

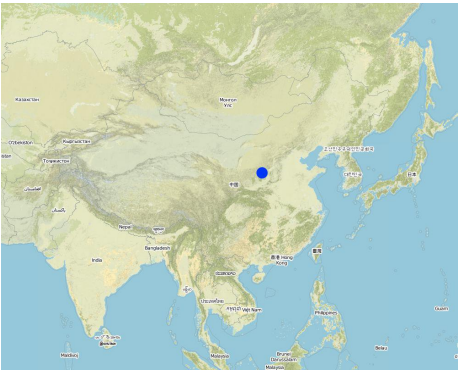


Construction of auto-flowing slurry dam in the gully (LIU Baoyuan (Beijing, China))

Auto-Flowing Slurry Dam ()
Falling Water Dam

Auto-flowing slurry dams is filled with dense slurry by water flow from upland to maintain eroded soil particles and runoff.

Falling water filled dams distribute widely in the middle reaches of the Yellow River, they are used to store water and wrap sediment which result from soil and water loss. On the Loess Plateau, in addition to the conditions of deep gully and steep slope, earth above the top of the dams can be used to build dams. First, soil is loosed with squirt guns, exploded or manually dug. Then, water is pumped up to the loose earth so as to rush the soil down along transporting ditch, turning the soil into dense mud to dam level surrounded by tamped banks. Under the press of gravity, the mud dehydrates, consolidates and becomes uniformly dense body of the dams. Compared with dams in other areas, the water power filled dams in the Yellow River basin are characterized by much denser mud, uniform particles and body texture, smaller transect of dams body, and wide applicability to soil materials such as sand soil, loess soil and weathering residue. The types of dams have widely applied to build moderate and small reservoirs and silt arresters in the middle reaches of the Yellow River, they play an important role in increase in agricultural production and reduction of sediment into the Yellow River.



: Shanxi, Shaanxi, etc.,

	:
• 110.389, 36.828	
:	(13062.0 km²)
?:	
() :	50
✓	(> 50)
	/

1. preparing earth (/ : n/a)

2. pumping water (/ : n/a)

3. preparing base of the dam and its perimetric banks (/ : n/a)

4. Flushing the prepared earth with water inside the banks of the dam (/ : 0.1~1)

5. After dehydration and consolidation of the earth, repeat 3 and 4. (/ : n/a)
1. Keeping the top of the dam level and free of crevice, water or rubbish (/ : timely)

2. Keeping the top of the dam level and free of crevice, water or rubbish (/ : None)

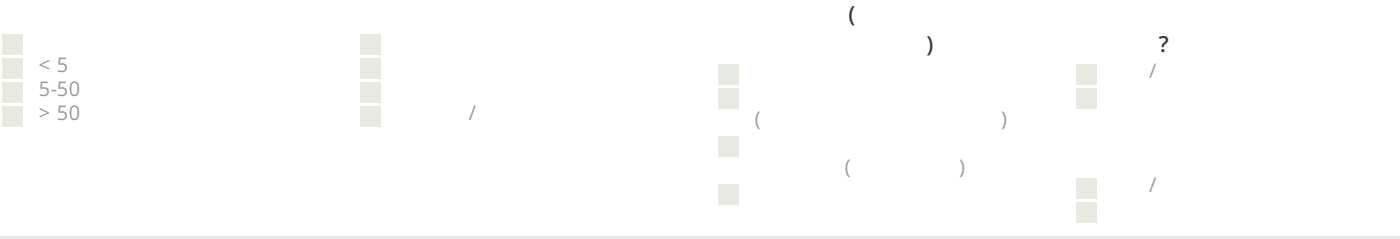
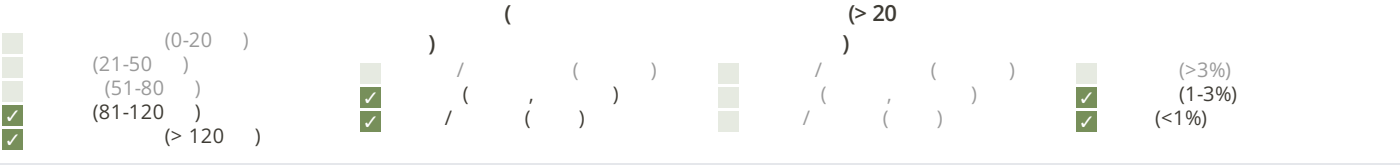
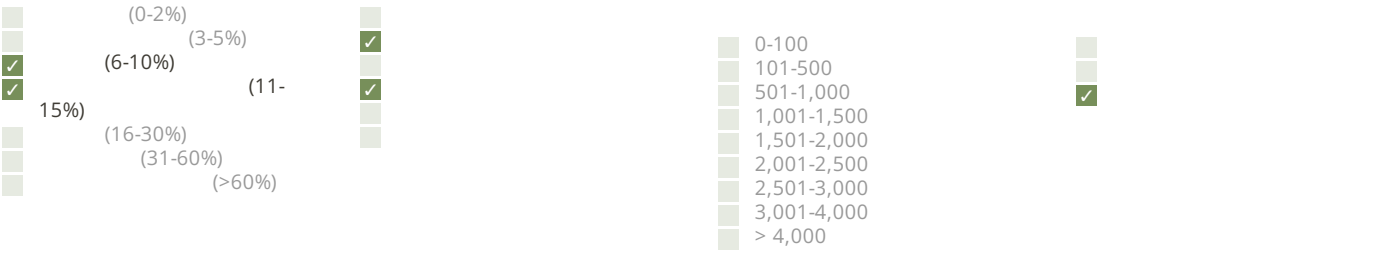
3. Keeping the slope of the dam compact and free of rill or weed. (/ : timely)

4. Keeping the slope of the dam compact and free of rill or weed. (/ : None)

5. Keeping the observation equipment work in order. (/ : timely)

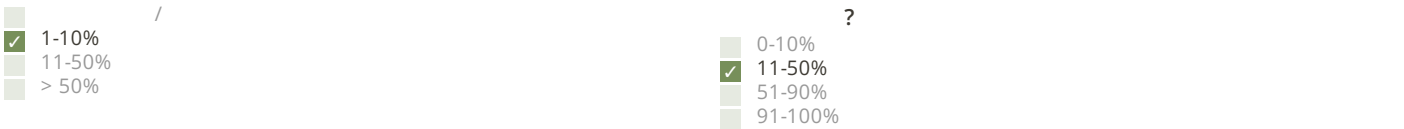
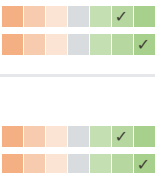
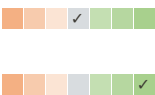
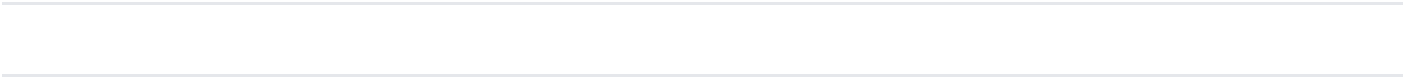
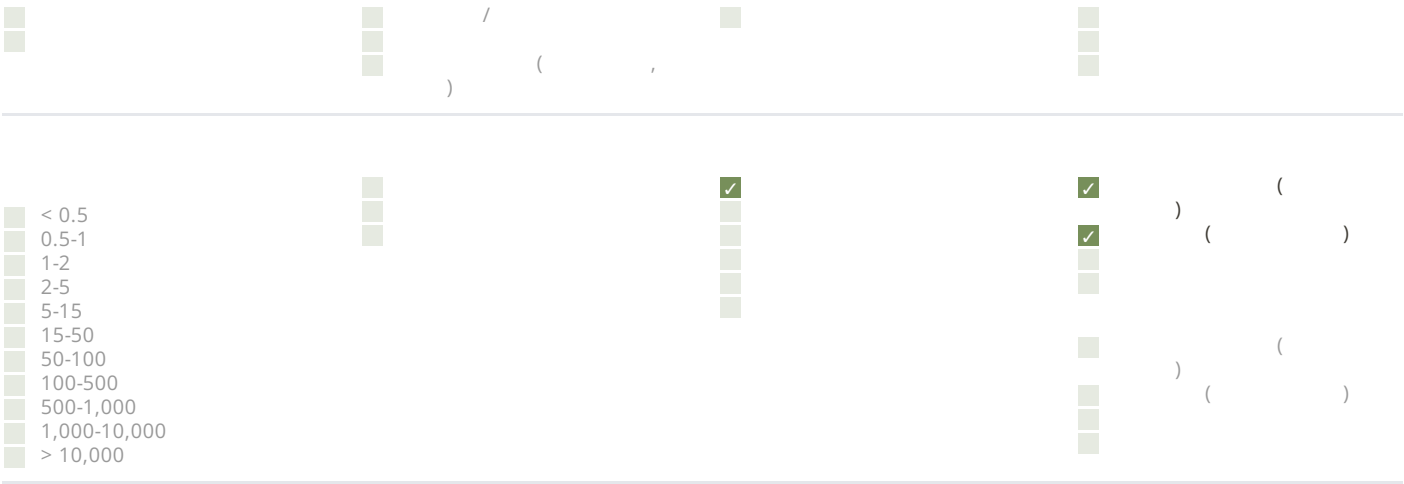
6. Keeping the observation equipment work in order. (/ : None)

7. Preventing the base the dam from destroying by white ants and other animals. (/ : April to October/once a year)
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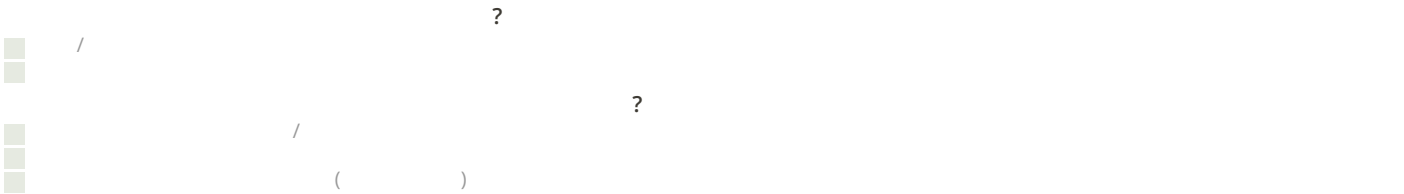


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80'000 households (3 percent of the area)



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: 6

2010

: 14

2019

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https://qcat.wocat.net/km/wocat/technologies/view/technologies_1364/

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Approaches: Falling Water Dam https://qcat.wocat.net/km/wocat/approaches/view/approaches_2400/

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- Special Planning Of Soil And Water Conservation in Xinzhou Region , Shanxi Province. 1986-1990.: Library of the Resource and Environmental Department, Beijing Normal University.
- How to design the dry masonry dam in the Hanjiachuan watershed. Tianyuzhu, Wangzuliang. Beijing. Water conservation in Beijing. 2000.: Library of the Resource and Environmental Department, Beijing Normal University.

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