

# The Pasture, the Village, and the People: Food Security Endowments and Abatements in the Southern Kyrgyz Highlands

by

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Life in Kyrgyzstan 2020 Conference



**PennState**

College of Agricultural Sciences

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"By Alay" brand's collection presentation

## FROM ALAY TO UNIVERSE

October 26-27

Exhibition Hall  
of the Union of Artists  
of the Kyrgyz Republic,  
Duboviy Park

Exhibition Fair | Master classes  
Alay cuisine | Alay Antique Clothing Show

Organizer «By Alay»  
OO «Alay Woman Entrepreneurs»

with love  
by Alay

ORMON

7-HEBO



**PennState**  
College of Agricultural Sciences

- Why Kyrgyzstan?
  - Place of transformations
  - Developing context
  - Montane nation
- History and heritage
  - Former Soviet nation
  - Old Silk Road
  - Agropastoralism
- Contemporary Kyrgyzstan
  - High rural poverty rate
  - Food insecurity
  - Poor rural infrastructure
    - Labor migration
    - Vulnerable to shocks

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## Food Security in Kyrgyzstan

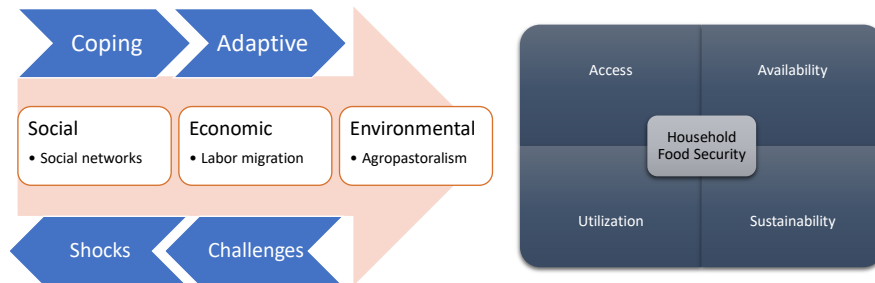
- High rate of rural poverty (especially in vulnerable populations)
- 2/3 of food insecure households in rural areas
- High rates of child stunting, birth defects, malnutrition, and anemia
- Elevated anemia and malnutrition among women of child-bearing age
- Child mortality commonly caused by malnutrition

## Main Research Question

How is household food security in the Southern Kyrgyz highlands collectively determined by the social, environmental, and economic aspects of rural life; specifically, labor migration, remittances, agropastoralism, and social networks?

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## Conceptual Framework



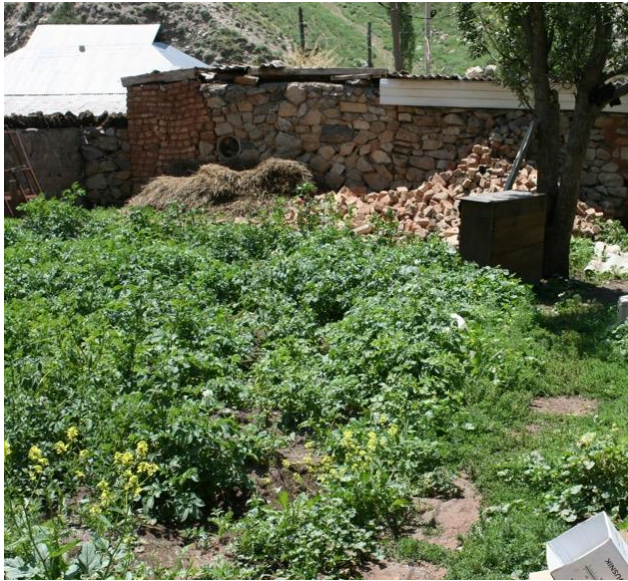
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- Acute versus chronic
- Malnourishment and undernourishment
- Wasting and stunting
- The 'pillars of food security'

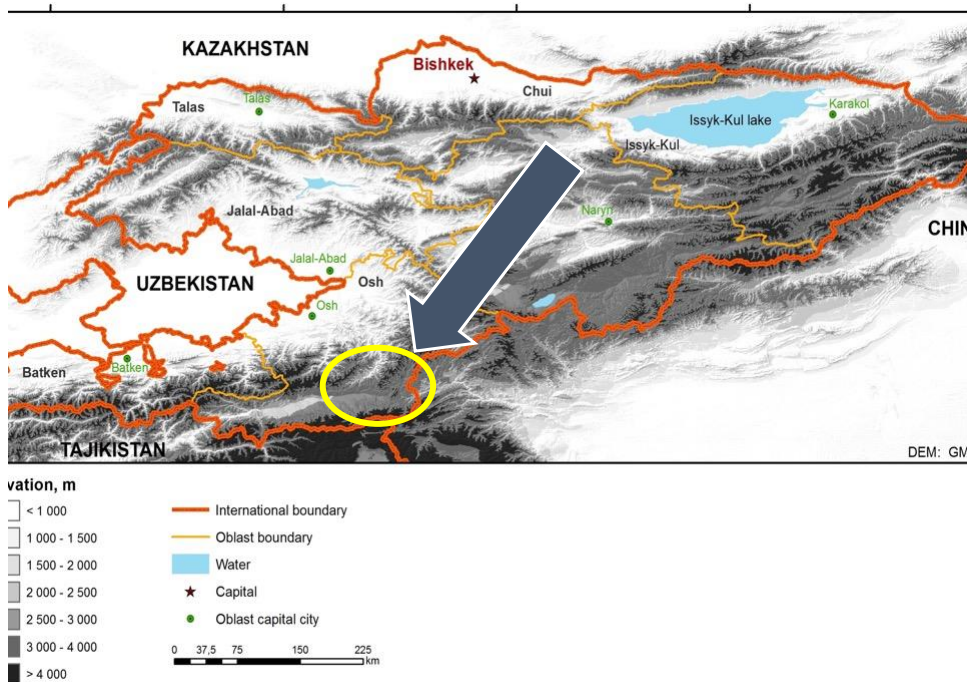
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# Food Security Determinants



- Environmental
  - Political ecology
- Social
  - Social capital
  - Social networks
- Economic
  - Labor migration
  - Informal economy

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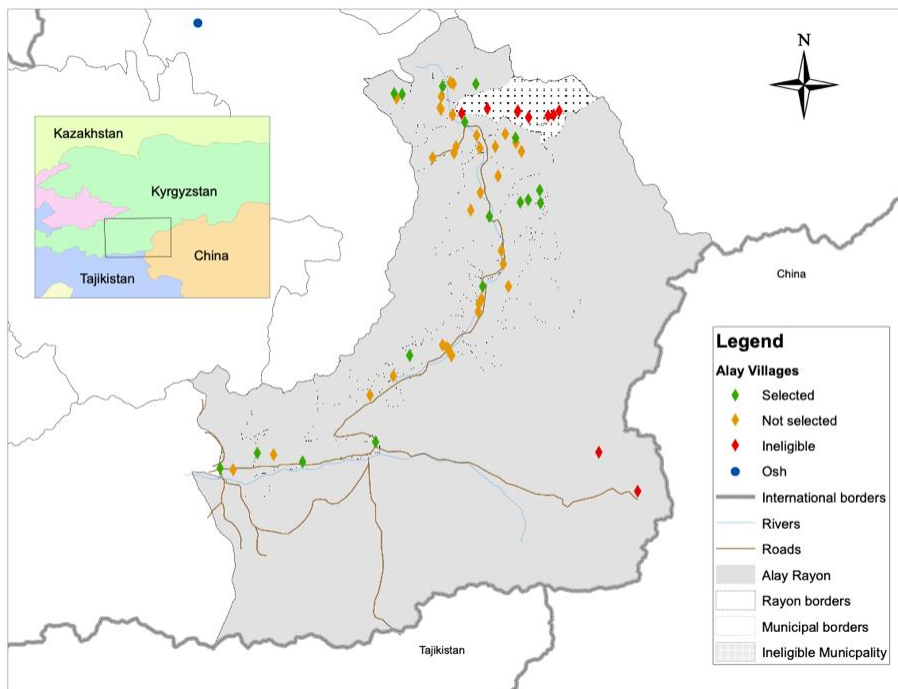


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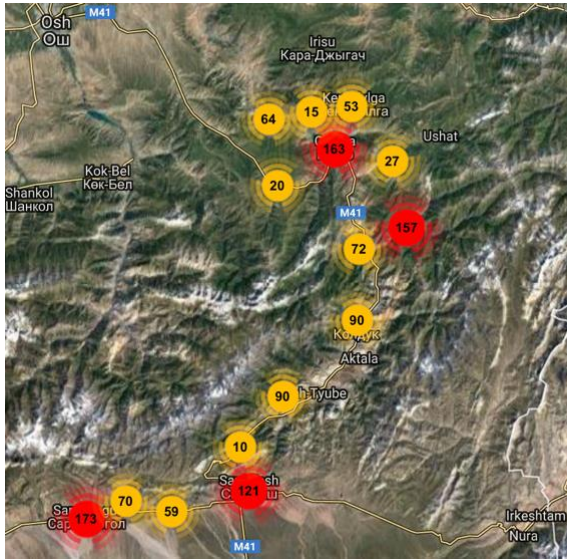


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## 2017 Data Collection



- 23 villages
- 1,234 household surveys
- 6,581 individuals
- 2,063 children
- 275 migrants
- 52 in-depth interviews

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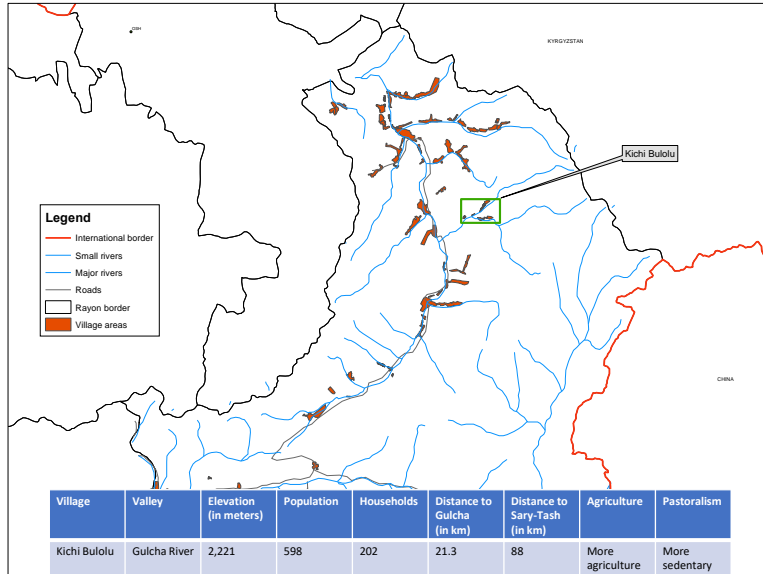
## 2017 Main Findings

- Households that experience shocks have higher consumptive measures of food security. Yet, also higher food experiential food insecurity and lower percent household food expenditures.
- Dietary diversity lacking for fruits and vegetables.
- Dietary reliance upon bread, meat, sugary and oily/fatty foods.
- Acute food insecurity less of an issue than chronic issues of food insecurity.



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## 2019 Site Selection – Kichi Bulolu



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## 2019 Data Collection

- Kichi-Bulolu
  - Municipality
  - 6 villages
  - 4 hamlets
- 157 winter surveys
- 157 summer surveys
- 44 in-depth interviews
- Detailed field notation



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## Measurement - Household Food Security



- Coping Strategy Index
- Food Consumption Score
- Household Dietary Diversity Score
- Household Food Insecurity and Access Scale
- Household Hunger Scale
- Percent expenditure on food
- Self-assessed food security status

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## Measurement - Continued

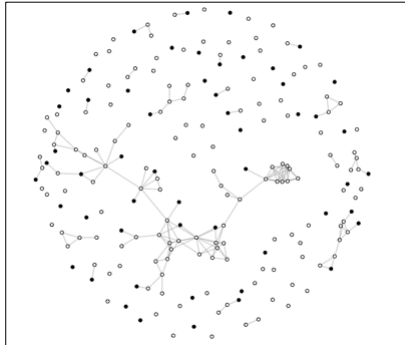
- Profile of every household member
- Remittances- How much and how is it spent?
- Household finances
- Livestock management
- Agricultural practices
- Climate change
- Social networks
  - Kinship networks
  - Labor networks
  - Food sharing networks
- Food utilization
- Coping strategies

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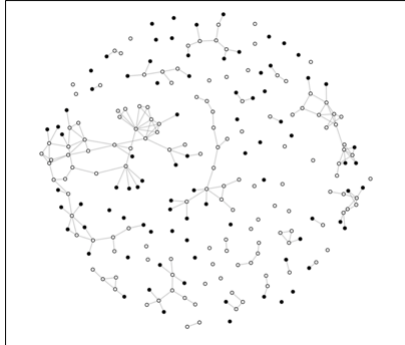


## Village Kinship Networks

**Winter Kinship Network**



**Summer Kinship Network**

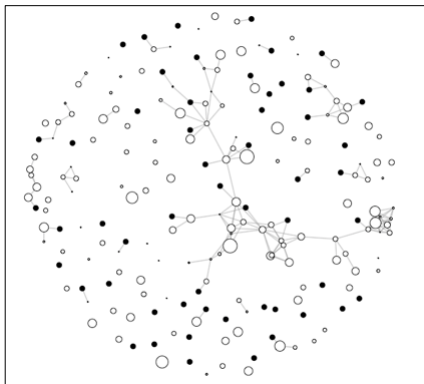


*Note:* Winter network (n=202) displayed on the left with the summer network (n=227) on the right; all ties are non-directed and reciprocal; ● = singulate; ○ = survey respondent household.

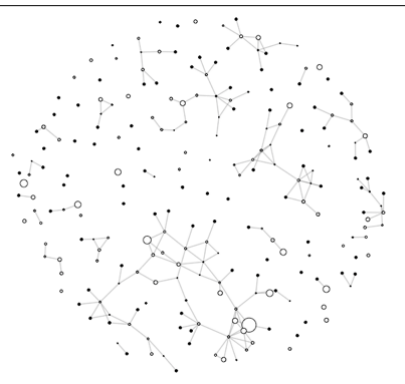
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## rCSI Village Kinship Networks

**Standardized rCSI Winter Kinship Network**



**Standardized rCSI Summer Kinship Network**

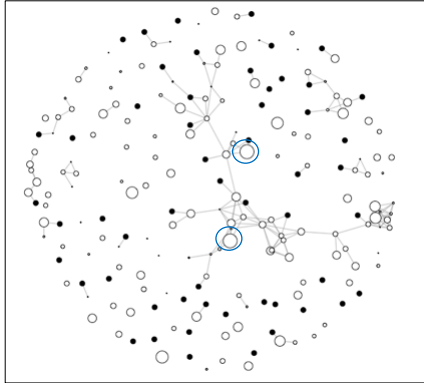


*Note:* Winter network (n=202) on the left; summer network (n=227) on the right; all ties are non-directed; ● = singulate (size set to mean value); ○ = survey respondent household.

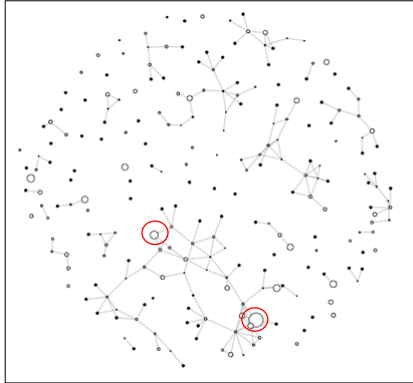
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## rCSI Village Kinship Networks

**Standardized rCSI Winter Kinship Network**



**Standardized rCSI Summer Kinship Network**



*Note:* Winter network (n=202) on the left; summer network (n=227) on the right; all ties are non-directed; ● = singulate (size set to mean value); ○ = survey respondent household.

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## Environmental Subjects

- The seasonality of household food security
  - “The time of pasture is the time of plenty.”
- Food preservation plays a major role in food security throughout the year, among other coping strategies.
  - Among these products are: butter, cheese, pasta, jams, and ‘salads’.



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## Moral Heritage Foods

- Moral heritage foods
  - 'We are Kyrgyz so, of course, we eat meat.'
  - Foods from the wild
- Community yaks
- Foraging
- Traditional medicine
- Intergenerational linkage



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## The Village Economy

- Community Assistance
- Sharing
- Insular Economic Sector
- External Economic Sector
  - The Importance of Work
  - Social Stratification



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## Community Assistance

“There is a saying that goes as, some neighbors are closer to you than even your close relatives.”

“We might not have much comfort and infrastructure like other places but if you look from the side of human values, I think here you can see more humanity than other places. They are interested in helping others and they are kind.”



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## Sharing

- Food sharing and labor
  - Livelihoods and time allocation
  - Community support networks
  - Food sharing and bartering is a key insecurity coping strategy
- Kinship
  - Family lineage (9 patrilineal generations)
  - Social stratification



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## Insular Economic Sector

“The recent years, the last three years, people (have) started practicing bartering. They bring flour (and) onion by car and (exchange them for)... berries (black currant). It is a laborious job to collect berries. They ripen in the September sun. In September, when the berries ripen and (are) collected, we (ex)change them for flour. One pail of berries for one sack of flour.”



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## Food Security in Southern Kyrgyzstan

- Economic
  - Labor migration
  - Remittances
- Social
  - Kinship networks
  - Education
  - Intergenerational
- Environmental
  - Seasonal
  - Agropastoralism
  - Wild foods and indigenous knowledge



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## Significance & Contribution

- Inform policy
  - Climate change resilience
  - Traditional knowledge preservation
  - Rural development initiatives
- Mixed method approach
- Focus on vulnerable and underserved populations

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Questions or comments?  
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