



# DAHANI SHOL LANDSLIDE HOW TO TRANSFORM A DISASTER IN A RESOURCE



REDUCTION OF LAND DEGRADATION AND PREVENTION OF  
DESERTIFICATION THROUGH THE DEVELOPMENT OF NATURAL  
RESOURCES MANAGEMENT IN TAJIKISTAN

Project funded by European Commission  
and

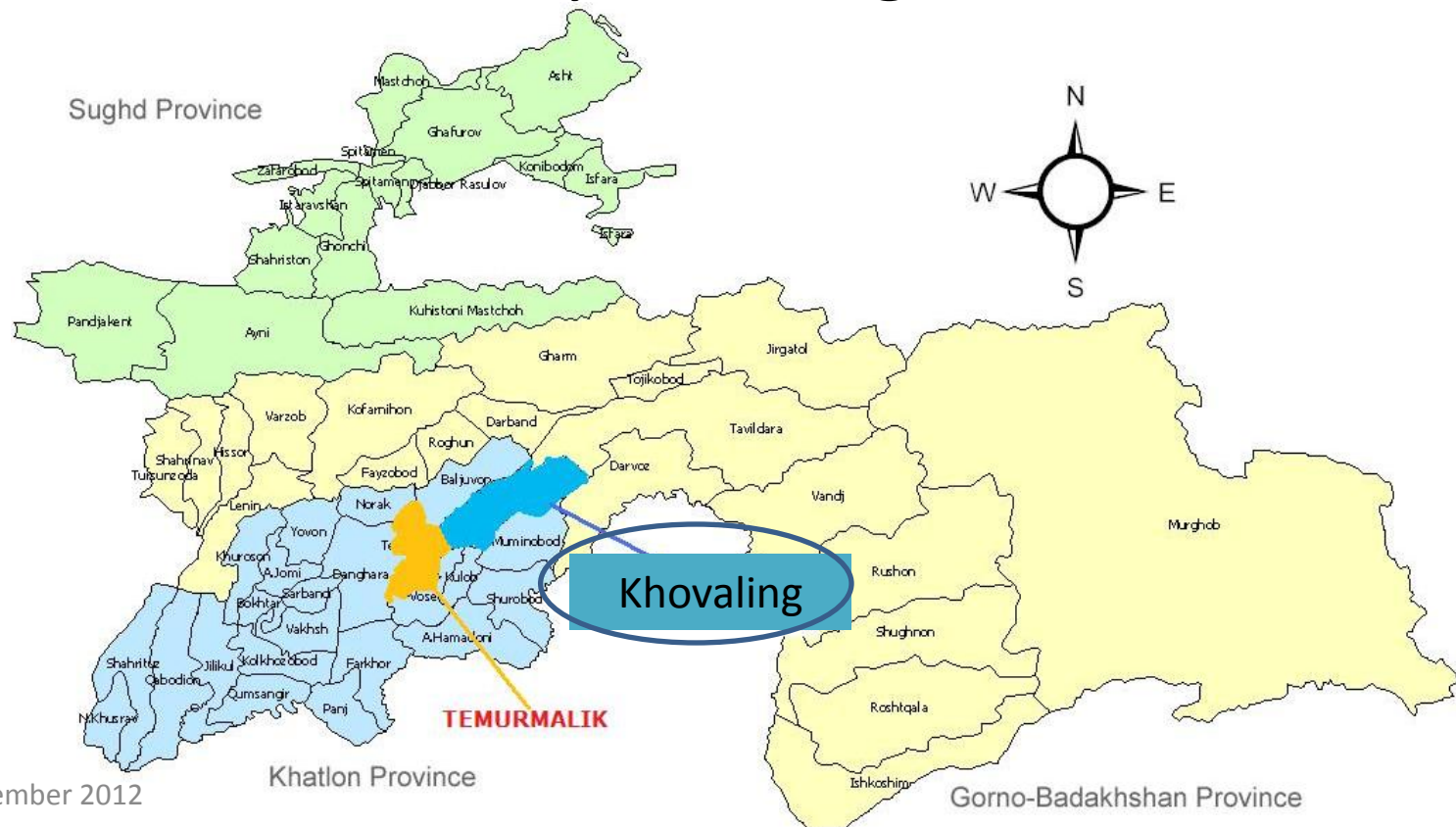


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# Disaster risk reduction (prevention and mitigation) in Dahani Shol

- Target Locations: Khovaling, Khatlon Region  
Jamoat: Sariosiyob, Village: Dahani Shol



# Disaster risk reduction (prevention and mitigation) in Dahani Shol

- Target Locations: Khovaling, Khatlon
- Implementing Agency – 

- Amount of funding: Project cost – 49840 USD

- Source of funding:

| EU - CESVI<br>UE Project 220-558 | SDC       | WFP - F4W | Beneficiaries<br>contribution |
|----------------------------------|-----------|-----------|-------------------------------|
| 9258 USD                         | 20381 USD | 3450 USD  | 16750 USD                     |
| 19%                              | 41%       | 7%        | 34%                           |

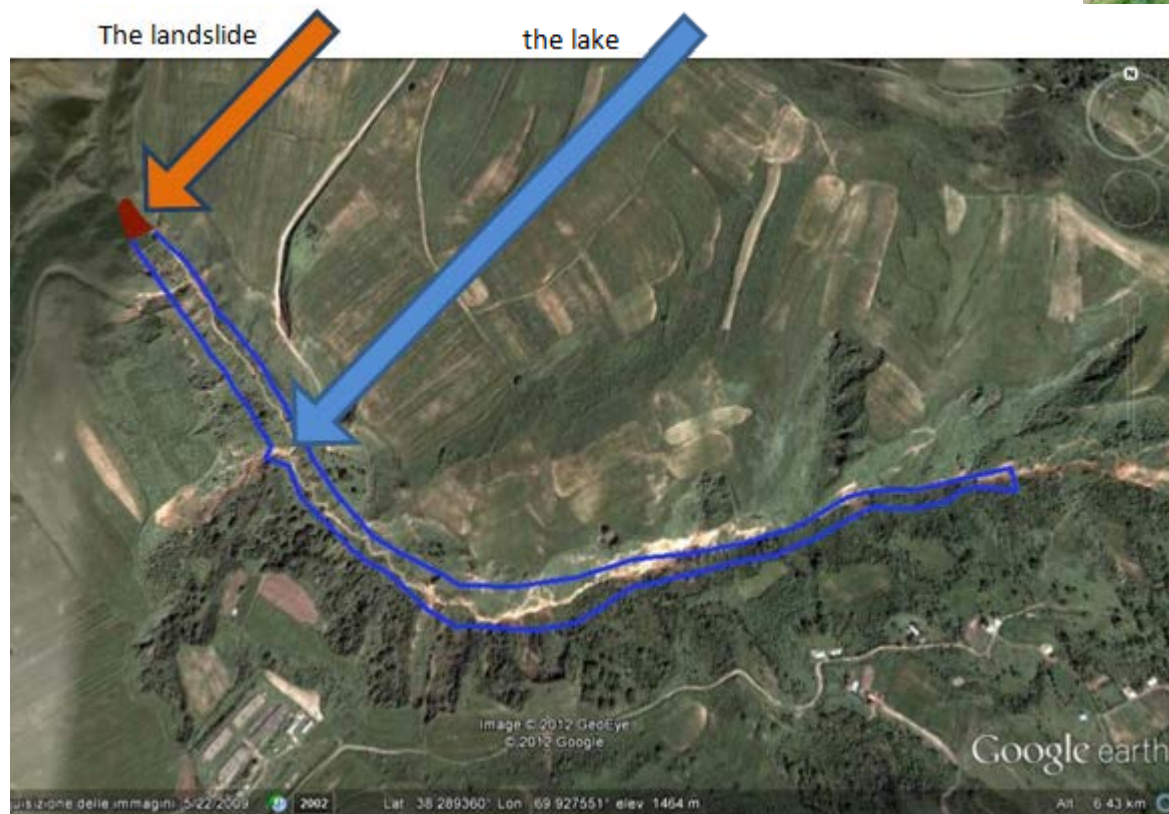
In-kind Beneficiaries contribution: 16750 USD (34%)

- Duration: 4 months (start 10<sup>th</sup> September 2012)
- Project partners: Khovaling Khukumat & Dahani Shol village

# •The pre-intervention situation

8<sup>th</sup> of May 2012:

a 21,000 m<sup>3</sup> landslide of stones and debris dammed a water course 800 meters before confluence with the Obi Mazar river and created a lake about 1,500 meters long and holding 200,000 m<sup>3</sup> of water.



**Landslide**



Obi-Mazar



There was the risk collapse of the “dam” due to surface erosion with risk of flood of 200,000 m<sup>3</sup> of water.

### Possible damage from flooding :

- **Shelter:** 8 households in Dahani Shol; 6 households in Takijar; 13 households in Lohuti
- **Infrastructures:** 1,200 meters of road, the Lohuti bridge on the main road to Dushanbe
- **Possible damages to agriculture:** 12 hectare of grain crops, 4 hectare of orchards, 3 hectare of vegetable gardens

# Objectives and Outcomes

## Objectives – Disaster Risk Reduction

- 1. Stabilization of landslide body



consolidate and shaped



# Objectives and Outcomes

## Objectives – Disaster Risk Reduction

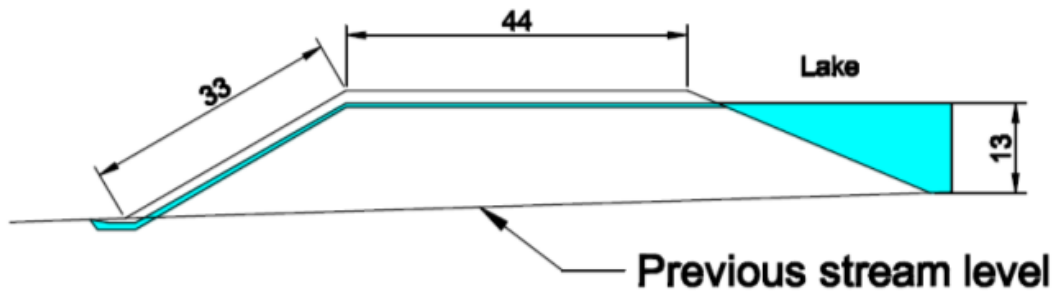
- 1. Stabilization of landslide body

## Outcomes

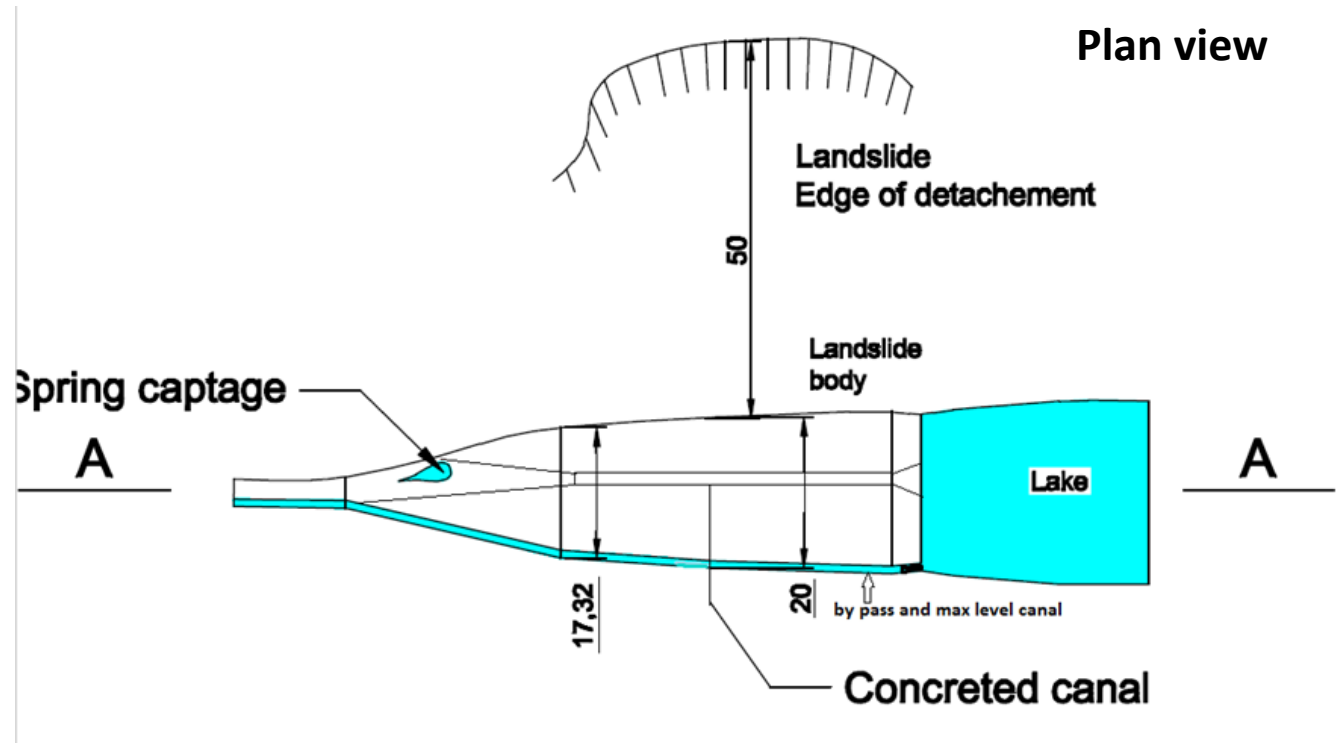
- a. Landslide body is consolidate and shaped
- b. **Creation of overflow channel** for maintain constant the water level in the lake
  - a permanent by-pass canal with pipe
  - a sandbag coated channel ending with vegetated gabions (on the top of bypass)
  - a Permanent concrete channel for overflow
- c. **Three Springs catchment:** drain the spring water excess and make the landslide body stable.



## Section A-A



## Plan view



# By-pass



Water

Pipe 150 mm  
diameter  
125 m long

Concrete junctions and  
Covered with ground



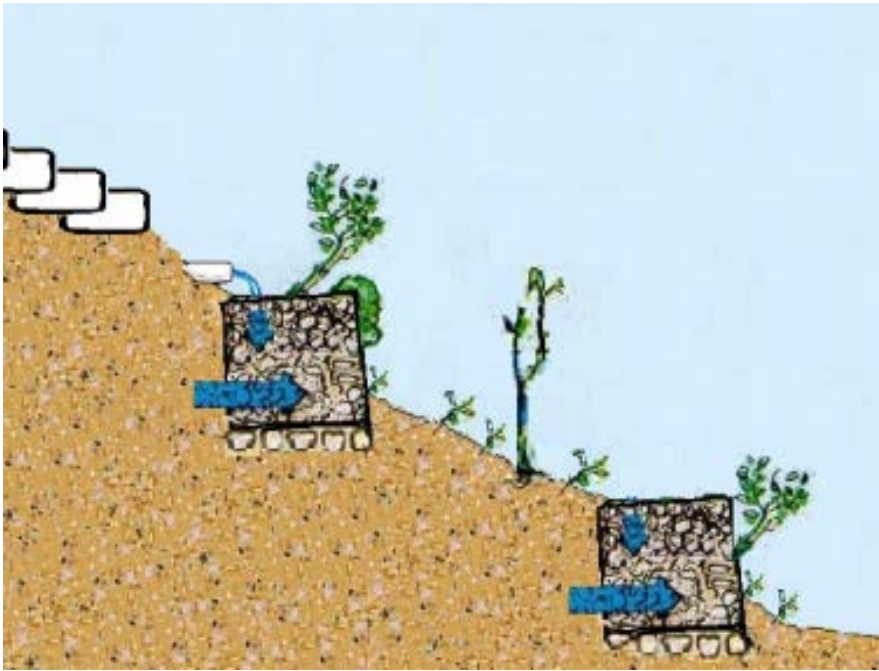
12<sup>th</sup> December 2012



December 2012 REACT Meeting - CESVI

# On top of the bypass **Sandbag coated channel** (area 3.6 m<sup>2</sup>)

ending with vegetated gabions



# Concrete channel



**Foundation and  
Intake**



**Area 1.24 m<sup>2</sup>**



# Objectives and Outcomes

## Objectives – Disaster Risk Reduction



- c. **Three Springs catchment:** drain the spring water excess and make the landslide body stable.

# Objectives and Outcomes

## Objectives – Disaster Risk Reduction

- 1. Stabilization of landslide body
- 2. Stabilization of mountain side

## Outcomes

- d. **Landslide prevention interventions** like brush layering, contour line fascines, palisades, gully plugging and others bioengineering applications.

24<sup>th</sup> June



17<sup>th</sup> October



19<sup>th</sup> October



12<sup>th</sup> November



# BIO-ENGINEERING ACTIVITIES



# Objectives and Outcomes

## Objectives – Disaster Risk Reduction

- 1. Stabilization of landslide body
- 2. Stabilization of mountain side
- **3. Increasing of awareness and capability of the population** in disaster risk prevention

## Outcomes

- d. Landslide prevention intervention like brush layering, contour line fascines, palisades, gully plugging and others bioengineering applications.
- e. **The population is involved in the activities and aware thanks to meeting and training** on natural recourse management, tree propagation and bio-engineering technology
- f. **Distribution of leaflets** on landslide stabilization and re-vegetation techniques

# The trainings to our ladies



# Lessons Learned

- The food for work norms provided by WFP are low for the population involved! – only women/old man accept to work for the foreseen quantity of food.
- Define well the ownership of the intervention area in order to don't face the greediness of subject don't involved in the realization of the intervention.





# Thanks for your attention



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