



Water Source Conservation and Traditional Water Bodies Rejuvenation

Er. Santosh Dahal
Senior Engineer
ENPHO, NEPAL
27th October, 2021

ENPHO - a Non-profit organization

- Environment and Public Health Organization (ENPHO) ; Established in 1990 as a service oriented, scientific organization
- Vision : **Creating Eco-Societies**
- Mission : To **develop, demonstrate and disseminate innovative technologies and systems** to enable societies become healthy and environment friendly.
- Core working sector – **Water and Sanitation**



Project Details

- **Project** : Integrated Urban Water Management (IUWM) at the center of Municipal Public Services
- **Objective** : To support the municipalities and environmental service providers for improving the living conditions of the people through protecting the natural resources
- **Project implementation area** : Kirtipur and Godawari Municipality
- **Partners** : Bremen Overseas Research and Development Association (BORDA) , Godawari Municipality and Kirtipur Municipality

Rational behind Conserving Water Source

1. Natural water source conservation

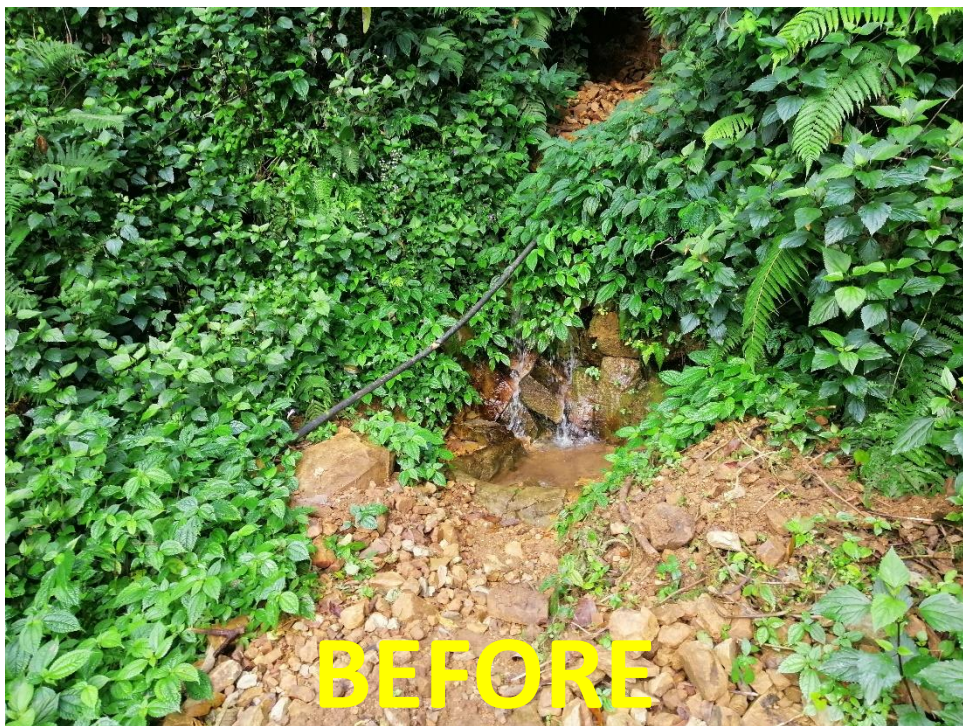
- Naturally flowing fresh water sources needs proper protection and catchment improvement for safe delivery of drinking water. So, natural water sources being used are protected.
- Concerned beneficiaries were having a serious problem on safe access of drinking water.
- Used to face problem during Monsoon. Flood, mudslide damaged the Intake regularly every year and water distribution was disturbed.

2. Traditional Water Bodies Rejuvenation

- Have a historical importance i.e. these system were introduced in 550 AD in Nepal
- The man made water bodies such as stone spout , dug well were the sources for domestic water supply in valley.
- These sources were the only water distribution system in Kathmandu Valley before piped system exists and still 30% of total population rely on these sources for drinking water.
- Historically important and have a good cultural values.
- These stone spouts uses water from their own springs or from nearby aquifers. Rainwater gets collected in some ponds and gets infiltrated and flows to these stone spout too.
- These old system are still in uses but are in the verge of getting demolished. So, preservation and rejuvenation of the system is necessary to continue the traditions and solve the water stress problem.

Interventions in Conserving Water Source

- Conservation of catchment of natural sources.
- Proper engineering designed intake structures.
- Proper live and dead fencing around the sources.
- Disaster resilient & Suitable retaining structures for the protection of constructed structures components.



Spring source protected

Interventions in Traditional Water Bodies Rejuvenation

- Re-construction of the existing structures with traditional aesthetic views.
- Catchment area protection



Traditional Water spout rejuvenated

Impact of the Interventions

1. Natural water source conservation

- Natural water sources are protected and public have access to safe drinking water.
- Disaster resilient structure is constructed.
- Easy and simple technology that can be constructed with locally available materials.
- Direct human / animal intrusion to the source is prevented.
- Can be implemented for the small scale schemes.
- Around 6294 individuals were directly benefited from this activity.

Impact of the Interventions

2. Traditional Water Bodies Rejuvenation

- Traditional / cultural and historical value of the spout is conserved.
- Rainwater recharge and regular supply of water.
- Sustainable water sources and intakes.
- Ownership from the Municipality and water users committee for the rejuvenated and reconstructed structures.
- Around 2130 individuals were directly benefited.

Replication of the project: Other nearby communities are also now working on conservation and rejuvenation of water sources and stone spouts in their communities.

Thank you

We acknowledge -

