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Water Availability Facts

- Limited fresh water
- Dependant on rains
- Irregularity of monsoon with respect to area and time.
- Growing population
- Growing living standards
- Wastage of water
- Dependency on Government
- People's expectation of Bigger Water Supply Schemes
- Over exploitation of our GW resources
- Exponentially Shrinking per capita water availability

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5 Simple Ways To Save Water Daily

- 3. Turn Off the Tap While Brushing Your & Washing Your Hands
- 4. Don't Keep The Tap Running While Washing Clothes/Utensils.
- 5. Close Taps Properly and Fix Leaking Taps, Pipes & Toilets

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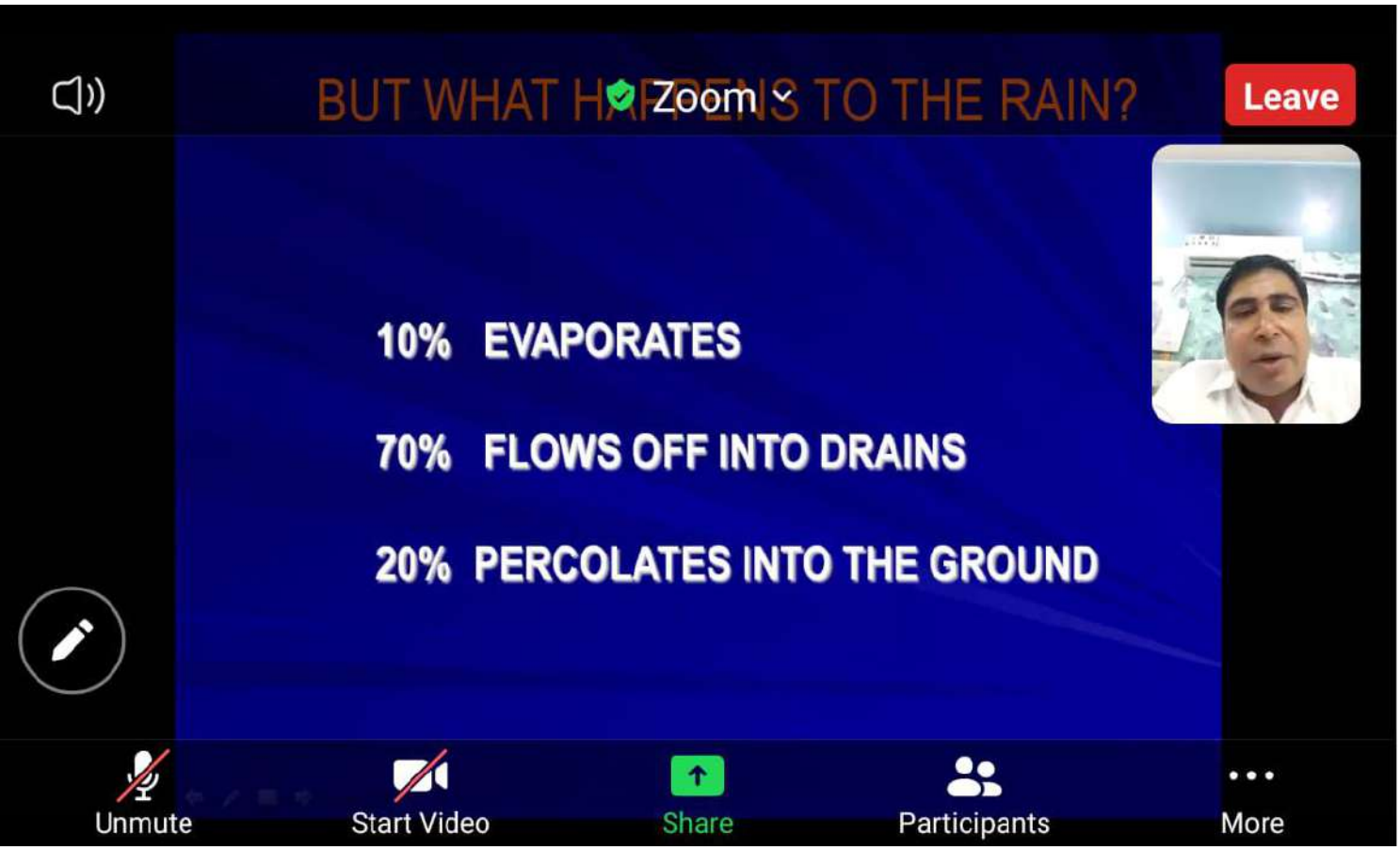
GOALS

- ☑ Understand the Need for Water Conservation.
- ☑ Understand the Need for Monitoring, Submetering, and Leak Detection.
- ☑ Be Familiar With How Water Pressure Relates to Water Conservation.
- ☑ Understand the Principles of Water Recycling and Water Reuse.
- ☑ Be Familiar With Cooling Water Conservation.
- ☑ Be Familiar With Industrial Water Conservation Measures.
- ☑ Understand Bathroom Water Conservation Measures.
- ☑ Understand the Basic Principles of Xeriscape Landscaping.
- ☑ Understand the Importance of Water Conservation Education and Employee Participation.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BUT WHAT HAPPENS TO THE RAIN?
10% EVAPORATES
70% FLOWS OFF INTO DRAINS
20% PERCOLATES INTO THE GROUND
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IMMENSE POTENTIAL IN URBAN AREAS AS WELL

1 Total catchment Area = 10m * 20m = 200 sq m.

2. Average Annual Rainfall
Raipur city(Height of Rainfall) = 1200 mm (1.2 m)

3. Volume of Rainfall = Area of plot (Total catchment Area
* Height of Rainfall
= 20 sq m * 1.2 m
= 240 cu m
= 2,40,000

Assuming that only 60% of the total rainfall is effectively harvested,

4. Volume of Water Harvested = 1,40,000 litres

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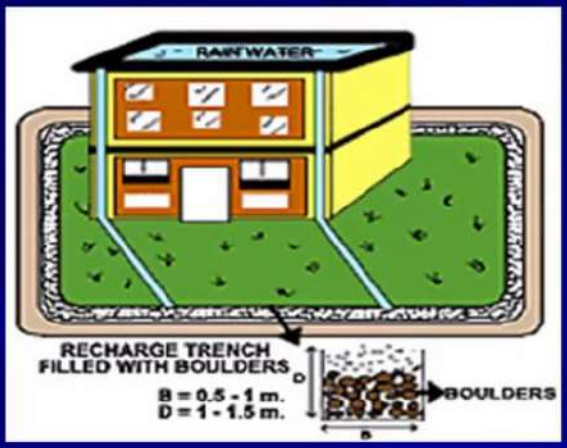
APPROACHES....



1. Storage of water for use in periods of scarcity.

2. Recharge of ground aquifers.

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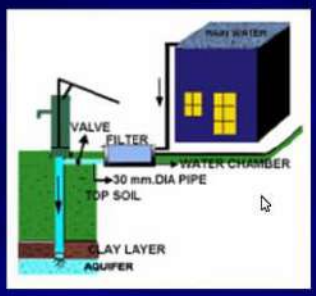
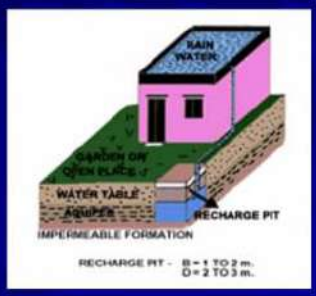
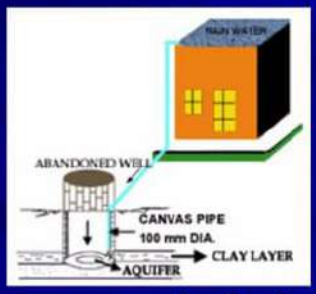
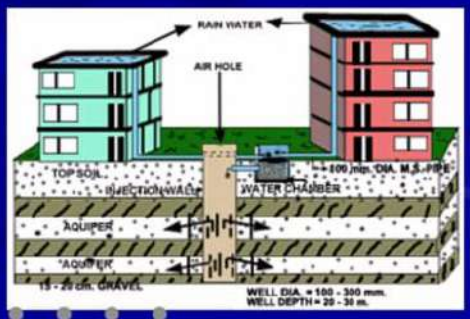
COMPONENTS OF RAIN WATER HARVESTING SYSTEMS









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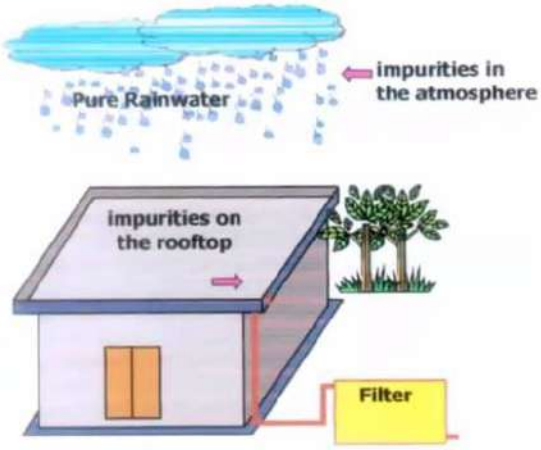
Why Filters ?



- Suspended particles in water if allowed to go into the well may reduce the life of the well
- Unless it is filtered, this water is not suitable to be utilized for household purposes

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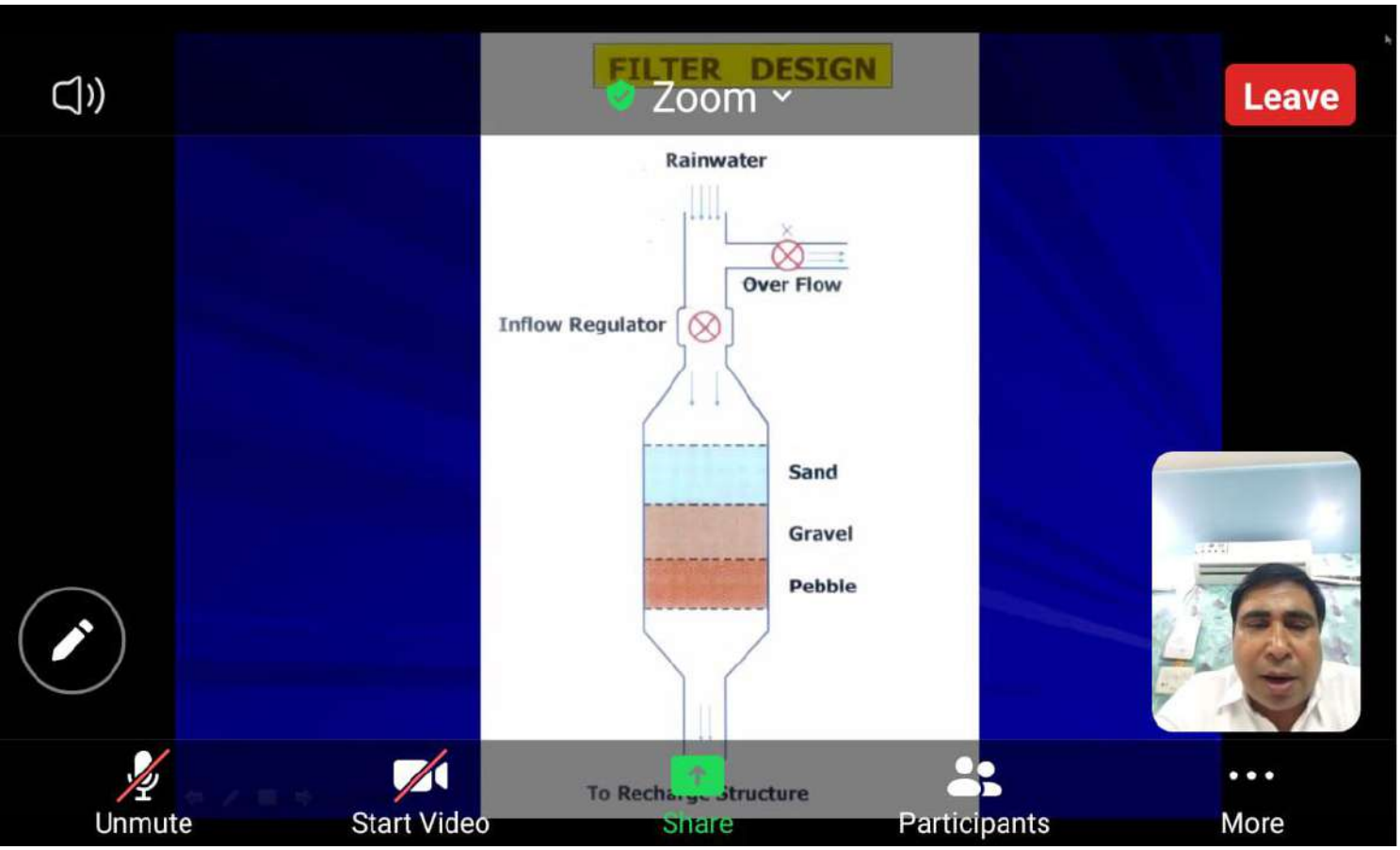
FILTER DESIGN
Zoom
Leave
Rainwater
Over Flow
Inflow Regulator
Sand
Gravel
Pebble
To Recharge Structure
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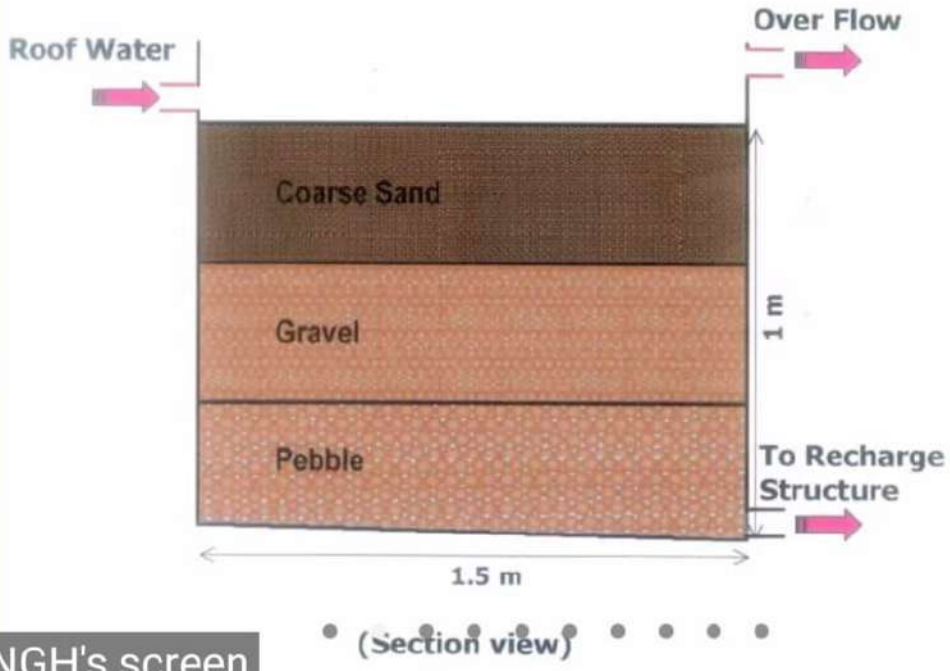


(Section view)

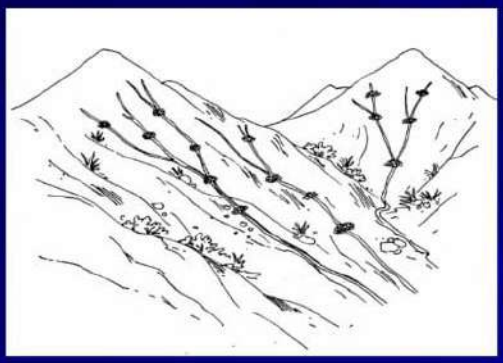
Placement of the Filter

- The filter should be placed near to the recharge structure
- The filter should not be placed close to a source of contamination, such as a septic tank
- The Filter can be placed above groun level or below ground level
- The filter can be placed horizontally o vertically

Zoom

Leave

Loose Boulder Structures / Gully Plugs



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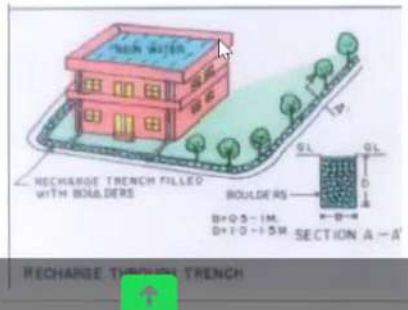
Rainwater Harvesting through pits



RECHARGE TYPICAL TRENCH

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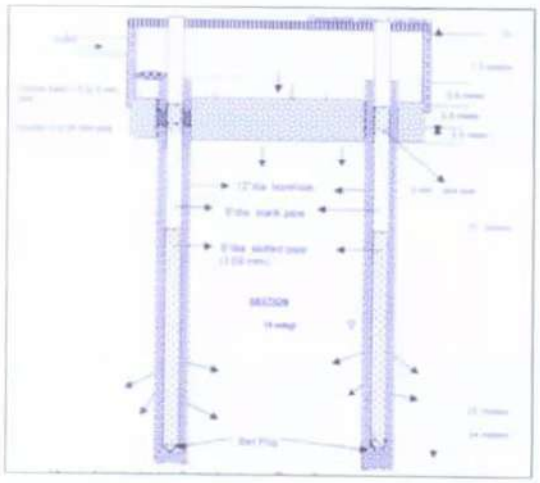
Lateral trench with recharge wells



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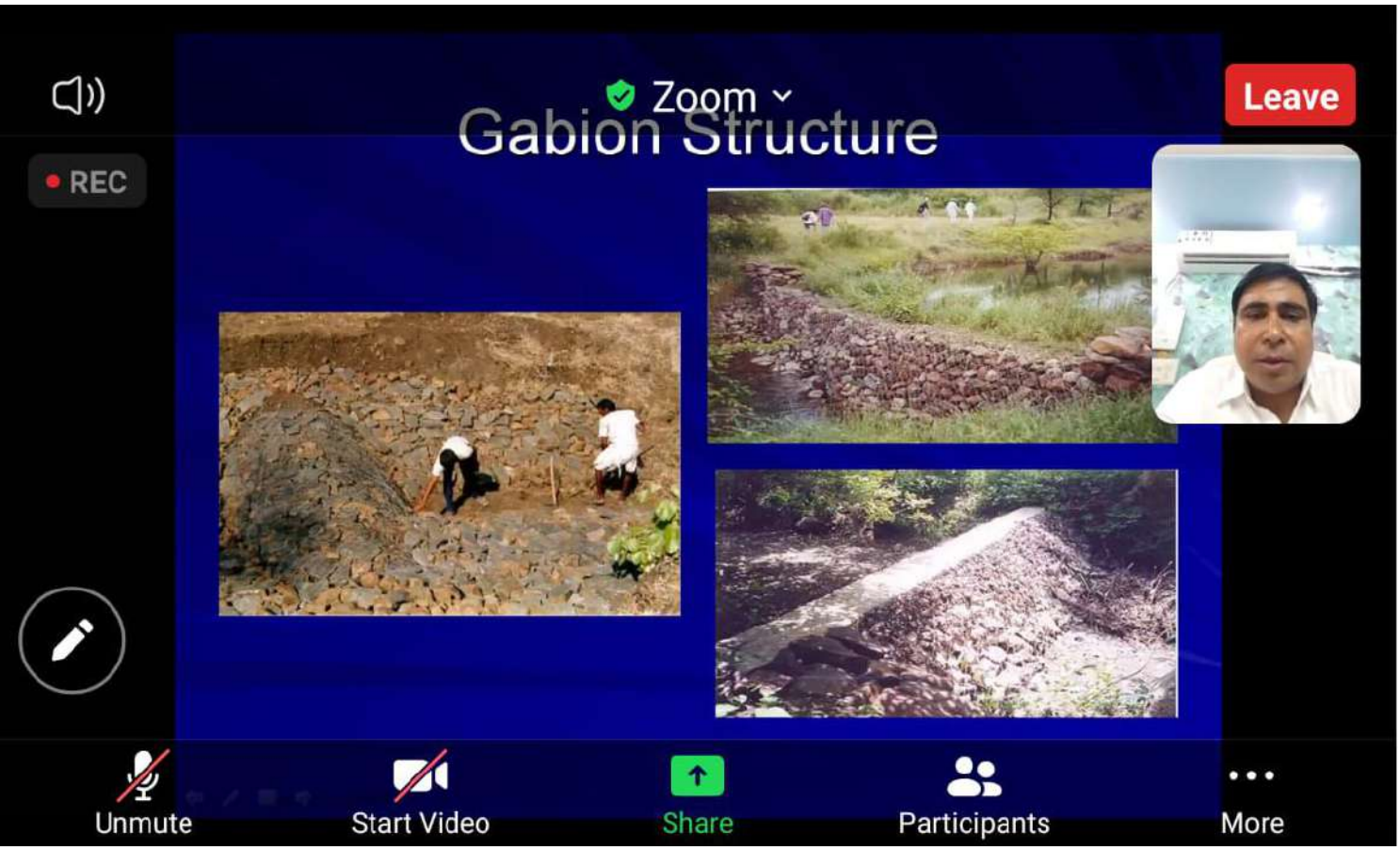
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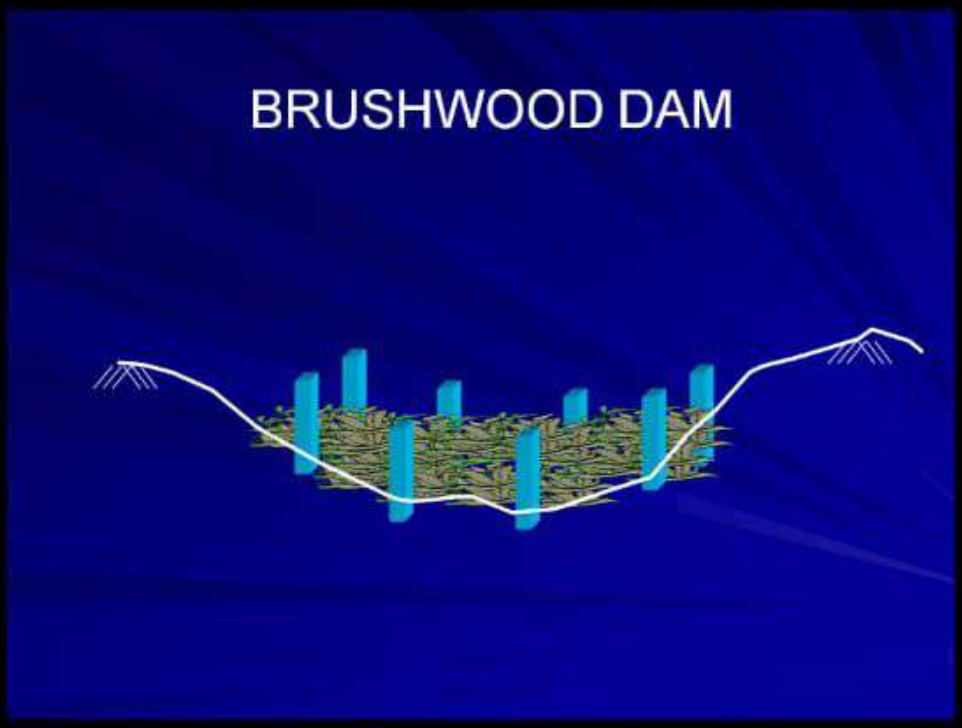

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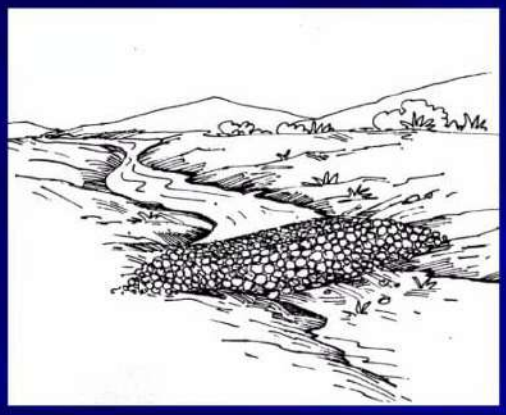
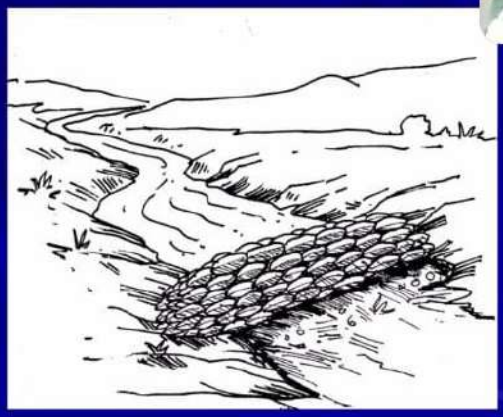
Nallah Bunds





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