



# Watershed management for disaster risk reduction

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Research and Development Center, FFPRI, Japan



# The mandate of FAO



Food and Agriculture  
Organization of the  
United Nations

*for a world without hunger*



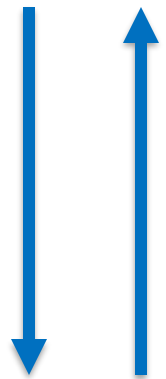
FAO's mandate is to raise levels of **nutrition**, improve **agricultural productivity**, better the lives of **rural populations** and contribute to the **growth of the world economy**.

# “Watershed management in action”

## Background of Study

- Review experiences and lessons learned in project design and implementation;
- Covers 12 projects implemented since 2002;
- Countries: DPR Korea, Ecuador, the Gambia, Guatemala, Kyrgyzstan, Morocco, Mauritania, Pakistan, Tajikistan, Tanzania, Turkey, Zambia;
- Study is structured along the watershed project cycle;

Field  
Work



Normative  
Work



# Resilient Watershed Management Programme

**Vision:** resilient communities and sustainable provision of watersheds services.

**Activities:** technical support for resilient watershed management, knowledge management, and capacity development.

**Key ongoing project:** enhancing community resilience to climate change in mountain watersheds in the Philippines and Peru (fund by Japan, MAFF)

# Watershed Management



Watershed:  
area drained by  
a water course

Watershed management:  
any human action  
aimed at ensuring  
a sustainable use of  
watershed resources

# Risks and threats to watersheds



- Natural hazards (floods, **landslides**, earthquakes)
- Climate change
- Pressure on natural resources
- Degradation and desertification
- Infrastructure
- Market forces and globalization

## Example Pakistan: SIDA-funded project

SIDA-funded project:

*“Stakeholders of degraded hillsides  
adopt a collaborative watershed management  
approach to natural resources management,  
socio-economic development, sustainable  
livelihoods and poverty reduction”*

***Landslide stabilisation in 17 watersheds  
(building back better)***

# Example Pakistan: landslide risk mitigation



## Example Pakistan: main steps of the project

- Mapping, PRAs, institutional situation
- Watershed Management Committee
- Watershed management plan (low investment, rich in ideas)
- Implementation of prioritised activities
- Capacity building and training
- Impact monitoring, lessons learned

# Example Pakistan: integrated watershed planning



## Take home messages

- Watershed management is a very appropriate and modern approach to disaster risk management and mitigation;
- Watershed management contributes to landscape and livelihood resilience;
- Forests play a key role in DRM as a component of a broader landscape approach;
- Participatory, multi-stakeholder and interdisciplinary approaches are required at all levels;

## Tools and Resources

- FAO (2017). Watershed management in action -Lessons learned from FAO field projects-.
- FAO (2017). Advancing the forest and water nexus: A capacity development facilitation guide.
- FAO (to be published in 2021). Resilient Watershed management Handbook
- Springgay, E. (2019). Forests as nature-based solutions for water. *Unasylva* 251: Forests: nature-based solutions for water, 251(1), 3.
- Makino, Y., Hofer, T., Azdad, M., & Bari, F. (2020, November). Resilient Watershed Management: Landscape Approach to Climate Change and Disaster Risk Reduction. In *Workshop on World Landslide Forum* (pp. 499-506).

# Many thanks for the opportunity!!

