



# SLM and climate change adaptation

## PPCR Component A5, Final Report

**Authors:** Bettina Wolfgramm, Shane Stevenson,  
Zvi Lerman, Julie Zähringer, Hanspeter Liniger

**With inputs from:** Sady Odinashoev, Dorine Vanderkeur,  
Faridun Gaibov, Umedjon Soliev, Gulniso Nekushoeva, Chad  
Dear, Christian Hergarten, the CAMP Kuhiston team, and the  
WOCAT team in Berne

# PPCR - Pilot Programme for Climate Resilience in Tajikistan, Phase 1, Component A5 Agriculture and SLM

## Goal:

- > to identify best SLM practices to improve rural livelihoods and resilience to climate change and
- > to make policy recommendations for their up-scaling

## Methods:

- (1) Documentation of SLM best practices (WOCAT)
- (2) Land legal and policy assessment,
- (3) Participatory analysis of SLM.

**Team:** Centre for Development and Environment (CDE) of the University of Bern, CAMP Kuhiston, Prof. Zvi Lerman (the Hebrew University), Helvetas (Swiss Association for International Cooperation), and University of Central Asia (UCA).

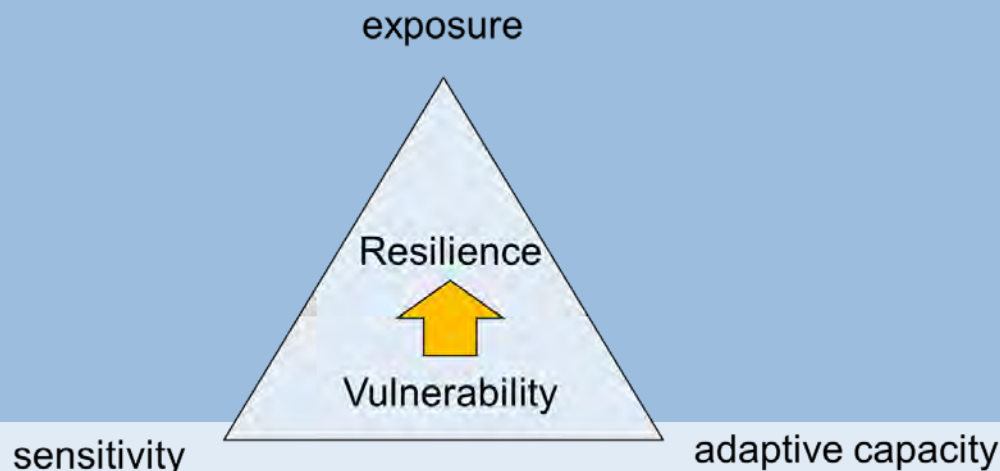
**Time Frame:** Project start - 1 March, Draft Report - July 2011, Final report - accepted by the World Bank December 2011

# Report content

- > Glossary
- > Abbreviations, Organisations and Programs
- > Executive summary
- > Preface
  
- 1. Land use and vulnerability to climate change in Tajikistan
- 2. SLM documentation and analysis of adaptation to climate change
- 3. How to move from climate change vulnerable to resilient?
- 4. Recommendations for PPCR Phase 2 activities
  
- > 10 Appendices

# Section 1. Land use and vulnerability to climate change in Tajikistan

- > Land resources, land reform and population growth
- > Vulnerability
  - **Exposure:** climate change increases existing risks
  - **Sensitivity:** Sensitivities relevant to all land use types / to specific land use types, sensitivity exacerbated by land degradation
  - **Adaptive Capacity:** land and commercialization, low livestock productivity, low level of technology



## Section 2. SLM inventory and adaptation to Climate Change

### Work plan:

1. WOCAT training (28 March -1 April 2011)
2. WOCAT documentations by Tajik SLM experts (April 2011)
3. WOCAT writing workshop (3-5 May 2011)
4. Deadline for submission of documentations (6 May 2011)
5. Review, finalization (May/June 2011)

### WHY participate?

- (1) Included in PPCR assessment,
- (2) included in a publication on Tajik SLM case studies,
- (3) Included in public, online WOCAT DB,
- (4) remuneration for each documentation



## Section 2. SLM inventory and adaptation to Climate Change

- > **70 SLM documentations:** 46 Technologies and 24 Approaches in English and Russian language
- > **Conducted through participation of 13 organisations:** Tajik Soil Institute, CAMP Kuhiston, Pamir Biology Institute, Ministry of Agriculture, World Bank, ADB, CARITAS Switzerland, MSDSP, CDE, Welthungerhilfe, GIZ, UNDP, Youth Ecological Centre, CESVI



10 Technology Groups	No	CC impact being addressed
Improved grazing land	4	Vegetation degradation
Irrigation infrastructure management	7	Water shortage
Water harvesting	3	Less frequent rainfalls
Soil productivity enhancement	7	Soil fertility decline
Cross-slope measures: onsite protection	5	Heavy rainfall
Cross-slope measures: offsite protection	4	Land slides due to extreme rainfalls
Agroforestry	10	Crop failure in monoculture systems
Planted and natural forest	3	Riverbank erosion
Tree belts	4	Wind erosion, change in microclimate
Indirect SLM measures	2	Desertification
<b>Total number of WOCAT case studies</b>	<b>46</b>	

# SLM Approaches



6 Approach Groups	No	Examples raising most interest
SLM planning	5	Cost Benefit Analysis
Government Partnership	4	Joint forest management, Village school participation
Knowledge transfer	5	Farmer Field Schools
Financial support	3	Income generation activities for women
Individual initiatives	5	Voluntary Labour Assistance
User associations	4	Livestock committees
<b>Total</b>	<b>24</b>	



# Section 3. How to move from climate change vulnerable to resilient?

## Participatory analysis:

- > 2-day local workshops in 5 different regions of Tajikistan
- > 2-day national workshop on land use practices and policies
- > Half-day workshop for gov. representatives / for NGOs
- > 32 bilateral meetings
- > Feedback event and integration of comments



## Section 3. How to move from climate change vulnerable to resilient?

### 3.1 Guiding principles:

- > **Diversification** of land use practices and farm incomes
- > **Sustainable intensification** of use of natural resources
- > **Expansion** of highly productive land use practices
- > **Protection** of land and livelihoods from extreme weather events



## Section 3. How to follow the guiding principles?

### 3.2. Opportunities for rural households – an agro-economic perspective:

- > Allocate more land to small family farms
- > Improve farm services
- > Diversify income and farm production

### 3.3. Planning, implementing and monitoring SLM practices:

- > Focusing on the village level for implementation of SLM and supporting participatory planning
- > Strengthen capacity at the national and the district level for informed SLM planning
- > Collaboration for SLM knowledge management and decision support => Institutionalizing of a SLM-Unit

## Section 4. Specific recommendations for PPCR Phase 2 activities

Support SLM activities and policy processes to build greater resilience to climate change impacts:

1. Project interventions: strengthen climate resilience of land use in Tajikistan (largest portion of the total budget)
2. Legal and policy support
3. Data collection for informed decision making
4. Knowledge management and decision support (10-15%)

## 4.1 Strengthen climate resilience of land use in Tajikistan

- I. In-village – targeting the most vulnerable rural families
- II. Near-village – growing a productive belt around villages
- III. Off-village – intensify land use in the major production areas



## 4.4 Coordinating SLM Knowledge

1. Conduct ToTs
2. Elaborate decision support tools
3. Be responsible for monitoring and critical evaluation of the performance of SLM practices
4. Identify priority areas for upscaling
5. Identify and collaborate with innovative land users
6. Organise events to facilitate knowledge sharing
7. Prepare information material and publications
8. Increase public awareness by using the media
9. Establish a knowledge platform on the internet



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# Thank you for your attention!

