



IMPROVING DEVELOPMENT EFFECTIVENESS

Millennium Challenge Corporation

Impact Evaluation Results of the MCA Mongolia Energy and Environment Project Energy-Efficient Stove Subsidy Program

ANNEXES

August 2014

This publication was produced by Social Impact at the request of the US Millennium Challenge Corporation. It was prepared independently by Leslie Greene, Jay Turner, Rufus Edwards, Nathan Cutler, Mike Duthie, and Olga Rostapshova.

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**Prepared by Social Impact, Inc.
for the Millennium Challenge Corporation**

August 20, 2014

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ANNEX 1. TABLES

Table 1. Compliance with MCA stove usage instructions

Variable description	Subset	Traditional			MCA (treated)			Ulzii			Khas			Dul		
		n	mean	SD	n	mean	SD	n	mean	SD	n	mean	SD	n	mean	SD
MCA stove owner received lighting instructions	Overall	42	100%	0.00	829	100%	0.07	328	100%	0.06	174	100%	0.00	327	99%	0.10
Report lighting fire from top of coal (correct procedure for MCA stove) throughout winter	Overall	201	0%	0.00	856	63%	0.48	516	60%	0.49	180	74%	0.44	336	53%	0.50
Report lighting fire from top of coal (correct procedure for improved stove)	Phase I	201	0%	0.00	856	75%	0.44	516	73%	0.45	180	83%	0.38	336	67%	0.47
	Phase II	201	9%	0.29	856	77%	0.42	516	75%	0.44	180	81%	0.40	336	71%	0.45
	Phase III	201	9%	0.29	856	76%	0.43	516	74%	0.44	180	82%	0.39	336	71%	0.46
Number of cold starts yesterday	Overall avg.	200	0.64	0.50	854	0.70	0.54	340	0.76	0.58	180	0.70	0.52	334	0.63	0.52
	Phase I	195	0.77	0.77	828	0.86	0.82	326	0.91	0.83	174	0.83	0.76	328	0.83	0.83
	Phase II	194	0.37	0.66	833	0.50	0.77	333	0.59	0.82	175	0.52	0.75	325	0.41	0.72
	Phase III	194	0.78	0.80	827	0.74	0.80	326	0.81	0.88	178	0.73	0.73	323	0.66	0.74
Number of warm refuelings yesterday	Overall avg.	200	2.07	1.17	854	1.62	1.10	340	1.60	1.16	180	1.66	1.19	334	1.63	0.98
	Phase I	195	1.55	1.40	828	1.14	1.25	326	1.08	1.24	174	1.18	1.34	328	1.17	1.22
	Phase II	194	3.19	1.96	833	2.48	1.77	333	2.47	1.95	175	2.56	1.89	325	2.46	1.50
	Phase III	194	1.53	1.38	827	1.27	1.32	326	1.25	1.39	178	1.31	1.43	323	1.28	1.19
No warm refuelings reported yesterday throughout winter	Overall	199	3%	0.17	841	5%	0.22	507	5%	0.21	176	6%	0.23	331	4%	0.20
No warm refuelings reported yesterday	Phase I	195	31%	0.47	825	41%	0.49	499	40%	0.49	172	44%	0.50	327	39%	0.49
	Phase II	194	7%	0.26	833	14%	0.35	500	12%	0.33	175	12%	0.33	325	13%	0.33
	Phase III	194	28%	0.45	826	36%	0.48	500	34%	0.47	177	37%	0.49	323	32%	0.47
Both no warm refuelings yesterday & report lighting from top of coal for main stove throughout winter	Overall	201	0%	0.00	845	4%	0.21	509	4%	0.19	176	5%	0.22	333	3%	0.18
Both no warm refuelings yesterday & report lighting from top of coal for main stove	Phase I	201	0%	0.00	830	32%	0.47	503	32%	0.47	172	39%	0.49	331	28%	0.45
	Phase II	201	0%	0.00	839	12%	0.33	504	10%	0.30	175	11%	0.31	329	10%	0.30
	Phase III	201	4%	0.21	829	28%	0.45	502	26%	0.44	177	32%	0.47	325	23%	0.42

Table 2. Perceptions of MCA stove performance compared to traditional, by MCA stove type

Respondent believes MCA stove:	Ulzii			Khas			Dul		
	<i>n</i>	mean	SD	<i>n</i>	mean	SD	<i>n</i>	mean	SD
Takes more time to fuel/start	957	16%	0.37	484	18%	0.38	926	15%	0.36
Uses less fuel	957	85%	0.36	481	77%	0.42	922	82%	0.38
Requires more cold starts	955	35%	0.48	487	39%	0.49	920	30%	0.46
Less smoke, pollution	954	95%	0.23	483	94%	0.24	928	93%	0.25
Maintains heat longer	955	86%	0.35	480	81%	0.39	926	92%	0.28
Generates less ash	955	94%	0.23	487	91%	0.28	923	91%	0.29
Better appearance	961	99%	0.10	488	99%	0.08	930	97%	0.17
Easier to remove ash	959	87%	0.33	488	89%	0.32	930	91%	0.29
Adapts to more fuel types	898	24%	0.43	444	23%	0.42	856	29%	0.46
Overheats more, with higher burn risk	929	73%	0.45	465	70%	0.46	895	76%	0.43
More effort to fire	953	73%	0.44	483	75%	0.43	918	74%	0.44
Easier to cook	936	16%	0.37	478	19%	0.39	909	31%	0.46
Faster to cook	907	24%	0.43	476	37%	0.48	902	42%	0.49
Less chimney cleaning needed	889	91%	0.29	432	87%	0.33	819	87%	0.34
Disrupts sleep more	875	7%	0.25	443	7%	0.26	836	6%	0.23

Table 3a. Fueling events recorded by stove use monitors (SUMs) - Overall

Variable description	Subset	<i>n</i> *	Traditional	MCA (treated)	diff.	SE	<i>p</i> **
			mean	mean			
Average number of daily fueling events	Overall avg.	325	2.72	2.70	-0.03	0.14	0.427
	Phase I-II interim	325	2.75	2.66	-0.09	0.14	0.267
	Phase II-III interim	340	2.75	2.73	-0.02	0.14	0.451
Average daily cold starts	Overall avg.	325	0.14	0.21	0.07	0.04	0.044
	Phase I-II interim	325	0.12	0.20	0.08	0.04	0.017
	Phase II-III interim	340	0.18	0.26	0.08	0.05	0.062
Average warm refuelings	Overall avg.	325	2.58	2.49	-0.10	0.14	0.248
	Phase I-II interim	325	2.63	2.46	-0.17	0.15	0.120
	Phase II-III interim	340	2.57	2.48	-0.09	0.15	0.269

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 3b. Fueling events recorded by stove use monitors (SUMs) - Ulzii

Variable description	Subset	n*	Traditional	Ulzii	diff.	SE	p**
			mean	mean			
Average number of daily fueling events	Overall avg.	216	2.69	2.79	0.11	0.13	0.206
	Phase I-II interim	216	2.69	2.73	0.04	0.13	0.379
	Phase II-III interim	219	2.72	2.84	0.12	0.13	0.171
Average daily cold starts	Overall avg.	216	0.12	0.28	0.17	0.04	<0.001
	Phase I-II interim	216	0.09	0.27	0.18	0.04	<0.001
	Phase II-III interim	219	0.15	0.32	0.17	0.05	<0.001
Average warm refuelings	Overall avg.	216	2.57	2.51	-0.06	0.13	0.317
	Phase I-II interim	216	2.60	2.46	-0.14	0.14	0.145
	Phase II-III interim	219	2.57	2.52	-0.05	0.13	0.356

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 3c. Fueling events recorded by stove use monitors (SUMs) – Khas

Variable description	Subset	n*	Traditional	Khas	diff.	SE	p**
			mean	mean			
Average number of daily fueling events	Overall avg.	141	2.65	2.61	-0.04	0.16	0.403
	Phase I-II interim	141	2.65	2.60	-0.05	0.16	0.374
	Phase II-III interim	143	2.65	2.62	-0.03	0.16	0.419
Average daily cold starts	Overall avg.	141	0.10	0.15	0.05	0.04	0.119
	Phase I-II interim	141	0.07	0.15	0.07	0.04	0.049
	Phase II-III interim	143	0.13	0.20	0.07	0.05	0.076
Average warm refuelings	Overall avg.	141	2.55	2.46	-0.09	0.16	0.287
	Phase I-II interim	141	2.58	2.45	-0.12	0.16	0.225
	Phase II-III interim	143	2.53	2.42	-0.11	0.17	0.266

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 3d. Fueling events recorded by stove use monitors (SUMs) – Dul

Variable description	Subset	n*	Traditional	Dul	diff.	SE	p**
			mean	mean			
Average number of daily fueling events	Overall avg.	201	2.73	2.54	-0.19	0.12	0.049
	Phase I-II interim	201	2.73	2.52	-0.21	0.12	0.047
	Phase II-III interim	210	2.75	2.54	-0.21	0.11	0.031
Average daily cold starts	Overall avg.	201	0.13	0.18	0.05	0.03	0.060
	Phase I-II interim	201	0.10	0.17	0.07	0.03	0.019
	Phase II-III interim	210	0.16	0.21	0.05	0.04	0.088
Average warm refuelings	Overall avg.	201	2.60	2.36	-0.25	0.12	0.021
	Phase I-II interim	201	2.62	2.35	-0.27	0.13	0.016
	Phase II-III interim	210	2.59	2.32	-0.27	0.12	0.014

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 4a. Daily fueling events, coal added per event, and total daily coal consumption – Traditional vs. MCA stoves

Variable description	Subset	Dwelling	n*	Traditional	MCA (treated)	diff.	p**
				mean	mean		
Daily fueling events	Winter average	Overall	959	2.68	2.34	-0.33	<0.001
		Ger	379	2.89	2.46	-0.43	0.002
		House	538	2.54	2.29	-0.25	0.022
	Phase I	Overall	933	2.30	2.03	-0.27	0.009
		Ger	369	2.56	2.17	-0.39	0.014
		House	523	2.14	1.95	-0.18	0.083
	Phase II	Overall	934	3.58	3.00	-0.57	<0.001
		Ger	368	3.86	3.09	-0.77	0.001
		House	525	3.40	2.98	-0.42	0.031
	Phase III	Overall	928	2.21	2.02	-0.19	0.040
		Ger	363	2.36	2.13	-0.24	0.064
		House	523	2.11	1.98	-0.13	0.193
Kg coal added per fueling event	Winter average	Overall	959	5.17	5.89	0.72	0.001
		Ger	379	4.03	4.66	0.63	0.004
		House	538	5.95	6.77	0.83	0.006
	Phase I	Overall	933	4.43	4.94	0.51	0.033
		Ger	369	3.59	3.88	0.28	0.220
		House	523	5.06	5.77	0.71	0.026
	Phase II	Overall	934	6.01	7.05	1.04	0.001
		Ger	368	4.77	5.60	0.83	0.007
		House	525	6.84	8.05	1.20	0.008
	Phase III	Overall	928	5.06	5.65	0.59	0.019
		Ger	363	3.75	4.40	0.66	0.017
		House	523	5.94	6.53	0.59	0.065
Total daily kg coal used	Winter average	Overall	959	13.53	13.36	-0.17	0.395
		Ger	379	11.57	11.06	-0.52	0.252
		House	538	14.87	15.18	0.31	0.372
	Phase I	Overall	933	10.04	9.46	-0.58	0.219
		Ger	369	8.75	7.94	-0.81	0.205
		House	523	10.99	10.74	-0.25	0.409
	Phase II	Overall	934	19.98	20.06	0.08	0.471
		Ger	368	17.83	16.31	-1.52	0.159
		House	525	21.41	22.86	1.45	0.182
	Phase III	Overall	928	10.77	10.70	-0.08	0.457
		Ger	363	8.64	8.75	0.12	0.443
		House	523	12.21	12.25	0.04	0.484

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 4b. Daily fueling events, coal added per event, and total daily coal consumption – Traditional vs. Ulzii

Variable description	Subset	Dwelling	n*	Traditional	Ulzii	diff.	p**
Daily fueling events	Winter average	Overall	498	2.76	2.35	-0.41	0.001
		Ger	244	2.98	2.45	-0.54	0.004
		House	247	2.63	2.25	-0.37	0.016
	Phase I	Overall	483	2.45	1.99	-0.47	0.001
		Ger	238	2.66	2.13	-0.53	0.013
		House	238	2.34	1.85	-0.49	0.006
	Phase II	Overall	486	3.60	3.05	-0.55	0.009
		Ger	237	3.77	3.15	-0.63	0.026
		House	243	3.48	2.95	-0.52	0.047
	Phase III	Overall	479	2.28	2.04	-0.24	0.052
		Ger	236	2.57	2.09	-0.49	0.013
		House	236	2.12	1.99	-0.12	0.264
Kg coal added per fueling event	Winter average	Overall	498	4.81	5.54	0.73	0.010
		Ger	244	3.91	4.72	0.82	0.007
		House	247	5.61	6.31	0.70	0.053
	Phase I	Overall	483	4.03	4.60	0.57	0.064
		Ger	238	3.32	3.70	0.38	0.212
		House	238	4.85	5.39	0.54	0.139
	Phase II	Overall	486	5.67	6.69	1.02	0.010
		Ger	237	4.72	5.90	1.18	0.005
		House	243	6.41	7.43	1.03	0.061
	Phase III	Overall	479	4.72	5.24	0.52	0.080
		Ger	236	3.74	4.38	0.63	0.062
		House	236	5.60	6.04	0.44	0.189
Total daily kg coal used	Winter average	Overall	498	13.08	12.50	-0.58	0.254
		Ger	244	11.42	11.03	-0.40	0.353
		House	247	14.67	13.82	-0.85	0.254
	Phase I	Overall	483	9.75	8.52	-1.24	0.112
		Ger	238	8.26	7.64	-0.62	0.320
		House	238	11.56	9.22	-2.34	0.057
	Phase II	Overall	486	19.33	19.22	-0.12	0.470
		Ger	237	17.14	17.12	-0.02	0.497
		House	243	20.96	21.06	0.10	0.483
	Phase III	Overall	479	10.33	9.73	-0.60	0.262
		Ger	236	9.27	8.12	-1.15	0.141
		House	236	11.80	11.24	-0.55	0.344

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 4c. Daily fueling events, coal added per event, and total daily coal consumption – Traditional vs. Khas

Variable description	Subset	Dwelling	n*	Traditional	Khas	diff.	p**
Daily fueling events	Winter average	Overall	321	2.58	2.41	-0.16	0.174
		Ger	90	2.93	2.51	-0.42	0.138
		House	228	2.54	2.41	-0.13	0.232
	Phase I	Overall	310	2.19	2.04	-0.15	0.222
		Ger	87	2.61	1.91	-0.70	0.032
		House	220	2.16	2.06	-0.10	0.303
	Phase II	Overall	311	3.51	3.18	-0.33	0.141
		Ger	86	3.86	3.00	-0.86	0.062
		House	222	3.49	3.21	-0.28	0.202
	Phase III	Overall	313	2.06	2.07	0.01	0.474
		Ger	88	2.37	2.62	0.24	0.329
		House	222	2.02	2.03	0.01	0.489
Kg coal added per fueling event	Winter average	Overall	321	5.91	6.67	0.77	0.029
		Ger	90	4.11	5.20	1.09	0.027
		House	228	6.14	6.85	0.71	0.058
	Phase I	Overall	310	5.10	5.52	0.42	0.191
		Ger	87	4.65	3.73	-0.92	0.113
		House	220	5.26	5.69	0.43	0.202
	Phase II	Overall	311	6.66	7.93	1.26	0.014
		Ger	86	4.28	6.60	2.32	0.002
		House	222	6.93	8.12	1.19	0.045
	Phase III	Overall	313	5.95	6.61	0.66	0.085
		Ger	88	3.60	4.70	1.11	0.092
		House	222	6.21	6.83	0.62	0.127
Total daily kg coal used	Winter average	Overall	321	15.06	15.63	0.57	0.313
		Ger	90	11.57	13.13	1.55	0.188
		House	228	15.55	15.97	0.42	0.380
	Phase I	Overall	310	11.49	10.83	-0.66	0.309
		Ger	87	11.10	7.39	-3.71	0.034
		House	220	11.78	11.19	-0.59	0.351
	Phase II	Overall	311	21.69	23.64	1.96	0.165
		Ger	86	15.87	18.72	2.85	0.164
		House	222	22.41	24.27	1.86	0.210
	Phase III	Overall	313	12.08	12.83	0.75	0.280
		Ger	88	8.36	12.09	3.73	0.069
		House	222	12.51	13.02	0.51	0.371

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 4d. Daily fueling events, coal added per event, and total daily coal consumption – Traditional vs. Dul

Variable description	Subset	Dwelling	n*	Traditional	Dul	diff.	p**
Daily fueling events	Winter average	Overall	482	2.72	2.30	-0.42	<0.001
		Ger	230	2.89	2.39	-0.50	0.001
		House	248	2.56	2.22	-0.35	0.013
	Phase I	Overall	472	2.31	2.03	-0.28	0.014
		Ger	226	2.55	2.15	-0.40	0.025
		House	242	2.06	1.91	-0.15	0.174
	Phase II	Overall	468	3.64	2.89	-0.75	<0.001
		Ger	222	4.00	2.95	-1.06	<0.001
		House	242	3.31	2.85	-0.46	0.047
	Phase III	Overall	465	2.32	1.97	-0.35	0.002
		Ger	220	2.32	2.02	-0.30	0.030
		House	241	2.34	1.92	-0.42	0.011
Kg coal added per fueling event	Winter average	Overall	482	5.10	5.91	0.80	0.002
		Ger	230	3.96	4.61	0.65	0.006
		House	248	6.18	7.18	0.99	0.009
	Phase I	Overall	472	4.40	5.14	0.74	0.014
		Ger	226	3.31	3.96	0.65	0.050
		House	242	5.39	6.30	0.90	0.034
	Phase II	Overall	468	6.11	7.04	0.94	0.008
		Ger	222	4.88	5.48	0.60	0.043
		House	242	7.18	8.57	1.39	0.012
	Phase III	Overall	465	4.87	5.56	0.69	0.017
		Ger	220	3.73	4.40	0.67	0.018
		House	241	6.02	6.67	0.64	0.101
Total daily kg coal used	Winter average	Overall	482	13.55	13.21	-0.34	0.330
		Ger	230	11.69	10.70	-1.00	0.114
		House	248	15.18	15.71	0.53	0.331
	Phase I	Overall	472	9.92	9.76	-0.15	0.431
		Ger	226	8.24	7.85	-0.39	0.357
		House	242	11.28	11.62	0.34	0.402
	Phase II	Overall	468	20.41	19.43	-0.98	0.226
		Ger	222	19.16	15.45	-3.71	0.009
		House	242	21.18	23.40	2.23	0.132
	Phase III	Overall	465	10.87	10.54	-0.32	0.350
		Ger	220	8.55	8.70	0.16	0.429
		House	241	13.16	12.35	-0.81	0.725

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 5a. Daily cold starts and warm refueling – Traditional vs. MCA stoves

Variable description	Subset	n*	Traditional	MCA (treated)	diff.	SE	p**
Daily cold starts	Overall avg.	959	0.55	0.69	0.15	0.05	0.001
	Phase I	933	0.66	0.85	0.19	0.08	0.007
	Phase II	934	0.31	0.51	0.20	0.06	0.001
	Phase III	928	0.66	0.73	0.07	0.08	0.187
Daily warm refuelings	Overall avg.	959	2.12	1.64	-0.48	0.11	<0.001
	Phase I	933	1.61	1.17	-0.44	0.13	<0.001
	Phase II	934	3.27	2.49	-0.78	0.19	<0.001
	Phase III	928	1.53	1.28	-0.25	0.13	0.031

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 5b. Daily cold starts and warm refueling – Traditional vs. Ulzii

Variable description	Subset	n*	Traditional	Ulzii	diff.	SE	p**
Daily cold starts	Overall avg.	498	0.56	0.77	0.20	0.07	0.001
	Phase I	483	0.70	0.90	0.20	0.10	0.026
	Phase II	486	0.29	0.60	0.31	0.09	<0.001
	Phase III	479	0.69	0.82	0.13	0.11	0.113
Daily warm refuelings	Overall avg.	498	2.18	1.58	-0.60	0.15	<0.001
	Phase I	483	1.71	1.08	-0.63	0.18	<0.001
	Phase II	486	3.31	2.45	-0.86	0.25	<0.001
	Phase III	479	1.57	1.22	-0.36	0.18	0.023

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 5c. Daily cold starts and warm refueling – Traditional vs. Khas

Variable description	Subset	n*	Traditional	Khas	diff.	SE	p**
Daily cold starts	Overall avg.	321	0.46	0.69	0.23	0.08	0.002
	Phase I	310	0.61	0.81	0.21	0.13	0.053
	Phase II	311	0.21	0.53	0.32	0.11	0.002
	Phase III	313	0.57	0.71	0.14	0.12	0.114
Daily warm refuelings	Overall avg.	321	2.11	1.69	-0.42	0.19	0.016
	Phase I	310	1.57	1.21	-0.36	0.23	0.065
	Phase II	311	3.30	2.62	-0.69	0.33	0.020
	Phase III	313	1.49	1.33	-0.16	0.23	0.242

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 5d. Daily cold starts and warm refueling – Traditional vs. Dul

Variable description	Subset	n*	Traditional	Dul	diff.	SE	p**
Daily cold starts	Overall avg.	482	0.57	0.64	0.07	0.05	0.106
	Phase I	472	0.68	0.82	0.15	0.09	0.044
	Phase II	468	0.32	0.41	0.10	0.08	0.099
	Phase III	465	0.71	0.67	-0.03	0.08	0.335
Daily warm refuelings	Overall avg.	482	2.14	1.64	-0.49	0.12	<0.001
	Phase I	472	1.62	1.18	-0.44	0.15	0.002
	Phase II	468	3.32	2.46	-0.86	0.21	<0.001
	Phase III	465	1.60	1.29	-0.31	0.15	0.021

*Effective sample size available after matching

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Table 6. Fueling events, fuel quantity, costs, by heating wall usage among houses

Variable description	Heating wall use	n*	Traditional	MCA (treated)	diff.	SE	p**
			mean	mean			
Daily fueling events	Used	344	2.54	2.21	-0.34	0.14	0.010
	Did not use	185	2.35	2.43	0.08	0.29	0.395
Kg coal added per fueling event	Used	344	5.92	7.07	1.16	0.38	0.001
	Did not use	185	5.60	6.36	0.77	0.66	0.124
Total daily kg coal used	Used	344	14.68	15.56	0.88	1.08	0.208
	Did not use	185	13.55	14.74	1.19	2.51	0.319
Avg. daily kg coal used, per cubic meter volume of main room in dwelling	Used	344	0.17	0.17	0.01	0.01	0.272
	Did not use	185	0.19	0.21	0.02	0.02	0.187
Number of cold starts yesterday	Used	344	0.51	0.73	0.21	0.07	0.001
	Did not use	185	0.47	0.69	0.22	0.11	0.018
Number of warm refuelings yesterday	Used	344	2.02	1.47	-0.55	0.16	<0.001
	Did not use	185	1.88	1.73	-0.16	0.35	0.323
Expenditure on coal throughout wintert	Used	307	408,753	425,730	16,977	33,847	0.308
	Did not use	165	596,811	425,300	-171,511	85,022	0.023
Average monthly expenditure on coal†	Used	307	68,126	70,955	2,829	5,641	0.308
	Did not use	165	99,468	70,883	-28,585	14,170	0.023

* Effective sample size available after matching

** Bold font indicates significant difference between groups

† All numbers are in Mongolian currency (MNT) unless otherwise noted.

Table 7a. Daily quantity of coal used, per volume of dwelling – Traditional vs. MCA stoves

Variable description	Subset	n*	Traditional	MCA (treated)	diff.	SE	p**
Avg. daily kg coal used, per cubic meter volume of main room in dwelling	Overall	959	0.24	0.24	-0.01	0.02	0.374
	Ger	538	0.17	0.19	0.02	0.01	0.060
	House	379	0.34	0.31	-0.03	0.03	0.177
	Phase I	933	0.17	0.17	0.00	0.02	0.382
	Phase II	892	0.38	0.36	-0.02	0.04	0.272
	Phase III	886	0.20	0.19	0.00	0.02	0.402

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 7b. Daily quantity of coal used, per volume of dwelling – Traditional vs. Ulzii

Variable description	Subset	n*	Traditional	Ulzii	diff.	SE	p**
Avg. daily kg coal used, per cubic meter volume of main room in dwelling	Overall	498	0.26	0.25	-0.01	0.02	0.349
	Phase I	483	0.18	0.18	0.00	0.02	0.436
	Phase II	462	0.42	0.40	-0.02	0.05	0.339
	Phase III	455	0.22	0.20	-0.02	0.02	0.245

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 7c. Daily quantity of coal used, per volume of dwelling – Traditional vs. Khas

Variable description	Subset	n*	Traditional	Khas	diff.	SE	p**
Avg. daily kg coal used, per cubic meter volume of main room in dwelling	Overall	321	0.18	0.20	0.01	0.03	0.345
	Phase I	310	0.13	0.14	0.00	0.02	0.462
	Phase II	278	0.28	0.31	0.03	0.06	0.299
	Phase III	280	0.15	0.17	0.01	0.03	0.314

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 7d. Daily quantity of coal used, per volume of dwelling – Traditional vs. Dul

Variable description	Subset	n*	Traditional	Dul	diff.	SE	p**
Avg. daily kg coal used, per cubic meter volume of main room in dwelling	Overall	482	0.26	0.24	-0.02	0.02	0.158
	Phase I	472	0.18	0.18	0.00	0.02	0.412
	Phase II	453	0.42	0.35	-0.07	0.04	0.045
	Phase III	450	0.21	0.19	-0.01	0.02	0.286

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 8a. Fuel expenditures (MNT) overall and by poverty status

Variable description	Subset	n*	Traditional	MCA (treated)	diff.	SE	p**
			mean	mean			
Expenditure on coal throughout winter	Overall	857	402,694	396,361	-6,333	21,200	0.383
	Poorest 40%	324	322,080	365,186	43,106	26,472	0.052
Average monthly expenditure on coal	Overall	857	67,116	66,060	-1,055	3,533	0.383
	Poorest 40%	324	53,680	60,864	7,184	4,412	0.052
Expenditure on any type of fuel throughout winter	Overall	794	519,772	489,218	-30,555	28,124	0.139
	Poorest 40%	283	471,303	457,654	-13,649	46,930	0.386
Average monthly expenditure on any type of fuel	Overall	794	86,629	81,536	-5,092	4,687	0.139
	Poorest 40%	283	78,551	76,276	-2,275	7,822	0.386

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 8b. Fuel expenditures (MNT) overall – Traditional vs. Ulzii

Variable description	n*	Traditional	Ulzii	diff.	SE	p**
Expenditure on coal throughout winter	446	376,156	366,415	-9,741	27,557	0.362
Average monthly expenditure on coal	446	62,693	61,069	-1,623	4,593	0.362
Expenditure on any type of fuel throughout winter	416	482,983	455,053	-27,930	36,135	0.220
Average monthly expenditure on any type of fuel	416	80,497	75,842	-4,655	6,022	0.220

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 8c. Fuel expenditures (MNT) overall – Traditional vs. Khas

Variable description	n*	Traditional	Khas	diff.	SE	p**
Expenditure on coal throughout winter	287	448,683	431,769	-16,915	36,992	0.324
Average monthly expenditure on coal	287	74,781	71,961	-2,819	6,165	0.324
Expenditure on any type of fuel throughout winter	264	545,937	531,084	-14,853	48,057	0.379
Average monthly expenditure on any type of fuel	264	90,990	88,514	-2,475	8,009	0.379

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 8d. Fuel expenditures (MNT) overall – Traditional vs. Dul

Variable description	n*	Traditional	Dul	diff.	SE	p**
Expenditure on coal throughout winter	430	381,208	409,404	28,196	25,244	0.132
Average monthly expenditure on coal	430	63,535	68,234	4,699	4,207	0.132
Expenditure on any type of fuel throughout winter	399	523,806	507,426	-16,380	34,159	0.316
Average monthly expenditure on any type of fuel	399	87,301	84,571	-2,730	5,693	0.316

** Effective sample size available after matching*

*** Bold font indicates significant difference between groups*

Table 9. Coal types used

Variable description	Subset	Dwelling	n*	Traditional	MCA (treated)	diff.	SE	p**
Number of different types of coal used	Any time during winter	Overall	961	1.48	1.54	0.06	0.06	0.168
		House	539	1.46	1.56	0.10	0.08	0.116
		Ger	380	1.54	1.53	-0.01	0.08	0.439
	Phase I	Overall	961	0.87	0.90	0.03	0.04	0.229
		House	539	0.89	0.90	0.01	0.06	0.435
		Ger	380	0.85	0.90	0.05	0.06	0.192
	Phase II	Overall	961	0.92	0.93	0.01	0.05	0.433
		House	539	0.90	0.96	0.06	0.07	0.218
		Ger	380	0.95	0.91	-0.04	0.08	0.277
	Phase III	Overall	961	0.79	0.87	0.09	0.05	0.029
		House	539	0.71	0.87	0.17	0.06	0.003
		Ger	380	0.90	0.89	-0.02	0.07	0.410
Use Nalaikh coal	Any time during winter	Overall	961	78%	81%	3%	0.04	0.236
		House	539	83%	82%	-1%	0.05	0.415
		Ger	380	72%	80%	7%	0.06	0.113
	Phase I	Overall	961	52%	60%	9%	0.05	0.032
		House	539	55%	58%	4%	0.06	0.282
		Ger	380	46%	61%	15%	0.07	0.016
	Phase II	Overall	961	52%	46%	-6%	0.05	0.113
		House	539	59%	51%	-8%	0.06	0.093
		Ger	380	41%	39%	-2%	0.07	0.376
	Phase III	Overall	961	45%	47%	2%	0.05	0.327
		House	539	43%	48%	6%	0.06	0.185
		Ger	380	47%	45%	-2%	0.07	0.393
Use Baganuur coal	Any time during winter	Overall	961	56%	61%	5%	0.05	0.151
		House	539	50%	59%	10%	0.06	0.060
		Ger	380	67%	64%	-3%	0.07	0.333
	Phase I	Overall	961	28%	23%	-4%	0.04	0.149
		House	539	24%	23%	-1%	0.05	0.397
		Ger	380	33%	25%	-8%	0.07	0.112
	Phase II	Overall	961	33%	40%	7%	0.04	0.055
		House	539	24%	37%	13%	0.06	0.011
		Ger	380	48%	47%	-1%	0.07	0.419
	Phase III	Overall	961	32%	38%	6%	0.04	0.082
		House	539	27%	36%	9%	0.06	0.052
		Ger	380	41%	43%	3%	0.07	0.347
Use Alag Tolgoi coal	Any time during winter	Overall	961	14%	12%	-2%	0.03	0.252
		House	539	14%	15%	1%	0.04	0.446
		Ger	380	13%	8%	-6%	0.05	0.110
	Phase I	Overall	961	8%	7%	-1%	0.03	0.296
		House	539	10%	9%	-1%	0.04	0.360
		Ger	380	6%	4%	-2%	0.03	0.277
	Phase II	Overall	961	7%	6%	0%	0.02	0.434
		House	539	7%	8%	1%	0.03	0.403
		Ger	380	5%	5%	0%	0.03	0.451
	Phase III	Overall	961	1%	2%	1%	0.01	0.309
		House	539	1%	3%	2%	0.01	0.082
		Ger	380	3%	0%	-2%	0.02	0.165

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 10. Average expenditures (MNT) on coal during each data collection phase, by coal type used

Variable description	Subset	Main coal type used	<i>n</i> *	Traditional	MCA (treated)	diff.	SE	<i>p</i> **
Coal cost	Phase I	Nalaikh	533	200,003	176,171	-23,832	17,423	0.086
		Baganuur	228	200,365	193,904	-6,461	27,238	0.406
	Phase II	Nalaikh	419	196,306	217,607	21,302	14,565	0.072
		Baganuur	338	167,022	185,800	18,778	17,168	0.137
	Phase III	Nalaikh	414	91,608	108,043	16,435	10,672	0.062
		Baganuur	335	95,261	106,553	11,291	10,172	0.134

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 11. Fueling behavior and coal consumption comparing MCA to traditional stove owners, by vestibule use

Variable description	Subset	Use of vestibule	n*	Traditional	MCA (treated)	diff.	SE	p**
Daily fueling events	Overall avg.	Yes	489	2.64	2.28	-0.36	0.14	0.007
		No	263	2.81	2.30	-0.51	0.15	<0.001
	Phase I	Yes	476	2.24	1.98	-0.26	0.17	0.057
		No	255	2.44	2.02	-0.41	0.18	0.013
	Phase II	Yes	476	3.52	2.91	-0.60	0.25	0.008
		No	256	3.71	2.96	-0.75	0.26	0.002
	Phase III	Yes	474	2.22	1.97	-0.25	0.16	0.062
		No	249	2.36	1.93	-0.42	0.18	0.009
Kg coal added per fueling event	Overall avg.	Yes	489	5.52	6.30	0.78	0.31	0.006
		No	263	4.28	5.44	1.17	0.43	0.003
	Phase I	Yes	476	5.06	5.33	0.27	0.38	0.239
		No	255	3.48	4.59	1.11	0.48	0.011
	Phase II	Yes	476	6.24	7.58	1.34	0.39	<0.001
		No	256	5.25	6.29	1.03	0.65	0.058
	Phase III	Yes	474	5.28	6.02	0.75	0.41	0.035
		No	249	4.21	5.30	1.09	0.47	0.010
Total daily kg coal used	Overall avg.	Yes	489	14.20	13.96	-0.24	0.98	0.404
		No	263	12.03	11.95	-0.08	1.05	0.470
	Phase I	Yes	476	11.28	9.95	-1.33	1.16	0.127
		No	255	8.31	8.56	0.25	1.13	0.414
	Phase II	Yes	476	19.96	20.97	1.00	1.46	0.247
		No	256	18.90	17.54	-1.37	2.03	0.250
	Phase III	Yes	474	11.51	11.22	-0.29	1.15	0.401
		No	249	9.31	9.57	0.25	1.00	0.400
Avg. daily kg coal used, per cubic meter volume of main room in dwelling	Overall avg.	Yes	489	0.21	0.22	0.01	0.02	0.328
		No	263	0.30	0.26	-0.04	0.04	0.170
	Phase I	Yes	476	0.16	0.16	0.00	0.02	0.416
		No	255	0.20	0.19	-0.01	0.03	0.398
	Phase II	Yes	454	0.32	0.34	0.02	0.04	0.321
		No	245	0.49	0.38	-0.10	0.08	0.092
	Phase III	Yes	453	0.18	0.18	0.00	0.02	0.431
		No	238	0.23	0.21	-0.02	0.04	0.272
Expenditure (MNT) on coal throughout winter	Overall avg.	Yes	437	412,051	390,863	-21,188	32,161	0.255
		No	234	386,747	387,989	1,242	30,668	0.484
Average monthly expenditure (MNT) on coal	Overall avg.	Yes	437	68,675	65,144	-3,531	5,360	0.255
		No	234	64,458	64,665	207	5,111	0.484

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 12. Fueling behavior and coal consumption comparing MCA to traditional stove owners, by vestibule use

Variable description	Subset	Use of vestibule	n*	Traditional	MCA (treated)	diff.	SE	p**
Daily cold starts	Overall avg.	Yes	489	0.53	0.71	0.18	0.07	0.004
		No	263	0.63	0.65	0.01	0.08	0.428
	Phase I	Yes	476	0.66	0.84	0.18	0.10	0.034
		No	255	0.72	0.81	0.09	0.13	0.256
	Phase II	Yes	476	0.32	0.54	0.22	0.09	0.008
		No	256	0.38	0.38	0.01	0.11	0.472
	Phase III	Yes	474	0.62	0.74	0.12	0.10	0.114
		No	249	0.76	0.76	0.01	0.13	0.476
Daily warm refuels	Overall avg.	Yes	489	2.10	1.57	-0.54	0.17	0.001
		No	263	2.15	1.65	-0.50	0.17	0.002
	Phase I	Yes	476	1.58	1.13	-0.45	0.19	0.011
		No	255	1.61	1.21	-0.39	0.22	0.037
	Phase II	Yes	476	3.19	2.36	-0.83	0.27	0.001
		No	256	3.34	2.56	-0.77	0.29	0.004
	Phase III	Yes	474	1.57	1.23	-0.34	0.20	0.046
		No	249	1.60	1.15	-0.45	0.22	0.022
Total fuel of any type used	Overall avg.	Yes	489	15.90	16.11	0.20	1.00	0.419
		No	263	14.15	13.76	-0.38	1.06	0.358
	Phase I	Yes	476	13.56	12.13	-1.44	1.26	0.127
		No	255	10.54	10.53	-0.02	1.26	0.495
	Phase II	Yes	476	21.24	23.47	2.22	1.46	0.064
		No	256	21.22	19.26	-1.95	2.06	0.172
	Phase III	Yes	474	13.12	13.00	-0.12	1.14	0.458
		No	249	11.17	11.35	0.18	1.03	0.430
Expenditure (MNT) on any type of fuel throughout winter	Overall avg.	Yes	407	513,193	476,401	-36,792	37,893	0.166
		No	200	550,528	490,857	-59,671	46,856	0.102
Average monthly expenditure (MNT) on any type of fuel	Overall avg.	Yes	407	85,532	79,400	-6,132	6,316	0.166
		No	200	91,755	81,810	-9,945	7,809	0.102

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 13. Fueling and coal consumption comparing compliant† MCA stove users to traditional stove users

Variable description	Subset	n*	Traditional	MCA (treated)	diff.	SE	p**
			mean	mean			
Daily fueling events	Phase I	544	2.14	1.46	-0.68	0.09	<0.001
	Phase II	385	3.28	1.88	-1.41	0.15	<0.001
	Phase III	502	2.14	1.39	-0.74	0.08	<0.001
Kg coal added per fueling event	Phase I	544	4.44	5.61	1.17	0.27	<0.001
	Phase II	385	6.34	8.58	2.24	0.41	<0.001
	Phase III	502	5.25	6.48	1.23	0.30	<0.001
Total daily kg coal used	Phase I	544	9.41	7.85	-1.56	0.62	0.006
	Phase II	385	19.42	16.01	-3.40	1.39	0.007
	Phase III	502	10.65	8.77	-1.89	0.62	0.001
Avg. daily kg coal used, per cubic meter volume of main room in dwelling	Phase I	544	0.16	0.13	-0.03	0.01	0.003
	Phase II	366	0.33	0.26	-0.07	0.03	0.012
	Phase III	476	0.18	0.15	-0.03	0.02	0.018

* Effective sample size available after matching

** Bold font indicates significant difference between groups

† Compliant households are those with observed use of MCA stove, no reported refueling events during prior day, and correct lighting procedure reported

Table 14a. Fueling behavior and coal consumption for MCA and traditional stove owners in gers, by insulation layers

Variable description	Subset	Insulation layers	n*	Traditional	MCA (treated)	diff.	SE	p**
Daily fueling events	Overall avg.	3 or more	84	2.95	2.23	-0.72	0.32	0.013
		2 or fewer	296	2.88	2.52	-0.35	0.17	0.019
	Phase I	3 or more	81	2.53	2.02	-0.52	0.33	0.062
		2 or fewer	289	2.58	2.23	-0.36	0.21	0.044
	Phase II	3 or more	83	4.08	2.74	-1.34	0.55	0.008
		2 or fewer	286	3.81	3.18	-0.63	0.29	0.014
	Phase III	3 or more	80	2.28	1.97	-0.31	0.32	0.172
		2 or fewer	285	2.38	2.17	-0.21	0.18	0.120
Kg coal added per fueling event	Overall avg.	3 or more	84	4.28	4.72	0.44	0.62	0.243
		2 or fewer	296	3.97	4.67	0.70	0.26	0.003
	Phase I	3 or more	81	3.19	4.30	1.11	0.74	0.068
		2 or fewer	289	3.71	3.79	0.09	0.41	0.417
	Phase II	3 or more	83	4.81	5.51	0.70	0.66	0.146
		2 or fewer	286	4.73	5.67	0.94	0.36	0.005
	Phase III	3 or more	80	4.47	4.26	-0.21	0.65	0.372
		2 or fewer	285	3.56	4.42	0.86	0.34	0.005
Total daily kg coal used	Overall avg.	3 or more	84	12.35	10.12	-2.23	1.67	0.093
		2 or fewer	296	11.42	11.38	-0.04	0.86	0.482
	Phase I	3 or more	81	8.12	7.99	-0.13	2.00	0.474
		2 or fewer	289	8.97	8.09	-0.89	1.12	0.215
	Phase II	3 or more	83	18.41	14.12	-4.30	2.85	0.068
		2 or fewer	286	17.65	16.98	-0.68	1.76	0.350
	Phase III	3 or more	80	9.86	8.14	-1.72	1.45	0.120
		2 or fewer	285	8.33	8.95	0.62	0.91	0.248
Avg. daily kg coal used, per cubic meter volume of main room in dwelling	Overall avg.	3 or more	84	0.33	0.28	-0.05	0.08	0.283
		2 or fewer	296	0.35	0.32	-0.03	0.04	0.206
	Phase I	3 or more	81	0.22	0.24	0.02	0.06	0.398
		2 or fewer	289	0.25	0.22	-0.03	0.03	0.165
	Phase II	3 or more	83	0.51	0.39	-0.12	0.14	0.196
		2 or fewer	286	0.55	0.48	-0.08	0.08	0.163
	Phase III	3 or more	80	0.26	0.22	-0.04	0.08	0.334
		2 or fewer	284	0.26	0.25	-0.01	0.04	0.396
Expenditure (MNT) on coal throughout winter	Overall avg.	3 or more	74	357,358	342,453	-14,905	55,290	0.394
		2 or fewer	264	337,991	373,431	35,441	28,104	0.104
Average monthly expenditure (MNT) on coal	Overall avg.	3 or more	74	59,560	57,076	-2,484	9,215	0.394
		2 or fewer	264	56,332	62,239	5,907	4,684	0.104

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 14b. Fueling behavior and coal consumption for MCA and traditional stove owners in gers, by insulation layers

Variable description	Subset	Insulation layers	n*	Traditional	MCA (treated)	diff.	SE	p**
Cold starts	Winter	3 or more	84	0.50	0.77	0.28	0.17	0.048
		2 or fewer	296	0.68	0.63	-0.05	0.08	0.268
	Phase I	3 or more	81	0.84	0.77	-0.08	0.28	0.390
		2 or fewer	289	0.72	0.83	0.11	0.14	0.211
	Phase II	3 or more	83	0.09	0.69	0.60	0.13	<0.001
		2 or fewer	286	0.41	0.34	-0.07	0.12	0.280
	Phase III	3 or more	80	0.55	0.86	0.31	0.25	0.105
		2 or fewer	285	0.90	0.72	-0.18	0.14	0.094
Warm refuels	Winter	3 or more	84	2.46	1.44	-1.02	0.32	0.001
		2 or fewer	296	2.17	1.89	-0.27	0.19	0.076
	Phase I	3 or more	81	1.69	1.20	-0.48	0.37	0.096
		2 or fewer	289	1.78	1.39	-0.40	0.24	0.051
	Phase II	3 or more	83	3.98	2.03	-1.95	0.58	0.001
		2 or fewer	286	3.39	2.83	-0.57	0.32	0.038
	Phase III	3 or more	80	1.73	1.11	-0.62	0.41	0.065
		2 or fewer	285	1.47	1.45	-0.02	0.22	0.467
Total kg fuel used	Yearly	3 or more	84	14.57	12.45	-2.12	1.65	0.101
		2 or fewer	296	14.01	13.80	-0.21	0.98	0.415
	Phase I	3 or more	81	10.34	10.01	-0.33	1.97	0.433
		2 or fewer	289	12.15	10.80	-1.35	1.37	0.162
	Phase II	3 or more	83	20.50	17.25	-3.25	2.82	0.126
		2 or fewer	286	20.28	19.35	-0.93	1.86	0.308
	Phase III	3 or more	80	12.26	10.03	-2.23	1.66	0.092
		2 or fewer	285	10.44	11.17	0.73	0.96	0.223
Average monthly expenditure (MNT) on any type of fuel	Month	3 or more	53	76,421	67,042	-9,379	13,698	0.248
		2 or fewer	240	82,319	79,830	-2,489	8,232	0.381
Expenditure (MNT) on any type of fuel throughout winter	Winter	3 or more	53	458,525	402,251	-56,274	82,187	0.248
		2 or fewer	240	493,912	478,979	-14,933	49,393	0.381

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 15. Coal consumption, expenditures, and fueling events, among those using only Nalaikh or only Baganuur coal at each phase measurement

	Variable description	Subset	n*	Traditional	MCA (treated)	diff.	SE	p**
				mean	mean			
Use of Nalaikh coal only	Daily fueling events	Phase I	486	2.34	2.01	-0.33	0.15	0.017
		Phase II	353	3.27	3.00	-0.27	0.23	0.122
		Phase III	380	2.15	2.03	-0.12	0.14	0.192
	Kg coal added per fueling event	Phase I	486	4.72	5.02	0.30	0.32	0.170
		Phase II	353	6.35	7.30	0.96	0.62	0.061
		Phase III	380	4.67	5.65	0.98	0.44	0.013
	Total daily kg coal used	Phase I	486	11.24	9.61	-1.63	0.99	0.050
		Phase II	353	19.28	20.53	1.24	1.61	0.220
		Phase III	380	9.81	10.69	0.88	0.96	0.180
	Expenditure (MNT) on coal during 2-month period represented by data collection phase	Phase I	486	180,169	167,251	-12,917	15,082	0.196
		Phase II	343	198,572	195,887	-2,684	15,946	0.433
		Phase III	377	89,758	103,195	13,437	10,966	0.111
	Daily cold starts	Phase I	486	0.60	0.90	0.30	0.10	0.002
		Phase II	353	0.35	0.53	0.18	0.11	0.054
		Phase III	380	0.86	0.72	-0.14	0.12	0.112
	Daily warm refuelings	Phase I	486	1.73	1.10	-0.63	0.18	0.000
		Phase II	353	2.92	2.46	-0.46	0.26	0.039
		Phase III	380	1.29	1.30	0.01	0.18	0.468
Use of Baganuur coal only	Daily fueling events	Phase I	186	2.57	2.09	-0.47	0.25	0.029
		Phase II	269	3.93	3.03	-0.90	0.33	0.004
		Phase III	296	2.27	2.03	-0.24	0.19	0.107
	Kg coal added per fueling event	Phase I	186	4.35	5.05	0.70	0.69	0.155
		Phase II	269	5.09	6.68	1.59	0.46	<0.001
		Phase III	296	5.00	5.48	0.48	0.52	0.183
	Total daily kg coal used	Phase I	186	10.76	10.16	-0.59	1.94	0.380
		Phase II	269	19.52	19.27	-0.25	2.38	0.458
		Phase III	296	10.91	10.46	-0.46	1.37	0.370
	Expenditure (MNT) on coal during 2-month period represented by data collection phase	Phase I	190	192,004	175,937	-16,067	29,843	0.295
		Phase II	265	154,271	149,888	-4,384	18,250	0.405
		Phase III	299	94,553	99,634	5,081	10,246	0.310
	Daily cold starts	Phase I	186	0.57	0.75	0.18	0.17	0.142
		Phase II	269	0.31	0.38	0.08	0.12	0.260
		Phase III	296	0.60	0.72	0.13	0.13	0.158
	Daily warm refuelings	Phase I	186	1.99	1.34	-0.65	0.28	0.010
		Phase II	269	3.63	2.63	-1.00	0.36	0.003
		Phase III	296	1.67	1.30	-0.37	0.23	0.052

* Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 16. Health symptoms, expenditures, and lost productivity

Variable description	Subset	n*	Traditional	MCA (treated)	diff.	SE	p**
Any HH member <5 or >60 currently experiencing respiratory symptom†	Phase I	518	52%	50%	-2%	0.06	0.378
	Phase II	547	38%	36%	-2%	0.06	0.400
	Phase III	560	31%	33%	2%	0.06	0.389
Any HH member <5 or >60 currently experiencing cardiovascular symptom†	Phase I	518	18%	16%	-2%	0.05	0.337
	Phase II	546	11%	12%	1%	0.04	0.383
	Phase III	560	11%	11%	0%	0.04	0.480
Any HH member <5 or >60 currently experiencing dermal irritation symptom†	Phase I	518	19%	20%	2%	0.05	0.381
	Phase II	546	18%	17%	-1%	0.05	0.411
	Phase III	559	15%	18%	3%	0.04	0.270
Total expenses (MNT) for medication related to above symptoms for any HH member in past 30 days (among those reporting any expenses)‡	Phase II	375	24,497	34,621	10,125	4,866	0.019
	Phase III	286	27,389	66,091	38,701	18,272	0.017
Total expenses (MNT) for medication related to above symptoms for any HH member in past 30 days‡	Phase II	961	9,985	13,524	3,539	2,298	0.062
	Phase III	961	8,416	20,721	12,304	5,742	0.016
Person-days missed from work or school in past month due to respiratory illness, among all HH members	Overall avg.	961	0.76	0.85	0.09	0.19	0.314
	Phase I	961	0.18	0.64	0.46	0.14	0.001
	Phase II	961	1.09	0.67	-0.43	0.30	0.079
	Phase III	961	0.40	0.74	0.35	0.19	0.038
Anyone missed at least one day of work or school in past month due to respiratory illness, among all HH members	Overall (any phase)	961	22%	27%	4%	0.04	0.131
	Phase I	961	5%	10%	6%	0.02	0.007
	Phase II	961	15%	12%	-3%	0.03	0.188
	Phase III	961	7%	11%	4%	0.03	0.088

*Effective sample size available after matching

** Bold font indicates significant difference between groups

† Respiratory symptoms include phlegm, cough, short breath, wheezing, and cold; cardiovascular includes chest tightness, rapid heartbeat; dermal includes eczema, dry or sore throat, eye irritation

‡ Not available in Phase I

Table 17a. Indoor temperature and heating efficiency recorded by stove use monitors (SUMs) - Overall

Variable description	Subset	n*	Traditional	MCA (treated)	diff.	SE	p**
			mean	mean			
Average daily room temperature	Phase I-II interim	293	15.92	16.37	0.45	0.73	0.270
	Phase II-III interim	277	15.15	17.01	1.86	0.96	0.026
Difference in average daily room and stove temperatures	Phase I-II interim	246	28.70	21.54	-7.16	2.31	0.001
	Phase II-III interim	251	23.44	18.80	-4.64	2.06	0.013
Average overnight stove temperature	Overall avg.	325	43.96	39.36	-4.59	2.29	0.023
	Phase I-II interim	325	45.24	40.06	-5.18	2.39	0.016
	Phase II-III interim	340	40.75	37.97	-2.79	2.37	0.120
Average overnight room temperature	Overall avg.	288	16.73	17.15	0.42	0.71	0.277
	Phase I-II interim	288	16.74	16.98	0.23	0.73	0.375
	Phase II-III interim	271	15.70	17.55	1.84	0.97	0.029
Difference in average overnight room and stove temperatures	Overall avg.	241	28.30	20.78	-7.52	2.32	0.001
	Phase I-II interim	241	30.03	21.94	-8.09	2.50	0.001
	Phase II-III interim	245	23.93	19.17	-4.76	2.31	0.020

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 17b. Indoor temperature and heating efficiency recorded by stove use monitors (SUMs) – Ulzii

Variable description	Subset	n*	Traditional	Ulzii	diff.	SE	p**
			mean (°C)	mean (°C)			
Average daily room temperature	Phase I-II interim	193	15.64	16.30	0.66	0.75	0.191
	Phase II-III interim	177	15.71	17.29	1.59	0.85	0.032
Difference in average daily room and stove temperatures	Phase I-II interim	173	30.05	19.75	-10.29	2.04	<0.001
	Phase II-III interim	164	22.24	18.40	-3.84	1.80	0.017
Average overnight stove temperature	Overall avg.	216	45.13	37.02	-8.11	1.88	<0.001
	Phase I-II interim	216	47.16	37.23	-9.93	2.01	<0.001
	Phase II-III interim	219	41.44	36.60	-4.84	1.79	0.004
Average overnight room temperature	Overall avg.	190	16.52	17.11	0.59	0.70	0.200
	Phase I-II interim	190	16.45	16.81	0.36	0.75	0.314
	Phase II-III interim	173	16.06	17.87	1.81	0.88	0.020
Difference in average overnight room and stove temperatures	Overall avg.	170	29.06	19.56	-9.50	2.02	<0.001
	Phase I-II interim	170	31.28	20.15	-11.12	2.23	<0.001
	Phase II-III interim	160	23.94	18.75	-5.18	1.95	0.004

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 17c. Indoor temperature and heating efficiency recorded by stove use monitors (SUMs) – Khas

Variable description	Subset	n*	Traditional	Khas	diff.	SE	p**
			mean (°C)	mean (°C)			
Average daily room temperature	Phase I-II interim	109	15.17	14.28	-0.89	1.06	0.203
	Phase II-III interim	101	15.55	14.94	-0.61	1.23	0.310
Difference in average daily room and stove temperatures	Phase I-II interim	100	31.01	22.58	-8.43	2.41	<0.001
	Phase II-III interim	93	22.78	20.68	-2.10	2.39	0.190
Average overnight stove temperature	Overall avg.	141	46.16	36.98	-9.18	2.31	<0.001
	Phase I-II interim	141	48.44	37.71	-10.73	2.47	<0.001
	Phase II-III interim	142	42.14	36.94	-5.20	2.25	0.011
Average overnight room temperature	Overall avg.	106	16.15	15.45	-0.70	1.03	0.249
	Phase I-II interim	106	15.96	15.17	-0.79	1.08	0.232
	Phase II-III interim	99	16.00	15.99	-0.01	1.28	0.497
Difference in average overnight room and stove temperatures	Overall avg.	97	30.20	22.63	-7.57	2.42	0.001
	Phase I-II interim	97	32.55	23.88	-8.66	2.65	0.001
	Phase II-III interim	91	24.64	21.25	-3.39	2.49	0.088

*Effective sample size available after matching

** Bold font indicates significant difference between groups

Table 17d. Indoor temperature and heating efficiency recorded by stove use monitors (SUMs) – Dul

Variable description	Subset	n*	Traditional	Dul	diff.	SE	p**
			mean (°C)	mean (°C)			
Average daily room temperature	Phase I-II interim	170	15.86	16.51	0.65	0.74	0.188
	Phase II-III interim	163	15.90	16.65	0.75	0.84	0.184
Difference in average daily room and stove temperatures	Phase I-II interim	141	28.74	23.02	-5.72	2.17	0.005
	Phase II-III interim	144	22.13	19.69	-2.44	2.10	0.123
Average overnight stove temperature	Overall avg.	201	44.49	41.38	-3.12	1.94	0.055
	Phase I-II interim	201	46.18	42.48	-3.71	2.11	0.040
	Phase II-III interim	210	41.68	39.18	-2.50	1.95	0.100
Average overnight room temperature	Overall avg.	165	16.64	17.13	0.50	0.71	0.241
	Phase I-II interim	165	16.57	17.10	0.54	0.76	0.242
	Phase II-III interim	161	16.29	17.03	0.74	0.86	0.196
Difference in average overnight room and stove temperatures	Overall avg.	136	27.74	21.59	-6.16	2.09	0.002
	Phase I-II interim	136	29.71	23.06	-6.65	2.33	0.003
	Phase II-III interim	142	23.62	19.86	-3.76	2.16	0.042

*Effective sample size available after matching

** Bold font indicates significant difference between groups

ANNEX 2A. PHASE III HOUSEHOLD SURVEY – ENGLISH

HOUSEHOLD ID NUMBER: _____

HOUSEHOLD COORDINATE	LATITUDE (N/S)	LONGITUDE(E/W)
	_____ . _____ . _____	_____ . _____ . _____

HOUSEHOLD ADDRESS:	
DISTRICT:	
KHOROO:	
KHESEG:	
STREET:	
DOOR NUMBER:	

(Remember that respondent should be person who fuels the stove most often and has knowledge about fuel purchases. But it is OK to have other household members help with sections 1, 6, and 9)

TEAM LEADER																												
	Code	<input type="text"/>	<input type="text"/>																									
	Name	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Signature of the team leader	<input type="text"/>																			<input type="text"/>							
ASSISTANT																												
	Code	<input type="text"/>	<input type="text"/>																									
	Name	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Signature of the assistant	<input type="text"/>																			<input type="text"/>							

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	1 visit (YY/MM/DD)	2 visit(YY/MM/DD)	3 visit(YY/MM/DD)	Code of RESULT:
DATE:	___/___/___	___/___/___	___/___/___	Complete Complete but Mismatch dwelling type Complete but Mismatch stove type Respondent was not at home (re-visit) Temporarily not present (re-visit) Household not found (terminate the survey) Refused (terminate the
RESULT:	1 2 3 4 5 7 8 9 10 11	1 2 3 4 5 7 8 9 10 11	1 2 3 4 5 7 8 9 10 11	

				survey) Other improved stove/ low-pressure boiler (terminate the survey) Moved to apartment (terminate the survey) Moved to out of UB (terminate the survey)
NOTES: 				

Note for Section 9: Please mark if they did NOT take it seriously and truly try to estimate.



Introduction

The members of research team will strictly follow the law on “Statistics” and “Personal Secrets” relevant laws and regulations of Mongolia. The personal identifiers you provide will only be used for project planning purposes and will be kept confidential and the fueling data will be analyzed by researchers.

The survey respondent should be person who fuels the stove most often and has knowledge about fuel purchases. Questionnaire sections 1, 2, 6 can be asked from other members of household.

“Hello”, my name is ____ and I am visiting you a second time on behalf of the “The Joint Venture between Robust LLC and Institute of Philosophy, Sociology and Law”. As you may remember, we are conducting a survey on stove use and pollution and MCA-Mongolia is the main subscriber of the survey. I would like to ask you information about your stove, how you fuel it; as well as some demographic, economic and respiratory health questions about your household. I expect that the discussion will continue for 20-30 minutes.

With your permission, I would like to record your responses in this questionnaire. As before, the personal information you provide will only be used for project planning and evaluation purposes and will be kept confidential. To collect data about your fuel use over the next two months, including the frequency of fuelling and the temperature of your stove, I will read and replace the digital thermometers beneath your stove and on the wall. Also we’ll measure the weight of coal and wood you

used yesterday and, if necessary, we will measure your house/ger size again. I or one of my colleagues will return in March to collect the digital thermometers and ask more questions. To compensate you for your time in completing this interview we would like to offer you the second installment of 2,000 tugrik for your mobile phone at this interview and 2,000 more at the next visit, totaling 6000 tugriks for your mobile phone over three visits. You may also be visited another time. We appreciate your participation in this interview. Please let us know if you would like to stop the interview at any point. If you are willing to be interviewed please indicate this by giving your verbal consent now. Please know that your confidential answers will not affect your ability to receive future subsidies or benefits from a bank in the future, so please feel free to share your honest experiences and opinions.

Please sign your signature if you agree to participate in the 3-phase survey (will revisit in March)

and agree to keep temperature sensor in your house/ger:

Mobile credit card number: _____	Mobile Unit: ____ _
Name of Recipient _____	
Signature of Recipient _____	

Starting time:

Hour	Minute
<div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> </div>	<div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 2px;"></div> </div>

SUM RETRIEVAL



SUM # ON THE STOVE: _ _ _ _ _


RETRIEVAL:	CONDITION: <i>(circle all that apply)</i>	LOCATION:	ORIGINAL PLACEMENT OR NOT:	Reason of not retrieved
Retrieved1 Not retrieved.....2	Whole/in original condition1 In pieces.....2 Dented,3 Charred4 Making strange sound.....5 Other (specify)..... 6 SUM was Lost7	Stove leg1 Ger beam.....2 Floor under stove,3 Wall4 Pole5 Other (specify).....6 N/A (lost SUM) -98	Original placement.....1 Moved.....2	

SUM # ON THE BEAM or WALL: _____

RETRIEVAL:	CONDITION: <i>(circle all that apply)</i>	LOCATION:	ORIGINAL PLACEMENT OR NOT:	Reason of not retrieved
Retrieved1 Not retrieved.....2	Whole/in original condition1 In pieces.....2 Dented,3 Charred4 Making strange sound.....5 Other (specify)..... 6 SUM was Lost7	Stove leg1 Ger beam.....2 Floor under stove,3 Wall4 Pole5 Other (specify).....6 N/A (lost SUM) -98	Original placement.....1 Moved.....2	

Section 1. Housing and its heating (CAN BE ANSWERED BY ANY ADULT IN THE HOUSEHOLD)


	<p>Has the household changed location since the last interview?</p> <p> ONLY FOR OBSERVATION</p>		<p>1</p> <p>2</p>	<p>1. Yes</p> <p>2. No</p>
	<p>Does the ger or house have a vestibule?</p> <p> ONLY FOR OBSERVATION</p>		<p>1</p> <p>2</p>	<p>1. Yes</p> <p>2. No [⇒ 1.A3]</p>
		<p>Did you install or build a new vestibule since the last interview?</p>	<p>1</p> <p>2</p> <p>-98</p>	<p>1 Yes</p> <p>2 No [⇒1.A3]</p> <p>-98</p> <p>N/A</p>
		<p><i>(ask only for gers)</i></p> <p>Did you receive a vestibule from MCA?</p>	<p>1</p> <p>2</p> <p>-98</p>	<p>1 Yes</p> <p>2 No</p> <p>-98 N/A</p>



	Has the household changed housing type since the last interview? (Ger to House, House to Ger, ger size changed etc...)	1 2	1 Yes 2 No
	What type of housing is this?  ONLY FOR OBSERVATION	1 2	1 Ger 2 House [⇒1.15]

ONLY ASK FOR GERS


	Have you made any changes to the material of your ger roof or walls since the last visit?	1	1 Yes
		2	2 No [⇒1.A11]
		-98	-98 NA

Question #	Layer	Type of roof material	Is this roof layer part of the ger insulation package from MCA?	c) Type of wall material	d) Is this wall layer part of the ger insulation package from MCA?
		Felt cover Cotton cover Brizent (waterproof denim Zulhai (cotton wool blend Karton paper Canvas Plastic Other materials (Specify -98. N/A -99. Don't know/Refuse.	Yes No -98 N/A -99 Don't know/Refuse.	Felt cover Cotton cover Brizent (waterproof denim Zulhai (cotton wool blend Karton paper Canvas Plastic Other materials (Specify -98 N/A -99 Don't know/Refuse.	Yes No -98 N/A -99 Don't know/Refuse.
	1st layer	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
	2nd layer	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
	3rd layer	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
	4th layer	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
	5th layer	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
	6th layer	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
	7th layer	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99

	Have you changed your ger floor since the last visit?		1 2 -98	Yes No >>> [1.12] -98 N/A
		What type of ger floor do you have?	1 2 3 4 5 -98 -99	No floor Concrete floor Elevated wooden floor (With a space between the floor and the ground) Wooden floor (Touching the ground) Other _____ -98 N/A -99 Don't know/refuse
	Does the ger have a floor covering?  ONLY FOR OBSERVATION		1 2 -98	Yes No >>> [SECTION 2] -98 N/A
	1.13	Type of the floor covering?		

	 ONLY FOR OBSERVATION (Circle all that apply)	1 2 3 4 -98	Wool Carpet Synthetic Carpet Linoleum Karton paper Other -98 N/A
1.14	Floor covered area?  ONLY FOR OBSERVATION	1 2 -98	<50% >>> [SECTION 2] >50% >>> [SECTION 2] -98 N/A >>> [SECTION 2]


ONLY ASK FOR HOUSES

	<p>What type of house is it?</p> <p> ONLY FOR OBSERVATION</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>-98</p>	<p>One-story house</p> <p>Two-story house</p> <p>Studio apartment</p> <p>Other (Specify) _____</p> <p>-98 N/A</p>
	<p>Have you added or subtracted rooms from your house since the last interview?</p>	<p>1</p> <p>2</p> <p>-98</p>	<p>Yes</p> <p>No >>> [1.A17]</p> <p>-98 N/A</p>
	<p>How many rooms does your house have?</p>	<p>— —</p> <p>-98</p>	<p>Number of rooms</p> <p>-98 N/A</p>
	<p>Have you changed the materials of your walls since the last visit?</p>	<p>1</p> <p>2</p> <p>-98</p>	<p>Yes</p> <p>No >>> [1.A18]</p> <p>-98 N/A</p>

	<p>Which basic materials constitute the walls in your house?</p> <p><i>(Circle all that apply)</i></p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>-98</p> <p>-99</p>	<p>Shingle</p> <p>Wooden boards</p> <p>Mud</p> <p>Bricks</p> <p>Wood</p> <p>Cement blocks</p> <p>Log</p> <p>Straw and wooden frame</p> <p>Other (Specify) _____</p> <p>-98 N/A</p> <p>-99 Don't know/Refuse</p>
	<p>Have you changed the insulation materials of the walls since the last visit?</p>	<p>1</p> <p>2</p> <p>-98</p>	<p>Yes</p> <p>No >>> [1.A19]</p> <p>-98 N/A</p>

	<p>What are the insulation materials of the walls?</p> <p><i>(Circle all that apply)</i></p>	0 1 2 3 4 5 6 7 -98 -99	None Fiber glass Rock wool Foam Straw Mud Sawdust Other (Specify) _____ -98 N/A -99 Don't know/Refuse
	<p>Have you changed material of the floor since the last visit?</p>	1 2 -98	Yes No >>> [1.20] -98 N/A

	What basic material is the floor of your house made of?	1	Wooden boards
		2	Cement
		3	Other (Please specify)_____
		-98	-98 N/A
		-99	-99 Don't know/Refuse

	<p>Does the house have a ceiling?</p> <p> ONLY FOR OBSERVATION</p>	<p>1</p> <p>2</p> <p>-98</p>	<p>Yes</p> <p>No [⇒1.A23]</p> <p>-98 N/A</p>
	<p>Have you changed material of the ceiling since the last visit?</p>	<p>1</p> <p>2</p> <p>-98</p>	<p>Yes</p> <p>No >>> [1.A23]</p> <p>-98 N/A</p>

	What material is the ceiling made of? <i>(Highest floor ceiling)</i>	1	Wooden boards
		2	Concrete
		3	Shingle
		4	Clay board
		5	Argelit
		6	Others (Specify) _____
		-98	-98 N/A
		-99	-99 Don't know/Refuse

	<p>Do you have additional insulation materials on the ceiling?</p> <p>(Circle all that apply)</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>-98</p> <p>-99</p>	<p>No insulation</p> <p>Keramzit</p> <p>Fiber glass</p> <p>Rock wool</p> <p>Foam</p> <p>Ash</p> <p>Other(Specify) _____</p> <p>-98 N/A</p> <p>-99 Don't know/Refuse</p>
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	Have you changed material of the roof since the last visit?		1	Yes
			2	No >>> [1.24]
			-98	-98 N/A
		What material is the roof of your house made of?	1	Asphalt roof shingles
			2	Metal
			3	Tile
			4	Cement
		(Circle all that apply)	5	Others (Specify) _____
			-98	-98 N/A
			-99	-99 Don't know/Refuse

1.24	(Ask <i>ONLY</i> if improved stove)	1	Yes
	Did your house have a heating wall before the installation of the MCA approved stove?	2	No
		-98	-98 N/A

Section 2. Stove, fireplace/oven, heater, and their types in your winter house/gers (MUST BE ANSWERED BY PERSON WHO TENDS THE STOVE)

Note: the 1st stove should be the one used most often.	1 st stove (used most often)	2 nd stove	3 rd stove
Define chosen stove			


2.A0	Is it new stove since last interview	Yes No -98. N/A	1 2	1 2 -98	1 2 -98
2.0	Do you use this stove now?	Yes No -98. N/A	1 2	1 2 -98	1 2 -98
2.A1	Did you use this stove during last interview?	Yes >>>[2.1] No -98. N/A	1 2	1 2 -98	1 2 -98
2.B1	<i>(Only ask for new stoves. If not new since last visit, go to 2.1)</i> When did you start to use it?	Year Month -97 Same answer as last survey -98 N/A -99 Don't know/Refuse	 _____ _____ _____ -97 -98 -99	 _____ _____ _____ -97 -98 -99	 _____ _____ _____ -97 -98 -99

	What kind of stove is it?	Traditional stove [=2.7]	1	1	1
		Stove from MCA	2	2	2
		Other improved stove (not from MCA) [=2.7]	3	3	3
		-98 N/A		-98	-98
	Type of MCA approved stove 👁 ONLY FOR OBSERVATION	Ulzii	1	1	1
		Khas	2	2	2
		Dul	3	3	3
		Golomt	4	4	4
		-98 N/A	-98	-98	-98
2.3	<i>(Only ask for new stoves. If not new since last visit, go to 2.5)</i>	Yes	1	1	1
		No	2	2	2
		-97 Same answer as last survey	-97	-97	-97
	Did you receive subsidy?	-97 Same answer as last survey	-98	-98	-98
		-98 N/A	-99	-99	-99
		-99 Don't know/Refuse			
Note: the 1st stove should be the one used most often.			1 st stove	2 nd stove	3 rd stove

	When did you get your improved stove?	Year Month -98 N/A -99 Don't know/Refuse	-- -- -- -- -- -98 -99	----- -- -98 -99	-- -- -- -- -- -98 -99
	Have you made any changes to your MCA-approved stove/chimney?	Yes No [⇒2.A7] -98 N/A [⇒2.A7] -99 Don't know/Refuse [⇒2.A7]	1 2 -98 -99	1 2 -98 -99	1 2 -98 -99

	<p>What changes have you made to your MCA-approved stove?</p> <p><i>(circle all that apply)</i></p>	<p>Chimney upside down</p> <p>Connected to No channel wall new chimney</p> <p>Connected to no channel wall chimney, breaking old wall chimney with channels</p> <p>Half of stove inserted in the ground</p> <p>Chimney insulated</p> <p>Other(Specify)_____</p> <p>-98 N/A</p> <p>-99 Don't know/Refuse</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>-98</p> <p>-99</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>-98</p> <p>-99</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>-98</p> <p>-99</p>
2.A7	How often do you use your MCA-approved stove?	<p>Every day >>> [2.8]</p> <p>A few times per week, but not every day</p> <p>Rarely</p> <p>Never</p> <p>-98 N/A</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>-98</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>-98</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>-98</p>

2.B7	What is the main reason you do not use this stove every day? <i>(do not read options)</i>	Broken Does not work the way I like it Do not know how to use Do not like 6. Other (specify): _____ -98 N/A	1 2 3 4 6 -98	1 2 3 4 6 -98	1 2 3 4 6 -98
2.7	Type of traditional stove used	Metal stove without insulation Metal stove with bricks insulation Mud stove Saw dust stove Stove for wood Other(Specify) _____ -98 Not applicable -99 Don't know/Refuse	1 2 3 4 5 6 -98 -99	1 2 3 4 5 6 -98 -99	1 2 3 4 5 6 -98 -99

	(Ask from only houses)				
	Is this stove connected to the wall chimneys?	Yes	1	1	1
		No	2	2	2
	 ONLY FOR OBSERVATION	-98 N/A	-98	-98	-98
		-99 Don't know/Refuse	-99	-99	-99
	What do you use your stove and fireplace for in the last month?	For heating only	1	1	1
		For cooking only	2	2	2
		For both heating and cooking	3	3	3
		Do not use	-98	-98	-98
		-98 N/A	-99	-99	-99
		-99 Don't know/Refuse			
2.A10	Is there another stove in this household?	Yes [⇒next stove column]	1	1	1
		No >>>>[2.B10]	2	2	2

2.B10	(Ask only if there is NO MCA stove in this household)	1	Yes
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Answer for the last 7 days:

2.10	Do you have work day and non-working day (in the last 7 days)?	1	I don't have a work day [skip 2,3,4 and 5] I don't have a non working day (i.e. I work 7 days per week) [skip 6,7,8 and 9] I have a work and non working day -99. Don't know/ Refuse
		2	
		3	
		-99	

	Additional heating and cooking devices	Do you have the device?	Did you use it last workday?	When did you use it?			Did you use it last non working day	When did you use it?		
		Yes	Yes	Used			Yes	Used		
		No >> [next]	No >> [6]	No, did not use			No >> [next]	No, did not use		
		-99 Don't know/Refuse	-98 N/A >> [6]	-98 N/A			-98 N/A >> [next]	-98 N/A		
		>> [next]	-99 Don't know/Refuse >> [6]	Morning	Afternoon	Evening	-99 Don't know/Refuse >> [next]	Morning	Afternoon	Evening
				4H- 12H	12H-18H	18H-4H		4H- 12H	12H-18H	18H-4H
		1	2	3	4	5	6	7	8	9
	Low pressure boilers	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98

	Floor heaters	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Curtain heaters	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Electric heater 1	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Electric heater 2	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Electric heater 3	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Other heating device (Specify): _____	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Induction cooking	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Hot pot	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Electric cooking stove	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Gas stove cooking	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Rice cooker	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Water boiler/heater	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Conventional oven	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Other(Specify): _____	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98

Section 3. Fuel use and fueling behavior, frequency (MUST BE ANSWERED BY THE HOUSEHOLD MEMBER WHO LIGHTS THE STOVE)

Do you use any of these materials for fuel and lighting?

Fuel materials		Code:	Use for:	How often?	Reason why?	Do you buy it?
<i>(Read all options)</i>		Yes		Daily	<i>(Circle all that apply)</i> 1. Easy to get 2. Cheap 3. Free 4. Reduce waste 5. Easy to use 6. Less dust 7. Other(Specify)_____ -98 N/A	Yes
		No [⇒ Next Item]	Fuel	Few times per week		No
		-99 Don't know/Refuse [⇒ Next]	Light	Few times per month		-98 N/A
			Both	Few times per year		
			-98 N/A	-98 N/A		
			-99 Don't know/Refuse			
		3.1	3.2	3.3	3.4	3.5
1	Paper	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99		
2	Dry firewood	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99		
3	Cow and horse dung	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
4	Plastic	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
5	Asphalt roof shingles	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
6	Plastic bag	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
7	Particle board	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
8	Different types of garbage	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98

9	Worn out car and bicycle tires	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
10	Worn out clothes, cloth	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
11	Cloth, cotton	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
12	Flammable liquid, petroleum	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
13	Candle	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
14	Wet firewood	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99		
15	Gas	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
16	Sawdust	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
17	Coal	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99		
18	Bag of coal and firewood	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
19	Coal with its bag	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
20	Firewood with its bag	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
21	Others (Specify.....)	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98

Note: the first stove is the one used most often by the household.	Define chosen stove (Use same sequence defined in section 2)		
	1 st stove	2 nd stove	3 rd stove

3.6	Please describe your cold start procedure	If the respondent names paper :			
		(T) Put wood and paper to door side of stove and put coal on the wood and start	1	1	1
	<i>(Don't read the answers)</i>	(T) Put wood and paper ignite them first and put coal after wood start charcoaling	2	2	2
		(T) Put wood and paper to the chimney side, put coal to the door side and start	3	3	3
		(Im) First put coal and put wood and paper on the coal and start	4	4	4
	(T) – Traditional stove	(Im) First put wood and paper ignite them and put coal after wood start	5	5	5
	(Im) – Improved stove	Other(Specify) _____	6	6	6
		If the respondent DOES NOT name paper :			
	Identify stove type first than circle appropriate answer.	(T) Put wood to door side of stove and put coal on the wood and start	7	7	7
		(T) Put wood ignite them first and put coal after wood start charcoaling	8	8	8
		(T) Put wood to the chimney side, put coal to the door side and start	9	9	9
		(Im) First put coal and put wood on the coal and start	10	10	10
		(Im) First put wood ignite them and put coal after wood start	11	11	11
		Other(Specify) _____	12	12	12
		-98 N/A	-98	-98	-98
		-99 Don't know/refuse	-99	-99	-99

3.7	How do you control air intake for your stove? (Circle all that apply)	Open ash tray Use flue control on the chimney Use air intake control (MCA stoves only) -98 N/A -99 Don't know/refuse	1 2 3 -98 -99	1 2 3 -98 -99	1 2 3 -98 -99
3.8	<i>(Ask of MCA stoves only)</i> Did you get firing instructions for MCA-approved stoves?	Yes No -98 N/A -99 Don't know/Refuse	1 2 -98 -99	1 2 -98 -99	1 2 -98 -99
3.9	How many times did you remove ash from your stove yesterday?	Number of times (Put 0 if used yesterday but didn't remove ash): -98 N/A (did not use stove yesterday) -99 Don't know/Refuse	_____ -99	_____ -98 -99	_____ -98 -99

3.10 Please provide information on firing stoves between yesterday morning and today morning (Use same sequence defined in section 2)

Yesterday was : <div style="display: inline-block; vertical-align: top; margin-left: 10px;"> 1. A work day 2. Non work day </div>

3.11 First stove (1. Ulzii, 2. Khas, 3. Dul, 4. Golomt, 5. Traditional, 6. Other)

	Fueling Event	Time (Hour: Minute)	Purpose For heating1 For cooking ...2 Both purpose.....3 No fire-96 Skip >>> [3.37]	Was the stove warm or cold? Hot(flams).....1 Warm2 Cold.....3 N/A.....-98 Don't know/refuse . -99	Was there coal or embers already in the stove? Coal....1 Embers2 None..3 N/A....-98 Don't know/refuse.... -99	Type of fuel & quantities (Circle all that apply)									
						Firewood1	Coal2	Briquette3	Semi-Coked Coal4	Other (Specify)5 _____	kg	kg	kg	kg	kg
	First	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Second	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Third	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fourth	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fifth	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

	Sixth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Seventh	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Eighth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Ninth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Tenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Eleventh	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twelfth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Thirteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fourteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fifteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Sixteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Seventeenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Eighteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Nineteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twentieth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-first	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-second	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-third	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

	Twenty-fourth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-fifth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

*- To be weighed in special sacks

3.37 Second stove (1. Ulzii, 2. Khas, 3. Dul, 4. Golomt, 5. Traditional, 6. Other, -98 N/A)

	Fueling Event	Time (Hour: Minute)	Purpose For heating1 For cooking ...2 Both purpose.....3	Was the stove warm or cold? Hot(flams).....1 Warm2 Cold.....3 N/A....-98 Don't know/refuse . -99	Was there coal or embers already in the stove? Coal....1 Embers2 None...3 N/A....-98 Don't know/refuse.... -99	Type of fuel & quantities Firewood1 Coal2 Briquette3 Semi-Coked Coal4 Other (Specify)5 (Circle all that apply)									
							kg		kg		kg		kg		kg
	First	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Second	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Third	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fourth	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fifth	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Sixth	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Seventh	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Eighth	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Ninth	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Tenth	__:__	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

	Eleventh	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twelfth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Thirteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fourteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fifteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Sixteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Seventeenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Eighteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Nineteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twentieth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-first	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-second	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-third	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-fourth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-fifth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

*- To be weighed in special sacks

3.63 Third stove (1. Ulzii, 2. Khas, 3. Dul, 4. Golomt, 5. Traditional, 6. Other, -98 N/A)

	Fueling Event	Time (Hour: Minute)	Purpose For heating1 For cooking ...2 Both purpose.....3 No fire-96 Skip >>> [4.1]	Was the stove warm or cold? Hot(flams).....1 Warm2 Cold.....3 N/A.....-98 Don't know/refuse . -99	Was there coal or embers already in the stove? Coal....1 Embers2 None..3 N/A.....-98 Don't know/refuse.... -99	Type of fuel & quantities Firewood1 Coal2 Briquette3 Semi-Coked Coal4 Other (Specify)5 <i>(Circle all that apply)</i>									
							kg		kg		kg		kg		kg
	First	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Second	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Third	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fourth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fifth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Sixth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Seventh	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Eighth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Ninth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Tenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

	Eleventh	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twelfth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Thirteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fourteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Fifteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Sixteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Seventeenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Eighteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Nineteenth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twentieth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-first	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-second	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-third	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-fourth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	Twenty-fifth	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

*- To be weighed in special sacks

Section 4. Purchasing of fuel and their price

(CAN BE ANSWERED BY ANY HOUSEHOLD MEMBER FAMILIAR WITH FUEL PURCHASES)

4.1	Have you obtained COAL/FUEL by TRUCKS since last visit? <i>(remind them of date of last visit)</i>	1 2 -99	Yes No [⇒ 4.8] -99 Don't know/Refuse [⇒ 4.8]
-----	---	-----------------------	--

COAL/FUEL purchases by TRUCKs, since last visit:

Fuel code		Date obtained	Where did you get coal?	Did you share?	Amount of coal for your HH	Amount of money spent by your HH (in thousand tugrugs)			
Nalaikh		(month)	From a street retail vendor	Yes	(tons)	<i>(fill out 4.7.1 + 4.7.2 OR 4.7.3)</i>			
Alag tolgoi			From a coal market	No					
Baganuur			Khoroo assistance	-98 N/A					
Shariin gol			From a mine			4.7			
Shivee ovoo			Others(Specify)						
Korean (yontan)			-98 N/A						
Briquette (Egg shape)									
Briquette (Stick shape)									
Sawdust briquette									
Semi coking coal			-99 Don't know/Refuse						
Saw dust									
Other									
-98 N/A									
4.2		4.3	4.4	4.5	4.6	4.7.1	4.7.2	4.7.3	
First time	1 2 3 4 5 6 7 8 9 10 11 12 -98	— —	1 2 3 4 5 -98 -99	1 2 -98 -99					

Second time	1 2 3 4 5 6 7 8 9 10 11 12 -98	--	1 2 3 4 5 -98 -99	1 2 -98 -99				
Third time	1 2 3 4 5 6 7 8 9 10 11 12 -98	--	1 2 3 4 5 -98 -99	1 2 -98 -99				
Fourth time	1 2 3 4 5 6 7 8 9 10 11 12 -98	--	1 2 3 4 5 -98 -99	1 2 -98 -99				
Fifth time	1 2 3 4 5 6 7 8 9 10 11 12 -98	--	1 2 3 4 5 -98 -99	1 2 -98 -99				

4.8	Have you obtained COAL by SACKS in the last 30 days?	1 2 -99	Yes No [⇒ 4.12] -99 Don't know/Refuse [⇒ 4.12]
4.A10	What is the frequency for buying coal last month, if you purchase by sacks?	1 2 3 4 5 -98 -99	1 Every day 2 Once in every two days 3 Twice per week 4 Once a week 5 Less than once last week -98 N/A -99 Don't know/Refuse

4.10	How many SACKS of COAL have you bought in the last 7 days?	— — -98 -99	Number of sacks -98 N/A -99 Don't know/Refuse
4.09	How many SACKS of COAL have you bought in the last 14 days? (this includes what you bought in the last 7 days)	— — -98 -99	Number of sacks -98 N/A -99 Don't know/Refuse
4.11	Where do you usually get your COAL by SACKS ?	1 2 3 4 -98 -99	From a street retail vendor From a coal market Khoroo assistance Other(Specify) -98 N/A -99 Don't know/Refuse
4.12	When was your last purchase of COAL by SACKS ?	— — -98 -99	Date (month-day) -98 -99 Don't know/Refuse N/A

What is the price and amount for the LAST PURCHASE of COAL/FUEL BY SACKS?

	Fuel type	Number of SACKs -99 Don't know/Refuse	Price per SACK (thousand tugrugs) -99 Don't know/Refuse	Where did you get your coal on your last purchase? From a street retail vendor From a coal market Khoroo assistance Other(Specify) -98 N/A -99 Don't know/Refuse
		4.13	4.14	4.15
1	Nalaikh			1 2 3 4 -98 -99
2	Alag tolgoi			1 2 3 4 -98 -99
3	Baganuur			1 2 3 4 -98 -99
4	Shariin gol			1 2 3 4 -98 -99
5	Shivee ovoo			1 2 3 4 -98 -99
6	Korean (yontan)			1 2 3 4 -98 -99
7	Briquette (Egg shape)			1 2 3 4 -98 -99
8	Briquette (Stick shape)			1 2 3 4 -98 -99
9	Sawdust briquette			1 2 3 4 -98 -99
10	Semi coking coal			1 2 3 4 -98 -99

11	Saw dust			1 2 3 4 -98 -99
12	Other: _____			1 2 3 4 -98 -99
13	Don't know type			1 2 3 4 -98 -99

4.16	Have you purchased WOOD by TRUCKS since last visit?	1	Yes
		2	No [⇒ 4.23]
		-99	-99 Don't know/Refuse [⇒ 4.23]

How much WOOD have you obtained by TRUCKS, since last visit?

	Wood code Pine Larch Burch Rim timber board Waste wood Mixed Other (Specify)_____	Date purchase d (month)	Where did you get wood? From a street retail vendor From a wood market Khoroo assistance Mountain Others(Specify) -98 N/A	Did you share? Yes No -98 N/A	Amount of wood for your HH (m³)	Amount of money spent (in thousand tugrugs)		
						(fill out 4.22.1 + 4.22.2 OR 4.22.3)		
						For wood only	For transp- ortation only	For wood with transp- ortation
	-98 N/A -99 Don't know	Don't know/Refuse .-99						
	4.17	4.18	4.19	4.20	4.21	4.22.1	4.22.2	4.22.3

First time	1 2 3 4 5 6 7 -98 -99	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				
Second time	1 2 3 4 5 6 7 -98 -99	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				
Third time	1 2 3 4 5 6 7 -98 -99	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				
Fourth time	1 2 3 4 5 6 7 -98 -99	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				
Fifth time	1 2 3 4 5 6 7 -98 -99	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				

4.23	Have you purchased WOOD by SACKS in last 30 days?	1 2 -99	Yes No [⇒ 4.27] -99 Don't know/Refuse [⇒4.27]
4.A25	What is the frequency for buying wood last 30 days, if you purchase by sacks?	1 2 3 4 5 -98 -99	1 Every day 2 Once in every two days 3 Twice per week 4 Once a week 5 Less than once last week -98 N/A -99 Don't know/Refuse
4.25	How many SACKS of WOOD have you bought in the last 7 days?	— — -98 -99	Number of sacks -98 N/A -99 Don't know/Refuse
4.24	How many SACKS of WOOD have you bought in the last 14 days? (this includes what you bought in the past 7 days)	— — -98 -99	Number of sacks -98 N/A -99 Don't know/Refuse
4.26		1 2	From a street retail vendor From a coal market

	Where do you usually get your WOOD by SACKS ?	3 4 5 -98 -99	Khoroo assistance Other(Specify) _____ Mountain -98 N/A -99 Don't know/Refuse
4.27	When was your last purchase of WOOD by SACKS ?	_____ -98 -99	Date(month-day) -98 N/A -99 Don't know/Refuse

What is the price and amount for the last purchasing firewood?

	Firewood type	Number of SACKs	Price per SACK (thousand tugrugs)	Where did you get your firewood on your last purchase?
		-99 Don't know/Refuse	-99 Don't know/Refuse	From a street retail vendor From a wood market Khoroo assistance Other(Specify) Mountain -98 N/A

				-99 Don't know/Refuse
		4.28	4.29	4.30
1	Pine			1 2 3 4 5 -98 -99
2	Larch			1 2 3 4 5 -98 -99
3	Burch			1 2 3 4 5 -98 -99
4	Rim timber board			1 2 3 4 5 -98 -99
5	Waste wood			1 2 3 4 5 -98 -99
6	Mixed			1 2 3 4 5 -98 -99
7	Other (Specify).....			1 2 3 4 5 -98 -99
8	Don't know the wood type			1 2 3 4 5 -98 -99

Section 5. Impressions

5.1	How has the smoke in Ulaanbaatar changed comparing this time to last March? (read all options)	1 2 3 4 5 -99	1. Much better 2. Better 3. Same 4. Worse 5. Much worse -99. Don't know/Refuse
5.2	<i>(Ask only if NO MCA-approved improved stove)</i> Will you acquire the improved stove similar like MCA provided ones ?	1 2 -98 -99	1. Yes 2. No >>>[5.4] -98 N/A >>>>[5.5] -99 Don't know/Refuse>[5.5]
5.3	If you decided to acquire the improved stove, please describe reasons? <i>(Do not give respondents answers. Circle all that apply)</i>	Heats well. Keep warm in long time..... Saves fuel expenses Good appearance and color Low price after subsidies Believed to reduce air pollution Gives an opportunity to receive subsidies on electricity bill District and Khoroo Governors office insisted to purchase the improved stove	1 2 3 4 5 6 7 8 9

		Takes less time to fuel	10
		Other (Specify).....	-98
		N/A	-99
		Don't know/Refuse.....	
5.4	<p>If you decided not to acquire the improved stove, please describe reasons?</p> <p><i>(Do not give respondents answers. Circle all that apply)</i></p>	<p>Although, the improved stove has been subsidized, don't have a cash to purchase it.....</p> <p>Don't want to give traditional stove.....</p> <p>Can't find stove top to trade for new stove.....</p> <p>Difficult for usage (takes time for lightening, can't cook on it and refill fuel during firing, etc.) .</p> <p>Doubt that it will perform reliably during extreme cold winter.....</p> <p>Don't believe that stove reduce smoke.....</p> <p>Gets overheated, posing risks to small children and elderly of getting burnt.....</p> <p>Emits more smoke</p> <p>Difficult/ cannot to cook</p> <p>Other (Specify)...</p> <p>-98 N/A</p> <p>-99 Don't know/Refuse.....</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>-98</p> <p>-99</p>

5.5 Comparison of improved and traditional stove. (Ask it only household with improved stove or previously had improved stove)

Advantages / Weaknesses		Which stove:				
Now you have more experience on the stove please name which one is:		Traditional				
		Improved				
		Equal				
		-98 N/A				
(Read each option)		-99 Don't know/Refuse				
1	Takes more time (firing, refueling etc...)	1	2	3	-98	-99
2	Uses less fuel	1	2	3	-98	-99
3	Requires more cold starts	1	2	3	-98	-99
4	Emits less smoke and pollution	1	2	3	-98	-99
5	Maintains the heat after one firing for a longer time	1	2	3	-98	-99
6	Generates less ash	1	2	3	-98	-99
7	Better appearance and color	1	2	3	-98	-99
8	Easier to remove ash	1	2	3	-98	-99
9	Adaptable for more types of fuel	1	2	3	-98	-99
10	Gets more overheated, posing risks to small children and elderly of getting burnt	1	2	3	-98	-99

11	Firing takes more meticulous effort	1	2	3	-98	-99
12	Easier to cook	1	2	3	-98	-99
13	Faster to cook	1	2	3	-98	-99
14	Less smoke through chimney	1	2	3	-98	-99
15	Less cleaning inside of the chimney	1	2	3	-98	-99
16	Which one disrupts your sleep in night more	1	2	3	-98	-99

SECTION -6: HOUSEHOLD DEMOGRAPHIC AND SOCIAL INFORMATION

Is there any changes in your household since last interview?

6.A1 Any person added in your household since last interview - **Yes - 1 : No - 2** (if yes, write new person's information in table)

6.B1 Any person out from your household since last interview - **Yes - 1 : No - 2** (if yes, cross out person's name)

Personal number /	Names of HH members	Is it respondent	Is he/she a permanent member of HH	Does this person fire stoves?	What is his/her relationship to the head of the HH?	Sex	How old he/she	Marital status	Indicate the highest education level ever obtained	How many hours did he/she spend at your home the last working day and non-working day?
	(Household is group of people which is consisted of one or more individuals, live together under the same roof with their collective budget and provide their food and other commodities together)	1 Yes 2 No	(sleeps here at night)	1 Usually 2 Sometimes 3 No Fires	Head of household Husband/wife Son/daughter Mother/father Brother/sister Parent in law Son in law/daughter in law Grandfather / grandmother Grandson / granddaughter Other relatives Non relative	1 Male 2 Female	(If <1 year old, write 0) -99 Don't know/Refuse	(N/A, if respondent is under 15) Not married Officially married Non married partners Separated Divorced Widowed -98 N/A	(Ask respondents aged 6 and above) Non educated Elementary not graduate Elementary(~11) Middle school(~15) High school graduated(~18) Vocational school Bachelor and diploma Master and above -98 N/A -99 Don't know/Refused	- (if does not work, put 98) -97 Living apart from home -98 N/A -99 Don't know/Refused
	People who stay at different place to sleep, but eat together, and spend some time in the family, are considered as one of the household		1 Yes 2 No							work day (hours) Non work day (hours)

	members)										
	6.1	6.A2	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.10
01		1 2	1 2	1 2 3	1	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
02		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
03		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
04		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
05		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
06		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
07		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
08		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
09		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
10		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
11		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
12		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	----	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--

13		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	---	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
14		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	---	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--
15		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	---	1 2 3 4 5 6 - 98	1 2 3 4 5 6 7 8 -98 - 99	--	--

SECTION -6: CONTINUED

Personal number	Did he/she work for monetary compensation during the last 12 months?	If yes, please describe the employment status of his/her primary job?	How much did this person earn income from last month)	In last month how many work/school days did this person miss due to illness? (respiratory only)	Please provide us with the information on the pension/allowance/income this person received during the last month?									
	1 Yes 2 No [⇒ 6.13] -98 N/A [⇒ 6.13] -99 Don't know/Refuse [⇒6.13]	Paid employee	-98 N/A	0 Didn't miss -98 N/A -99 Don't know -97 Did not work last month	If didn't get allowance0 or cross lines Don't know / Refuse-99 Old age pension / allowance Disability pension/ Allowance for the loss of life of household breadwinner? Military pension Pregnancy and child birth allowance Allowance for looking after child Children fund Other type of allowance									
		Employer												
		Member of cooperative												
		Self-employed	-99 Don't know / Refuse											
		Unpaid family worker												
		Other	-97 Did not work last month											
		-98 N/A												
		-99 Don't know												
					1 st source			2 nd source			3 rd source			
					6.15			6.16			6.17			
					Type	Amount	Month	Type	Amount	Month	Type	Amount	Month	
	6.11	6.12	6.14	6.13	6.15.1	6.15.2	6.15.3	6.16.1	6.16.2	6.16.3	6.17.1	6.17.2	6.17.3	

01	1 2 -98 -99	1 2 3 4 5 6 - 98											
02	1 2 -98 -99	1 2 3 4 5 6 - 98											
03	1 2 -98 -99	1 2 3 4 5 6 - 98											
04	1 2 -98 -99	1 2 3 4 5 6 - 98											
05	1 2 -98 -99	1 2 3 4 5 6 - 98											
06	1 2 -98 -99	1 2 3 4 5 6 - 98											
07	1 2 -98 -99	1 2 3 4 5 6 - 98											
08	1 2 -98 -99	1 2 3 4 5 6 - 98											
09	1 2 -98 -99	1 2 3 4 5 6 - 98											
10	1 2 -98 -99	1 2 3 4 5 6 - 98											
11	1 2 -98 -99	1 2 3 4 5 6 - 98											
12	1 2 -98 -99	1 2 3 4 5 6 - 98											
13	1 2 -98 -99	1 2 3 4 5 6 - 98											

14	1 2 -98 -99	1 2 3 4 5 6 - 98											
15	1 2 -98 -99	1 2 3 4 5 6 - 98											

6.18

Did this household receive any other type of money from outside in the past month that you have not already told me about? (like from another family member living in countryside or another country)

Yes

No => **go to 7.A1**

-99 Don't know/Refuse => **go to 7.A1**

6.19 How much was earned in the past month? _____ tugrug

-98 N/A

-99 don't know/Refuse

Section 7. People's health (Ask only of stove tender)

7.A1	Is there any person who regularly smokes inside this household?	1 2 -99	Yes No -99 Don't know/Refuse
7.1	Do you smoke? (at least 1 per day)	1 2 -99	Yes No -99 Don't know/Refuse

7.A6. Is there any household member under age 5 or over age 60?

Yes

No >> skip to 7.A78

Now consider all household members over 60 and under 5 years old. Which one experiences the most respiratory symptoms? (Answer the following questions for the person named)			Name: _____ Household member number from question 6.1: _____	
7.B6. Does this person smoke?			1 Yes 2 No -98 NA -99 Don't know/ Refuse	
	Symptoms	a) Does this person have it now? 1 Yes 2 No >>[next item] -99 Don't know/Refuse >>[next item]	b) How many days has it lasted? 	c) Is the person taking medication for it? 1 Yes 2 No -98 NA -99 Don't know/Refuse
	Phlegm	1 2 -99	— — —	1 2 -98 -99
	Cough	1 2 -99	— — —	1 2 -98 -99
	Shortness of breath	1 2 -99	— — —	1 2 -98 -99
	Wheezing	1 2 -99	— — —	1 2 -98 -99
	Dizziness	1 2 -99	— — —	1 2 -98 -99
	Eczema	1 2 -99	— — —	1 2 -98 -99
	Dry or sore throat	1 2 -99	— — —	1 2 -98 -99
	Eye irritation	1 2 -99	— — —	1 2 -98 -99

	Cold	1 2 -99	— — —	1 2 -98 -99
	Chest tightness	1 2 -99	— — —	1 2 -98 -99
	Rapid heartbeat	1 2 -99	— — —	1 2 -98 -99
	Burned themselves on the stove	1 2 -99	— — —	1 2 -98 -99

Is there any other household member over 60 and under 5 that you have not already discussed? <i>If no, skip to [7.A78]</i>		Name: _____ Household member number from question 6.1: _____	
7.A18. Does this person smoke?		1 Yes 2 No -98 NA -99 Don't know/ Refuse	
	Symptoms	a) Does this person have it now? 1 Yes 2 No >>[next item] -99 Don't know/Refuse >>[next item]	b) How many days has it lasted? c) Is the person taking medication for it? 1 Yes 2 No -99 Don't know/Refuse

	Phlegm	1 2 -99	— — —	1 2 -98 -99
	Cough	1 2 -99	— — —	1 2 -98 -99
	Shortness of breath	1 2 -99	— — —	1 2 -98 -99
	Wheezing	1 2 -99	— — —	1 2 -98 -99
	Dizziness	1 2 -99	— — —	1 2 -98 -99
	Eczema	1 2 -99	— — —	1 2 -98 -99
	Dry or sore throat	1 2 -99	— — —	1 2 -98 -99
	Eye irritation	1 2 -99	— — —	1 2 -98 -99
	Cold	1 2 -99	— — —	1 2 -98 -99
	Chest tightness	1 2 -99	— — —	1 2 -98 -99
	Rapid heartbeat	1 2 -99	— — —	1 2 -98 -99
	Burned themselves on the stove	1 2 -99	— — —	1 2 -98 -99

<p>Is there any other household member over 60 and under 5 that you have not already discussed?</p> <p><i>If no, skip to [7.A78]</i></p>	<p>Name: _____</p> <p>Household member number from question 6.1: _____</p>
---	--

7.A30. Does this person smoke?			1 Yes 2 No -98 NA -99 Don't know/ Refuse	
	Symptoms	a) Does this person have it now? 1 Yes 2 No >>[next item] -99 Don't know/Refuse >>[next item]	b) How many days has it lasted?	c) Is the person taking medication for it? 1 Yes 2 No -99 Don't know/Refuse
	Phlegm	1 2 -99	— — — —	1 2 -98 -99
	Cough	1 2 -99	— — — —	1 2 -98 -99
	Shortness of breath	1 2 -99	— — — —	1 2 -98 -99
	Wheezing	1 2 -99	— — — —	1 2 -98 -99
	Dizziness	1 2 -99	— — — —	1 2 -98 -99
	Eczema	1 2 -99	— — — —	1 2 -98 -99
	Dry or sore throat	1 2 -99	— — — —	1 2 -98 -99
	Eye irritation	1 2 -99	— — — —	1 2 -98 -99

	Cold	1 2 -99	— — —	1 2 -98 -99
	Chest tightness	1 2 -99	— — —	1 2 -98 -99
	Rapid heartbeat	1 2 -99	— — —	1 2 -98 -99
	Burned themselves on the stove	1 2 -99	— — —	1 2 -98 -99

Is there any other household member over 60 and under 5 that you have not already discussed? <i>If no, skip to [7.A78]</i>		Name: _____ Household member number from question 6.1: _____		
7.A42. Does this person smoke?		1 Yes 2 No -98 NA -99 Don't know/ Refuse		
	Symptoms	a) Does this person have it now? 1 Yes 2 No >>[next item] -99 Don't know/Refuse >>[next item]	b) How many days has it lasted?	c) Is the person taking medication for it? 1 Yes 2 No -99 Don't know/Refuse
	Phlegm	1 2 -99	— — —	1 2 -98 -99

	Cough	1 2 -99	— — —	1 2 -98 -99
	Shortness of breath	1 2 -99	— — —	1 2 -98 -99
	Wheezing	1 2 -99	— — —	1 2 -98 -99
	Dizziness	1 2 -99	— — —	1 2 -98 -99
	Eczema	1 2 -99	— — —	1 2 -98 -99
	Dry or sore throat	1 2 -99	— — —	1 2 -98 -99
	Eye irritation	1 2 -99	— — —	1 2 -98 -99
	Cold	1 2 -99	— — —	1 2 -98 -99
	Chest tightness	1 2 -99	— — —	1 2 -98 -99
	Rapid heartbeat	1 2 -99	— — —	1 2 -98 -99
	Burned themselves on the stove	1 2 -99	— — —	1 2 -98 -99

<p>Is there any other household member over 60 and under 5 that you have not already discussed?</p> <p><i>If no, skip to [7.A78]</i></p>	<p>Name: _____</p> <p>Household member number from question 6.1: _____</p>
---	---

7.A54. Does this person smoke?			1 Yes 2 No -98 NA -99 Don't know/ Refuse	
	Symptoms	a) Does this person have it now? 1 Yes 2 No >>[next item] -99 Don't know/Refuse >>[next item]	b) How many days has it lasted?	c) Is the person taking medication for it? 1 Yes 2 No -99 Don't know/Refuse
	Phlegm	1 2 -99	— — —	1 2 -98 -99
	Cough	1 2 -99	— — —	1 2 -98 -99
	Shortness of breath	1 2 -99	— — —	1 2 -98 -99
	Wheezing	1 2 -99	— — —	1 2 -98 -99
	Dizziness	1 2 -99	— — —	1 2 -98 -99
	Eczema	1 2 -99	— — —	1 2 -98 -99
	Dry or sore throat	1 2 -99	— — —	1 2 -98 -99
	Eye irritation	1 2 -99	— — —	1 2 -98 -99
	Cold	1 2 -99	— — —	1 2 -98 -99
	Chest tightness	1 2 -99	— — —	1 2 -98 -99
	Rapid heartbeat	1 2 -99	— — —	1 2 -98 -99

	Burned themselves on the stove	1 2 -99	— — —	1 2 -98 -99
--	--------------------------------	---------	-------	-------------

Is there any other household member over 60 and under 5 that you have not already discussed? <i>If no, skip to [7.A78]</i>		Name: _____ Household member number from question 6.1: _____		
7.A66. Does this person smoke?		1 Yes 2 No -98 NA -99 Don't know/ Refuse		
	Symptoms	a) Does this person have it now? 1 Yes 2 No >>[next item] -99 Don't know/Refuse >>[next item]	b) How many days has it lasted?	c) Is the person taking medication for it? 1 Yes 2 No -99 Don't know/Refuse
	Phlegm	1 2 -99	— — —	1 2 -98 -99
	Cough	1 2 -99	— — —	1 2 -98 -99
	Shortness of breath	1 2 -99	— — —	1 2 -98 -99
	Wheezing	1 2 -99	— — —	1 2 -98 -99

	Dizziness	1 2 -99	— — —	1 2 -98 -99
	Eczema	1 2 -99	— — —	1 2 -98 -99
	Dry or sore throat	1 2 -99	— — —	1 2 -98 -99
	Eye irritation	1 2 -99	— — —	1 2 -98 -99
	Cold	1 2 -99	— — —	1 2 -98 -99
	Chest tightness	1 2 -99	— — —	1 2 -98 -99
	Rapid heartbeat	1 2 -99	— — —	1 2 -98 -99
	Burned themselves on the stove	1 2 -99	— — —	1 2 -98 -99

7.A78	In the past 30 days was medication purchased to treat any of these symptoms I just mentioned for any household member, of any age?	1 2 -99	Yes No >>>[SECTION 8] -99 Don't know/Refuse>>[SECTION 8]
7.B78	How much did you spend on these medicines in the past 30 days? <i>(enumerator helps person calculate total):</i>	— — — -98 -99	TOTAL AMOUNT -98 NA -99 Don't know/Refuse

Section 8. Measurement

8.1	Does the household have electricity?		1 2	Yes No [>>>8.A3]
8.2	How much was the electricity bill for your household last month? (Only for your household)		__ __ __ __ -98 -99	Month Amount -98 N/A -99 Don't know/Refuse
8.A3	(Only for ger) Have you changed your ger size since the last visit?		1 2 -98	Yes No >>> [8.A14] -98 N/A
8.3	(Only for ger) How big is the ger? 👁 ONLY FOR OBSERVATION	__ __ __cm __ __ __cm __ __ __cm	Center height Door height RADIUS (center to door)	

			-98	-98 N/A
8.A4	<i>(Only for house)</i> Have you changed your house size since the last visit?		1 2 -98	Yes No >>> [8.A6] -98 N/A
8.4	<i>(Only for house)</i> <i>If the room with the main stove IS rectangular:</i> What are the height, width and length of the room? 👁 ONLY FOR OBSERVATION		___cm ___cm ___cm -98 -99	Height Width Length -98 N/A -99 Don't know/refuse

8.5	<p>(Only for house)</p> <p>If the room with the main stove IS NOT rectangular:</p> <p>What are the height, and other dimensions of the room?</p> <p>Please draw the shape below and label the sides.</p> <p>👁 ONLY FOR OBSERVATION</p>	<p>___cm</p> <p>___cm</p> <p>___cm</p> <p>___cm</p> <p>___cm</p> <p>___cm</p> <p>___cm</p> <p>___cm</p> <p>___cm</p> <p>-98</p> <p>-99</p>	<p>Height</p> <p>Side 1</p> <p>Side 2</p> <p>Side 3</p> <p>Side 4</p> <p>Side 5</p> <p>Side 6</p> <p>Side 7</p> <p>Side 8</p> <p>-98 N/A</p> <p>-99 Don't know/refuse</p>
8.A6	<p>(Only for house)</p> <p>Have you changed your wall thickness since the last visit?</p>	<p>1</p> <p>2</p>	<p>Yes</p> <p>No >>> [8.A7]</p>

			-98	-98 N/A
	8.6	<i>(Only for house)</i> Main wall thickness 👁 ONLY FOR OBSERVATION	 -98 -99	 (cm) -98 N/A -99 Not possible to measure
8.A7	<i>(Only for house)</i> Have you made any change in your windows since the last visit?		1 2 -98	Yes No >>> [8.A14] -98 N/A

Question Number <i>(Only for house)</i>	WINDOWS (not covered window) Start from nearest window from door and count clockwise)	Present? Yes No -98 N/A	Type of Window: Single Wooden Double Wooden Vacuum Other -98 N/A	Direction of Window: South North East West -98 N/A	Size of window:	
					Width (cm)	Height (cm)
8.7	First Window	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.8	Second Window	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.9	Third Window	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.10	Fourth Window	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.11	Fifth Window	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.12	Sixth Window	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.13	Seventh Window	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		

8.A14	Have you added or changed your door since the last visit?	1 2	Yes No >>> [NEXT SECTION]
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Question Number (For both houses and gers)	DOORS <i>If HH has only one door then it's outside door</i> <i>Don't count vestibule door</i>	Present? Yes No -98 N/A	Type: Single wooden door Insulated wooden door Metal door Wooden door with metal cover Vacuum door Others (Specify) -98 N/A -99 Don't know/Refuse
8.14	Outside door	1 2 -98	1 2 3 4 5 6 -98 -99
8.15	Inside door	1 2 -98	1 2 3 4 5 6 -98 -99

HOUSEHOLD EXPENDITURES

We are almost done. In this last section, I would like to ask you some questions about your recent household expenses. This is just to help us understand general economic changes in the community. Remember that your answers are confidential, \. It is just for general information across the community. You can refuse to answer if you don't want to.

Please tell me how much your household spent on any of the following in the past 30 days?		Amount Spent in last 30 days (MNT) - 97 Refuse to answer -99 Don't know							
9.1	Regular food expenditures from vendors/markets (meat,milk, flour, rice, sugar, potato, sweets, fruits, vegetables, etc.) and Other food expenditures (tea, salt, oil, etc.) (if nothing note as "0")								
Did your household buy any of the following goods or services in the past 30 days? (if nothing note as "0")		Last 30 days total (MNT)							
9.2	Vodka, wine, cigarettes (Excluding consumption during Tsagaan sar, wedding and naadam)								
9.3	Cost for water consumption (household and and livestock consumption)								
9.4	Shoes and clothing, textiles (all types)								
9.5	Public transport and total fuel expenditures (for domesticuses and transportation)								
9.6	Gifts and transfers of money (to individuals within or outside the household)								
9.7	Mobile phone service								
9.8	Loan payment (includes payment of the principal and interest)								
9.9	Renting of immovable properties (except livestock infrastructure renting such as renting of animal shelter)								
9.10	Other domestic goods (school supplies, cosmetics, subscription of newspaper and journal, toiletry items etc.)								

HOUSEHOLD EXPENDITURES (CONTINUED)

	EXPENDITURE		Does the household have it now ?	Last 12 months total price (MNT)													
			Yes No >>[next item]	How much did you spend on this in the past 12 months? 0 = They have it but did not purchase in past 12 months -97 Refuse to answer - 98 N/A -99 Don't know													
9.11	Immovable assets (new purchases and maintenance costs)	Land	1 2														
9.12		Summer housing	1 2														
9.13		Winter housing	1 2														
9.14		Apartment	1 2														
9.15		Private luxury house	1 2														
9.16		Other (please describe below)	1 2														
9.17	Ger and home appliances (new purchases and maintenance costs)	Mongolian ger	1 2														
9.18		Household Appliances: Refrigerator, freezer	1 2														
9.19		Household Appliances: Washing machine	1 2														
9.20		Household Appliances: Electrical stove	1 2														
9.21		Household Appliances: Gas stove	1 2														
9.22		Electronic Appliances: Radio	1 2														
9.23		Electronic Appliances: TV and Dish antenna set	1 2														
9.24		Electronic Appliances: Cell phones	1 2														
9.25		Electronic Appliances: Computer (desktop or notebook)	1 2														
9.26	Other (please describe below)	1 2															
9.27	Transportation vehicle	Bicycle	1 2														
9.28		Motorbike	1 2														
9.29		Car	1 2														
9.30		Truck															
9.31		Other_____															
9.32	Other	Schooling fees	1 2														
9.33		Celebrations (Tsagaan Sar, weddings, funerals, etc.)	1 2														
9.34		Other expenses (please describe below)	1 2														

Outside Temperature:

--

Thank You for participating in our survey!

Time of completion:

Hour	Minute				
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QUALITY CONTROL SHEET:

SURVEY RECORDS (to be filled by the supervisor)

SUPERVISOR																				
	Code																			
	Name																			
	Supervisor's verification and confirmation																Month			Day
	Signature of the supervisor																			

CLARIFICATION Follow the Field Supervisor's checklist.

ANNEX 2B. PHASE III HOUSEHOLD SURVEY – MONGOLIAN

ГЭР ХОРООЛЛЫН АЙЛ ӨРХИЙН ЗУУХ АШИГЛАХ ЗАН ҮЙЛИЙН СУДАЛГААНЫ АСУУЛГА

ӨРХИЙН ХУВИЙН ДУГААР: _____

ӨРХИЙН БАЙРШЛЫН СОЛБИЦОЛ	ӨРГӨРӨГ (N/S)	УРТРАГ (E/W)
	_____ . _____ . _____	_____ . _____ . _____

ӨРХИЙН ХАЯГ:	
ДҮҮРЭГ:	
ХОРОО:	
ХЭСЭГ: Мэдэхгүй бол (-99)	
ГУДАМЖНЫ НЭР:	
ХААЛГАНЫ ДУГААР:	

(Асуултад хариулж байгаа хүн зуухтай байнга харьцдаг, түлшний худалдан авалтын талаар мэддэг хүн байх ёстойг санаарай. Бүлэг 1, 6 болон 9 дээр өрхийн бусад гишүүдээс туслалцаа авч болно.)

S00. Судалгаанд оролцогч, зуухтай байнга харьцдаг хүний нэр?

Багийн ахлагчийн мэдээлэл																					
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Багийн ахлагчийн гарын үсэг																					

Тоологчын мэдээлэл	
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Овог,нэр:	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>
Тоологчын гарын үсэг	

	1 дэхь удаа (он/сар/өдөр)	2 дахь удаа (он/сар/өдөр)	3 дахь удаа (он/сар/өдөр)	Үр дүнгийн код
Он, сар, өдөр	___ / ___ / __ __	___ / ___ / __ __	___ / ___ / __ __	Судалгаа бүрэн авагдсан
Үр дүн	<div> <div>1 2 3 4 5 6 7</div> <div>8 9 10 11</div> </div>	<div> <div>1 2 3 4 5 6 7</div> <div>8 9 10 11</div> </div>	<div> <div>1 2 3 4 5 6 7</div> <div>8 9 10 11</div> </div>	<p>Судалгаа бүрэн авагдсан гэхдээСууцны төрөл зөрсөн</p> <p>Судалгаа бүрэн авагдсан гэхдээЗуухны төрөл зөрсөн</p> <p>Судалгаа өгөх өрхийн гишүүн эзгүй байсан(дахин очино)</p> <p>Эзгүй байсан (дахин очино)</p> <p>Заагдсан хаягаараа олдоогүй(Судалгааг</p>

ТАНИЛЦУУЛГА

Судалгааны багын гишүүн нь "Статистикийн тухай" болон "Хувь хүний нууцийн тухай" Монгол Улсын хуулийн хүрээнд ажиллах болно.Танай өрхийн гишүүдийн талаарх бүх мэдээллийг чандлан нууцалж, зөвхөн судалгаа шинжилгээний зориулалтаар ашиглана.

Судалгааг хэнээс авах: Галаа ихэвчлэн түлдэг, түлшний худалдан авалтын талаар мэддэг өрхийн гишүүнээс асуулгыг авна. Асуулгын **1, 2, 6-Р ХЭСГҮҮДЭД** өрхийн бусад гишүүдийн туслалцааг авч болно.

Сайн байна уу. Намайг гэдэг. Би Та бүхэнтэй РОБУСТ ХХК болон ШУА-ийн Философи, Социологи, Эрхзүйн хүрээлэнгийн хамтран хийж буй Зуух ашиглалтын болон агаарын бохирдолынталаар судалгааг авах зорилгоор хоёр дахь удаагаа уулзаж байна. Энэ судалгааг Монголын Мянганы Сорилтын сангаас хийлгэж байгаа бөгөөд судалгааны баг нь сайжруулсан зуух нэвтрүүлж буй төслөөс тусдаа болно. Би таньтай танай өрхийн зуух ашиглалтын талаарх мэдээлэл,галлагааны горим, өрхийн гишүүдийн хүн ам зүй, нийгэм эдийн засгийн зарим мэдээлэл, эрүүл мэндийн асуултад хариулт авна. Судалгааны ярилцлага 20-30 минут орчим үргэлжилнэ.

Таниас зөвшөөрөл авсны үндсэн дээр бидний хооронд өрнөсөн яриаг дуу хураагуур дээр бичиж авах ба таниас авсан мэдээний нууцлалыг хадгалж зөвхөн төслийн үнэлгээ хийхэд ашиглана. Танай өрхийн галлагааны давтамж, өчигдөр галлагаанд хэрэглэсэн нүүрс болон модны хэмжээ, шаардлагатай бол байшин гэрийн хэмжээг дахин хэмжих болно. Өмнө танай зуух болон хананд байрлуулсан температур хэмжигчийг буцаан авах болно.

Судалгаанд оролцож буй айл бүрт судалгааг авах бүрт 2000 төгрөгийнгар утасны цэнэглэгч карт олгоно. Мөн бидний хийсэн ажлыг шалгаж өөр судалгааны баг ирж магадгүй.

Бидний судалгаанд оролцохоор зөвшөөрсөн явдалд баярлалаа та ярилцлагыг зогсоож оролцохгүй байх эрхтэй

Таны өгсөн хариулт нь танай өрхийн ирээдүйд эдлэх хөнгөлөлт, банкнаас эдлэх давуу талд зэрэгт ямар нэгэн байдлаар нөлөөлөхгүй тул Та судалгаанд үнэн зөв хариулт өгч оролцохыг хүсч байна

Та энэ удаагийн санал асуулга өгөхийг зөвшөөрч байвал та гарын үсгээ зурна уу!

Гар утасны цэнэглэгч картын дугаар: _____ гар утасны нэгж : ____

Хүлээн авагчийн нэр _____ Хүлээн авагчийн гарын
үсэг _____

Судалгааг эхэлсэн:

Цаг	Минут
<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>

Mobile credit card number: _____ Mobile Unit: _ _ _ _

Name of Recipient _____

Signature of Recipient _____

Температур Хэмжигчийн буцааж авсан тухай



Зуухан дээр байрлуулсан Температур Хэмжигчийн дугаар#: _ _ _ _ _


Авсан эсэх:	Авах үеийн байдал: (Олон сонголттой байж болно)	Байрлал:	Анхны байрлал өөрчлөгдсөн эсэх:	Аваагүй шалтгаан
Цуглуулж авсан.....1 Аваагүй.....2	Бүрэн бүтэн1 Хэсэг хэсэг болсон.....2 Сэв суусан,хэлбэр өөр болсон.....3 Шатсан байдалтай.....4 Сонин дуу чимээ гарсан.....5 Бусад (тодруул)..... 6 Темпратур Хэмжигч алга болсон7	Зуухныхөлд.....1 Гэрийн унь.....2 Зуухны доор шалан дээр3 Хананд4 Багана5 Бусад (тодруул).....6 Тохирохгүй (алга болсон бол).....-98	Анхны байрлал.....1 Шилжүүлсэн.....2	

Хана эсвэл үннд байрлуулсан Температур Хэмжигчийн дугаар#: _ _ _ _ _

Авсан эсэх:	Авах үеийн байдал: (Олон сонголттой байж болно)	Байрлал:	Анхны байрлал өөрчлөгдсөн эсэх:	Аваагүй шалтгаан
Цуглуулж авсан.....1 Аваагүй.....2	Бүрэн бүтэн1 хэсэг хэсэг болсон.....2 сэв суусан,хэлбэр өөр болсон.....3 Шатсан байдалтай.....4 Сонин дуу чимээ гарсан.....5 Бусад (тодруул)..... 6 Темпратур Хэмжигч алга болсон7	Зуухныхөлд.....1 Гэрийн унь.....2 Зуухны доор шалан дээр3 Хананд4 Багана5 Бусад (тодруул).....6 Тохирохгүй (алга болсон бол).....-98	Анхны байрлал.....1 Шилжүүлсэн.....2	

Бүлэг 1. Сууц, түүний дулаалга(Өрхийн бусад насанд хүрсэн гишүүдийн туслалцааг авч болно.)

№	Асуулт		Код	Хариулт
1.A1	Өмнөх судалгаанаас хойш өөр хашаа руу нүүсэн үү?		1	Тийм
	 Зөвхөн ажиглалтаар нөхөх		2	Үгүй
1.1	Танайх үүдний амбаартай юу?		1	Тийм
	 Зөвхөн ажиглалтаар нөхөх		2	Үгүй [⇒1.A3]
1.A2		Танайх өмнөх судалгаанаас хойш шинэ үүдний амбаар авсан уу/барьсан уу?	1	Тийм
			2	Үгүй[⇒1.A3]
			-98	-98 Тохирохгүй
1.2		Танайх үүдний амбаараа Мянганы Сорилтын Сангаас авсан үү? (Зөвхөн гэртэй айлаас асууна)	1	Тийм
			2	Үгүй
			-98	-98 Тохирохгүй

1.A3	Өмнөх судалгаанаас хойш сууцны төрөл өөрчлөгдсөн үү. (гэрээс байшин руу нүүсэн, байшингаас гэр рүү нүүсэн, гэрийн хэмжээ өөрчлөгдсөн гэх мэт)	1 2	Тийм Үгүй
1.3	Танай сууцны төрөл юу вэ?  Зөвхөн ажиглалтаар нөхөх	1 2	Гэр Байшин [⇒1.15]



№	Хэдэн давхар вэ? (Дотор талаасаа тоолно.)	Дээврийн бүрээсний материал	Тухайн дээврийн бүрээс нь ММСС-гаас авсандулаалгын иж бүрдэлийн хэсэг үү?	Туурганы бүрээсний материал	Тухайн туурганы бүрээс нь ММСС-гаас авсандулаалгын иж бүрдэлийн хэсэг үү?
		Эсгий		Эсгий	
		Хөвөнтэй		Хөвөнтэй	
		Бризент		Бризент	
		Зулхай	Тийм	Зулхай	Тийм
		Картон цаас	Үгүй	Картон цаас	Үгүй


		Даавуу Гялгар уут <i>Бусад (тодруул)</i> -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	-98 Тохирохгүй -99 Мэдэхгүй /Ххариулахаас татгалзсан	Даавуу Гялгар уут <i>Бусад (тодруул)</i> -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	-98 Тохирохгүй -99 Мэдэхгүй /Ххариулахаас татгалзсан
1.4	1 дэх давхар	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
1.5	2 дахь давхар	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
1.6	3 дахь давхар	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
1.7	4 дахь давхар	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
1.8	5 дахь давхар	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
1.9	6 дахь давхар	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99
1.10	7 дахь давхар	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99	1 2 3 4 5 6 7 8 -98 -99	1 2 -98 -99

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Зөвхөн гэрт амьдарч байгаа тохиолдолд асуух

1.A4	Өмнөх судалгаанаас хойш шинээр дээвэр, туурганы материалаа нэмсэн үү?	1	Тийм
		2	Үгүй [⇒1.A11]
		-98	-98 NA

№	Асуулт		Код	Хариулт
1.A11	Та өмнөх судалгаанаас хойш гэрийн шалаа өөрчилсөн үү?		1	Тийм
			2	Үгүй>>>[1.12]
			-98	-98 Тохирохгүй
1.11	Танай гэрийн шалны төрөл		1	Шалгүй
			2	Цемент
			3	Модон(Газрын хөрснөөс хөндий)
			4	Модон(Газартай наалдсан)
			5	Бусад
			-98	-98 Тохирохгүй
			-99	-99 Мэдэхгүй/ Ххариулахаас татгалзсан
1.12	Шалан дээр ямар нэг зүйл дэвссэн эсэх ?		1	Тийм
	 Зөвхөн ажиглалтаар нөхөх		2	Үгүй>>>[БҮЛЭГ 2]
			-98	-98 Тохирохгүй
1.13	Шалан дээр дэвссэн материалын төрөл?		1	Хивс
	 Зөвхөн ажиглалтаар нөхөх		2	Дрож

	(Олон сонголттой байж болно)	3 4 5 -98	Хулдаас Картон цаас Бусад _____ _____ -98 Тохирохгүй
1.14	Шалыг бүрхсэн байдал ?  Зөвхөн ажиглалтаар нөхөх	1 2 -98	50% аас бага бүрхсэн>>>[БҮЛЭГ 2] 50% аас их бүрхсэн>>>[БҮЛЭГ 2] -98 Тохирохгүй>>>[БҮЛЭГ 2]

Зөвхөн байшинтай айлаас асуух

1.15	Байшингийн төрлөө хэлнэ үү?  Зөвхөн ажиглалтаар нөхөх	1 2 3 4	Нэг давхар Хаус маягийн давхар байшин Нийтийн байр Бусад _____
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			-98	-98 Тохирохгүй
1.A16	Өмнөх судалгаанаас хойш танай байшингийн өрөөний тоо өөрчлөгдсөн үү?		1 2 -98	Тийм Үгүй>>>>>>>>>[1.A17] -98 Тохирохгүй
	1.16	Танай байшин хэдэн өрөөтэй вэ?	— — -98	Өрөөний тоо -98 Тохирохгүй
1.A17	Өмнөх судалгаанаас хойш танай байшингийн ханын үндсэн материалд өөрчлөлт орсон уу ?		1 2 -98	Тийм Үгүй>>>>>>>>>[1.A18] -98 Тохирохгүй
	1.17	Танай байшингийн ханын үндсэн материал юу вэ? <i>(Олон сонголттой байж болно)</i>	1 2 3 4 5 6 7 8	Шургааг Банз Шавар Дан тоосго Палк Блок Дүнз Модон рамтай сүрэл


			9 -98 -99	Бусад <hr/> -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
1.A18	Өмнөх судалгаанаас хойш танай байшингийн ханын дулаалгын нэмэлт материалд өөрчлөлт орсон уу?		1 2 -98	Тийм Үгүй>>>>>>>>>[1.A19] -98 Тохирохгүй
	1.18	Танай байшингийн ханын дулаалгын нэмэлт материалууд юу вэ? (Олон сонголттой байж болно)	0 1 2 3 4 5 6 7 -98	Байхгүй Шилэн хөвөн Чулуун хөвөн Хөөсөнцөр Дан Сүрэл Шавар Үртэс Бусад <hr/> -98 Тохирохгүй

			-99	-99 Мэдэхгүй/ Ххариулахаас татгалзсан
1.A19	Өмнөх судалгаанаас хойш танай байшингийн шалны үндсэн материалд өөрчлөлт орсон уу?		1 2 -98	Тийм Үгүй>>>>>>>>>[1.20] -98 Тохирохгүй
	1.19	Танай байшингийн шалны үндсэн материал юу вэ?	1 2 3 -98 -99	Модон банз Цемент Бусад <hr/> -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
1.20	Танай байшин таазтай юу? Зөвхөн ажиглалтаар нөхөх		1 2 -98	Тийм Үгүй>>>>>>>>>[1.A23] -98 Тохирохгүй
1.A21	Өмнөх судалгаанаас хойш танай байшингийн таазны үндсэн материалд өөрчлөлт орсон уу?		1 2 -98	Тийм Үгүй>>>>>>>>>[1.A23] -98 Тохирохгүй>>>
	1.21		1	Модон банз

	<p>Танай байшингийн таазны үндсэн материал юу вэ?</p> <p><i>(Хамгийн дээд давхарын тааз)</i></p>	<p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>-98</p> <p>-99</p>	<p>Цементен хавтан</p> <p>Шургааг</p> <p>Гипсэн хавтан</p> <p>Аргелит</p> <p>Бусад (тодруул)_____</p> <p>-98 Тохирохгүй</p> <p>-99 Мэдэхгүй/ Ххариулахаас татгалзсан</p>
1.22	<p>Танай байшингийн таазны дулаалгын нэмэлт материалууд юу вэ?</p> <p><i>(Олон сонголттой байж болно)</i></p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>-98</p> <p>-99</p>	<p>Дулаалгагүй</p> <p>Керамзит</p> <p>Шилэн хөвөн</p> <p>Чулуун хөвөн</p> <p>Хөөсөнцөр</p> <p>Үнс</p> <p>Бусад (тодруул)_____</p> <p>-98 Тохирохгүй</p> <p>-99 Мэдэхгүй/ Ххариулахаас татгалзсан</p>

1.A23	Өмнөх судалгаанаас хойш танай байшингийн гадна дээврийн материал өөрчлөгдсөн үү?		1 2 -98	Тийм Үгүй>>>>>>>>>[1.24] -98 Тохирохгүй
	1.23	Танай байшингийн гадна дээврийг ямар материалаар хийсэн бэ? <i>(Олон сонголттой байж болно)</i>	1 2 3 4 5 -98 -99	Хар цаас Төмөр Долгионт хавтан Цемент Бусад(тодруул)_____ -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
1.24	Танайх ММСС-гийн сайжруулсан зуух авахаасаа өмнө ханийн пийшинтэй байсан уу <i>(Зөвхөн ММСС-гийн сайжруулсан зуухтай айлаас асууна)</i>		1 2 -98	Тийм Үгүй -98 Тохирохгүй

	чадсан уу?	-98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	-98 -99	-98 -99	-98 -99
Анхаарна үү! Голчлон ашигладаг пийшин, зуухыг “1-дэх пийшин, зуух” дээр тэмдэглэнэ.			1-дэх пийшин, зуух	2 дахь пийшин, зуух	3 дахь пийшин, зуух
2.4.	Танайх ММСС- гаас сайжруулсан зуухаа хэзээ авсан бэ?	Жил Сар -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	_____ _____ -98 -99	_____ _____ -98 -99	_____ _____ -98 -99
2.5.	Танайх зуухаа авснаас хойш яндан, зуух болон ханан пийшиндээ ямар нэг өөрчлөлт хийсэн үү?	Тийм Үгүй>>>>>>>[2.A7] -98 Тохирохгүй>>>>>>>[2.A7] -99 Мэдэхгүй/ Ххариулахаас татгалзсан>>>>[2.A7]	1 2 -98 -99	1 2 -98 -99	1 2 -98 -99
2.6.	Хэрэв хийсэн бол ямар өөрчлөлт хийсэн бэ? (Олон сонголттой байж болно)	Яндангаа эргүүлсэн Худаггүй ханын яндан шинээр барьж залгасан Хуучин байсан ханан пийшингээ нурааж,	1 2	1 2	1 2

		6. Бусад	6	6	6
		-98 Тохирохгүй	-98	-98	-98
Анхаарна уу! Голчлон ашигладаг пийшин, зуухыг “1-дэх пийшин, зуух” дээр тэмдэглэнэ.			1-дэх пийшин, зуух	2 дахь пийшин, зуух	3 дахь пийшин, зуух
2.7	Танай уламжлалт пийшин/зуухны төрөл ямар вэ?	Дан төмөр пийшин Доторлогоотой төмөр пийшин Шавар пийшин Үртэс түлдэг пийшин Ердийн зуух (нимгэн төмрөн Бусад(тодруул)_____ — -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	1 2 3 4 5 6 -98 -99	1 2 3 4 5 6 -98 -99	1 2 3 4 5 6 -98 -99
2.8	<i>(Зөвхөн байшингаас асууна)</i> Энэ пийшин/зуух ханан янданд холбогдсон уу?  Зөвхөн ажиглалтаар нөхөх	Тийм Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	1 2 -98 -99	1 2 -98 -99	1 2 -98 -99

2.9	Танайх тухайн зуух, пийшингээ өнгөрсөн сарын хугацаанд ямар зориулалтаар ашигласан бэ?	Зөвхөн халаалтанд Зөвхөн хоол, үнд бэлтгэхэд Аль алинд нь Ашиглаагүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	1 2 3 4 -98 -99	1 2 3 4 -98 -99	1 2 3 4 -98 -99
2.A10	Танайд өөр ямар нэг зуух байна уу? (ашиглаагүй байгаа зуухыг оруулна)	Тийм (дараагын зуухны багана руу шилжих) Үгүй>>>>>>>[2.B10]	1 2	1 2	1 2

2.B10	(Зөвхөн ММСС-ын сайжруулсан зуухгүй айлаас асууна)	1	Тийм
		2	Үгүй>>>>>>>[2.10]
	Танайх өмнө нь ММСС-аас авсан сайжруулсан зуухтай байсан уу?	-98	-98 Тохирохгүй
2.C10	Одоо байхгүй болсон шалтгаан (сонголтуудыг уншиж өгөхгүй байх)	1	Эвдэрсэн
		2	Санасны дагуу ажилладаггүй
		3	Ашиглаж мэдэхгүй
		4	Таалагдахгүй

		5	Бусдад өгсөн
		6	Хулгайд алдсан
		7	Бусад
		-98	-98 Тохирохгүй

	Халаалтын болон хоол үнд болгох зориулалт бүхий нэмэлт төхөөрөмжийн төрөл	Эдгээр төхөөрөмжүү д танайд бий юу?	Таны хамгийн сүүлийн ажилласан болон хичээлтэй өдөршигласан уу	Хэзээ ашигласан бэ			Таны хамгийн сүүлийн амарсан өдөршигласан уу	Хэзээ ашигласан бэ		
		Тийм Үгүй[>>> д/мөр]	Тийм Үгүй >>[6]	Ашигласан Үгүй -98 Тохирохгүй			Тийм Үгүй[>>д/мөр]	Ашигласан Үгүй -98 Тохирохгүй		
		-99 Мэдэхгүй/ Ххариулахаас татгалзсан [> дараагийн мөр лүү]	-98. Тохирохгүй>>[6] -99. Мэдэхгүй/ Ххариулахаас татгалзсан>>[6]	Өглөө	Өдөр	Орой	-98. Тохирохгүй [>>д/мөр] -99. Мэдэхгүй/ Ххариулахаас татгалзсан [>>д/мөр]	Өглөө	Өдөр	Орой
		1	2	3	4	5	6	7	8	9
	Нүүрс түлж халдаг нам даралтын зуух	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Шалны халаалт	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98

	Хөшигний халаалт	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Цахилгаан халаагуур1	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Цахилгаан халаагуур2	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Цахилгаан халаагуур3	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Халаалтын өөр төхөөрөмж _____ _____	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Индүкцийн плитка	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Халуун тогоо	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Цахилгаан плитка	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Хийн плитка	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Бүдээ ашгагч	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Ус буцалгагч	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Шарах шүүгээ	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98
	Хоолны өөр төхөөрөмж _____ _____	1 2 -99	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98	1 2 -98 -99	1 2 -98	1 2 -98	1 2 -98

2.10	Та ажлын болон амралтын өдөртэй юу? (Сүүлийн 7 хоногт)	1	Ажил хийдэггүй [2,3,4 болон 5-р асуултыг алгасаж -98 ийг бөглөх]
		2	Амардаггүй[6,7,8 болон 9-р асуултыг алгасаж -98 ийг бөглөх]
		3	Ажлын болон амралтын өдөртэй
		-99	-99 Мэдэхгүй/ Ххариулахаас татгалзсан

Бүлэг 3. Түлшний хэрэглээ, зуух, пийшингийн асаалт, галлагааны горим, давтамж

(Зөвхөн Галаа голчлон түлдэг өрхийн гишүүнээс асууна.)

Галаа асаах болон түлшний зориулалтаар дараах материалуудыг ашигладаг уу?

Түлшний төрөл		Код:	Зориулалт:	Давтамж ?	Шалтгаан? (олон сонголттой байж болно)	Эдгээрийг худалдаж авдаг эсэх?
(Бүгдийг уншиж өгнө)		Тийм				
		Үгүй [⇒дараагийн мөр] -99.Мэдэхгүй/ Ххариулахаас татгалзсан [⇒дараагийн мөр лүү]	Түлшний Асаалтын Аль алинд нь -98 Тохирохгүй	Өдөр бүр Долоо хоногт хэдэн удаа Сард хэдэн удаа Жилд хэдэн удаа -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	Авахад амар Хямд Үнэгүй Хаягдал багатай Ашиглахад амар Тоос бага гаргадаг Бусад(тодруул) -98 Тохирохгүй	Тийм Үгүй -98 Тохирох гүй
		3.1	3.2	3.3	3.4	3.5
1	Цаас	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99		

2	Хуурай мод	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99		
3	Аргал, хомоол	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
4	Пластик	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
5	Замын хар, дээврийн хар цаас	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
6	Гялгар уутан тор	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
7	ДСП	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
8	Бусад төрлийн хаягдал	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
9	Дугуйны хаймар	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
10	Хуучин хувцас, даавуу	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
	Түлшний төрөл (Бүгдийг уншиж өгнө)	Код: Тийм Үгүй [⇒ дараагийн мөр] -99. Мэдэхгүй/ Ххариулахаас татгалзсан [⇒ дараагийн мөр лүү]	Зориулалт : Түлшний Асаалтын Аль алинд нь -98 Тохирохгүй	Давтамж ? Өдөр бүр Долоо хоногт хэдэн удаа Сард хэдэн удаа Жилд хэдэн удаа -98 Тохирохгүй -99 Мэдэхгүй/	Шалтгаан? (олон сонголттой байж болно) Авахад амар Хямд Үнэгүй Хаягдал багатай Ашиглахад амар Тоос бага гаргадаг	Эдгээрийг худалдаж авдаг эсэх? Тийм Үгүй -98 Тохирох гүй

				Ххариулахаас татгалзсан	Бусад(тодруул) -98 Тохирохгүй	
11	даавуу, хөвөн	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
12	Шатамтгай шингэн, бензин	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
13	Лаа	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
14	Нойтон мод	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99		
15	Хийн түлш	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
16	Үртэс	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
17	Нүүрс	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99		
18	Мод нүүрсний уут	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
19	Нүүрсээ ууттай нь	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
20	Модоо ууттай нь	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98
21	Бусад(тодруул.....)	1 2 -99	1 2 3 -98	1 2 3 4 -98 -99	1 2 3 4 5 6 7 -98	1 2 -98

№	Асуулт	Анхаарна уу! Голчлон ашигладаг пийшин, зуухыг “1-дэх пийшин, зуух” дээр тэмдэглэнэ.	Сонгосон зуухны тодруулгаа бичнэ үү(2-р бүлэгт тэмдэглэсэн дарааллын дагуу)		
			1-р пийшин зуух	2-р пийшин зуух	3-р пийшин зуух
3.6	<p>Пийшин зуухаа анх хүйтнээс нь эхэлж асаадаг горимоо тодорхойлно уу?</p> <p>(хариултыг уншиж өгөхгүй)</p> <p>(У) - Уламжлалт зуух</p> <p>(С) – Сайжруулсан зуух</p> <p>Зуухны төрлийг харгалзуулж тохирох хариултыг сонгоно.</p>	<p>Хариулагч цаас ХЭРЭГЛЭЖ галаа асаадаг бол</p> <p>(У)Цаас, модоо пийшингийн үрд хэсэгт хийгээд, нүүрсээ дээр нь хийж асаадаг</p> <p>(У)Цаас, модоо асаагаад цогшиж эхлэхэд нүүрсээ хийдэг</p> <p>(У)Цаас, модоо хүхээгний өмнө(яндан талд) хийгээд нүүрсээ пийшингийн аман талд хийж асаадаг</p> <p>(С)Эхлээд нүүрсээ хийгээд, дээрээс нь мод, цаасаа тавиад асаадаг</p> <p>(С)Эхлээд цаас, модоо хийгээд, мод шатаж эхэлсний дараа дээрээс ньнүүрсээ хийнэ</p> <p>Бусад(тодруул)_____</p> <p>Хариулагч цаас ХЭРЭГЛЭХГҮЙгалаа асаадагбол</p> <p>(У)Модоо пийшингийн үрд хэсэгт хийгээд, нүүрсээ дээр нь хийж асаадаг</p> <p>(У)Модоо асаагаад цогшиж эхлэхэд нүүрсээ хийдэг</p> <p>(У)Модоо хүхээгний өмнө хийгээд нүүрсээ пийшингийн аман талд хийж асаадаг</p> <p>(С)Эхлээд нүүрсээ хийгээд, дээрээс нь мод тавиад асаадаг</p>	1	1	1
			2	2	2
			3	3	3
			4	4	4
			5	5	5
			6	6	6
			7	7	7
			8	8	8
			9	9	9
			10	10	10

		(C)Эхлээд модоо хийгээд, мод шатаж эхэлсний дараа дээрээс ньнүүрсээ хийнэ Бусад(тодруул)_____	11 12 -98 -99	11 12 -98 -99	11 12 -98 -99
3.7	Та зуухныхаа агаарыг хэрхэн хянадаг вэ? (олон сонголттой байж болно)	Үнсний татуургаа татаж онгойлгох Яндангийн хаалтыг ашигладаг Агаарын хяналтын тохируулга хэрэглэх (зөвхөн ММСС-ын сайжруулсан зуухтай бол) -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	1 2 3 -98 -99	1 2 3 -98 -99	1 2 3 -98 -99
3.8	ММСС-аас авсан сайжруулсан зуухыг галлах зааврыг авсан уу? (ММСС-ийн зуухтай айлаас асууна)	Тийм Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан	1 2 -98 -99	1 2 -98 -99	1 2 -98 -99
3.9	Танайх өчигдөр үнсээ хэдэн удаа авсанбэ?	Үнсээ авсан тоо (өчигдөр хэрэглэсэн боловч үнсээ аваагүй бол 0) -98 Тохирохгүй (өчигдөр зуухаа хэрэглээгүй тохиолдолд) -99 Мэдэхгүй/ Ххариулахаас татгалзсан	_____ -98 -99	_____ -98 -99	_____ -98 -99

3.10.Өчигдөрөглөө боссоноос хойшөнөөдөр өглөө босох хүртэлх хугацааны галлагааны давтамж,(Бүлэг 2-т заасан тодорхойлолтыг ашигла)

Өчигдөр ямар өдөр байсныг тодруулж, кодыг дугуйл: 1. **Ажилласан өдөр**

2. Амарсан өдөр

3.11 НЭГ ДЭХ ЗУУХ(1. Өлзий, 2. Хас, 3. Дөл, 4. Голомт, 5. Уламжлалт, 6. Бусад)

№	Галлагаа	Галлагаа хийсэн цаг (цаг : минут) Галлагаа хийгээгүй бол.....-96>>>>>>[3.37]	Зориулалт Халаалтанд Хоол, Унд Аль алинд	Зуух / Пийшин халуун ба хүйтэн байсан эсэх 1. Галтай халуун байсан Бүлээн байсан Хүйтэн -98 Тохирохгүй -99 Мэдэхгүй/Ххариулахаас татгалзсан	Зуух / Пийшинд нүүрс эсвэл цог байсан эсэх 1 Нүүрс 2 Цог 3 Аль аль нь байхгүй -98 Тохирохгүй -99 Мэдэхгүй/Ххариулахаас татгалзсан	Түлшний төрөл, хэмжээ (Олон сонголттой байж болно)							
						1 Мод 2 Нүүрс 3 Шахмал түлш 4 Хагас коксжуулсан 5 Бусад (тодруул:_____							
							кг		кг		кг		кг
	Эхний	_____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4	5
	2 дахь	_____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4	5
	3 дахь	_____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4	5

	4 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	5 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	6 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	7 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	8 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	9 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	10 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	11 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	12 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	13 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	14 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	15 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	16 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	17 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	18 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	19 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	20 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	21 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	22 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

	23 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	24 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	25 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

*- Тусгай зориулалтын уутанд хийж, хэмжилт хийнэ.

3.37ХОЁР ДАХЬ ЗУУХ. (1. Өлзий, 2. Хас, 3. Дөл, 4. Голомт, 5. Уламжлалт, 6. Бусад, -98. Тохирохгүй)

№	Галлагаа	Галлагаа хийсэн цаг (цаг : минут) Галлагаа хийгээгүй бол.....-96 >>>>>>[3.63]	Зориулалт Халаалтанд Хоол, Унд Аль алинд	Зүүх / Пийшин халуун ба хүйтэн байсан эсэх 1. Галтай халуун байсан Бүлээн байсан Хүйтэн -98 Тохирохгүй -99 Мэдэхгүй/Ххариулахаас татгалзсан	Зүүх / Пийшинд нүүрс эсвэл цог байсан эсэх 1 Нүүрс 2 Цог 3 Аль аль нь байхгүй -98 Тохирохгүй -99 Мэдэхгүй/Ххариулахаас татгалзсан	Түлшний төрөл, хэмжээ (Олон сонголттой байж болно)									
						1 Мод 2 Нүүрс 3 Шахмал түлш 4 Хагас коксжуулсан 5 Бусад (тодруул: _____ —									
						кг	кг	кг	кг	кг	кг	кг	кг	кг	кг
	Эхний	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	2 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	3 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	4 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	5 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	6 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	7 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	8 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	9 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	10 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

	11 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	12 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	13 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	14 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	15 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	16 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	17 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	18 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	19 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	20 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	21 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	22 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	23 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	24 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	25 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

*- Тусгай зориулалтын үүтанд хийж, хэмжилт хийнэ.

3.63 ГУРАВ ДАХЬ ЗУУХ. (1. Өлзий, 2. Хас, 3. Дөл, 4. Голомт, 5. Уламжлалт, 6. Бусад, -98. Тохирохгүй)

№	Галлагаа	Галлагаа хийсэн цаг (цаг : минут) Галлагаа хийгээгүй бол.....-96 >>>>>>[4.1]	Зориулалт Халаалтанд Хоол, Унд Аль алинд	Зүүх / Пийшин халуун ба хүйтэн байсан эсэх 1. Галтай халуун байсан Бүлээн байсан Хүйтэн -98 Тохирохгүй -99 Мэдэхгүй/Ххариулахаас татгалзсан	Зүүх / Пийшинд нүүрс эсвэл цог байсан эсэх 1 Нүүрс 2 Цог 3 Аль аль нь байхгүй -98 Тохирохгүй -99 Мэдэхгүй/Ххариулахаас татгалзсан	Түлшний төрөл, хэмжээ (Олон сонголттой байж болно)									
						1	кг	2	кг	3	кг	4	кг	5	кг
	Эхний	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	2 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	3 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	4 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	5 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	6 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	7 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	8 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	9 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

	10 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	11 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	12 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	13 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	14 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	15 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	16 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	17 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	18 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	19 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	20 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	21 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	22 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	23 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	24 дэх	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	
	25 дахь	____:____	1 2 3	1 2 3 -98 -99	1 2 3 -98 -99	1		2		3		4		5	

*- Тусгай зориулалтын уутанд хийж, хэмжилт хийнэ.

Бүлэг 4. Түлшний худалдан авалт, зардал(Түлш худалдан авалтын талаар мэдлэгтэй өрхийн гишүүнээс асууна.)

№	Асуулт	Код	Хариулт
4.1	Танайх НҮҮРС/ТҮЛШЭЭ өмнөх судалгаанаас хойш БӨӨНӨӨР нь авсан уу? (Сүүлд очсон өдрийг сануулах)	1 2 -99	Тийм Үгүй>>>>[4.8] -99 Мэдэхгүй/ Ххариулахаас татгалзсан>>>>[4.8]

4.2.Хэрэв нүүрс, түлшээБӨӨНӨӨР нь авсан бол энэ өвлийн хэрэгцээнд зориулж (өмнөх судалгаанаасхойш) авсан НҮҮРС, ТҮЛШНИЙ талаарх мэдээллээ өгнө үү

Түшний код:	Авсан сар	Нүүрсээ хаанаас авсан бэ?	Хэн нэгэнтэй хуваасан уу?	Танай өрхийн өөртөө авсан нүүрс, түлшний хэмжээ (хувааж авсан бол өөрт ноогдох хэмжээ) (Тонн)	Танай өрхөөс зарцуулсан нийт мөнгө, хувааж авсан бол өөрт ноогдох зардал
Налайх		1 Гудамны жижиглэнгийн худалдаанаас	1 Тийм		4.7
Алагтолгой		2 Нүүрсний захаас	2 Үгүй		(4.7.1 + 4.7.2 эсвэл 4.7.3 ийг бөглөнө)
Багануур		3 Хорооны тусламжаар	-98 Тохирохгүй		Нүүрс, түлшний үнэнд төлсөн
Шарын гол		4 Уурхайгаас			Тээврийн зардалд төлсөн
Шивээ Овоо		5 Бусад (тодруул)			Тээврийн зардал орсон нүүрс, түлш
Солонгосын шахмал түлш (yontan)		-98 Тохирохгүй			
Өндгөн шахмал түлш					

Дугуй шахмал түлш								ий үнэнд төлсөн
Үртсэн шахмал түлш								
Хагас кокс								
Үртэс								
Бусад (тодруул _____)		Мэдэхгүйбол.....-99						
-98 Тохирохгүй								
4.2		4.3	4.4	4.5	4.6	4.7.1	4.7.2	4.7.3
Эхний удаа	1 2 3 4 5 6 7 8 9 10 11 12 -98	__ __	1 2 3 4 5-98 -99	1 2-98 -99				
Хоёр дахь удаа	1 2 3 4 5 6 7 8 9 10 11 12 -98	__ __	1 2 3 4 5 -98 -99	1 2 -98 -99				
Гурав дахь удаа	1 2 3 4 5 6 7 8 9 10 11 12 -98	__ __	1 2 3 4 5 -98 -99	1 2 -98 -99				
Дөрөв дэхь удаа	1 2 3 4 5 6 7 8 9 10 11 12 -98	__ __	1 2 3 4 5 -98 -99	1 2 -98 -99				
Тав дахь удаа	1 2 3 4 5 6 7 8 9 10 11 12 -98	__ __	1 2 3 4 5 -98 -99	1 2 -98 -99				

№	Асуулт	Код	Хариулт
4.8	Өнгөрсөн 30 хоногт танайх НҮҮРС, ТҮЛШЭЭ ЖИЖИГЛЭНГЭЭР авсан уу?	1	Тийм
		2	Үгүй[>>>4.12]

		-99	Мэдэхгүй/ Ххариулахаас татгалзсан[>>>4.12]
4.A10	Танайх нүүрсээ сүүлийн 1 сарын турш жижиглэнгээр авсан бол ямар давтамжтай авсан бэ?	1 2 3 4 5 -98 -99	1. Өдөр бүр 2. Өнжөөд нэг удаа 3. 7 хоногт 2 удаа 4. 7 хоногт нэг удаа 5. 7 хоногоос урт хугацаанд -98. Тохирохгүй -99. Мэдэхгүй/ Ххариулахаас татгалзсан
4.10	Өнгөрсөн 7 хоногын хугацаанд ХЭДЭН УУТ НҮҮРС авсан бэ?	____ ____ -98 -99	Уутны тоо -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
4.9	Өнгөрсөн 14 хоногын хугацаанд ХЭДЭН УУТ НҮҮРС авсан бэ? (Өнгөрсөн 7 хоногын хугацаанд авсан тоог оруулна)	____ ____ -98 -99	Уутны тоо -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
4.11	НҮҮРСЭЭ хаанаас голчлон авдаг вэ?	1 2 3 4	Гудамны жижиглэнгийн худалдаанаас Нүүрсний захаас Хорооны тусламжаар Бусад

		-98 -99	-98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
4.12	Хамгийн сүүлд хэзээ авсан бэ?(сар өдөр)	____ ____/ ____ ____ -98 -99	Огноо (сар өдөр) -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан

ХАМГИЙН СҮҮЛД ЖИЖИГЛЭНГЭЭР ХУДАЛДАН авсан нүүрс болон бусад түлшний хэмжээ, үнэ, хаанаас авснаа хэлнэ үү?

	Түлшний төрөл	Хэдэн уутыг	Нэг уут нүүрсний үнэ, (мянган төгрөг)	Танайх нүүрсээ бага багаар авахдаа хаанаас авсан бэ?
		-99 Мэдэхгүй/ Ххариулахаас татгалзсан	-99 Мэдэхгүй/ Ххариулахаас татгалзсан	Гудамны жижиглэнгийн худалдаанаас Нүүрсний захаас Хорооны тусламжаар Бусад -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
		4.13	4.14	4.15
1	Налайх			1 2 3 4 -98 -99
2	Алаг толгой			1 2 3 4 -98 -99
3	Багануур			1 2 3 4 -98 -99
4	Шарын гол			1 2 3 4 -98 -99
5	Шивээ овоо			1 2 3 4 -98 -99
6	Солонгосын шахмал түлш (yontan)			1 2 3 4 -98 -99
7	Өндгөн шахмал түлш			1 2 3 4 -98 -99
8	Дугуй шахмал түлш			1 2 3 4 -98 -99
9	Үртсэн шахмал түлш			1 2 3 4 -98 -99

10	Хагас кокс			1	2	3	4	-98	-99
11	Үртэс			1	2	3	4	-98	-99
12	Бусад (тодруул:.....)			1	2	3	4	-98	-99
13	Түлшний төрөл мэдэхгүй			1	2	3	4	-98	-99

№	Асуулт	Код	Хариулт
4.16	Өмнөх судалгаанаас хойштанайх МОДОО БӨӨНӨӨР нь авсан үү?	1 2 -99	Тийм Үгүй[⇒ 4.23] -99 Мэдэхгүй/ Ххариулахаас татгалзсан[⇒ 4.23]

Хэрэв МОДОО БӨӨНӨӨР нь авсан бол энэ өвлийн хэрэгцээнд зориулж (өмнөх судалгаанаас хойш) авсан модны талаарх мэдээллээ өгнө үү

Хэд дэхь удаагийн худалдан авалт болох	Модны код:	Авсан сар,	Модоо бөөнөөр авахдаа хаанаас авсан бэ?	Хэн нэгэнтэй хуваасан уу?	Танай өрхийн өөртөө авсан модны хэмжээ (хувааж авсан бол өөрт ноогдох хэмжээ)	Зарцуулсан нийт мөнгө(мянган төгрөг) хувааж авсан бол өөрт ноогдох зардал			
	Хар мод		Гудамны жижиглэнгийн худалдаанаас			4.19 (4.22.1 + 4.22.2 эсвэл 4.22.3 ийг бөглөнө)	Модны үнэнд	Тээврийн зардалд	Тээврийн зардал орсон модны үнэнд
	Нарс		Модны захаас						
	Хус		Хорооны тусламжаар						
	Хуурай банз		Уулнаас						
	Хаягдал мод		Бусад (тодруул)						
	Хольж		-98 Тохирохгүй						
	Бусад (тодруул)								
	-98Тохирохгүй								
		Мэдэхгүй/ Ххариулахаас татгалзсан.....-99							

	4.17	4.18	4.19	4.20	4.21	4.22.1	4.22.2	4.22.3
Эхний удаа	1 2 3 4 5 6 7 -98	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				
Хоёр дахь удаа	1 2 3 4 5 6 7 -98	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				
Гурав дахь удаа	1 2 3 4 5 6 7 -98	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				
Дөрөв дэхь удаа	1 2 3 4 5 6 7 -98	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				
Тав дахь удаа	1 2 3 4 5 6 7 -98	— —	1 2 3 4 5 -98 -99	1 2 -98 -99				

№	Асуулт	Код	Хариулт
4.23	Өнгөрсөн 30 хоногт танайх МОДОО ЖИЖИГЛЭНГЭЭР авсан уу?	1	Тийм
		2	Үгүй [>>>4.27]
		-99	-99 Мэдэхгүй/ Ххариулахаас татгалзсан[>>>4.27]
4.A25	Танайх МОДОО сүүлийн 1 сарын турш жижиглэнгээр авсан бол ямар давтамжтай авсан бэ?	1 2 3 4 5	1. Өдөр бүр 2. Өнжөөд нэг удаа 3. 7 хоногт 2 удаа 4. 7 хоногт нэг удаа 5. 7 хоногоос урт хугацаанд

		-98 -99	-98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
4.25	Өнгөрсөн 7 хоногын хугацаанд ХЭДЭН УУТ МОД авсан бэ?	____ ____ -98 -99	Уутны тоо -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
4.24	Өнгөрсөн 14 хоногын хугацаанд ХЭДЭН УУТ МОД авсан бэ? (Өнгөрсөн 7 хоногын хугацаанд авсан тоог оруулна)	____ ____ -98 -99	Уутны тоо -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
4.26	МОДОО хаанаас голчлон авдаг вэ?	1 2 3 4 5 -98 -99	Гудамны жижиглэнгийн худалдаанаас Модны захаас Хорооны тусламжаар Бусад _____ Уулнаас -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
4.27	Хамгийн сүүлд хэзээ авсан бэ?(сар өдөр)	____ ____/ ____ ____ -98	Огноо (сар өдөр) -98 Тохирохгүй

		-99	-99 Мэдэхгүй/ Ххариулахаас татгалзсан
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Хамгийн сүүлд жижиглэнгээр худалдан авсан модны хэмжээ, үнэ, хаанаас авснаа хэлнэ үү?

	Модны төрөл	Хэдэн уутыг -99 Мэдэхгүй/ Ххариулахаас татгалзсан	Нэг уут модны үнэ, -99 Мэдэхгүй/ Ххариулахаас татгалзсан	Танайх модоо бага багаар авахдаа хаанаас авсан бэ? Гудамны жижиглэнгийн худалдаанаас Модны захаас Хорооны тусламжаар Бусад _____ Уулнаас -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
		4.28	4.29	4.30
1	Хар мод			1 2 3 4 5 -98 -99
2	Нарс			1 2 3 4 5 -98 -99
3	Хүс			1 2 3 4 5 -98 -99
4	Хуурай банз			1 2 3 4 5 -98 -99
5	Хаягдал мод			1 2 3 4 5 -98 -99
6	Хольсон			1 2 3 4 5 -98 -99
7	Бусад _____			1 2 3 4 5 -98 -99
8	Модны төрлийг мэдэхгүй			1 2 3 4 5 -98 -99

Бүлэг 5. Иргэдийн сэтгэгдэл(Галаа голчлон түлдэг өрхийн гишүүнээс асууна.)

5.1	Улаанбаатар хотын утааны хэмжээ 2012оны 3 сартай харьцуулахад хэрхэн өөрчлөгдсөн бэ?		1	Бохирдол их багассан
			2	Бохирдол багассан
			3	Адил хэмжээндээ
			4	Дордсон
			5	Бүр дордсон
			-99	-99 Мэдэхгүй/ Ххариулахаас татгалзсан
5.2	Монголын Мянганы Сорилын сангийн төслөөс тараасантай төстэй сайжруулсан зуухыг танайх авах уу?		1	Тийм
	(Зөвхөн уламжлалт зуухтай айлаас асууна)		2	Үгүй>>>>[5.4]
			-98	-98 Тохирохгүй(Аль хэдийнээ худалдан авсан)>>>>[5.5]
			-99	-99 Мэдэхгүй/ Ххариулахаас татгалзсан>>>>[5.5]
5.3	Хэрэв авах бол ямар учраас та төслийн зуухыг авахаар шийдсэн бэ?		1	Сайн халдаг
	(Олон хариулттай)		2	Халуунаа удаан барьдаг
			3	Түлш, зардал хэмнэдэг тул
			4	Цэвэрхэн, үзэмжтэй тул
			5	Үнийг нь их хэмжээгээр хөнгөлсөн тул
			6	Агаарын бохирдлыг үнэхээр бууруулна гэж бодож байгаа учраас

	байж болно.)	7	Цахилгааны хөнгөлөлт эдлэх боломжтой болох учраас
		8	Хороо, дүүргээс худалдан авахыг шаардсан учраас
	Хариултуудыг уншиж өгөхгүй	9	Галлахад бага хугацаа зарцуулдаг
		10	Бусад (тодруул)
		-98	
		-99	-98 Тохирохгүй
			-99 Мэдэхгүй/ Ххариулахаас татгалзсан
5.4	<p>Хэрэв сайжруулсан зуухыг авахгүй бол ямар шалтгаанууд байна вэ?</p> <p>(Олон хариулттай байж болно.)</p> <p>Хариултуудыг уншиж өгөхгүй</p>	1	Хэдийгээр хөнгөлөлттэй үнэтэй ч гэсэн, худалдан авах бэлэн мөнгө байхгүй
		2	Хуучин пийшингээ өгч чадахгүй
		3	Оронд нь өгөх ширэм,зуухны ам байхгүй
		4	Ашиглахад төвөгтэй (Асаахад уддаг, хоол хийж болохгүй, түлш нэмж болдоггүй г/м
		5	Өвлийн ид хүйтэнд найдвартай ажиллах эсэхэд нь эргэлзсэн учир
		6	Шинэ зуух утаа багасгана гэж итгэхгүй байгаа
		7	Хэт халах аюултай вэ
		8	Гэр дотор утаа их гардаг
		9	Хоол хийхэд хүндрэлтэй
		10	Бусад (тодруул)
		-98	
		-99	-98 Тохирохгүй
			-99 Мэдэхгүй/ Ххариулахаас татгалзсан

5.5. ММСС-гийн сайжруулсан зуух болон уламжлалт зуухны давуу сайн талууд болон дутагдалтай талуудын тухай Та сэтгэгдлээ илэрхийлнэ үү?

(Зөвхөн сайжруулсан зуух хэрэглэж байгаа болон өмнө нь сайжруулсан зуух хэрэглэж байсан айлаас асууна)

	Давуу болон дутагдалтай талууд (Бүгдийг уншиж өгөх)	Код: Уламжлалт хуучин пийшин Сайжруулсан зуух Адилхан -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
1	Өдөрт аль нь ажиллахад илүү их цаг шаарддаг вэ?(галлах, түлш нэмэх, үнс авах гэх мэт)	1 2 3 -98 -99
2	Аль нь түлш бага хэрэглэдэг вэ?	1 2 3 -98 -99
3	Аль нь олон удаа шинээр асаахыг шаарддаг вэ?	1 2 3 -98 -99
4	Алиных нь хувьд гэрт утаа, угаар бага үнэртдэг вэ?	1 2 3 -98 -99
5	Аль нь нэг галлаад дулаанаа удаан барьдаг вэ?	1 2 3 -98 -99
6	Аль нь үнс бага гаргадаг вэ?	1 2 3 -98 -99
7	Аль нь өнгө , үзэмж сайтай вэ?	1 2 3 -98 -99
8	Аль нь үнс авахад хялбар вэ?	1 2 3 -98 -99
9	Аль нь түлшний төрлийг голдоггүй вэ?	1 2 3 -98 -99

10	Аль нь хэт халах аюултай вэ?	1	2	3	-98	-99
11	Аль нь галлахад нарийн дараалал, ажиллагаа шаарддаг вэ?	1	2	3	-98	-99
12	Хоол хийхэд аль нь эвтэйхэн бэ?	1	2	3	-98	-99
13	Хоол хийхэд аль нь хурдан бэ?	1	2	3	-98	-99
14	Аль нь Яндангаар тортог багатай утаа гаргадаг вэ	1	2	3	-98	-99
15	Аль нь янданг бага хөөлүүлдэг вэ	1	2	3	-98	-99
16	Аль нь илүү их шөнө босгож галлуулдаг вэ	1	2	3	-98	-99

БҮЛЭГ-6: ӨРХИЙН ГИШҮҮДИЙН ХҮН АМ ЗҮЙ,НИЙГМИЙН МЭДЭЭЛЭЛ(Өрхийн бусад гишүүдийн түслалцааг авч болно.)

(Нэг орон байранд хамт амьдардаг, нэгдмэл төсөвтэй, хүнс, амьдралын наад захын бусад хэрэгцээгээ хамтран хангадаг нэг болон хэсэг бүлэг хүмүүсийг өрх гэнэ.

Өөр газар хонодог боловч тухайн айлд ирж хоол иддэг, тодорхой хугацааг тухайн айлд өнгөрөөдөг хүмүүс өрхийн ам бүлийн тоонд орно.)

Өрхөөс тусдаа амьдардаг бөгөөд олсон БҮХ орлогоо өрхөд зориулдаггүй бол гишүүнд тооцохгүй. Өрхөөс тусдаа амьдардаг бөгөөд өрхийн санхүүгээс хараат бол гишүүнд тооцно

Сүүлийн судалгаанаас хойш танай өрхөд өөрчлөлт орсон эсэх?

6.A1 танай өрхийн гишүүдийн тоо нэмэгдсэн эсэх 1. Тийм 2. Үгүй (Тийм бол шинэ гишүүний мэдээллийг нэмж оруулна)

6.B1 танайн өрхийн гишүүдийн тоо хасагдсан эсэх 1. Тийм 2. Үгүй(Тийм бол тухайн хасагдсан гишүүний нэрийг дарна)

Өрхийн гишүүний хувийн дугаар	Өрхийн гишүүдийн овгийн эхний үсэг, нэр	Судалгаанд оролцогч	Та өрхийн нүндсэн гишүүн мөн үү? (энэ гэрт хонодог)	Энэ хүн галаа ихэвчлэн түлдэг үү?	Та өрхийн тэргүүлэгчтэй ямар хамааралтай вэ?	Хүйс 1=Эр 2=Эм	Таны нас хэд вэ? 99 Мэдэхгүй/Ххариулах аас татгалзсан	Та гэрлэлтийн байдлаа хэлнэ үү? (15-аас доош насныханд -98 Тохирохгүй) Огт гэрлээгүй Батлуулсан гэр бүлтэй Батлуулаагүй боловч хамт амьдардаг Тусгаарласан Цуцалсан Бэлбэсэн -98 Тохирохгүй	Та эзэмшсэн боловсролынхоо дээд түвшинг хэлнэ үү? Боловсролгүй Сургуульд сурж байгаа Бага (~11 нас) Суурь буюу 8\9-р анги төгссөн (~15 нас) Бүрэн дунд буюу 10, 11-р анги төгссөн (~18 нас) Техникийн ба мэргэжлийн Дипломын болон бакалаврын дээд Магистр, түүнээс дээш -98 Тохирохгүй -99 Мэдэхгүй/Ххариулахаас татгалзсан	Та хамгийн сүүлийн ажлын болон амралтын өдөр хэдэн цагийг гэртээ өнгөрөөсөн бэ?	
										Ажлын өдөр, цаг	Амралтын өдөр, цаг
	6.1	6.A2	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.10

01		1 2	1 2	1 2 3	1	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
02		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
03		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
04		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
05		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
06		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
07		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
08		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
09		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
10		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
11		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
12		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
13		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
14		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —
15		1 2	1 2	1 2 3	1 2 3 4 5 6 7 8 9 10 11	1 2	— — —	1 2 3 4 5 6 -98	1 2 3 4 5 6 7 8 -98 -99	— —	— —

БҮЛЭГ -6: ҮРГЭЛЖЛЭЛ

Өрхийн гишүүний хувийн дугаар	Та сүүлийн 12 сарын дотор цалин хөлс бүхий ажил эрхэлсэн үү?	Хэрэв тийм бол Та үндсэн ажлынхаа хөдөлмөр эрхлэлтийн байдлыг мэдээлнэ үү?	Та өмнөх сард хэдэн төгрөгийн цалин, хөлс олсон бэ?	Сүүлийн сарын хугацаан Д амьсгалын замын өвчний улмаас ажилдаа, хичээлдээ яваагүй өдрийн тоо (өвдөөгүй бол 0)	Танай өрхийн гишүүдийн өнгөрсөн сард авсан тэтгэвэр, тэтгэмж, орлогын хэмжээг хэлнэ үү?								
	1 Тийм	Цалин хөлстэй ажиллагч			Тэтгэвэр, тэтгэмж, орлого аваагүй бол 0 эсвэл нэг өнцгөөс нөгөө өнцөг чатглан зурна.								
	2 Үгүй[⇒ 6.13]	Хоршоо, нөхөрлөлийн гишүүн	-98 Тохирохгүй		Мэдэхгүй/ Ххариулахаас татгалзсан-99								
	-98 Тохирохгүй [⇒ 6.13]	Хувиараа хөдөлмөрэрхлэгч Өрхийн эрхэлдэг бизнест цалин хөлсгүй оролцогч	-99 Мэдэхгүй/Ххариулахаас татгалзсан	-98 Тохирохгүй	Өндөр насны тэтгэвэр Хөдөлмөрийн чадвар алдсаны тэтгэмж Тэжээгчээ алдсаны тэтгэмж Цэргийн тэтгэвэр Жирэмсний болон амаржсаны тэтгэвэр, тэтгэмж Хүүхэд асарсны тэтгэмж Хүүхдийн мөнгө Бусад тэтгэвэр, тэтгэмж								
	-99 Мэдэхгүй/Ххариулахаас татгалзсан.....-99 [⇒6.13]	Бусад -98 Тохирохгүй -99 Мэдэхгүй/Ххариулахаас татгалзсан	-97 Өмнөх сард ажиллаагүй	-99 Мэдэхгүй/Ххариулахаас татгалзсан -97 Өмнөх сард ажиллаагүй	1 дэх эх үүсвэр			2 дахь эх үүсвэр			3 дахь эх үүсвэр		
					6.15			6.16			6.17		
					Код	Мөнгөн дүн	Тэтгэмж авсан сар	Код	Мөнгөн дүн	Тэтгэмж авсан сар	Код	Мөнгөн дүн	Тэтгэмж авсан сар
	6.11	6.12	6.14	6.13	6.15.1	6.15.2	6.15.3	6.16.1	6.16.2	6.16.3	6.17.1	6.17.2	6.17.3
01	1 2-98 -99	1 2 3 4 5 6 -98											
02	1 2-98 -99	1 2 3 4 5 6 -98											
03	1 2-98 -99	1 2 3 4 5 6 -98											

04	1 2-98 -99	1 2 3 4 5 6 -98											
05	1 2-98 -99	1 2 3 4 5 6 -98											
06	1 2-98 -99	1 2 3 4 5 6 -98											
07	1 2-98 -99	1 2 3 4 5 6 -98											
08	1 2-98 -99	1 2 3 4 5 6 -98											
09	1 2-98 -99	1 2 3 4 5 6 -98											
10	1 2-98 -99	1 2 3 4 5 6 -98											
11	1 2-98 -99	1 2 3 4 5 6 -98											
12	1 2-98 -99	1 2 3 4 5 6 -98											
13	1 2-98 -99	1 2 3 4 5 6 -98											
14	1 2-98 -99	1 2 3 4 5 6 -98											
15	1 2-98 -99	1 2 3 4 5 6 -98											

Өнгөрсөн сард танай өрх дээр дурьдагдсанаас өөр эх үүсвэрээс мөнгөн орлого орсон уу? (Жишээ нь: дээрх хүснэгтэнд байхгүй гишүүн, энэ гэрт амьдардаггүй хамаатан болон бусад хүнээс явуулсан мөнгө)

Тийм

Үгүй [⇒ 7.A1]

-99 Мэдэхгүй/ Ххариулахаас татгалзсан[⇒ 7.A1]

6.19 Тийм бол өнгөрсөн сард хэдэн төгрөгний орлого олсон бэ? _____ төгрөг (Тоологч нийт дүнг бодоход нь туслах)

-98 Тохирохгүй

-99 Мэдэхгүй/ Ххариулахаас татгалзсан

7. Иргэдийн эрүүл мэнд

7.A1	Танай гэрийн аль нэгэн гишүүн гэр дотроо тамхи татдаг эсэх	1 2 -99	Тийм Үгүй Мэдэхгүй/ Ххариулахаас татгалзсан
7.1	Та тамхи татдаг уу? (Багадаа өдөрт 1 удаа)	1 2 -99	Тийм Үгүй Мэдэхгүй/ Ххариулахаас татгалзсан

7.A6 Тухайн өрхөд 60аас дээш болон 5-аас доош насны гишүүд байдаг уу?

Тийм

Үгүй >>>[7.A78]

ХҮСНЭГТ 1

Тухайн өрхийн 60аас дээш болон 5-аас доош насны гишүүдээс хамгийн их амьсгалын замын шинж тэмдэг илэрч байгаа нэг хүний мэдээллийг оруулна.			Байхгүй бол>>>>>>[7.A18] Нэр: _____ 6-р бүлэг дээрх хувийн дугаар: _____	
7.B6. Энэ хүн тамхи татдаг уу?		1 Тийм 2 Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан		
	Шинж тэмдэгүүд	Эдгээр шинжүүд одоо илэрч байна уу? 1. Тийм 2. Үгүй>>[Д/мөр] -99 Мэдэхгүй/ Ххариулахаас татгалзсан>>[Д/мөр]	б) Хэдэн өдрийн турш үргэлжилж байна? -99 Мэдэхгүй/ Ххариулахаас татгалзсан	с) Түүндээ зориулж одоо эмчилгээ хийлгэж байгаа юу? 1. Тийм 2. Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
	Цэр гарах	1 2 -99	___ ___ ___	1 2 -98 -99
	Ханиалгах	1 2 -99	___ ___ ___	1 2 -98 -99
	Амьсгаа давхцах	1 2 -99	___ ___ ___	1 2 -98 -99
	Цээж хэржигнэх	1 2 -99	___ ___ ___	1 2 -98 -99
	Толгой эргэх	1 2 -99	___ ___ ___	1 2 -98 -99
	Экзем	1 2 -99	___ ___ ___	1 2 -98 -99
	Хоолой хатах ба хорсох	1 2 -99	___ ___ ___	1 2 -98 -99

		татгалзсан>>[Д/мөр]		-98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
	Цэр гарах	1 2 -99	___ ___ ___	1 2 -98 -99
	Ханиалгах	1 2 -99	___ ___ ___	1 2 -98 -99
	Амьсгаа давхцах	1 2 -99	___ ___ ___	1 2 -98 -99
	Цээж хэржигнэх	1 2 -99	___ ___ ___	1 2 -98 -99
	Толгой эргэх	1 2 -99	___ ___ ___	1 2 -98 -99
	Экзем	1 2 -99	___ ___ ___	1 2 -98 -99
	Хоолой хатах ба хорсох	1 2 -99	___ ___ ___	1 2 -98 -99
	Нүд загатнах	1 2 -99	___ ___ ___	1 2 -98 -99
	Ханиад	1 2 -99	___ ___ ___	1 2 -98 -99
	Цээж давчдах	1 2 -99	___ ___ ___	1 2 -98 -99
	Зүрх савлах	1 2 -99	___ ___ ___	1 2 -98 -99
	Зууханд түлэгдэх	1 2 -99	___ ___ ___	1 2 -98 -99

ХҮСНЭГТ 3

Өөр өрхийн 60аас дээш болон 5-аас доош насны гишүүн хүний мэдээллийг оруулна. Эдгээр насны хүн байхгүй бол >>>>>>>>[7.A78]		Нэр: _____ 6-р бүлэг дээрх хувийн дугаар: _____		
7.A30. Энэ хүн тамхи татдаг уу?		1 Тийм 2 Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан		
	Шинж тэмдэгүүд	Эдгээр шинжүүд илэрч байна уу? 1. Тийм 2. Үгүй>>[Д/мөр] -99 Мэдэхгүй/ Ххариулахаас татгалзсан>>[Д/мөр]	б) Хэдэн өдрийн турш үргэлжилж байна?	с) Түүндээ зориулж эмчилгээ хийлгэж байгаа юу? 1. Тийм 2. Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
	Цэр гарах	1 2 -99	___ ___ ___	1 2 -98 -99
	Ханиалгах	1 2 -99	___ ___ ___	1 2 -98 -99
	Амьсгаа давхцах	1 2 -99	___ ___ ___	1 2 -98 -99
	Цээж хэржигнэх	1 2 -99	___ ___ ___	1 2 -98 -99
	Толгой эргэх	1 2 -99	___ ___ ___	1 2 -98 -99
	Экзем	1 2 -99	___ ___ ___	1 2 -98 -99
	Хоолой хатах ба хорсох	1 2 -99	___ ___ ___	1 2 -98 -99
	Нүд загатнах	1 2 -99	___ ___ ___	1 2 -98 -99
	Ханиад	1 2 -99	___ ___ ___	1 2 -98 -99

	Цээж давчдах	1 2 -99	___ ___ ___	1 2 -98 -99
	Зүрх савлах	1 2 -99	___ ___ ___	1 2 -98 -99
	Зууханд түлэгдэх	1 2 -99	___ ___ ___	1 2 -98 -99

ХҮСНЭГТ 4

Өөр өрхийн 60аас дээш болон 5-аас доош насны гишүүн хүний мэдээллийг оруулна. Эдгээр насны хүн байхгүй бол >>>>>>>>[7.A78]		Нэр: _____ 6-р бүлэг дээрх хувийн дугаар: _____		
7.A42. Энэ хүн тамхи татдаг уу?		1 Тийм 2 Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан		
	Шинж тэмдэгүүд	Эдгээр шинжүүд илэрч байна уу? 1. Тийм 2. Үгүй>>[Д/мөр] -99 Мэдэхгүй/ Ххариулахаас татгалзсан>>[Д/мөр]	b) Хэдэн өдрийн турш үргэлжилж байна?	c) Түүндээ зориулж эмчилгээ хийлгэж байгаа юу? 1. Тийм 2. Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан

	Цэр гарах	1 2 -99	___ ___	1 2 -98 -99
	Ханиалгах	1 2 -99	___ ___	1 2 -98 -99
	Амьсгаа давхцах	1 2 -99	___ ___	1 2 -98 -99
	Цээж хэржигнэх	1 2 -99	___ ___	1 2 -98 -99
	Толгой эргэх	1 2 -99	___ ___	1 2 -98 -99
	Экзем	1 2 -99	___ ___	1 2 -98 -99
	Хоолой хатах ба хорсох	1 2 -99	___ ___	1 2 -98 -99
	Нүд загатнах	1 2 -99	___ ___	1 2 -98 -99
	Ханиад	1 2 -99	___ ___	1 2 -98 -99
	Цээж давчдах	1 2 -99	___ ___	1 2 -98 -99
	Зүрх савлах	1 2 -99	___ ___	1 2 -98 -99
	Зууханд түлэгдэх	1 2 -99	___ ___	1 2 -98 -99

ХҮСНЭГТ 5

	Ханиад	1 2 -99	___ ___ ___	1 2 -98 -99
	Цээж давчдах	1 2 -99	___ ___ ___	1 2 -98 -99
	Зүрх савлах	1 2 -99	___ ___ ___	1 2 -98 -99
	Зууханд түлэгдэх	1 2 -99	___ ___ ___	1 2 -98 -99

ХҮСНЭГТ 6

Өөр өрхийн 60аас дээш болон 5-аас доош насны гишүүн хүний мэдээллийг оруулна. Эдгээр насны хүн байхгүй бол >>>>>>>>[7.A78]		Нэр: _____ 6-р бүлэг дээрх хувийн дугаар: _____		
7.A66. Энэ хүн тамхи татдаг уу?		1 Тийм 2 Үгүй -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан		
	Шинж тэмдэгүүд	Эдгээр шинжүүд илэрч байна уу? 1. Тийм 2. Үгүй>>[Д/мөр] -99 Мэдэхгүй/ Ххариулахаас	б) Хэдэн өдрийн турш үргэлжилж байна?	с) Түүндээ зориулж эмчилгээ хийлгэж байгаа юу? 1. Тийм 2. Үгүй -98 Тохирохгүй


		татгалзсан>>[Д/мөр]		-99 Мэдэхгүй/ Ххариулахаас татгалзсан
	Цэр гарах	1 2 -99	___	1 2 -98 -99
	Ханиалгах	1 2 -99	___	1 2 -98 -99
	Амьсгаа давхцах	1 2 -99	___	1 2 -98 -99
	Цээж хэржигнэх	1 2 -99	___	1 2 -98 -99
	Толгой эргэх	1 2 -99	___	1 2 -98 -99
	Экзем	1 2 -99	___	1 2 -98 -99
	Хоолой хатах ба хорсох	1 2 -99	___	1 2 -98 -99
	Нүд загатнах	1 2 -99	___	1 2 -98 -99
	Ханиад	1 2 -99	___	1 2 -98 -99
	Цээж давчдах	1 2 -99	___	1 2 -98 -99
	Зүрх савлах	1 2 -99	___	1 2 -98 -99
	Зууханд түлэгдэх	1 2 -99	___	1 2 -98 -99



7.A78	Сүүлийн нэг сарын хугацаанд өрхийн бүх гишүүд (аль ч насных байж болно) дээрх шинж тэмдэгүүдэд зориулж эм тариа худалдаж		
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	авч хэрэглэсэн эсэх	1 2 -98 -99	Тийм Үгүй >>>[БҮЛЭГ 8] -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан>>>[БҮЛЭГ 8]
7.B78	Нийт эмчилгээндээ хэдэн төгрөг зарцуулсан бэ? (тоологчид тусалж нийлбэрийг бодож тавих)	-98 -99	НИЙТ ДҮН -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан

БҮЛЭГ 8. Хэмжилт

8.1	Танайх цахилгаан хэрэглэдэг үү?	1 2	Тийм Үгүй [>>>8.A3]
8.2	Сүүлийн сарын цахилгааны мөнгө хэд төлсөн бэ.		

	(Зөвхөн тухайн өрхөд хамаарах мөнгөн дүн)	____ ____ -98 -99	Сар Дүн -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
8.A3	(Зөвхөн гэрээс асууна) Өмнөх судалгаанаас хойш гэрийн хананы тоогоо өөрчилсөн үү?	1 2 -98	Тийм Үгүй [>>>8.A14] -98 Тохирохгүй
8.3	(Зөвхөн гэрээс асууна) Танай гэрийн хэмжээ?  ЗӨВХӨН АЖИГЛАЛТААР НӨХНӨ	____ ____ ____cm ____ ____ ____cm ____ ____ ____cm -98	Шалнаас тооно хүртлэх хэмжээ Хаалганы өндөр РАДИУС (Баганы дундаас хаалга хүртэл хэмжинэ) -98 Тохирохгүй
8.A4	(Зөвхөн байшинтай айлаас асууна) Өмнөх судалгаанаас хойш байшингийн хэмжээгээ өөрчилсөн	1 2	Тийм Үгүй [>>>8.A6]

	үү?	-98	-98 Тохирохгүй
8.4	<p>(Зөвхөн байшинтай айлаас асууна)</p> <p>4 талт байшин бол:</p> <p>Танай байшингийн талбайн хэмжээ хэдэн /м² вэ?</p> <p> ЗӨВХӨН АЖИГЛАЛТААР НӨХНӨ</p>	<p>___ cm</p> <p>___ cm</p> <p>___ cm</p> <p>-98</p> <p>-99</p>	<p>Өндөр</p> <p>Өргөн</p> <p>Урт</p> <p>-98 Тохирохгүй</p> <p>-99 Мэдэхгүй/ Ххариулахаас татгалзсан</p>
8.5	<p>(Зөвхөн байшинтай айлаас асууна)</p> <p>Байшин 4 талт биш бол:</p> <p>Танай байшингийн өндөр болон талуудын хэмжээг бичнэ? Байшингийн талбайн хэлбэрийг зураад аль тал болохыг тэмдэглэнэ. (тал1, тал2 гэх мэт)</p> <p> ЗӨВХӨН АЖИГЛАЛТААР НӨХНӨ</p>	<p>___ cm</p> <p>___ cm</p> <p>___ cm</p> <p>___ cm</p> <p>___ cm</p> <p>___ cm</p> <p>___ cm</p> <p>___ cm</p>	<p>Өндөр</p> <p>Тал 1</p> <p>Тал2</p> <p>Тал3</p> <p>Тал4</p> <p>Тал5</p> <p>Тал6</p> <p>Тал7</p>

		__ __ __ cm -98 -99	Тал8 -98 Тохирохгүй -99 Мэдэхгүй/ Ххариулахаас татгалзсан
8.A6	<i>(Зөвхөн байшинтай айлаас асууна)</i> Өмнөх судалгаанаас хойш танай байшингийн ханын зузаан өөрчлөгдсөн үү?	1 2 -98	Тийм Үгүй [>>>8.A7] -98 Тохирохгүй
8.6	<i>(Зөвхөн байшинтай айлаас асууна)</i> Ханын зузаан хэдэн см вэ?  Зөвхөн хэмжилтээр нөхөх	__ __ -98 -99	Сантиметр (см) -98 Тохирохгүй -99 Хэмжих боломжгүй

8.A7	(Зөвхөн байшинтай айлаас асууна) Өмнөх судалгаанаас хойш цонхны хэмжээ өөрчлөгдсөн үү, шинэ цонх нэмсэн үү?	1	Тийм
		2	Үгүй [>>>8.A14]
		-98	-98 Тохирохгүй

ЦОНХНУУД						
№	Цонх	А) Одоо байгаа эсэх	Б) Цонхны төрөл	В) Цонхны харсан зүг	Цонхны хэмжээ	
	(Битүүлээгүй цонхыг тоолно)	1 Тийм	1 Дан модон	1 Урагшаа		
	(Хаалганы хажуугын цонхноос эхлээд нар зөв тоолно)	2 Үгүй	2 Давхар модон	2 Хойшоо		
		-98 Тохирохгүй	3 Вакуум	3 Зүүн		
			4 Бусад	4 Баруун		
			-98 Тохирохгүй	-98 Тохирохгүй	Г) Өргөн (см)	Д) Өндөр (см)

8.7	Нэгдүгээр цонх	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.8	Хоёрдугаар цонх	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.9	Гуравдугаар цонх	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.10	Дөрөвдүгээр цонх	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.11	Тавдугаар цонх	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.12	Зургаадугаар цонх	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		
8.13	Долоодугаар цонх	1 2 -98	1 2 3 4 -98	1 2 3 4 -98		

8.A14	Өмнөх судалгаанаас хойш танайх сууцныхаа хаалгаа нэмэх эсвэл сольсон уу?	1 2	Тийм Үгүй [>>>дараагийн бүлэг]
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№	Хаалганууд	А) Одоо байгаа эсэх	Б) Хаалганы төрөл
	<p>1 хаалгатай бол гадна хаалга гэж авна</p> <p>(Үүдний амбаарыг хаалгыг тоолохгүй)</p>	<p>1 Байгаа</p> <p>2 Байхгүй</p> <p>-98 Тохирохгүй</p>	<p>1 Дан модон хаалга</p> <p>2 Дулаалгатай модон хаалга</p> <p>3 Төмөр хаалга</p> <p>4 Төмөр гадартай модон хаалга</p> <p>5 Вакүм хаалга</p> <p>6 Бусад(тодруул</p> <p>-98 Тохирохгүй</p> <p>-99 Мэдэхгүй/ Ххариулахаас татгалзсан</p>
8.14	Гадна хаалга	1 2 -98	1 2 3 4 5 6 -98 -99
8.15	Дотор хаалга	1 2 -98	1 2 3 4 5 6 -98 -99

9 Өрхийн зарлагын тухай(Асуулга маань бараг дуусаж байгаа бөгөөд одоо зөвхөн өрхийн зарлагын талаар хэдэн асуулт үлдэв. Таны өгсөн хариулт нь нийгэм эдийн засагт гарч буй өөрчлөлтийн талаар тоо баримт болно. Та мөн хариулахаас татгалзаж болно)

	Танай өрх доорхи жагсаалтад байгаа зүйлсээс сүүлийн 30 хоногт худалдан авахдаа хэр хэмжээний зардал гаргасан бэ? (Хэрэв алийг нь ч аваагүй бол “0”)	сүүлийн 30 хоногт зарцуулсан (төгрөгөөр) -97 Хариулахаас татгалзсан -99 Мэдэхгүй						
9.1	Дэлгүүр болон захаас ердийн хүнсний хэрэглээнд зориулж авсан зүйлс (мах , сүү , гурил , будаа , элсэн чихэр , төмс , чихэр , жимс, ногоо , гэх мэт.) болон бусад хүнсний бүтээгдхүүнүүдийн зардал (цай, давс, тос, гэх мэт.) (Хэрэв алийг нь ч аваагүй бол “0”)							
9.2	архи, вино, тамхи (баяр ёслол, цагаан сар болон хурим наадмыг хасаж тооцох)							
9.3	Усны хэрэглээний зардал (өрхийн гишүүд болон гэрийн тэжээмэл амьтан)							
9.4	Гутал, хувцас (бүх төрлийн)							
9.5	Нийтийн тээвэр болон шатахууны зардал (ахуйн хэрэглээнд ба унаанд)							
9.6	Бэлгэнд зарцуулсан ба бэлнээр шилжүүлсэн мөнгө (баяр ёслолд зарцуулсан)							
9.7	Гар утасны үйлчилгээнд							
9.8	Зээлийн төлөлтөнд (үндсэн өр болон хүүн хамтад нь авч үзэх)							
9.9	Үлхөдлөх хөрөнгийн түрээсэнд (хашаа байшин, гэр гэх мэт)							
9.10	Өрхийн бусад хэрэглээ (хичээлийн хэрэгсэл, гоо сайханы бүтээгдхүүнүүд, сонин сэтгүүл захиалах, ахуйн хэрэглээний бүтээгдхүүнүүд гэх мэт)							

#	Зардлууд		Танайд одоо эдгээр бүтээгдхүүнүүд байгаа юу ? 1 Тийм 2 Үгүй >>[Д/Мөр]	Сүүлийн 12 сард гарсан нийт зардал (төгрөгөөр) 0 – Байгаа, гэхдээ сүүлийн 12 сард аваагүй болон урсгал зардалд мөнгө үрээгүй бол -97 Хариулахаас татгалзсан - 98 Тохирохгүй -99 Мэдэхгүй											
9.11	Үл хөдлөх хөрөнгө (шинээр худалдан авсан болон ашиглалтын зардал)	Газар	1 2												
9.12		Зуслангийн байшин	1 2												
9.13		Өвлийн байшин	1 2												
9.14		Орон сууц	1 2												
9.15		Хувийн байшин (тохилог)	1 2												
9.16		Бусад (тодотгох)	1 2												
9.17	Монгол гэр болон ахуйн цахилгаан хэрэгсэл (шинээр худалдан авсан болон ашиглалтын зардал)	Монгол гэр	1 2												
9.18		Хөргөгч , хөлдөөгч	1 2												
9.19		Угаалгын машин	1 2												
9.20		Плитка	1 2												
9.21		Газан плитка	1 2												
9.22		Радио	1 2												
9.23		TV болон тавган антен	1 2												

9.24		Гар утас	1 2																
9.25		Компьютер (<i>ширээний болон зөөврийн компьютер</i>)	1 2																
9.26		Бусад (<i>тодорхойлох</i>)	1 2																
9.27	Тээврийн хэрэгсэл (<i>шинээр худалдан авсан болон ашиглалтын зардал</i>)	Дугуй	1 2																
9.28		Мотоцикл	1 2																
9.29		Суудлын тэрэг	1 2																
9.30		Ачааны машин	1 2																
9.31		Бусад (<i>тодорхойлох</i>)	1 2																
9.32	Бусад	Сургалтын төлбөр	1 2																
9.33		Тэмдэглэлт өдөр(<i>Цагаан сар, хурим, оршуулга, гм.</i>)	1 2																
9.А34		Аялал зугаалга(<i>хөдөө болон гадаад руу</i>)	1 2																
9.34		Бусад зардал (<i>тодорхойлох</i>)	1 2																

Гадаад орчны агаарын температур



Судалгаанд хариулт өгсөн Танд баярлалаа.:

Цаг	Минут
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Судалгааны гүйцэтгэлийн чанарыг шалгах (судалгааны хянагч бөглөнө)

Хянагчийн																					
	Код:																				
	Овог, нэр:																				
	Гүйцэтгэлийн байдлыг шалгасан огноо															Сар			Өдөр		
	Хянагчийн гарын үсэг																				

ТОДРУУЛГА

Судалгааны газар дээрх хянагчийн асуулга шалгах жагсаалтын дагуу шалгалтаа явуулна

ANNEX 3. HOUSEHOLD SURVEY DATA QUALITY MONITORING

Social Impact contracted Mongolian firm Maxima LLC to perform data quality monitoring (DQM) during each of the three data collection phases. This was done to ensure accuracy of data as interviews were conducted, responses were recorded, and data were entered. DQM was completed in four activities as detailed below. For each activity, DQM staff recorded errors in specific categories that addressed incorrectly or illegibly recorded responses, questions skipped or asked incorrectly, improper use of equipment to weigh coal or measure the dwelling, and inappropriate or rude behavior by the enumerator. Errors were detailed in reports and used to calculate an overall error rate.

Audio recording verification

SI provided DQM staff with a random sample of households that had completed interviews, stratified by enumerator to ensure each enumerator team was evaluated. In order to confirm interview responses matched those written on paper by enumerators, DQM staff listened to audio recordings of these interviews and marked discrepancies between the responses heard and those written by the enumerator. This was done for 5% of interviews in Phase I and II, and 12% in Phase III.

Household revisits

The same sampling process was used to select households that would be revisited by the DQM firm. These households were interviewed using

a shortened survey containing a subset of original survey questions about factors that would not have changed since the time of the original interview (up to 4 weeks prior). This was done to verify that the original interview was conducted correctly, that the household understood the questions posed, and that enumerators asked questions and recorded responses correctly. Following Phase II it became clear that many evaluation participants were growing tired of the repeated visits for evaluation purposes. Wishing to minimize discomfort for participants and having assessed that audio recordings were more valuable and comprehensive for the purposes of data quality control, revisits were not done in Phase III. Rather, additional audio verification reviews were completed.

Non-visit verification

SI provided the DQM staff a list of sampled households for which interviews were not completed by the data collection firm. DQM staff contacted these households via an in-person visit or telephone call to verify that an interview attempt was made and that criteria for exclusion were met (e.g., refusal, traveling to the countryside).

Data entry monitoring

SI provided DQM staff a random sample of 10% of household ID numbers during each data collection phase. DQM staff manually compared completed household survey instruments to

data entered in the data entry software to ensure accuracy.

ANNEX 4. PROPENSITY SCORE MATCHING TECHNICAL APPROACH

Research has shown that including irrelevant variables in the propensity score model will not bias the results, but overspecifying the model, by adding unnecessary nonlinear terms, may.⁴ We thus chose to keep the specification sparse and not include nonlinear terms.

In general, since propensity score matching (PSM) yields reasonably accurate estimates of treatment impacts through the selection of the appropriate subset from the comparison group, the matching method plays an important role. The choice of the matching method could become important in cases when there is little overlap between the treatment and comparison groups, and could affect the accuracy and precision of the estimates.⁵ To create matched intervention and comparison groups for the various project outcomes, we tested several established matching algorithms including kernel density matching, nearest five neighbors within a 0.01 caliper width, nearest five neighbors within a 0.05 caliper width, and nearest one neighbor with no caliper width. Kernel density matching was selected as the primary PSM algorithm. While in traditional stratification matching methods some treated cases could be discarded if there is no comparison case available in their block, in the nearest-neighbor methods all treated units are assigned a match. However, some of these matches will be rather poor since some nearest neighbor matches may have highly

different propensity scores, but yet carry the same weight in the estimation of the treatment effect.⁶ Kernel matching addresses these concerns directly, by using the weighted averages of all “on support” households in the comparison group to estimate counterfactual outcomes, with the weight of each calculated by the propensity score distance between the treatment household and all comparison households, with the closest control cases given the greatest weight. Thus, all treatment households are matched with the weighted average of all controls with weights assigned to be inversely proportional to the distance between the propensity score of the treatment observations and each of the controls. The classical Gaussian kernel approach was utilized.

Sensitivity analyses were run to check the robustness of the results to the matching method, and the results suggest that the estimates are indeed robust, although the standard errors are generally wider with the other matching methods. In general, estimates tend to be robust to the choice of matching method, although this consistency across methods does not preclude that effects are consistently overestimated or underestimated. While sensitivity analyses can be helpful in eliminating sensitive cases, they cannot help solve the more fundamental concern that the matching assumptions are inherently untestable.¹

⁴ Zhao, Z. (2008). Sensitivity of Propensity Score Methods to the Specification. *Economics Letters*. 98(3): 309-319.

⁵ Dehejia, R. & Wahba, S. (2002). Propensity score-matching methods for nonexperimental causal studies. *Review of Economics and Statistics*. 84 (1): 151-161.

⁶ Becker, S. & Ichino, A. (2002). Estimation of average treatment effects based on propensity scores. *The Stata Journal*. 2(4): 358-377.

ANNEX 5. LIMITATIONS TO AMBIENT AIR QUALITY MODELING

There are several limitations to ambient quality modeling that potentially influence the quantitative results.

Emissions estimates

Daily fuel use rates are assumed to be constant within each modeling period and are derived from the household (HH) survey data that were collected during only a portion of each modeling period. Figure 21 shows that HH survey Phase I was conducted during a relatively cold portion of Period 1 and HH survey Phase II was conducted during a relatively warm period of Period 2. If fuel use increases with decreasing temperature then the actual average fuel use rate in Period 1 might be less than used in the modeling. Similarly, the average fuel rate in Period 2 might be more than used in the modeling although there might be a threshold temperature below which fuel use does not increase with decreasing temperature. Given these competing trends, it is not clear how these errors in the daily fuel use estimates impact the heating season average modeling results.

Potential biases in the stove type-specific fuel use estimates, described in the report, also propagate through the modeling. A refined approach would treat the daily fuel use rate as a continuous variable that is correlated with continuously measured parameters such as ambient temperature. However, the HH survey data alone are inadequate for developing such a relationship. SUMS data were collected over

longer time periods than the HH survey phases. If the SUMS data can provide a robust estimate of daily fueling events then it might be possible to quantify the relationship between daily fuel use and a continuous parameter such as ambient temperature.

There are likely large systematic biases in the heating stove emission factors (g PM_{2.5}/kg coal). The current emission factors are based on samples drawn from ports drilled into the stove chimney inside the dwelling. For the continuous measurements the hot flue gas is diluted using clean air at room temperature and the filter samples are also collected at room temperature. There can be high levels of condensable vapors such as semivolatile organic compounds (SVOC) in the flue gas. These SVOCs will likely partition much more strongly to the particle phase upon exiting the chimney and mixing with the cold ambient air compared to the partitioning that takes place as the flue gas cools to the indoor air temperature where measurements are made. Thus, the emission factors developed in this study – and indeed all previous, similar studies – are quite likely biased low to an unknown but potentially large extent. The bias likely increases with decreasing temperature over a broad temperature range. It is possible that for extremely cold temperatures the bias becomes less sensitive to temperature because relatively little condensable vapor remains that can be taken up by the particles. This bias might significantly contribute to the discrepancy between the modeled and measured ambient PM_{2.5} concentrations.

The citywide total number of stoves was estimated using the 2012 household census data, assuming one stove per household, and multiplying by 120% to account for multiple dwellings per household and potentially other undercounting bias in the household census. The scaling factor was based on a JICA (2013) review of aerial images for one khoroo in each district, comparing this 2010 image dwelling count to the 2010 household census. As such, this scaling factor is subject to considerable uncertainty and likely has a spatial distribution that is neglected. The reporting of the percentage change in ambient PM_{2.5} contributions from residential heating stoves by the intervention is sensitive to the overall number of stoves that are used in the model which is directly coupled to this scaling factor.

Air quality model selection and meteorology

ISCST3 is a steady-state Gaussian plume model. Ambient PM_{2.5} from the emissions in one hour does not carry over to the subsequent hour. Thus, there is no accumulation of pollution over time. The error from this limitation is evident when comparing hourly emissions and observed PM_{2.5} diel profiles. Figure 22 shows very few fueling events between 1 AM and 5 AM which leads to low modeled concentrations during these hours. However, the NAMHEM hourly monitoring network data show that relatively high PM levels persist during this early morning hours because emissions from prior hours accumulate. This error leads to an underestimation of the residential stove impacts on time average (e.g., heating season) ambient PM concentration levels. There are more sophisticated models (e.g., puff models or chemical transport models) that can address this limitation but the level of effort required to develop the inputs and run such models is

beyond the scope of this evaluation. Indeed, to date such models have not been comprehensively applied to UB.

Gaussian dispersion models such as ISCST3 cannot model calm wind conditions. These conditions often lead to the highest localized pollution concentrations yet are excluded from the modeling. In this analysis, hours with missing surface winds data or with calm winds, operationally defined as hourly average wind speeds less than 1 m/s, were excluded from the modeling. Calm winds represented 12% of total hours during the heating season and the exclusion of such hours leads to an underestimation of the heating season average ambient PM concentrations from the heating stoves.

UB has complex terrain with most of the city in a river valley but portions of the *ger* areas in the surrounding hills and deep valleys between these hills. ISCST3 assumes wind fields are uniform over the modeling domain and ignores topographical effects on the dispersion of ground-level emissions. In reality, wind patterns are not uniform across the city and thus the pollutant dispersion patterns do not strictly follow modeled patterns. Also, for many conditions the mixing layer depth is below the tops of the hills which lead to the trapping of pollutants that is not captured by the model. Modeling with ISCST3 tends to distribute the pollution over broader, and in this case less populated, areas rather than concentrating it in the more populated river valley and valleys cut into the hillsides. Again, there are more sophisticated air quality models that can address these limitations but they require resources well beyond the scope of this evaluation project.

Modeling scenarios

The approach to model the base case as 100% traditional stoves is not realistic, as a proportion of non-MCA households use other improved heating devices. However, have representative spatially defined data are not available to do this otherwise. The implication is that the magnitude of attributable impact is being overestimated, as the base case is likely not as bad as that of all traditional stoves.

ANNEX 6. SUMMARY OF PERFORMANCE ON OUTPUT AND OUTCOME INDICATORS FROM MCA-MONGOLIA INDICATOR TRACKING TABLE (MMITT)

The following table summarizes performance on output and outcome indicators specific to the evaluated activity.⁷

Outcome indicators	Definition	Baseline	Actual achieved	Target	Percentage complete
Percentage difference in PM _{2.5} emissions	This indicator captures the percentage reduction in PM _{2.5} emissions that project stoves make to ambient concentration in Ulaanbaatar. The PM _{2.5} emissions capture only household contributions during the heating season (October to March). The indicator is modeled for all project stoves as: PM _{2.5} emissions as gram/kg fuel * the amount of fuel * the number of project stoves.	0	28%	57%	49%
Absolute difference in total ambient PM _{2.5} contributions from MCA stoves versus traditional stoves in gers and houses (tons)	This indicator captures the absolute reduction in PM _{2.5} emissions that project stoves make to ambient concentration in Ulaanbaatar. The absolute value is important for specific dose response for health outcomes. The PM _{2.5} emissions capture only household contributions during the heating season (October to March). The indicator is an output of a model of the UB airshed.	0	1,150 tons	2,635 tons	44%
Percentage difference in average nighttime household PM _{2.5} emissions for households with MCA versus traditional stoves	Average household PM _{2.5} emissions in project vs. non-project households during the heating season of October thru March. Emissions will be collected during the night.	0	65%	86%	76%
Percentage reduction in median fuel costs	This indicator will measure the difference in median fuel costs between households with project stoves and households without project stoves.	0	7% ⁸	15%	47%

⁷ These tables reflect data from the final approved closeout MCA-Mongolia Indicator Tracking Table (ITT). Please note, the Evaluation Report references data from earlier ITTs which may explain some discrepancy.

⁸ This result is not significant, indicating that no meaningful difference between traditional and MCA stoves could be detected by this evaluation.

Carbon monoxide concentration in project households (ppm)	Average short-term indoor carbon monoxide (CO) concentration in project households. This is tracked to ensure that project stoves do not result in a higher concentration of CO relative to the traditional stoves.	4.5 ppm	3.6 ppm ⁸	4.5 ppm ⁹	100%
PM _{2.5} concentration in project homes (milligrams per cubic meter)	Average short-term indoor PM _{2.5} concentration in project households. This is tracked to ensure that project stoves do not result in a higher concentration of PM _{2.5} relative to traditional stoves.	0.16mg/m ³	0.16mg/m ³ ⁸	0.16mg/m ³ ₁₀	100%
Percentage difference in raw coal consumption	The average raw coal consumption for households with project stoves as compared to households without project stoves. This indicator relies on household respondents to measure their coal consumption over the heating season.	0%	1.2% ⁸	15%	8%
Percentage difference in PM _{2.5} emissions from heat-only boiler sites		0	99.16	67	148%
Output indicators		Baseline	Actual achieved	Target	Percentage complete
Number of HOBs sites upgraded		0	10	10	100%
Number of consumers purchasing subsidized products		0	128,681	Not set	N/A
Number of female consumers purchasing subsidized products		0	50,084	Not set	N/A
Subsidized stoves in participating homes (%) ¹¹	Number of participating households that continue to have the MCEEIF stove. This will be a sample-based indicator and not the full population of participating households.	0	88%	90%	98%
Number of subsidized stoves sold		0	103,255	Not set	N/A
Number of energy efficient homes sold		0	99	Not set	N/A
Total subsidies provided (USD)		0	29,652,307	Not set	N/A

⁹ Original target specified as “Equal to traditional stoves.” This target is set equal to the baseline to capture the intention that levels of CO concentration in HHs with MCA stoves not exceed that of HHs with traditional stoves.

¹⁰ Original target specified as “Equal to traditional stoves.” This target is set equal to the baseline to capture the intention that levels of PM_{2.5} concentration in HHs with MCA stoves not exceed that of HHs with traditional stoves.

¹¹ Proportion of participating households (defined as having an MCA stove in the home) that actually utilize the MCA stove.



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