

# LCLUC Later Stage Analyses

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This relies on the combined dfs from 1\_data\_import. There is not currently any commentary in this document because I'm still running through analyses and chunking them in here as I go.

## I. LABOR

### 1. Who does the daily moves for herding?

Column: (labor\_whoMovesDaily) (broken up by soum)

labor_whoMovesDaily	Buren	Bayan	Bayantal	Delgerkhaan	Sumber	Deren	Erdenedalai	Bayantsagaan	Total
husband	23	21	19	19	18	15	15	13	143
child, unspecified	5	11	10	1	15	5	6	2	55
wife	13	12	9	10	12	9	10	8	83
son	8	7	1	5	2	7	11	5	46
unspecified	5	0	2	4	4	8	8	9	40
daughter	2	5	1	1	0	2	3	1	15
herder	0	4	0	0	0	0	0	0	4
grandchild, unspecified	2	0	0	0	0	4	0	2	8
neighbor	1	0	0	0	2	4	1	0	8
daughter-in-law	3	0	1	0	1	2	1	3	11
grandparent	0	2	0	1	0	0	0	0	3
assistant herder	1	1	0	0	0	0	0	2	4
friend	0	0	1	0	0	0	0	0	1
sibling, unspecified	0	0	1	0	0	0	0	0	1
grandmother	0	0	0	0	0	0	0	1	1
grandfather	1	0	0	0	0	0	0	0	1
brother	0	0	0	1	0	1	1	0	3
hired help	0	0	0	1	0	0	0	0	1
son-in-law	0	0	0	0	0	1	0	0	1
brother-in-law	0	0	0	0	1	0	1	0	2
father-in-law	0	0	0	0	0	0	1	0	1

### 2. Who undertakes herding migrations?

Column: labor\_whoMigrates

labor_whoMigrates	Bayan	Bayantal	Bayantsagaan	Buren	Delgerkhaan	Deren	Erdenedalai	Sumber	Total
husband	18	18	8	19	17	17	18	19	134
wife	17	14	8	19	13	14	15	18	118

labor_whoMigrates	Bayan	Bayantal	BayantsagaanBuren	DelgerkhaanDeren	Erdenedalai	Sumber	Total		
son(s)	8	4	7	8	3	7	7	1	45
daughter(s)	2	1	1	1	0	2	2	1	10
child(ren), unspecified	5	2	1	5	3	5	3	8	32
brother(s)	0	1	0	0	1	0	1	0	3
sibling(s), unspecified	2	3	0	0	1	1	1	0	8
father	1	0	0	0	0	0	0	0	1
mother	3	0	1	0	0	1	0	0	5
grandparent(s), unspecified	1	0	1	1	1	0	0	0	4
grandchild(ren), unspecified	0	0	1	1	0	2	0	0	4
household head	2	0	0	0	0	0	1	1	4
extended family/in-laws	1	0	2	7	1	3	4	4	22
friend/neighbor(s)	2	2	1	0	1	1	1	0	8
person(s), unspecified	1	1	8	5	4	1	4	0	24
hired help	1	0	0	0	1	1	0	0	3
just myself	0	0	0	0	0	0	1	1	2
other	1	1	0	0	0	1	2	0	5

### 3. How many people undertake migrations?

Column: labor\_numMigrates

labor_num	Migrates	Bayantsagaan Buren	Delgerkhaan	Sumber	Bayan	Deren	Erdenedalai	Bayantal	Total	
2		12	10	10	10	4	9	8	7	70
4		1	2	6	1	9	4	3	2	28
3		3	8	2	3	4	4	7	2	33
6		2	1	0	0	3	1	2	4	13
5		1	3	2	4	2	3	1	1	17
1		3	1	1	0	0	2	2	1	10
8		0	1	0	1	0	0	0	2	4
7		0	0	0	2	0	1	2	0	5
0		0	0	0	1	0	0	0	1	2
11		1	0	0	0	0	0	0	0	1
9		0	1	0	0	0	0	1	0	2
10		0	0	1	0	0	0	1	0	2

### 4. Does migration impact labor and/or herding practices?

**A. Impact on labor:** Column: labor\_migImpactLabor

labor_migImpactLabor	Buren	Deren	Erdenedalai	Bayan	Sumber	Bayantal	Bayantsagaan	Delgerkhaan	Total
Yes	15	8	14	8	11	10	10	6	82
No	7	15	12	13	9	9	9	10	84
NA	5	1	1	1	2	1	4	6	21

**B. Impact on herding practices:** Column: labor\_migImpactPract

labor_migImpactPraD	Buren	Erdenedalai	Bayan	Sumber	Bayantsagaan	Bayantal	Delgerkhaan	Total	
No	16	8	14	13	13	11	9	10	94
Yes	7	14	12	8	7	8	10	6	72
NA	1	5	1	1	2	4	1	6	21

## 5. Do you hire labor?

Column: labor\_hire

labor_hire	Buren	Erdenedalai	Deren	Sumber	Bayantal	Bayantsagaan	Bayan	Delgerkhaan	Total
No	22	22	20	20	18	17	16	14	149
Yes	5	5	3	2	2	6	6	8	37
NA	0	0	1	0	0	0	0	0	1

## 6. If you do hire labor, for what?

**A. Moving the herds daily:** Column: labor\_hire\_DailyMove

labor_hire_dailyMove	Buren	Erdenedalai	Deren	Sumber	Bayantal	Bayantsagaan	Bayan	Delgerkhaan	Total
NA	22	22	21	20	18	18	16	14	151
Yes	3	4	2	0	0	3	5	7	24
No	2	1	1	2	2	2	1	1	12

**B. Moving the herds seasonally:** Column: labor\_hire\_bigMove

labor_hire_bigMove	Buren	Erdenedalai	Deren	Sumber	Bayantal	Bayantsagaan	Bayan	Delgerkhaan	Total
NA	22	22	21	20	18	18	16	14	151
Yes	2	5	3	1	2	5	5	7	30
No	3	0	0	1	0	0	1	1	6

**C. Moving the herds for Otor:** Column: labor\_hire\_forOtor

labor_hire_forOtor	Buren	Erdenedalai	Deren	Sumber	Bayantal	Bayantsagaan	Bayan	Delgerkhaan	Total
NA	22	22	21	20	18	18	16	14	151
No	3	2	1	1	1	2	5	3	18
Yes	2	3	2	1	1	3	1	5	18

**D. Hiring for other tasks:** Column: labor\_hire\_Other

labor_hire_Other	Buren	Erdenedalai	Sumber	Bayantsagaan	Delgerkhaan	Deren	Bayantal	Bayan	Total
NA	22	20	18	17	15	15	14	11	132
shearing	3	5	2	5	3	6	5	7	36
livestock									
day laboring	1	0	0	0	1	3	0	2	7
herding	0	0	0	2	1	0	1	1	5

labor_hire_Other	Buren	Erdenedalai	Sumber	Bayantsagaan	Delgerkhaan	Deren	Bayantal	Bayan	Total
household	1	0	0	0	2	0	0	0	3
chores									
migration	1	2	0	1	1	0	0	0	5
livestock care	0	1	2	0	0	1	0	1	5

## II. TENURE

### 1. Land tenure arrangements:

**A. Cross-tab:** Not the best looking, I'll work on making it more legible. Is easier to look at if it's viewed in the markdown or in the script.

##							sprPasContract	No	Yes
##	wintCamp	wintContract	wintPas	wintPasContract	sameCamp	sprCamp	sprCampContract		
##	No	No	No	No	No	No	No	5	0
##							Yes	0	0
##						Yes	No	0	0
##							Yes	0	0
##			Yes	No	No	No	No	1	0
##							Yes	0	0
##						Yes	No	0	0
##							Yes	0	0
##			Yes	No	No	No	No	8	0
##							Yes	0	0
##						Yes	No	4	1
##							Yes	0	0
##			Yes	No	No	No	No	0	0
##							Yes	0	0
##						Yes	No	0	0
##							Yes	0	0
##		Yes	No	No	No	No	No	0	0
##							Yes	0	0
##						Yes	No	0	0
##							Yes	0	0
##			Yes	No	No	No	No	0	0
##							Yes	0	0
##						Yes	No	0	0
##							Yes	0	0
##			Yes	No	No	No	No	0	0
##							Yes	0	0
##						Yes	No	0	0
##							Yes	2	0
##			Yes	No	No	No	No	0	0
##							Yes	0	0
##						Yes	No	0	0
##	Yes	No	No	No	No	No	No	0	0
##							Yes	0	0
##						Yes	No	0	0
##							Yes	0	0

##			Yes	No	No	No	0	0
##						Yes	0	0
##					Yes	No	0	0
##						Yes	0	0
##		Yes	No	No	No	No	0	0
##						Yes	0	0
##					Yes	No	6	1
##						Yes	1	0
##			Yes	No	No	No	1	0
##						Yes	0	0
##					Yes	No	0	0
##						Yes	0	0
##	Yes	No	No	No	No	No	1	0
##						Yes	0	0
##					Yes	No	1	0
##						Yes	1	0
##			Yes	No	No	No	0	0
##						Yes	0	0
##					Yes	No	0	0
##						Yes	0	0
##		Yes	No	No	No	No	7	0
##						Yes	0	0
##					Yes	No	8	2
##						Yes	45	2
##			Yes	No	No	No	1	0
##						Yes	1	0
##					Yes	No	1	0
##						Yes	2	3

**B. Contingency table:** This one looks better and is depicting the same information.

wintCamp	wintContract	wintPas	wintPasContract	sameCamps	sprCamp	sprCampContract	sprPasContract	n
Yes	Yes	Yes	No	Yes	No	No	No	50
Yes	Yes	Yes	No	No	Yes	Yes	No	45
No	No	Yes	No	Yes	No	No	No	10
Yes	No	Yes	No	Yes	No	No	No	10
Yes	Yes	Yes	No	No	Yes	No	No	9
No	No	Yes	No	No	No	No	No	8
Yes	Yes	Yes	No	No	No	No	No	7
Yes	No	Yes	No	No	Yes	No	No	6
No	No	No	No	No	No	No	No	5
No	No	Yes	No	No	Yes	No	No	4
No	Yes	Yes	No	No	Yes	Yes	No	3
Yes	Yes	No	No	Yes	No	No	No	3
Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	3
No	No	No	Yes	No	No	No	No	2
Yes	No	Yes	Yes	Yes	No	No	No	2
Yes	Yes	Yes	No	No	Yes	No	Yes	2
Yes	Yes	Yes	No	No	Yes	Yes	Yes	2
Yes	Yes	Yes	Yes	No	Yes	Yes	No	2
No	No	No	No	Yes	No	No	No	1
No	No	Yes	No	No	Yes	No	Yes	1
No	No	Yes	No	No	Yes	Yes	No	1

wintCamp	wintContract	wintPas	wintPasContract	sameCamps	sprCamp	sprCampContract	sprPasContract	n
Yes	No	No	No	Yes	No	No	No	1
Yes	No	Yes	No	No	Yes	No	Yes	1
Yes	No	Yes	No	No	Yes	Yes	No	1
Yes	No	Yes	Yes	No	No	No	No	1
Yes	Yes	No	No	No	No	No	No	1
Yes	Yes	No	No	No	Yes	No	No	1
Yes	Yes	No	No	No	Yes	Yes	No	1
Yes	Yes	Yes	Yes	No	No	No	No	1
Yes	Yes	Yes	Yes	No	No	Yes	No	1
Yes	Yes	Yes	Yes	No	Yes	No	No	1
Yes	Yes	Yes	Yes	Yes	No	No	No	1

## 2. Contingency Tables on tenure, by Soum:

### A. Winter Camp (y/n):

	No	Yes
Bayan	1	21
Bayantal	5	15
Bayantsagaan	1	22
Buren	6	21
Delgerkhaan	3	19
Deren	5	19
Erdenedalai	8	19
Sumber	6	16

### B. Winter Camp Contract (y/n):

	No	Yes
Bayan	3	19
Bayantal	9	11
Bayantsagaan	1	22
Buren	8	19
Delgerkhaan	7	15
Deren	9	15
Erdenedalai	9	18
Sumber	8	14

### C. Winter Pasture (y/n):

	No	Yes
Bayan	2	20
Bayantal	1	19
Bayantsagaan	0	23
Buren	4	23
Delgerkhaan	2	20
Deren	2	22
Erdenedalai	2	25

	No	Yes
Sumber	2	20

**D. Winter Paster Contract (y/n):**

	No	Yes
Bayan	21	1
Bayantal	19	1
Bayantsagaan	23	0
Buren	24	3
Delgerkhaan	19	3
Deren	22	2
Erdenedalai	25	2
Sumber	20	2

**E. Is your winter camp your spring camp (y/n)?**

	No	Yes
Bayan	14	8
Bayantal	12	8
Bayantsagaan	16	7
Buren	22	5
Delgerkhaan	13	9
Deren	13	11
Erdenedalai	10	17
Sumber	9	13

**F. Spring Camp? (y/n):**

	No	Yes
Bayan	8	14
Bayantal	10	10
Bayantsagaan	9	14
Buren	12	15
Delgerkhaan	15	7
Deren	12	12
Erdenedalai	22	5
Sumber	16	6

**G. Spring Camp Contract (y/n):**

	No	Yes
Bayan	9	13
Bayantal	14	6
Bayantsagaan	11	12
Buren	20	7
Delgerkhaan	16	6

	No	Yes
Deren	17	7
Erdenedalai	23	4
Sumber	18	4

#### H. Spring Pasture Contract (y/n):

	No	Yes
Bayan	21	1
Bayantal	18	2
Bayantsagaan	22	1
Buren	24	3
Delgerkhaan	22	0
Deren	23	1
Erdenedalai	26	1
Sumber	22	0

### III. ALTERNATIVE LIVELIHOODS

#### 1. Is someone in the household doing non-herding work?

Column: altLife\_nonHerdWork

##		No	Yes
##	Bayan	13	9
##	Bayantal	13	7
##	Bayantsagaan	16	7
##	Buren	21	6
##	Delgerkhaan	17	5
##	Deren	16	8
##	Erdenedalai	14	13
##	Sumber	15	6

#### A. If so, who is doing the non-herding work? Column: labor\_hire

altLife_whoNoHerdwork	Erdenedalai	Deren	Bayan	Bayantal	Bayantsagaan	Buren	Delgerkhaan	Sumber	Total
not specified	8	7	5	5	5	3	2	1	36
daughter	0	0	1	1	1	3	1	1	8
wife	1	2	1	1	0	0	2	1	8
household head	1	0	1	0	1	0	0	0	3
son	1	0	1	1	1	0	0	1	5
father	1	0	0	0	0	0	0	0	1
husband	1	0	0	0	0	0	0	1	2
extended family members	0	0	0	0	0	0	0	1	1



**B. Is so, what is the non-herding work?** Column: labor\_hire

altLife_noHerdWhatWork	Buren	Deren	Erdenedalai	Bayantal	Bayantsagaan	Sumber	Bayan	Delgerkhaan	Total
employment unspecified	5	1	2	0	1	0	0	0	9
commerce-related and restaurants	1	4	4	3	2	0	2	0	16
mining and construction	0	0	0	2	3	2	2	0	9
education	0	0	1	1	0	3	1	2	8
government employment	1	2	1	1	2	1	2	2	12
agriculture and pastoralist-adjacent	0	1	2	0	1	1	0	0	5
government leadership	0	0	2	0	0	0	0	0	2
arts, crafts, and handwork	0	0	1	1	0	0	1	1	4
medical/veterinary	0	1	0	1	0	0	1	0	3
miscellaneous	0	0	1	0	1	1	0	0	3

**2. Additional sources of income for the household? Broken up by Soum**

Column: altLife\_otherInc

altLife_otherInc	Erdenedalai	Deren	Bayan	Buren	Delgerkhaan	Bayantal	Bayantsagaan	Sumber	Total
government allowances	14	11	12	12	12	11	10	9	91
pension	13	13	8	9	7	4	10	10	74
salary	8	7	11	6	5	7	7	4	55
other	3	1	1	4	0	2	1	1	13
saving in bank	3	2	2	3	1	0	0	1	12
crafts	3	1	0	1	1	1	0	0	7
remits	0	1	0	2	1	2	0	1	7
pension saving in bank	0	0	0	0	0	0	1	0	1
hourly wage	1	0	0	0	0	0	0	1	2
herding lsk from other household	0	0	0	0	0	0	0	1	1

**3. Loans:**

**A. Number of loans taken out per year?** Column: altLife\_loansPerYr

	0	0.5	1	2	3
Bayan	4	1	16	0	0
Bayantal	6	0	11	1	0
Bayantsagaan	2	0	17	4	0
Buren	3	1	19	3	1
Delgerkhaan	1	0	17	4	0
Deren	2	0	12	8	1
Erdenedalai	1	1	20	4	0
Sumber	4	0	16	2	0

**B. Loan Sizes (min, max, mean, median, range)** Column: altLife\_loansMin/altLife\_loansMax

Soum	min_minL	max_minL	mean_minL	median_minL	min_maxL	max_maxL	mean_maxL	median_maxL	maxLn
Bayan	3.0	30	9.882353	10.0	3.0	30	15.294118	14.0	
Bayantal	2.0	25	10.000000	9.0	10.0	30	19.250000	20.0	
Bayantsagaan	0.3	10	4.752381	5.0	1.0	30	10.466667	6.0	
Buren	1.0	20	5.104167	4.0	3.0	20	9.187500	8.5	
Delgerkhaan	1.0	40	8.619048	5.0	2.0	50	12.047619	7.0	
Deren	0.3	50	6.823810	5.0	0.5	50	10.119048	5.0	
Erdenedalai	0.5	20	4.286000	3.0	2.0	50	8.240000	5.0	
Sumber	1.0	30	6.222222	3.5	1.0	30	8.472222	6.5	

**C. When do you typically need loans?** Column: altLife\_loansWhenNeed

altLife_loansWhenNeed	Buren	Delgerkhaan	Bayan	Bayantsagaan	Deren	Bayantal	Sumber	Erdenedalai	Total
winter	18	16	14	14	14	13	13	10	112
spring	9	4	4	3	2	3	0	6	31
autumn	7	8	6	4	8	7	8	8	56
lunar new year	6	3	5	5	6	2	5	2	34
summer	0	2	1	0	2	1	1	3	10
year round	0	0	0	0	1	1	1	2	5
depends on needs	0	0	0	1	0	1	0	1	3
never	1	1	0	1	1	1	0	0	5
during medical treatment	0	1	0	0	0	0	0	0	1
during migration	0	0	0	0	0	0	0	1	1