

Need and Motivation for CCA

MSDSP KG CCA Programme

Step 1. District-Level CC Analysis

Step 2. Village CC Resilience Assessments

Step 3. Community Information Sessions

Step 4. Produce and Distribute CCA Media

Kara Kulja, Osh

Phase I. Generate Locally Relevant, Science Based CC Information

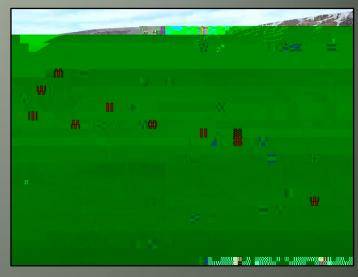
Objective & Methods

Objective

 To collect locally relevant, science based CC information for use in community adaptation planning and action

Methods

- District CCanalysis
- Village CC resilience assessments





District CCAnalysis

- Are rural communities in Kara Kulja experiencing CC trends and associated impacts?
- What are best practices for adaptation in Kara Kulja?

Methodology

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Hydro-Met Data Weather/River Station Data: 70 years (1940-2010) temp, precip, and river flow Local Experience

FGDs, Interviews,

Observation:

- ~trends
- ~impacts
- ~adaptation efforts



Key Findings: Existing Adaptation

Drying/Drought

- Change grazing practices to access remote pastures (Kyzyl Zhar)
- Switch to more drought resistant crops, i.e. from wheat to barley (Kenesh)
- Increase perennial fodder cultivation (Kashka Zhol, Kara Kulja)
- Use tax law to receive tax exemption when crops are lost or damaged by drought (Kyzyl Zhar, Kashka Zhol, Oi Tal, and Alaikuu)
- Change to water efficient irrigation practices (Kashka Zhol)
- Ayil Okmotu does not collect rent for AO lands during drought (Kashka Zhol)
- Increase reliance on credit and dependency on remittances (all)
- Sell livestock to buy hay (all)

Vind

- Plant wind breaks (Kara Kulja)
- Chalma

Heavy Sho

Increase focular production and storage for longer winters (hapchegai)

Key Findings: Existing Adaptation

- Mainly behavioral adaptation measures with some some financial and institutional measures
- No informational or technological measures
- Future adaptation should build on existing measures and local expertise

2. Village OC resilience assessments

Methodology

• FGDs, interviews, mapping,

Vulnerability

Exposure

Sensitivity

Adaptive Capacity

- <u>Exposure</u>: The nature and degree to which a system is exposed to significant dimate variations
- <u>Sensitivity</u>: The degree to which a system is affected, either positively or negatively, by climate-related factors
- Adaptive Capacity: The ability of a system to adjust to climate change impacts, to moderate potential damages, to take advantage of opportunities, or to cope with the consequences

Key Findings: Vulnerability in Kara Kulja

Exposure

- temperatureglobal projections
- intensity of heavy precipitation events
- wind
- weather and seasonal variability

Sensitivity

- Agriculture highly vulnerable to CC
- Negative impacts realizeddrying/drought, flood, wind/rain storms, erosion
- Positive impacts not realized-growing season, carbon fertilization

Adaptive Capacity

Resources:

Natural

Human

Social

Physical

Financial

Positive and negative resource attributes

Resilience of Key Resources in Kara Kulja

- Community Identified Key
 Resources
- Examine Resilience of Key
 Resources

Management

Uses & Users

Disturbance Regime Factors Driving Change



