Introduction to Spring Development
Spring Developments Can Provide

• Water for agriculture irrigation
• Water for livestock
• Water for people

Spring Developments can be constructed in any zone
To understand Spring Development, you need to understand soil attributes

- Gravel
- Clay
Gravel

Water can easily flow through gravel
Water cannot easily flow through clay
• Water can be contained in a gravel layer
• The clay may keep it from coming out very fast or at all
• If you dig out the clay, the water will not be trapped in the gravel
• It will come out
• But it will be uncontrolled
• If we use a spring box, we can control the water as it comes out of the gravel layer
• We can use it as a well
• We can put it in a pipe and send the water to another location
Construct a Spring Box

A spring box is a hollow box or barrel with holes along one side. It can be a:

• Plastic Barrel
• Metal Barrel
• Concrete Pipe
• Plastic Box
• Stone
• etc
• Install a pipe 15 cm from the bottom of the spring box. Seal around the edge.
Locate a suitable area

Should be wet

You may need help from an engineer or someone experienced with spring box locations
Dig a little to see if it will provide water
If so, excavate a larger hole.

The hole should be larger than the size of the spring box.
• Do NOT dig to another gravel layer or you might drain the water away.
• Stop digging if you feel gravel
• If you do dig into another gravel, place 15 cm of clay on bottom and compress it down
Excavate a trench from the hole to a lower elevation.
Place the spring box in the hole and the pipe in the trench
• Place a clay plug or plastic sheet in the trench below the spring box
Place a filter fabric around the spring box that covers the holes but still lets the water through
Fill the hole around the spring box with gravel
Place a lid on the spring box to keep dirty water and animals out
This is a cross section of an installed spring box

Place Gravel Around Box in Hole

Filter

Gravel Layer

Natural Clay

Place Clay or plastic

15 cm