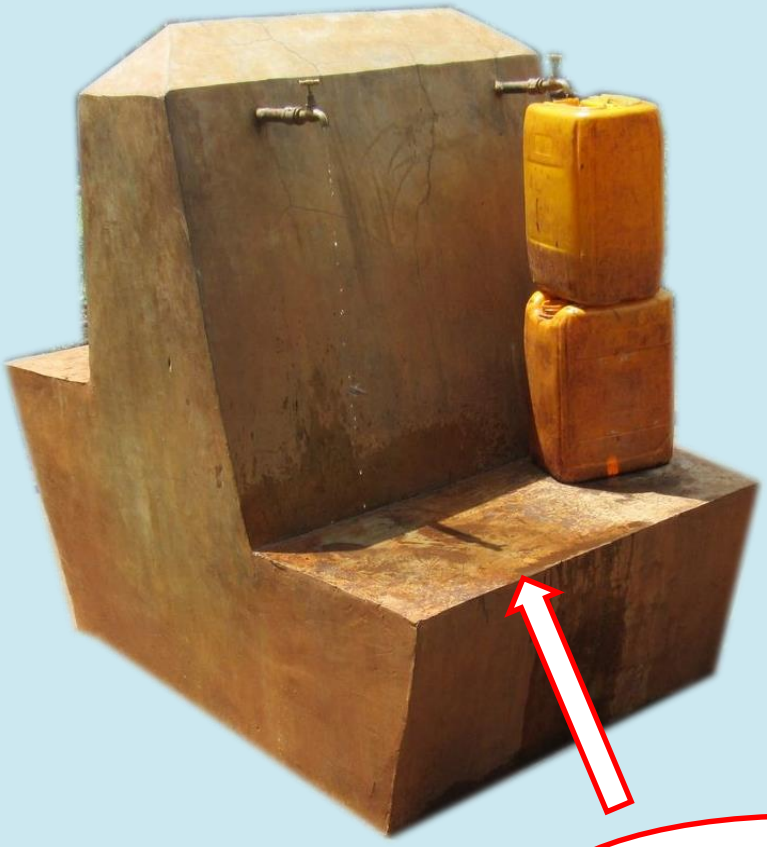
Reservoir WP 3

Reservoir WP 4

Reservoir WP 5

3) WP – Classical Design Weaknesses

Masonry construction → Low resistance to water erosion → Not durable



No Reception for Water → Unclean & Rapid WP deterioration

No cattle trough → Permanence of cattle water borne diseases

WP – Inter Aide Design

Wash Table for laundry

Evacuation funnel to cattle trough→
Clean & efficient reuse of water

Strong casted concrete construction →
Resistant & durable

Access to clean water in cattle trough →
Improved breeding performances