

# Fergana Valley

Baseline survey for CRP “Dryland Systems”

## Introduction

This document gives a standard set of questions that can be asked of the Baseline Survey data and shows the tables that could be produced to answer those questions. An R syntax file will be developed to produce these tables.

## Calculated Indices

We suggest calculating the following indices. Many of the tables will be split according to levels of these indices. We will also look at the gender split in types of household looking at female-headed versus male-headed households and look at cross tabulations between combinations of different indices.

## Part A: General Information

Province: Batken.

District: Batken.

Villages: Chek, Janijer.

Total respondents (Households): 120.

Please see Annex I for additional information.

## Part B: Respondent and household head’s background

### *Gender distribution of the respondents*

Gender of the respondent	Number of Respondents	Percentage
Male	108	90%
Female	12	10%
Missing	0	0%
TOTAL	120	100%

### *The decision maker*

Area	Male	Female	Jointly
At farm/plot level	14%	14%	72%
Crop Management	22%	19%	59%
Livestock management	23%	13%	64%

## Part C: Demographic characteristics of the Sample

### *Gender proportion of the sample*

<b>Number of Households/Families</b>	<b>Male</b>	<b>Female</b>
120	348	359

### *Sample Families classification*

<b>Category</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
≤ 7 years old	53	45	98
8 – 14 years	35	46	81
15 – 24 years	70	77	147
25 – 65 years	176	173	349
> 65 years old	18	14	32

### *Sample off-farm income*

<b>Category</b>	<b>Male</b>	<b>Female</b>
Off-farm	50	42

### *Education level of the Sample*

<b>Education level</b>	<b>Male</b>	<b>Female</b>
Basic education	289	295
Elementary school	246	233
College	17	23
Higher education (University, B.Sc, M.A.)	31	26
Ph.D, postgraduate, postdoctoral	0	0

### *Family labor contribution to own farm*

<b>Total</b>		<b>Average per family</b>	
<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
213	220	1.77	1.83

## Part D: Financial, physical, natural and social capital

### Sources of income

Source	Total number of household
Farm	109
Government salaries, pension	65
Salaries from working in private sector	14
Own non-farm business	6
Other (e.g. from working abroad)	26

### Share of Agriculture and Livestock in annual total family income

Average Share of agriculture and livestock in total family income	49%
The estimated mean of the annual total income from crops	61797 KGS
The estimated mean of the annual total income from livestock	31268 KGS
The estimated mean of the annual income from off-farm activity	53510 KGS

### Housing conditions

*In average per family*

Number of rooms in total	Living	Heated	With electricity	Toilet	Washing
5	4	1,5	3,1	1	0,3

*House/farm area in average per family (square meters)*

Living space/area	Non living space/area	Backyard/adjoining the farm	Farm space
83,4	22,8	1480	7,15

*Estimated cost of the house (in local currency, KGS)*

Minimum	Lower quartile	Median	Mean	Higher quartile	Maximum
0	462 500	1 000 000	910 200	1 200 000	5 000 000

### Leadership of the household head in local community

*The proportion of the leadership*

Total number of Households	Number of households where the head is the Leader
120	12 (overall percentage 10%)

*Other members of the household in community organizations*

<b>Number of households</b>	<b>Male</b>	<b>Female</b>
14	7 (50 %)	7 (50%)

*And from this, Average per household*

<b>Male</b>	<b>Female</b>
0,05	0,05

**Government support**

*On crop fails/damages*

<b>Up to 25%</b>	<b>Up to 50%</b>	<b>Up to 75%</b>	<b>Up to 100%</b>
0	1	0	0

*Visits to agricultural specialists / rural advisory services over the last 12 months*

	<b>Number of visits</b>
Men	5
Women	43
Youth	0

*Visits of agricultural specialists / rural advisory services to the household over the last 12 months*

	<b>No visit</b>	<b>1-5 times</b>	<b>6-10 times</b>	<b>More than 10 times</b>
Governmental institutions				
Farmer cooperatives or groups		5		
Neighbor farmers				
NGOs				62
Media		3		
Private			10	
Other				

*Quality of the Visits of agricultural specialists / rural advisory services to the household over the last 12 months (Repeat the following table for Relevant for Men, Relevant for Woman and Relevant for Youth)*

	<b>Very useful</b>	<b>Useful</b>	<b>Acceptable</b>	<b>Somehow useful</b>	<b>Not useful</b>	<b>No idea</b>
Governmental institutions		7				
Farmer cooperatives or groups	5	4				
Neighbor farmers						

NGOs	30	28
Media		
Private	5	
Other		

### **Strengthening the Capacity building**

Repeat the following table for Relevant for Men, Relevant for Woman and Relevant for Youth

	<b>On-farm demonstration</b>	<b>Field days for crop</b>	<b>Field days for livestock</b>	<b>Other Trainings</b>
Men	4	4	2	3
Women	5	7	7	8
Youth	0	0	0	0

The proportion of the attendance in capacity building

<b>Total number of Households</b>	<b>Number of households attended in capacity building events</b>
120	40

Main topics discussed with agricultural specialists

	<b>Crop</b>	<b>Livestock</b>	<b>NR Management</b>	<b>Social Organization</b>	<b>Pets control</b>	<b>Other</b>
Relevant for Men	5	2				
Relevant for Women	5				1	1
Relevant for Youth	1					

Women free access to agricultural consultations

<b>Title</b>	<b>Total</b>	<b>Has access</b>
Free access to agricultural consultations	359	84 %
Freely participate trainings outside home	359	98 %

### **Access to Land**

Access to land as on January 1, 2015

<b>Title</b>	<b>Irrigated (ha)</b>	<b>Rainfed (ha)</b>
Own land	95,91	49,3
Rented (shared in)	130,55	30,2
Rented (shared out)	11,4	9,1
Communal	41,55	187,1
Area planted to trees	0	0,5

### *Land owned by women*

Land registered to women 62. Total area: 11,19 ha (irrigated), 6,26 ha (rainfed).

### *Household assets*

<b>Name of asset</b>	<b>Total</b>	<b>Average condition</b>	<b>Estimated value (average per asset)</b>
Tractor	<b>7</b>	<b>Good</b>	<b>154 286 KGS</b>
Combine harvester	-	-	-
Water pump	<b>1</b>	<b>Good</b>	<b>200 000 KGS</b>
Automobile	<b>60</b>	<b>Good</b>	<b>186 337 KGS</b>
Picks-ups	<b>16</b>	<b>Good</b>	<b>176 250 KGS</b>
Trucks	<b>1</b>	<b>Bad</b>	<b>220 000 KGS</b>
Grain storage structures	<b>6</b>	<b>Good</b>	<b>18750 KGS</b>
Television (TV)	<b>113</b>	<b>Good</b>	<b>3997 KGS</b>
Satellite	<b>56</b>	<b>Good</b>	<b>64400 KGS</b>
Radio, cassette or CD player	<b>32</b>	<b>Good</b>	<b>898,6 KGS</b>
Mobile Phones	<b>711</b>	<b>Good</b>	<b>445,7 KGS</b>
Phone (land line)	<b>42</b>	<b>Good</b>	<b>588 KGS</b>
Refrigerator	<b>82</b>	<b>Good</b>	<b>9555 KGS</b>
Washing Machine	<b>73</b>	<b>Good</b>	<b>4397,3 KGS</b>
Cupboards	<b>76</b>	<b>Good</b>	<b>7346 KGS</b>
Carpets	<b>240</b>	<b>Very good</b>	<b>4559 KGS</b>
Gold (value)	<b>143</b>	<b>Good</b>	<b>3191 KGS</b>

### *The proportion of the main assets per household*

<b>Asset</b>	<b>Total (N)</b>	<b>Household has (percentage %)</b>
Tractor	7	0,58
Combine harvester	-	-
Water pump	1	0,008
Automobile	60	0,5
Picks-ups	16	0,13
Trucks	1	0,008
Grain storage structures	6	0,05
Television (TV)	113	0,94
Satellite	56	0,46
Radio, cassette or CD player	32	0,26
Mobile Phones	711	5,9
Phone (land line)	42	0,35
Refrigerator	82	0,68
Washing Machine		0,61

### *Livestock production*

*Livestock types per household*

<b>Type</b>	<b>Total (N)</b>	<b>Per household (N)</b>
Milk cows	125	
Non milk cows	858	
Ox	304	
Camel	0	
Sheep	77	
Goats	197	
Poultry	60	
Equines	0	
Bee hives	0	

*Livestock production per household per year*

<b>Type</b>	<b>Total (N)</b>	<b>Producing HH (%)</b>	<b>Per household (N)</b>
Milk production (l)	116070	82 (68%)	967
Wool production (kg)	120	14 (12 %)	1

*Household gross income (from January 2014 to December 2014)*

<b>Income from</b>	<b>Average Income</b>	<b>Households (N)</b>
Rainfed crops	58000 KGS	4
Irrigated crops	77000 KGS	92
Farm work	21400 KGS	20
Non-farm work	68500 KGS	4
Livestock	22522 KGS	23
Cattle	45807 KGS	49
Goats and Sheep	15772 KGS	21
Poultry	1951 KGS	6
Selling plant products	31250 KGS	4
Hiring equipment	25000 KGS	2
Rent from land	50500 KGS	2
Regular salaried jobs	92125 KGS	24
Private Business	90000 KGS	6
Pension	60159 KGS	34
Outside work	82411 KGS	18
Social programs	33134 KGS	9
Other	55357 KGS	14

## Part E: Agricultural production

### *Average grain and straw yields (kg per ha)*

<b>Crops</b>	<b>Normal year</b>	<b>Bad year</b>	<b>Best year (last 10 years)</b>
Wheat	-	-	-
Barley	-	-	-
Rice	-	-	-
Lentil	-	-	-
Chickpea	1321	553	2008
Faba bean	1560	1275	2010
Straw	100	50	202
Maize	1144	544	1969
Фасоль	560	392	2011
Tabaco	1057	375	1977

### *Last 10 years classification*

<b>Normal years (N)</b>	<b>Bad years (N)</b>	<b>Good years (N)</b>
3	4	2

### *Home garden*

Availability of home garden on households:	84% (101 households)
Average area of home garden on households:	15 m <sup>2</sup>
Irrigated (fresh water) home gardens:	85% (85 home gardens)
Irrigated (gray water) home gardens:	14% (14 home gardens)
Rainfed home gardens:	2 % (2 home gardens)
Average family income from home gardens:	158253 KGS

### *Main crops planted (list of top crops planted on home gardens)*

<b>Crop</b>	<b>Home gardens (N)</b>
абрикос	52
кукуруза	30
табак	24
фруктовые	8
фасоль	6
Лук	3
Перец	2



### *Soil salinity (in percentage)*

<b>Non-saline</b>	<b>Slightly saline</b>	<b>Medium saline</b>	<b>Highly saline</b>
0%	30%	68%	2%

### *Seed source*

<b>Source</b>	<b>Households (%)</b>
Local seed producers	42%
Relatives	40%
Private seed companies	10%
Agro dealers	4%
Neighbors	3%
Farmer coops	1%

### *Sowing methods*

<b>Manual (%)</b>	<b>Mechanical (%)</b>	<b>Drill (%)</b>	<b>ZT seeder (%)</b>	<b>Other (%)</b>
69%	7%	3%	1%	20%

### *Source of irrigation*

<b>River (%)</b>	<b>Canal (%)</b>	<b>Well (%)</b>	<b>Other (%)</b>
0%	100%	0%	0%

### *Types of stress*

<b>No stress (%)</b>	<b>Pest (%)</b>	<b>Drought (%)</b>	<b>Extreme heat (%)</b>	<b>Diseases (%)</b>
2%	39%	38%	21%	0%

### *Responsible person for mechanical application of pesticides*

<b>Men (%)</b>	<b>Women (%)</b>	<b>Other (%)</b>
51%	19%	30%

### *Responsible person for hand application of pesticides*

<b>Men (%)</b>	<b>Women (%)</b>	<b>Other (%)</b>
64%	22%	14%

### *Keeping security norms during pesticides application*

<b>Yes (%)</b>	<b>No (%)</b>
66%	34%

### *Responsible person for irrigation*

<b>Men (%)</b>	<b>Women (%)</b>
90%	10%

### *Can women be responsible for irrigation?*

<b>Yes (%)</b>	<b>No (%)</b>
5%	95%

### *Main reason why woman cannot be responsible for irrigation*

<b>Reasons</b>
физически не по силам
сил не хватит распределить вод
она не успевает привать всю но
занета домашним хозяйством

### *Local and improved varieties*

<b>Questions</b>	<b>Wheat</b>	<b>Rice</b>	<b>Mung-bean</b>	<b>Legume</b>	<b>Nuts</b>	<b>Maize</b>	<b>Potato</b>	<b>Vegetables</b>
Area under each variety (ha)	0	0	0	363	0	1810	39	100
Knowing about new improved varieties (%)	3	3	0	16	3	55	5	15
Usage of new improved varieties (%)	0	0	0	20	0	63	3	13

### *Reason for not using new improved varieties*

<b>Low yield</b>	<b>Seed unavailability</b>	<b>Disease problem</b>	<b>Pest problem</b>	<b>Poop product quality</b>	<b>Other</b>
57%	14%	0,1%	0,1%	8%	21%

Usage of zero tillage in the farm/plot: 0,2% (3 households).

## Part F: Access, quality, quantity and management of water resources

### *Privately owned*

<b>River (%)</b>	<b>Canal (%)</b>	<b>Well (%)</b>	<b>Other (%)</b>
-	56%	-	-

### *Communally owned*

<b>River (%)</b>	<b>Canal (%)</b>	<b>Well (%)</b>	<b>Other (%)</b>
-	65%	-	-

### *Depth of water source*

<b>River (m)</b>	<b>Canal (m)</b>	<b>Well (m)</b>	<b>Other (%)</b>
-	8	-	-

### *Overall quantity of water*

<b>River (%)</b>	<b>Canal (%)</b>			<b>Well (%)</b>	<b>Other (%)</b>
-	Good	Average	Bad	-	-
	100%				

### *Structure is with oil engine (%)*

<b>River</b>	<b>Canal</b>	<b>Well</b>	<b>Other</b>
-	-	-	-

### *Structure is with electric engine (%)*

<b>River</b>	<b>Canal</b>	<b>Well</b>	<b>Other</b>
-	-	-	-

### *Actual areas the structure is irrigating (ha)*

<b>River</b>	<b>Canal</b>	<b>Well</b>	<b>Other</b>
-	243	-	-

### *Potential areas the structure is irrigating (ha)*

<b>River</b>	<b>Canal</b>	<b>Well</b>	<b>Other</b>
-	404	-	-

## Part G: Livestock production and management

### Water source for animals (%)

River	Canal	Well	Artesian well	Drainage well	Pond
0%	55%	1%	18%	26%	0%

### Freshness of water for animals (%)

Drinking water	Salty water	Unknown
18%	53%	28%

### Last year the average percentage of lambs/kids/claves, used for: (%)

Replacement	Sales	Other purposes
0%	22,1%	0%

### Flock structure for the last 12 months

#### Type of breed

Sheep	Goat	Cattle
Local	Local	Local

#### Reason of choice

Flock	Productivity	Adaptation	Quality	Marketability
Sheep	-	100%	-	-
Goat	-	90%	-	10%
Cattle	6%	90%	2%	2%

#### Main product from this breed

Flock	Milk	Meat	Both
Sheep		100%	
Goat		80%	20%
Cattle	42%	1%	57%

#### Average flock size (N)

Sheep	Goat	Cattle
25	17	4

#### Average males on flocks (N)

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
5	7	1,7

*Average females on flocks (N)*

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
20	10	2,3

*Average lambs (3-6 months) on flocks (N)*

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
7	3,7	1,2

*Average born lambs this year (N)*

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
6	6,8	1,4

*Average born lambs last year (N)*

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
6	6	1,3

*Average twins per flock (N)*

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
2	2	-

*Average dead animals per flock (N)*

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
0,01	0,01	0,01

*Average dead lambs per flock (N)*

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
0,01	0,01	0,01

*Average abortions per flock (N)*

<b>Sheep</b>	<b>Goat</b>	<b>Cattle</b>
0	0	0,06

## **Animal breeding**

### Practiced method for mating of cattle

Natural	Artificial insemination	Both
98%	4%	2%

### Getting insemination services

Private sector	State/public sector
77%	23%

Total number of inseminated animals last year season 5

Total number of new-born animals were received last year 143

Total number of males replacing in herds every year 17

### Source of new males (%)

Own flock	Outside	Both
74%	1%	25%

### Milk processing

Processing milk at home Yes (%) 67 No (%) 23

Selling excess dairy products Yes (%) 62 No (%) 38

### Responsible person for cattle breeding

Animal	Men	Women	Children
Cattle	69%	29%	2%
Small cattle	48%	48%	4%
Poultry	43%	14%	43%

### Animal health

Keeping new animals in quarantine before joining them to the flock Yes (%) 10 No (%) 90

Knowing about sickness can be transmitted from cattle to human Yes (%) 87 No (%) 13

Average visit of vet within last year season 3

### Treating animals for parasites

Parasite name	Treatment date	Treatment date	Treatment date
ящур	March, 2014		November, 2014
чесотка	March, 2014	October, 2014	
Бруцеллёз	April, 2014	October, 2014	
Шарп	March, 2014	October, 2014	
пастрелёз	April, 2014	October, 2014	

## Part H: Agricultural markets and food security

### Livestock and animal market access

Average distance to the nearest animal market (km) 11,2

Purpose of visiting the animal market (%)

Sell	Buy	Brokerage	Other
71	16	2	11

Average animal transportation cost (in local currency) 167,2 KGS

Average animals, which has been sold/bought last year per household 2,8

Responsible person in Household for selling/buying animals (%)

Men	Women	Other
92%	5%	3%

Average distance to the nearest crop and livestock products market (km) 11,27

Purpose of visiting the livestock products market (%)

Sell	Buy	Brokerage	Other
46	54	0	0

Average crop and livestock products transportation cost (in local currency) 153,15 KGS

Responsible person in Household for selling/buying at crop and livestock products market (%)

Men	Women	Other
37%	48%	14%

### Access to food

Question	Yes (%)	No (%)	How often did this happen		
			Rarely (%)	Sometimes (%)	Often (%)
Did you worry that your household would not have enough food to eat over the month?	85%	15%	24%	13%	17%
Were you or any household member not able to eat the kinds of foods you preferred because of lack of income to buy or inability to produce?	48%	10%	16%	21%	11%
Did you or any other household member eat smaller meals in a day because of a lack of access to food (either	38%	9%	13%	19%	5%

because of a lack of income or lack of household production)?

Did you or any other household member eat fewer meals in a day because there was not enough food?	28%	13%	10%	15%	3%
Did you or any household member go to sleep at night hungry because there was not enough food?	0%	100%	0%	0%	0%
Did you or any of your members go a WHOLE DAY without eating because there was not enough food?	0%	100%	0%	0%	0%

### *Household coping strategy*

Type of coping strategies	Yes (%)	No (%)
Purchased food on credit	17	83
Borrowed food, helped by relatives or the community	53	47
Adults ate less food so that children could eat more	46	54
Consumed seed stock held for next season	17	83
Sent children to live with relatives	26	74
Bartered food or non- food items to buy more staple food	90	10
Used up savings in order to purchase food	92	8
Reduced expenditure on health and education in order to purchase food	62	38
Borrowed money from relatives / neighbors in order to purchase food	59	41
Sold HH poultry – chicken , ducks, etc. in order to purchase other types of food	36	64
Sold HH articles (utensils, blankets, building materials, jewelry ) in order to purchase food	0	100
Sold small ruminant (animals) goats, sheep in order to purchase other types of food	36	64
Sold big animals (Cattle, donkeys, camels, ) in order to purchase other types of food	59	41
Sold agricultural tools, seeds. in order to purchase food	24	76
Stopped smoking Cigarettes in order to save costs that allowed you to purchase food	52	48
Accepted food aid from an international organization or government agency	17	83

### *Main sources of accessing food on households over previous 30 days*

Item	Percentage
Own production	41
Sale of livestock	12
Trade / small business	11
Regular monthly salary	13
Daily (Agriculture and non-agriculture labor)	5
Remittance	8
Public help	0
Help from relatives/friends	10

*Receiving cash assistance from the social welfare fund*

*Yes (%) 15*

*No (%) 85*



## Household diet diversity

Food groups	Frequency per week			
	Daily (HH)	3-5 times (HH)	1-2 times (HH)	Nothing (HH)
Wheat, rice, maize, sorghum, millet	38	41	41	0
Pumpkins, carrots, squash, etc.	10	15	84	6
Potatoes, beet roots and other roots/tubers	107	6	8	0
Spinach, cabbage and other green leafy vegetables	4	19	77	6
Other vegetables: tomato, cauliflower, cucumber, and others	21	28	62	0
Legumes\ vegetable proteins- all green beans, green\dry peas, lentils, nuts and other leguminous vegetables	4	12	76	9
fruits- Grapes, peach, plum, apple, pear, pomegranate, orange, and other fruits	0	8	97	12
Meat – goat meat, sheep meat, chicken , beef, and other meat	35	25	61	1
Poultry based products – chicken eggs, duck eggs, and other eggs	3	18	80	6
Fish, Sea/river fish products	0	7	44	40
Dairy products – milk, yogurt, etc.	65	27	13	1
Oils and fats – cooking oils, cheese , butter ,ghee, etc.	90	4	12	0
Sugar and honey	80	13	28	1
Chocolates and candies	6	15	71	23
Confectionary products: biscuits, traditional sweets, cakes	5	15	82	13
Beverages	2	5	75	20
Coffee, tea	118	1	3	0

### Proportion of seasons on lack of food products

Winter (%)	Spring (%)	Summer (%)	Autumn (%)
3%	94%	2%	1%

Enough finance to purchase good quality food products      Yes (%) 38      No (%) 62

Women have access to full and quality food in the family      Yes (%) 83      No (%) 17

## Part I: Agricultural policy

### *Satisfaction of participation in/contribution to community-related decision making*

<b>Satisfied (%)</b>	<b>Partially satisfied (%)</b>	<b>Unsatisfied (%)</b>
58	32	9

### *Satisfaction on degree of enforcement of community decisions*

<b>Satisfied (%)</b>	<b>Partially satisfied (%)</b>	<b>Unsatisfied (%)</b>
46	49	10

<i>Women participate in decision making at family level</i>	<i>Yes (%) 97</i>	<i>No (%) 3</i>
<i>Women participate in decision making at community level</i>	<i>Yes (%) 61</i>	<i>No (%) 39</i>

## Part J: Borrowing and access to credit

Who makes decision on borrowing or credit in the family      Men (%) 81      Women (%) 19

Reliable sources for borrowing in times of need      Yes (%) 47      No (%) 53

Average maximum amount to borrow (local currency)      34022 KGS

Access to other sources of funding      Yes (%) 49      No (%) 51

Critical shortage of availability funds for agricultural activities      Yes (%) 97      No (%) 3

Proportion of months, facing critical fund shortages

January - March (%)	April - June (%)	July - September (%)	October - December (%)
23	77	0	0

Receiving any cash/input credit of any source in the last 12 months      Yes (%) 17      No (%) 83

Receiving any cash/input credit of any source by family member in the last 12 months      Yes (%) 16      No (%) 84

Received loan sources

Bank (%)	Local money lender (%)	Neighbor farmers (%)	NGO (%)	Government (%)	Relatives (%)	Other (%)
58	6	0	0	3	28	6

Receiving loans in time      Yes (%) 24      No (%) 76

Ability of returning loan on time      Yes (%) 26      No (%) 74

Regularly taking loans      Yes (%) 8      No (%) 92

Got the loan      Men (%) 75      Women (%) 25      Youth (%) 0

## Part K: Agricultural production system vulnerability and local coping mechanisms used by households

### *Major shocks encountered*

*Observing over the past ten years:*

<i>Drought</i>	<i>Yes (%) 98</i>	<i>No (%) 2</i>	<i>Frequency (N) 3,18</i>
<i>Hailstorm</i>	<i>Yes (%) 98</i>	<i>No (%) 2</i>	<i>Frequency (N) 2,15</i>
<i>Flood</i>	<i>Yes (%) 67</i>	<i>No (%) 33</i>	<i>Frequency (N) 2,08</i>
<i>Animal disease</i>	<i>Yes (%) 68</i>	<i>No (%) 32</i>	<i>Frequency (N) 2,05</i>
<i>Untimely rains</i>	<i>Yes (%) 58</i>	<i>No (%) 42</i>	<i>Frequency (N) 7,88</i>
<i>Irregular weather</i>	<i>Yes (%) 32</i>	<i>No (%) 68</i>	<i>Frequency (N) 2,84</i>
<i>Pest damage to crops</i>	<i>Yes (%) 23</i>	<i>No (%) 77</i>	<i>Frequency (N) 4,30</i>
<i>Major changes in crop pattern</i>	<i>Yes (%) 3</i>	<i>No (%) 97</i>	<i>Frequency (N) 1,33</i>
<i>Crop failure</i>	<i>Yes (%) 58</i>	<i>No (%) 42</i>	<i>Frequency (N) 2,79</i>
<i>Loss of assets</i>	<i>Yes (%) 0</i>	<i>No (%) 100</i>	<i>Frequency (N) -</i>
<i>Loss of income</i>	<i>Yes (%) 20</i>	<i>No (%) 80</i>	<i>Frequency (N) 6,21</i>
<i>Food insecurity/shortage</i>	<i>Yes (%) 21</i>	<i>No (%) 79</i>	<i>Frequency (N) 6,76</i>
<i>Death of livestock</i>	<i>Yes (%) 57</i>	<i>No (%) 43</i>	<i>Frequency (N) 2,63</i>

### *Adaptation strategies*

<b>Strategy</b>	<b>Percentage</b>
Did Nothing	71
Left land fallow	1
Sold part of land for alternative	0
Leased out part of land for alternative/leased in	1
Sold livestock (sheep, goats, cows, etc)	1
Provided supplemental irrigation	2
Invested in farm ponds (water harvesting structures)	0
Change in cropping pattern	1
Followed improved crop production practices	3
Additional information gained	3
Any other adaptation measure	3
Change in planting date	2
Adopted drought tolerant varieties	3
Changed the composition of my livestock (more hardy animals and less of others)	0

Borrowed money from relatives/others	4
Relying on assistance from government/NGOs	0
Less food consumption or changed food habits	3
Shifted to non-farm employment	1
Out migration to cities	1
Other	1

### *Insurance*

*Purchase crop insurance this year*                      *Yes (%) 0*                      *No (%) 100*

*Reason for not purchasing the insurance*

<b>Reason</b>	<b>Percentage</b>
No trust to insurance company	2
Didn't get payments when lost obtained in the past	0
Didn't hear about the program	96
No money for insurance purchase	1
Religion reasons	0
Other	1

*Insurance provider*

<b>Provider</b>	<b>Percentage</b>
Government	1
Private company	0
Other	99

*Average insurance price per hectare (local currency)*                      *1,75 KGS*

*Did you get any payment during the last 5 years*                      *Yes (%) 0*                      *No (%) 100*

*Decision maker on insurance in the family:*                      *Men (%) 55*                      *Women (%) 6*                      *Together (%) 39*

*Women can independently make harvest insurance on her own:*                      *Yes (%) 47*                      *No (%) 53*

*Accessibility of information on harvest insurance*                      *Yes (%) 1*                      *No (%) 99*

## Annex I. Detailed information about households

Village	HH Fullname	Visit Date	HH Sex	HH Age	HH Agri. Exp.	Male Family member under					Female Family member under				
						7	1-14	15-24	25-65	>65	7	1-14	15-24	25-65	>65
Chek	Сапаралиев Даниар	2015/4/10	Male	27	6	0	0	0	1	0	0	0	0	1	0
Chek	Дарбышев Раимберди	2015/4/7	Male	42	16				1			3	1	1	
Chek	Жоорүфов Курбанбек	2015/4/9	Male	42	25			1	1			1	1	1	
Chek	Эркебаев Ниязбек	2015/4/9	Male	45	27		1	1	1				1	1	
Chek	Сапаралиев Абдуманнон	2015/4/7	Male	54	30	0	0	1	1	0	0	0	2	1	0
Chek	Каримкусов Максат	2015/4/5	Male	30	7	0	0	0	1	0	0	0	1	0	0
Chek	Касимов Зайнидин	2015/4/15	Male	45	28			2	1				1	1	
Chek	Шерматов Бахон	2015/4/4	Male	50	22		1	1	3	1			1	1	
Chek	Шовруков Ысмоиали	2015/4/3	Male	62	0	0	0	0	1	0	1	0	0	2	0
Chek	Мирзакматов Сапарали	2015/4/2	Male	59	0				1					3	
Chek	Закиров Абдижалил	2015/4/2	Male	50	30				2					3	
Chek	Закиров Раимберди	2015/4/3	Male	29	3				1				1		
Chek	Байзаков Садир	2015/4/4	Male	62	37			1	1				2	1	
Chek	Кочкарова Салима	2015/4/10	Male	47	27							1		1	
Chek	Матаева.А.	2015/4/17	Male	43	20				1		1			1	
Chek	Матаев Мамажахон	2015/3/25	Male	55	35		1	1	1				1	1	
Chek	Худайназаров Айтбай	2015/3/25	Male	34	13		1		1					1	
Chek	Айников Абди	2014/3/26	Male	57	35				2					2	
Chek	Мотаев Каландар	2014/3/27	Male	48	35	1			1					1	
Chek	Матаев Касим	2014/3/27	Male	62	35	0	0	0	2	0	0	0	0	2	0
Chek	Бердибаев Саттар	2015/3/28	Male	72	42				1	1		2		1	1
Chek	Коргонова Зоара	2014/3/30	Female	57	37		1	1					2		
Chek	Сүйунов Имар	2015/3/30	Male	62	35				3					2	

Chek	Ражапов Абдумиталип	2015/3/30	Male	44	15				1			2	1	1	
Chek	Ражапов Мурзафар	2015/4/1	Male	52	10		1		2					2	
Chek	Имаркулов Темирбек	2014/4/1	Male	40	13			1	1			1		1	
Janjer	Артыков Мамаражап	2015/3/24	Male	56		1			2				1	1	
Janjer	Сабиров Абдиманнап	2015/3/24	Male	57		1	1	0	3	0	1	1	1	2	0
Janjer	Эргешов Кадырали	2015/3/25	Male	55		2	0	1	1	0	1	1	2	2	
Janjer	Осоров Назарали	2015/3/25	Male	50		0	1	0	1	0	1	0	3	1	0
Janjer	Сайданов Сражидин	2015/3/25	Male	58	40	1	0	1	2	0	3	0	1	1	0
Janjer	Мамбеков Замирбек	2015/3/25	Male	57					2		2			2	
Janjer	Амиралиев Кзыбек	2015/3/26	Male	54		2			1		1		1	1	
Janjer	Матаев Абдипатта	2015/3/26	Male	53			1	3	1		1		1	1	
Janjer	Жалдешбаева Гулмира	2015/3/26	Female	35	7		2							1	
Janjer	Суюнов Абдиламит	2015/3/26	Male	42	14	1			1			1		1	
Janjer	Астанакулов Зайнал	2015/3/27	Male	57		1		1	1		2		1	1	
Janjer	Токтомушев Имар	2015/3/27	Male	67	20	1	1	0	1	1	1	1	0	1	1
Janjer	Суранчиев Абдирашит	2015/3/28	Male	58		1			2				1	1	
Janjer	Чсонов Абдыганы	2015/3/28	Male	53	33	2		2	2		1			2	
Janjer	Султанов Дехконбай	2015/3/29	Male	56	40	5			3		2		1	3	
Janjer	Сапаров Абдикалык	2015/3/29	Male	54	38	1			2		1		1	3	
Janjer	Даминов Абдилаким	2015/3/30	Male	56	10				2				1	2	
Janjer	Акпаров Туратбек	2015/3/30	Male	48	30	1		1	2			3	1	1	
Janjer	Эргешов Шукур	2015/3/31	Male	56	39	1	0	0	2	0	0	1	1	1	0
Janjer	Матаев Нурмакамат	2015/3/31	Male	58	34	1	1	0	2	0	0	1	1	1	0
Janjer	Маибеков Манзынбек	2015/4/1	Male	54	35	0	0	1	1	0	1	1	1	1	0
Janjer	Мамбеков Исламали	2015/4/2	Male	58	9				2				1	1	
Janjer	Атабекова Зуура	2015/4/2	Female	66	0		1	1	1				1	2	

Janjer	Сапаралиев Абдибаит	2015/4/3	Male	53				1	2		2		2	1	
Janjer	Султанов Дыкенбай	2015/4/6	Male	56	30	1			2					3	
Janjer	Сабиров Абдилалим	2015/4/6	Male	52	30			1	2				1	2	
Janjer	Мажитов Жалолдин	2015/3/25	Male	45	20			2	1					1	
Janjer	Качанов Кыдырали	2015/3/25	Male	33	10				1		1			1	
Janjer	Курбанов Нурлан	2015/3/25	Male	30	10	1			1		1			1	
Janjer	Ниязалиев Заир	2015/3/26	Male	51	30			1	1				1	2	
Janjer	Усенов Абдыганы	2015/3/26	Male	49	30		1	1	1				1	1	
Janjer	Мамбеков Мунсрбек	2015/3/27	Male	49	30		1		1			1	2	1	
Janjer	Ергешбай У.Бактыбек	2015/3/27	Male	37	10	3	1		1			1		1	
Janjer	Тажимаева Пайизбу	2015/3/27	Female	40	20			1				1	2	1	
Janjer	Курбанбеков Пирмамыт	2015/3/28	Male	55	35				2			2		1	
Janjer	Назаров Жунусали	2015/3/28	Male	48	20		1	1	2		1		2	1	
Janjer	Осоров Омурбек	2015/3/29	Male	30	9	1	1		1		1			1	
Janjer	Сарыбаев Султан	2015/3/29	Male	48	20			1	1		2	1		1	
Janjer	Точуев Ыснаыл	2015/3/30	Male	57	35			1	2				1	1	
Janjer	Суйунова Ирсолт	2015/3/30	Female	57	30						3		1	2	
Janjer	Курбанов Маманазар	2015/3/30	Male	73	40			1	2	1				2	
Janjer	Бабаев Жолдош	2015/3/31	Male	44	20	1	1	1	1		1	1		1	
Janjer	Жолдошов Рузукул	2015/3/31	Male	30	15	2			1					1	
Janjer	Топчуев Мелис	2015/4/2	Male	32	7	2			1		1			1	
Janjer	Сабырова Сабахан	2015/4/2	Female	45	25	2		2			2	1	1	1	
Janjer	Курбанов Аибхон	2015/4/3	Male	41	15	1	0	1	1	0	0	1	1	1	0
Janjer	Ботобаев Абдимитал	2015/4/5	Male	57	35				2					1	
Janjer	Асанов Камалдин	2015/4/5	Male	61	35	1	0	1	1	0	1	0	0	1	0
Cheker	Боронов Калык	2015/3/31	Male	42	20			2	1				1	1	



Chek	Тажобаев Осмон.Ж	2015/3 /23	Male	50	25				3			1	1	1	
Chek	Закиров Атабай	2015/3 /27	Male	43	22			2	1				1	1	
Chek	Шаймарданкуло в Батырбек	2015/3 /28	Male	48	25				3				2	1	
Chek	Микбаев Муратали	2015/3 /28	Male	37	15	1	2	2	1	0	0	0	0	1	
Chek	Мурзаиматов Койчуман	2015/3 /29	Male	59	40			2	1					4	
Chek	Бибабаев Талаитбек	2015/3 /28	Male	39	16	1		2	1				1	1	
Chek	Кудайназаров Муса	2015/3 /30	Male	65	40				2					5	
Chek	Бибабаев Абдиела	2015/3 /29	Male	60	30			1	3					5	
Chek	Убраимова Шаадат	2015/3 /30	Fem ale	60	35				4				1	2	
Chek	Камалов Аратбай	2015/3 /30	Male	67	10				4					2	
Chek	Мирзаева Наколай	2015/3 /30	Fem ale	49	23			3	1					2	
Chek	Осоров Муратали	2015/3 /30	Male	41	20	1	0	0	1	0	2	2	1	1	
Chek	Тулатов Рахимбек	2015/3 /30	Male	65	15	1	1	1	2	0	0	1	0	2	0
Chek	Хакимов Исроил	2015/3 /30	Male	66	50	0	0	0	3	1	0	0	1	3	0
Chek	Шаймарданкуло в Бурхан	2015/5 /30	Male	82	25		2	1	1	1	1	0	0	1	0
Chek	Менбаев Кулитар	2015/4 /1	Male	34	15	2	1		1		0	1	0	1	0
Chek	Сапарбаев Эргешбай	2015/3 /24	Male	40	20	2	1	0	1	0	0	2	0	1	0
Chek	Мурзаев Абатбек	2015/3 /28	Male	42	20	0	0	1	1	0	0	2	0	1	0
Chek	Айипов Жунус	2014/3 /28	Male	43	22	0	1	0	1	0	0	0	3	1	0
Chek	Орманов Жапар	2015/3 /31	Male	32	13	1			1			2		1	
Chek	Сыдыков Сатыбалды	2015/3 /30	Male	64	35				3					3	
Chek	Зайналов Акбарали	2015/3 /1	Male	58	25				2				2	4	
Chek	Анапиясов Сулайман	2015/3 /1	Male	42	20				2					1	
Chek	Сейдахматов Сабыр	2015/4 /1	Male	32	12	1	2		2		1			1	
Chek	Келдибекова Сарбарпи	2015/3 /23	Fem ale	48	25	0	1	2	1	0	0	0	0	1	0
Chek	Келдибеков Абдурасил	2015/4 /15	Male	52	22	0	1	1	2	0					

Chek	Ниязалиев Ашурали	2015/4 /9	Male	46	12	1	1	1	1					1	
Chek	Ниязалиев Таир	2015/4 /10	Male	55	29			1	1					3	
Chek	Ишраев Билимбек	2015/4 /11	Male	30	10	1			2		1			1	
Chek	Рысов Азаматбек	2015/3 /24	Male	43	24			1	1		1	1	2	1	
Chek	Ниязалиев Сапарали	2015/4 /1	Male	38	13	1	0	0	1	0	2	1	0	1	0
Chek	Эрнебаев Абдивали	2015/4 /8	Male	46	25			1	1	1				1	1
Chek	сапарбаев Жусупбек	2015/4 /13	Male	40	15	2	0	1	1	0	0	1	1	1	0
Chek	Рахманова Санатор	2015/4 /15	Male	39	10	0	0	1	1		0	0	0	1	0
Chek	Бийбабаев Абдилазиз	2015/4 /10	Male	54	33				3				2	1	
Chek	Самидинова Савринса	2015/4 /7	Male	59	27				3			1	1	2	
Chek	Абдрахманова Айымбубу	2015/3 /25	Fem ale	49	30			1	1					1	
Chek	Ташбекова Кыймат	2015/3 /24	Fem ale	41	15						1	0	2		
Chek	Исираев Жаныбек	2015/4 /6	Male	50	20	0	0	1	1	0	0	1	0	1	0
Chek	Гапыров Токтогул	2015/4 /5	Male	58	25	0	0	2	2	0	0	0	2	1	0
Chek	Маматумарова Айинса	2015/4 /7	Fem ale	48	31						0	0	1	3	0
Chek	Ташбаев Мовлян	2015/4 /9	Male	75	50				4	1				7	1
Chek	Жолдошов Ташимбек	2014/4 /9	Male	61	41	0	0	1	1	0	0	0	1	1	0
Chek	Бусанов Рустамжан	2015/4 /7	Male	41	20	0	2	0	1	0	0	1	0	1	0
Chek	Сатарова Зрапат	2015/4 /11	Male	53					3	0				1	0