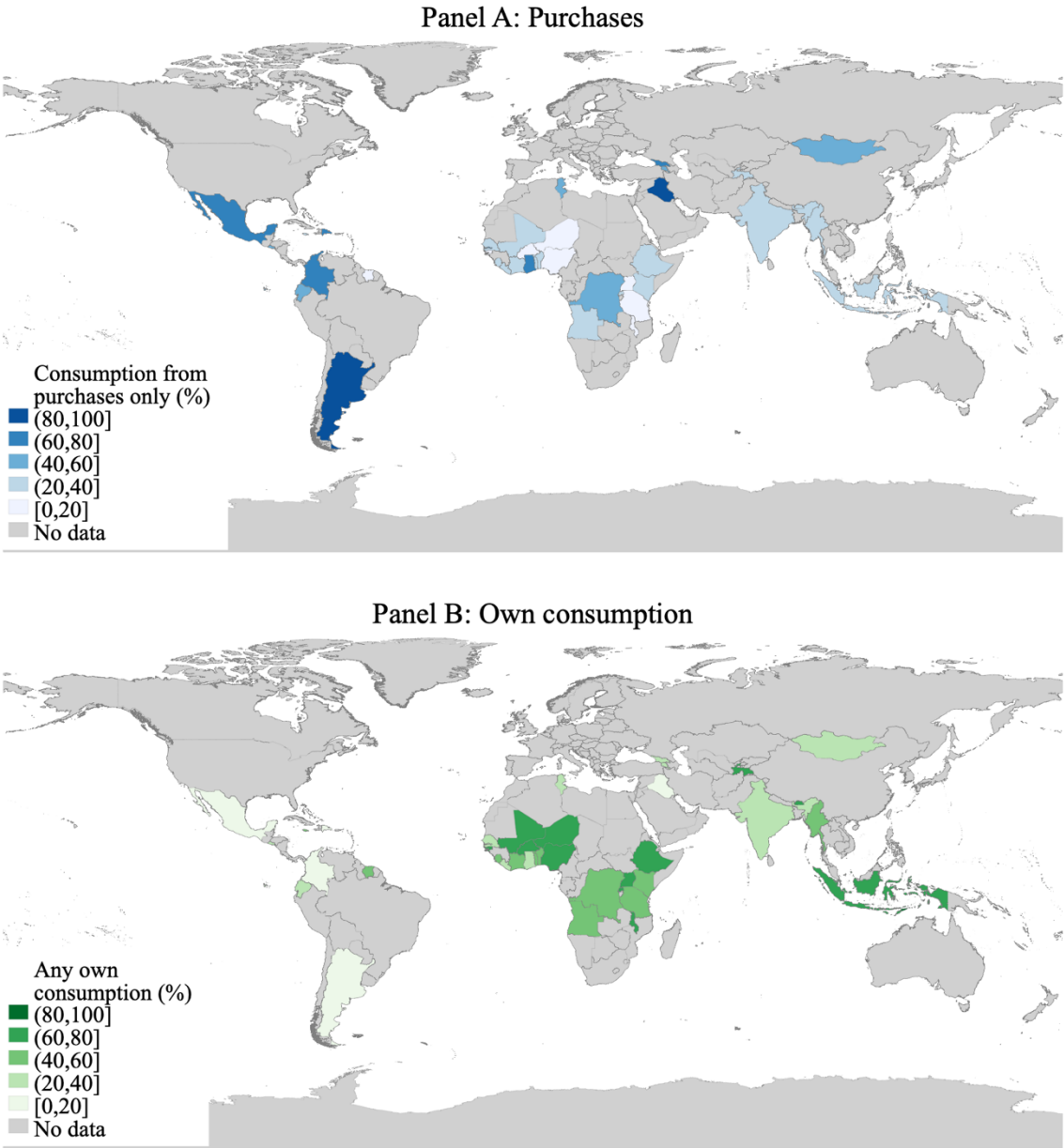


## Supplementary Information

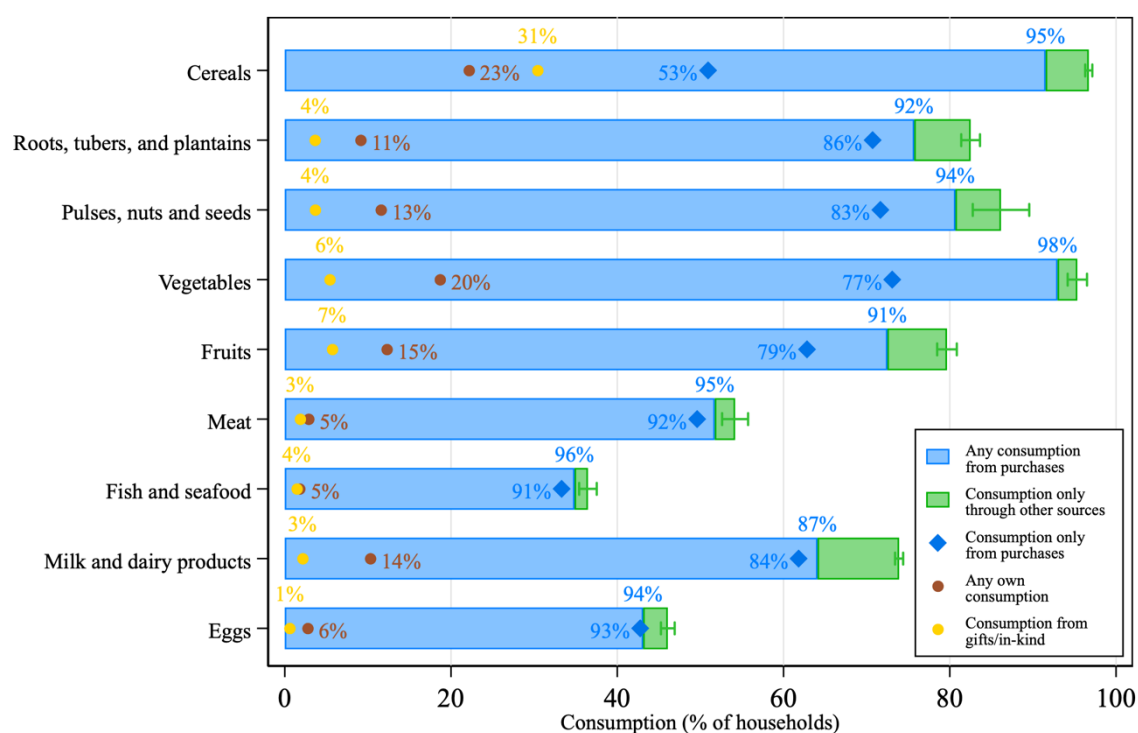
To the paper “Food Sourcing and Diets: Evidence from 45 Low- and Middle-Income Countries”

7	<b>Table of Contents</b>	
8	<b>Supplementary Figures .....</b>	<b>3</b>
9	Figure 1: Sources of food in LMICs.....	3
10	Figure 2: Consumption and sourcing of 9 food groups. ....	4
11	Figure 3: Consumption and sourcing of food items.....	5
12	Figure 4: Consumption from disaggregated food sources. ....	6
13	Figure 5: Relationship between consumption of nine food groups from different sources and	
14	household income. ....	7
15	Figure 6: Relationship between consumption of nine food groups and income by world region. .	8
16	Figure 7: Consumption and sourcing of 9 food groups by agriculture as primary activity of any	
17	household member.....	9
18	Figure 8: Consumption and sourcing of 9 food groups by rural-urban location.....	10
19	Figure 10: Relationship between total household dietary diversity and proportion from	
20	purchases and own consumption.....	12
21	Figure 11: Food sources using the HDDS versus the MDDW indicator by country. ....	13
22	Figure 12: Food item sources by country. ....	14
23	Figure 13: Development of household dietary diversity and food sources over time. ....	15
24	Figure 14: Monthly household dietary diversity score (HDDS) and food sources in six countries.	
25	.....	16
26	Figure 15: Food item sources for ten countries by month. ....	17
27	Figure 16: Seasonality of food groups.....	18
28	Figure 17. Dietary diversity by country, food source, and engagement in agricultural activities. .	19
29	Figure 18: Relationship between dietary diversity from different sources and income by country.	
30	.....	20
31	Figure 19: Relationship between food item diversity from different sources and income by	
32	country. ....	21
33	<b>Supplementary Tables.....</b>	<b>22</b>
34	Table 1: Household dietary diversity and food sources at country-level by rural-urban location	
35	and expenditure terciles. ....	22
36	Table 2: Differences in household dietary diversity and food sources by rural-urban location and	
37	expenditure terciles at country-level. ....	23
38	Table 3: Association between healthy household dietary diversity score (HDDS) and household	
39	demographic and socioeconomic characteristics by world region.....	24
40	Table 4: Data sources for the main analysis. ....	26
41		
42		

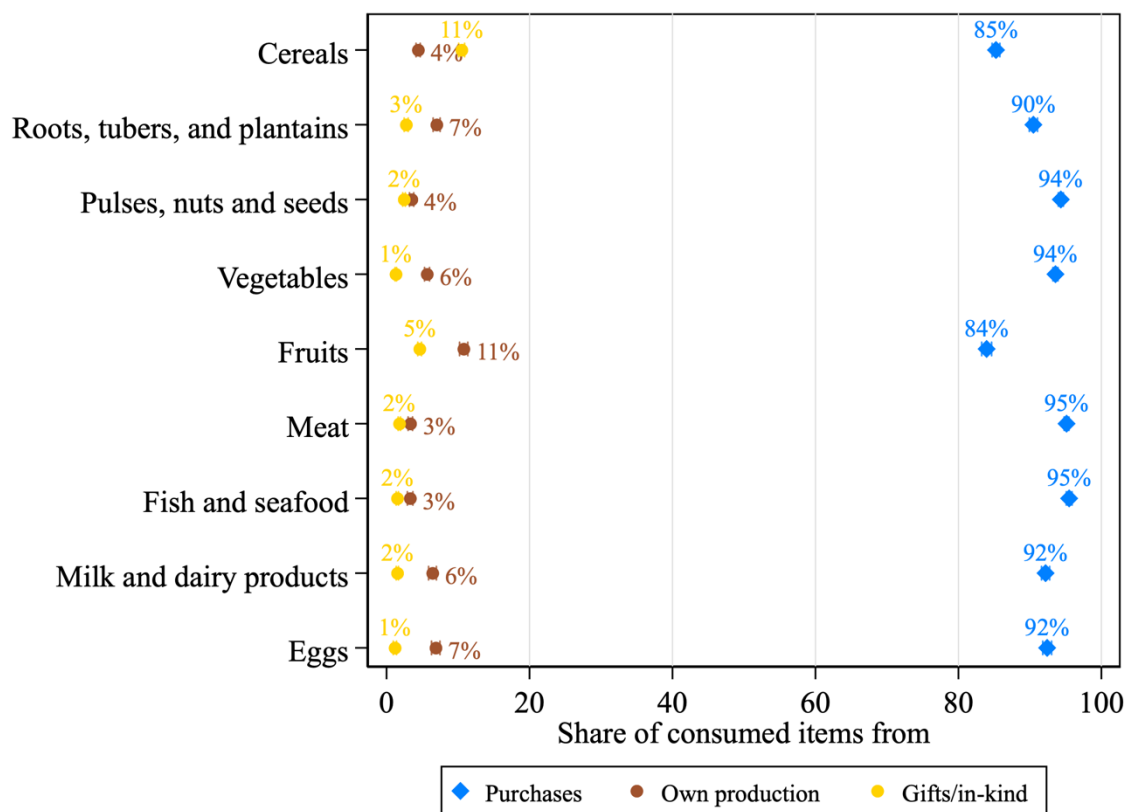
Supplementary Figures



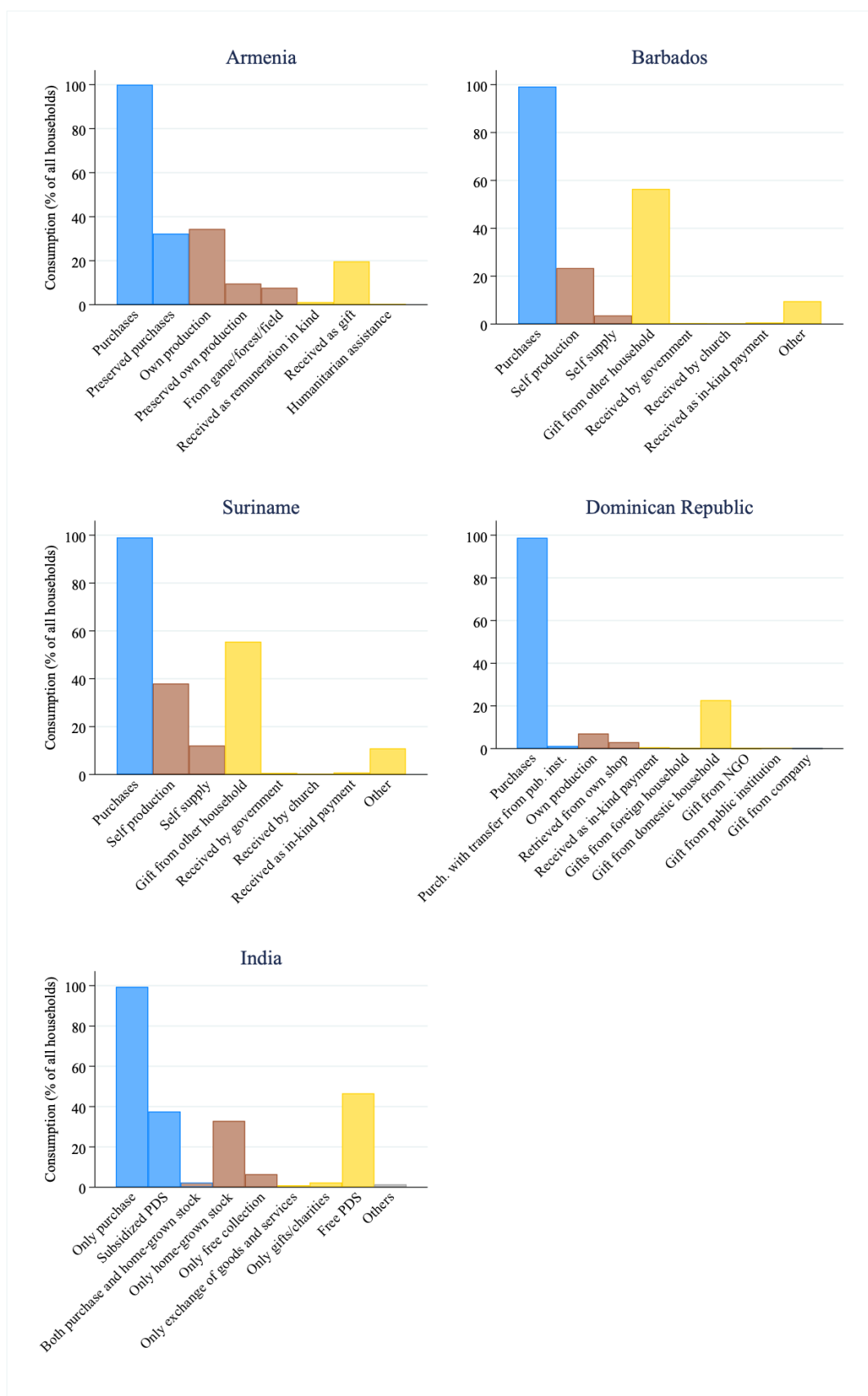
**Figure 1: Sources of food in LMICs.** Panel A depicts the share of households that procure food solely from purchases. Panel B depicts the share of households that are consuming any foods from own production. This information is based on all foods, not only the 9 food groups of the HDDS used in following analyses.



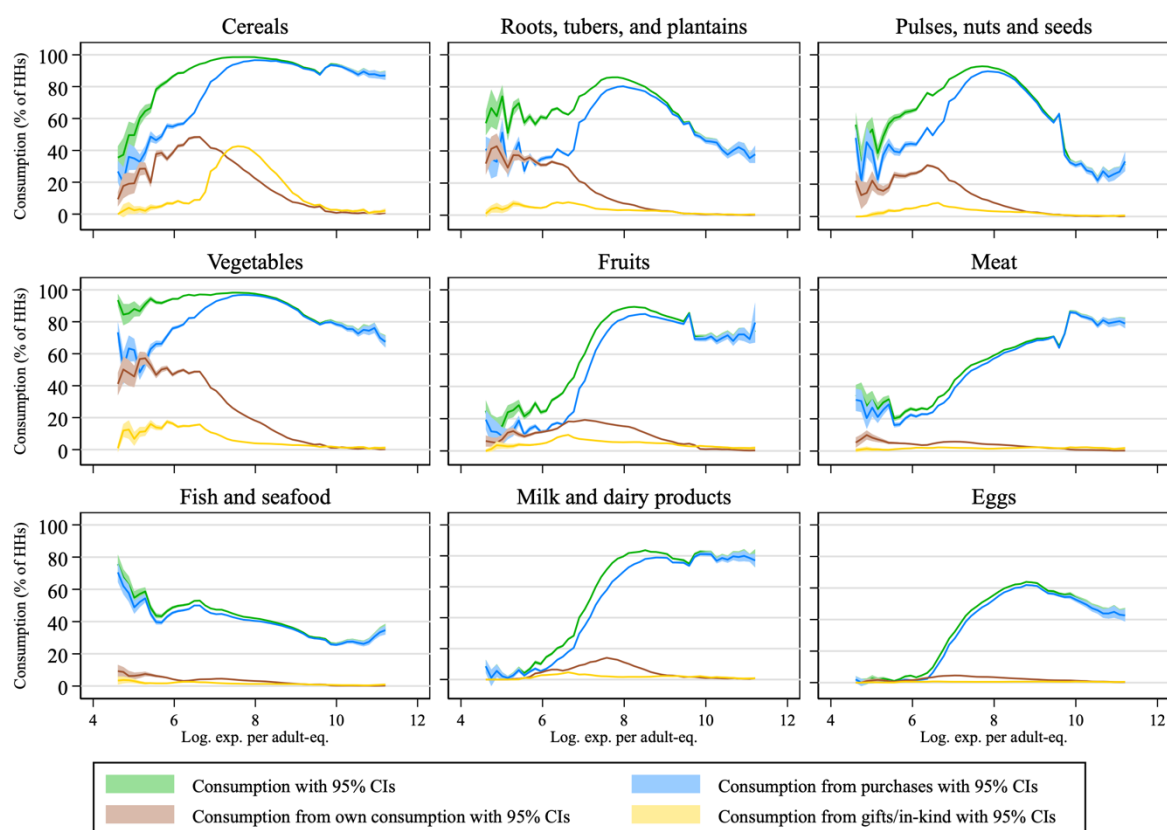
**Figure 2: Consumption and sourcing of 9 food groups.** The total bar length represents the average consumption of that food group along with 95% confidence intervals. The length of the blue bar represents the proportion of households that consume this food group from purchases. The blue diamond depicts the share of households that consume a food group exclusively from purchases and not from any other sources. The brown dots show the proportion consumed from own production, while the yellow dots exhibit the share of households that consume a food group from gifts or in-kind.



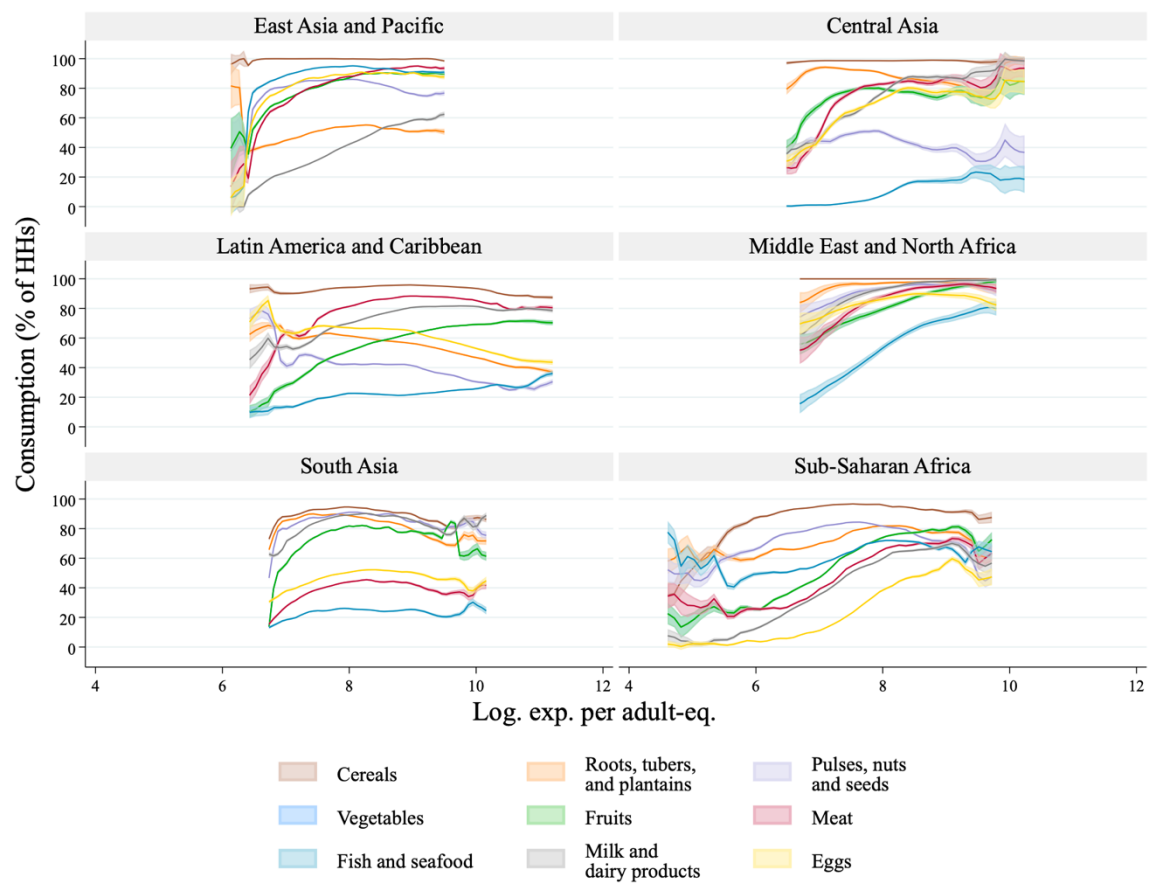
**Figure 3: Consumption and sourcing of food items.** The x-axis represents the proportion of food items consumed by a household from either purchases (blue), own production (brown), or gifts/in-kind (yellow) with 95% confidence intervals.



**Figure 4: Consumption from disaggregated food sources.** The y-axis shows the proportion of households that consume foods from each source. Blue are purchases, brown is own consumption, and yellow is food from gifts/in-kind.

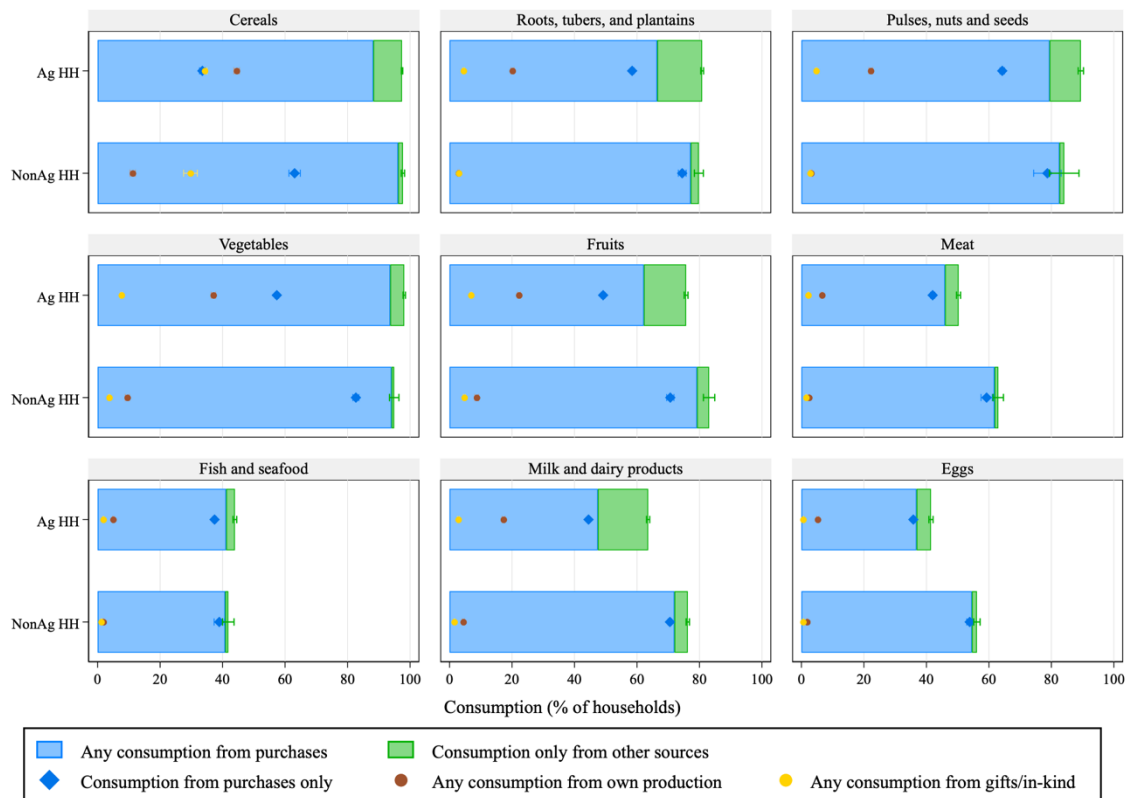


**Figure 5: Relationship between consumption of nine food groups from different sources and household income.** In this graph, we use local polynomial smooth plots with 95% confidence intervals to show the relationship between consumption of nine food groups from purchases, own production and gifts/in-kind and logarithmized household per adult-equivalent income.

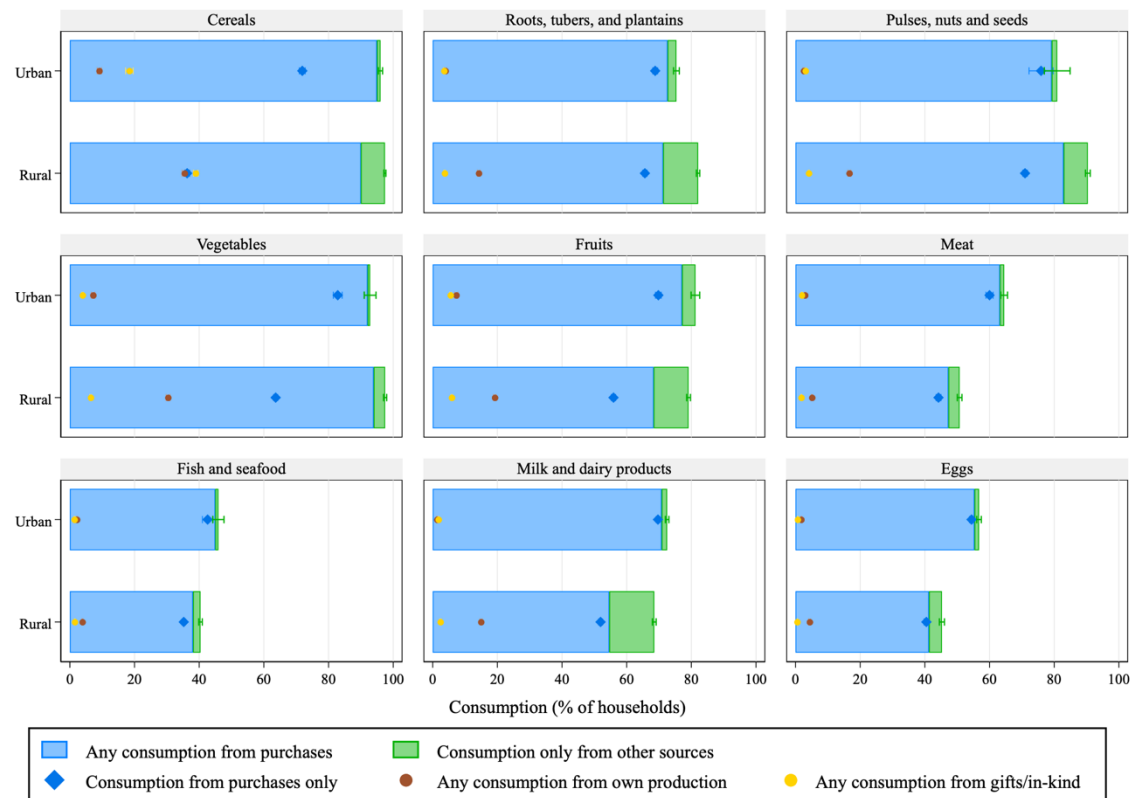


**Figure 6: Relationship between consumption of nine food groups and income by world region.** In this graph, we use local polynomial smooth plots with 95% confidence intervals to show the relationship between consumption of nine food groups and logarithmized household per adult-equivalent income.

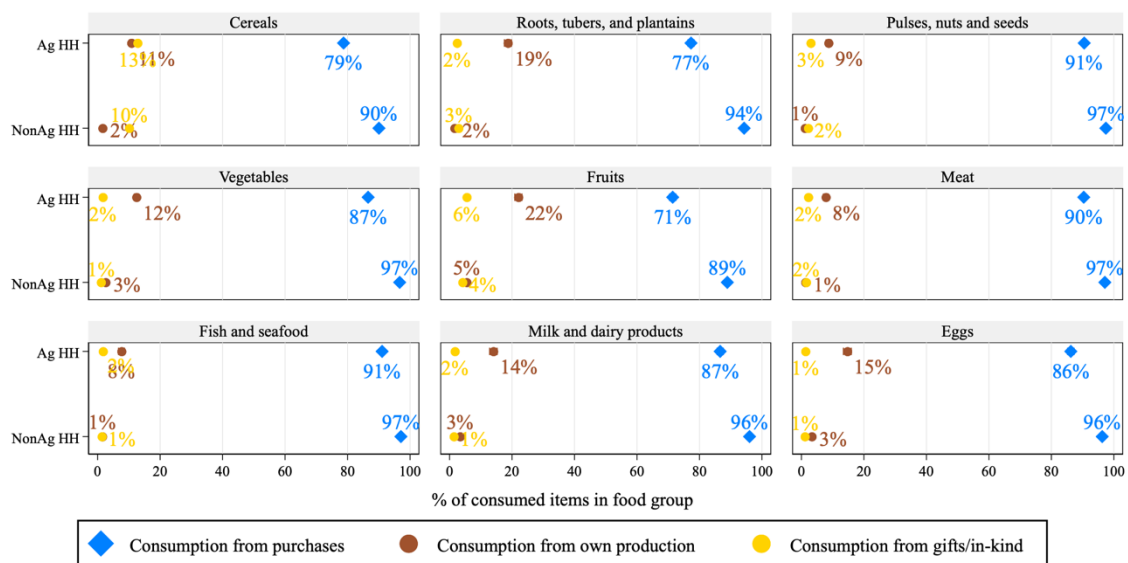




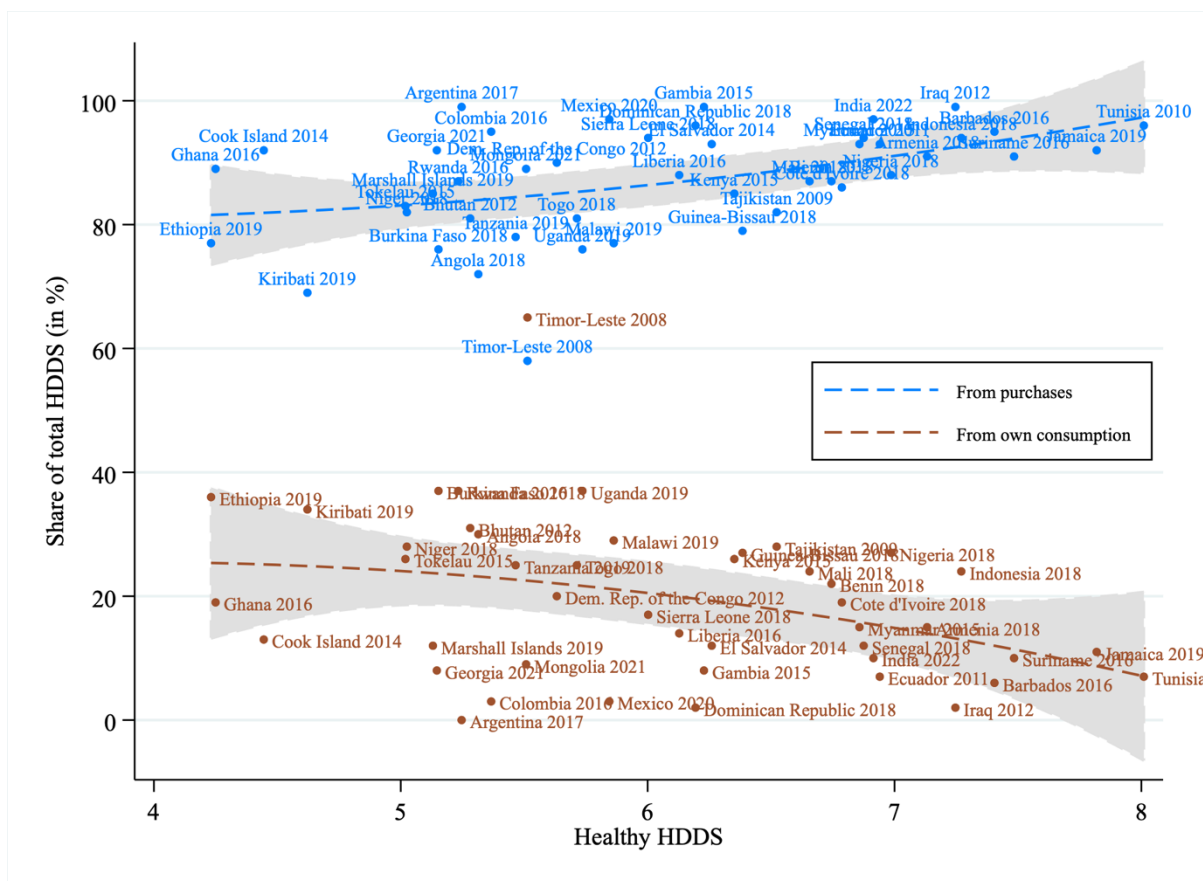
**Figure 7: Consumption and sourcing of 9 food groups by agriculture as primary activity of any household member.** The total bar length represents the average consumption of that food group within that category along with 95% confidence intervals. The length of the blue bar represents the proportion of households that consume this food group from purchases, independently of whether they also consumes them from other sources. The blue diamond depicts the share of households that consume a food group exclusively from purchases. The brown dots show the proportion from own production, while the yellow dots exhibit the share of households that consume a food group from gifts or in-kind.



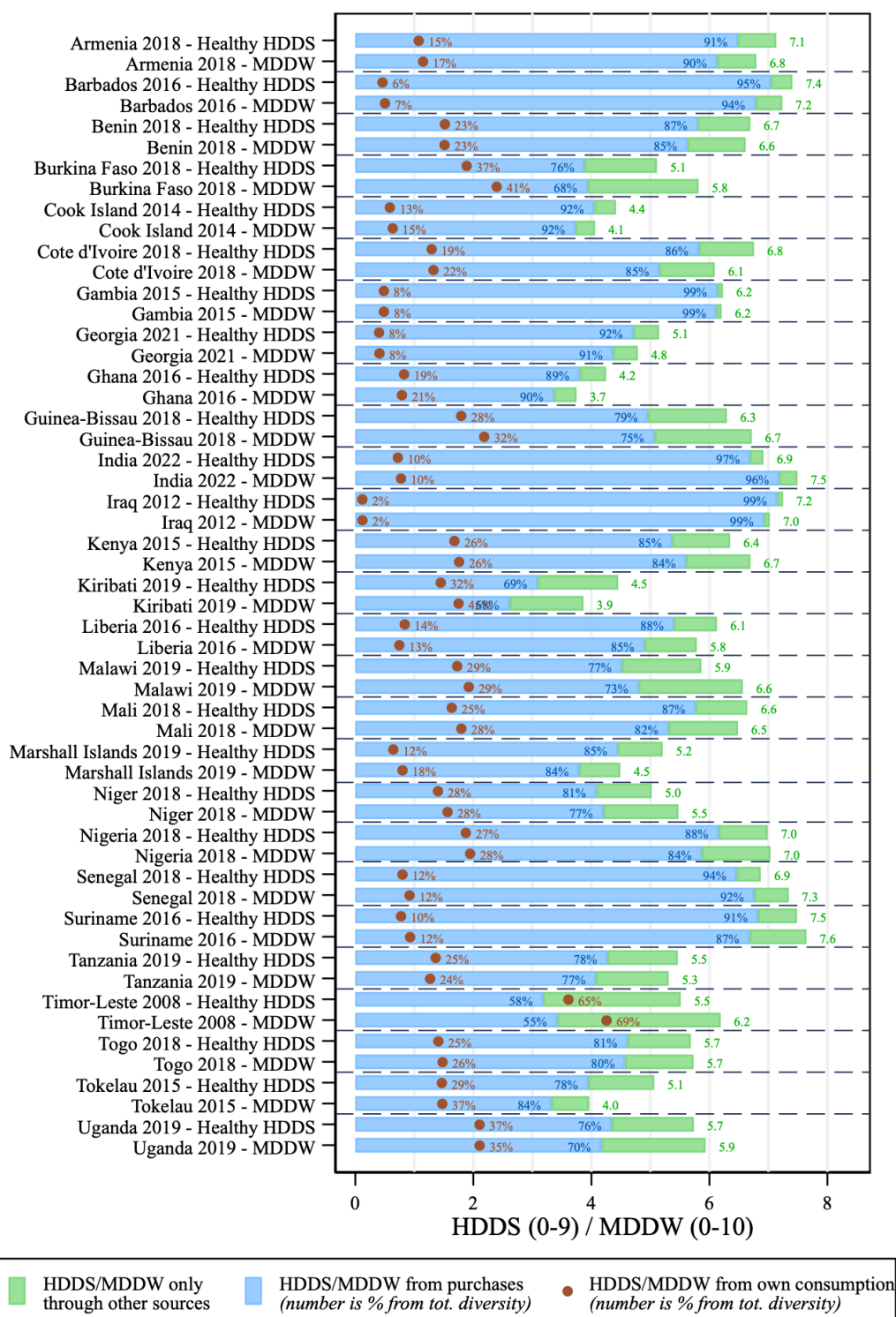
**Figure 8: Consumption and sourcing of 9 food groups by rural-urban location.** The total bar length represents the average consumption of that food group within that category along with 95% confidence intervals. The length of the blue bar represents the proportion of households that consume this food group exclusively from purchases. The blue diamond depicts the share of households that consume a food group from purchases, independently of whether it also consumes it from other sources. The brown dots show the proportion from own production, while the yellow dots exhibit the share of households that consume a food group from gifts or in-kind.



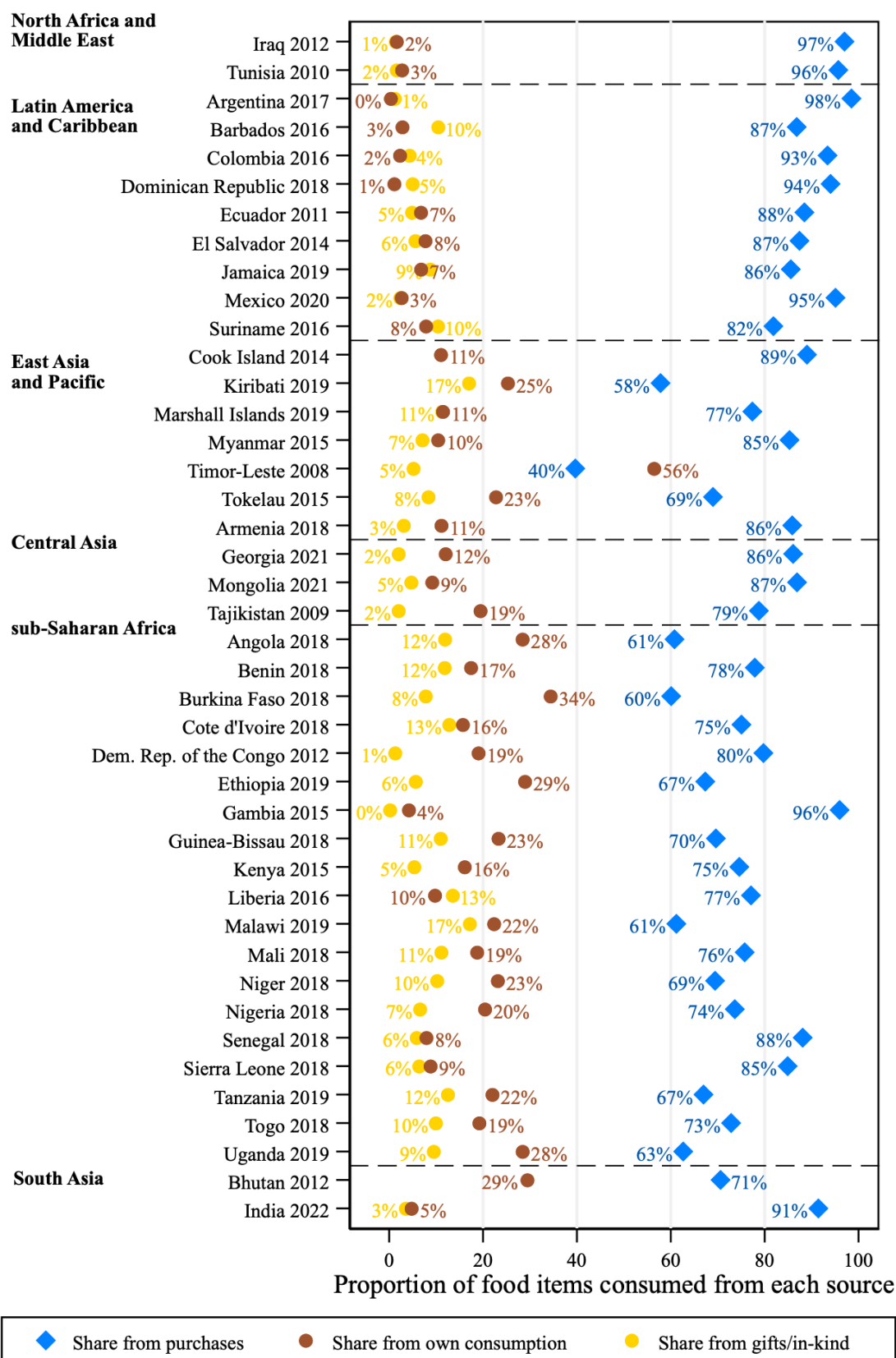
**Figure 9: Food item sources by food group and agriculture as primary activity of any household member.** The x-axis represents the proportion of all food items consumed and each source. Blue represents the proportion of food items sourced from purchases. Brown dots show the proportion from own production, while the yellow dots exhibit the share of food items from gifts or in-kind.



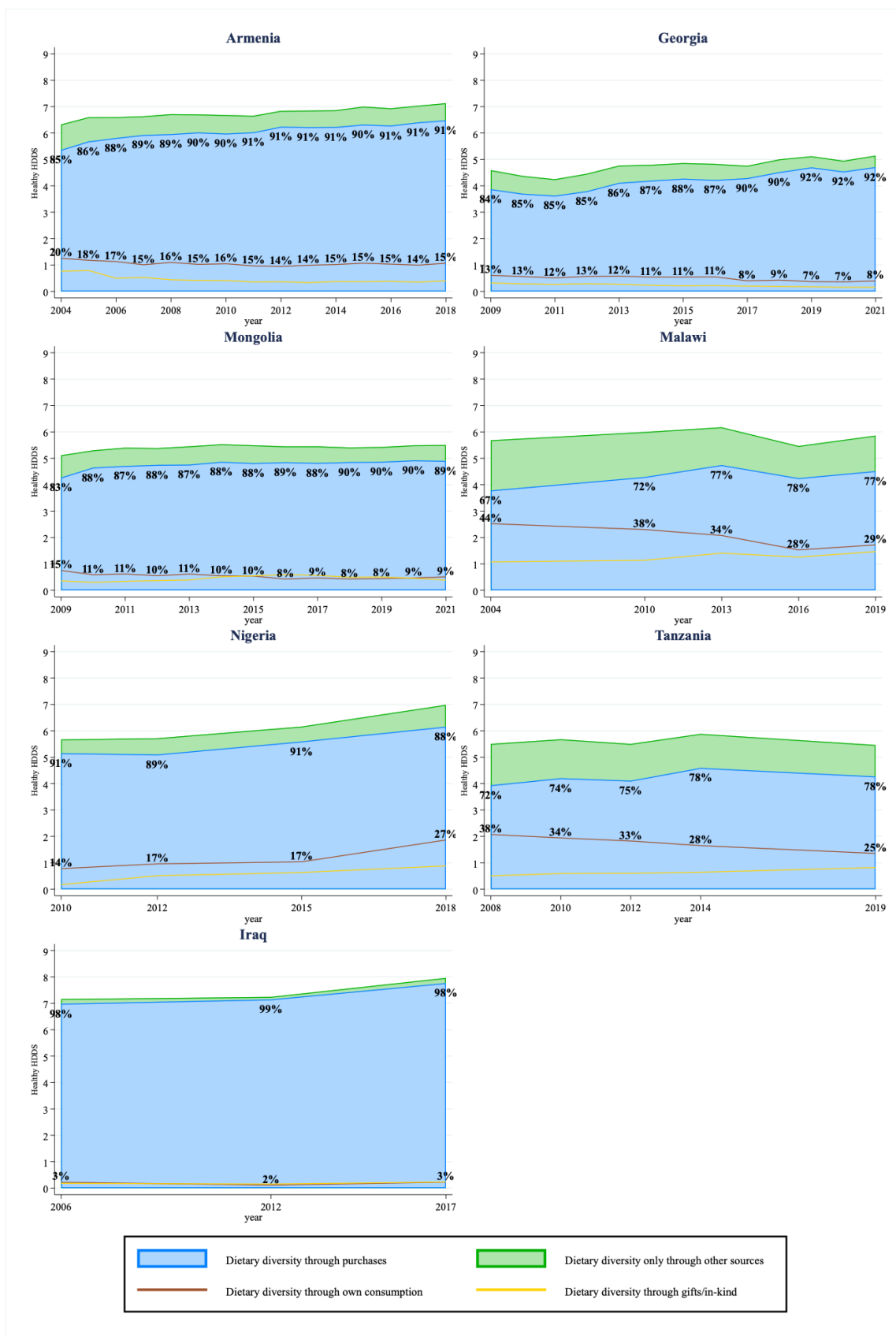
**Figure 10: Relationship between total household dietary diversity and proportion from purchases and own consumption.** Blue shows the relationship between total healthy HDDS (x-axis) and the proportion than is met through purchases (y-axis). Brown shows the relationship between total HDDS and the proportion covered through own consumption (y-axis). Grey areas represent 95% confidence intervals.



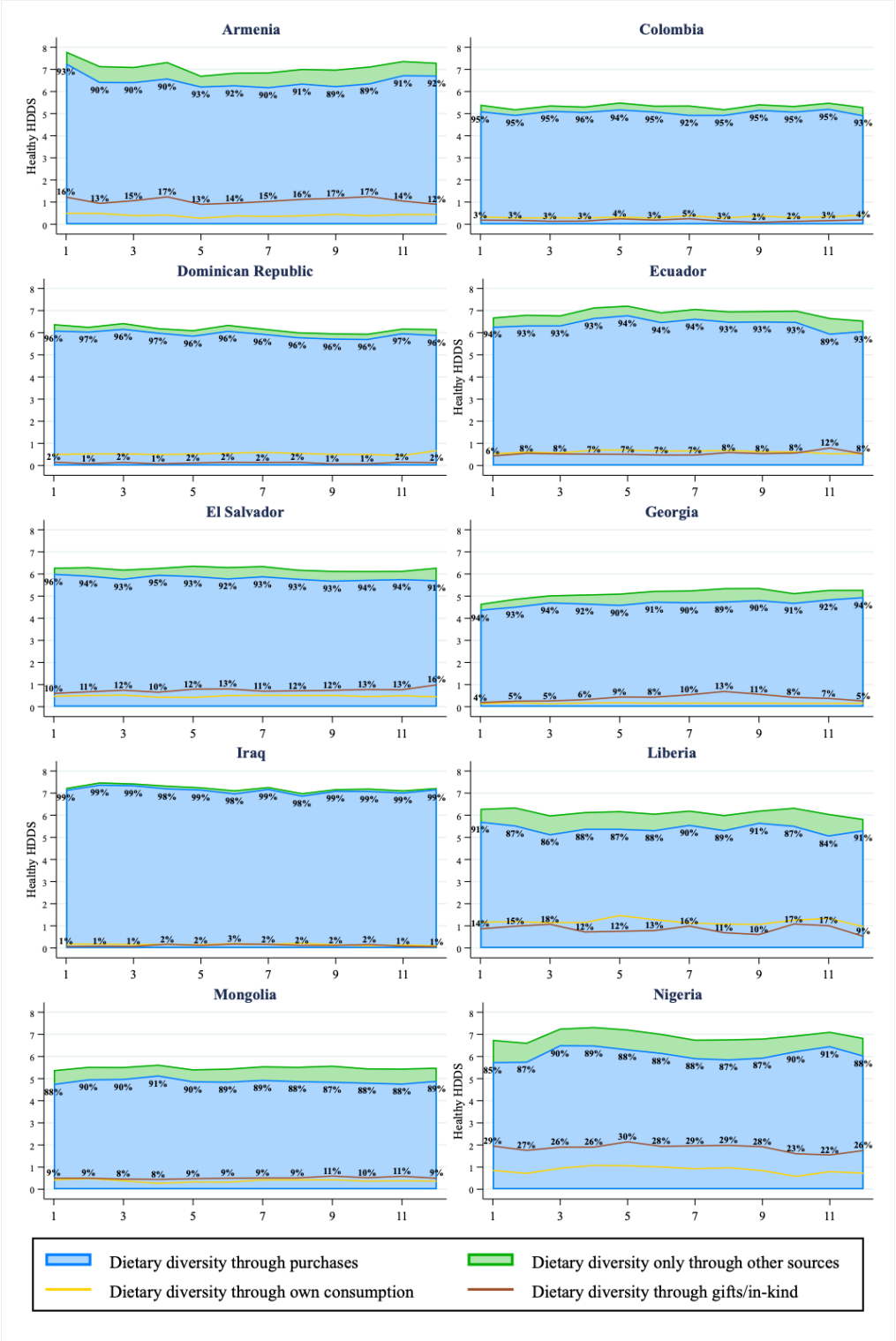
**Figure 11: Food sources using the HDDS versus the MDDW indicator by country.** We compare two indicators of dietary diversity: the healthy HDDS from Figure 3 and the Minimum Dietary Diversity for Women, both measured at the household level with a 7-day recall. The blue bars represent dietary diversity originating from purchases with numbers indicating their proportion from the total dietary diversity, while the green bar represents diversity augmented by alternative sources, including consumption from own production or contributions in the form of gifts or in-kind provisions. Thus, the green bar represents the proportion of dietary diversity that remains unmet by purchases, and not the total diversity provided by other sources. The dietary diversity attributed to these alternative sources could be greater than that of the green bars. Brown dots indicate their dietary diversity from own consumption, whereas numbers display their share from total dietary diversity.



**Figure 12: Food item sources by country.** The x-axis represents the proportion of all food items consumed from each source. Blue represents the proportion of food items sourced from purchases. Brown dots show the proportion from own production, while the yellow dots exhibit the share of food items from gifts or in-kind.

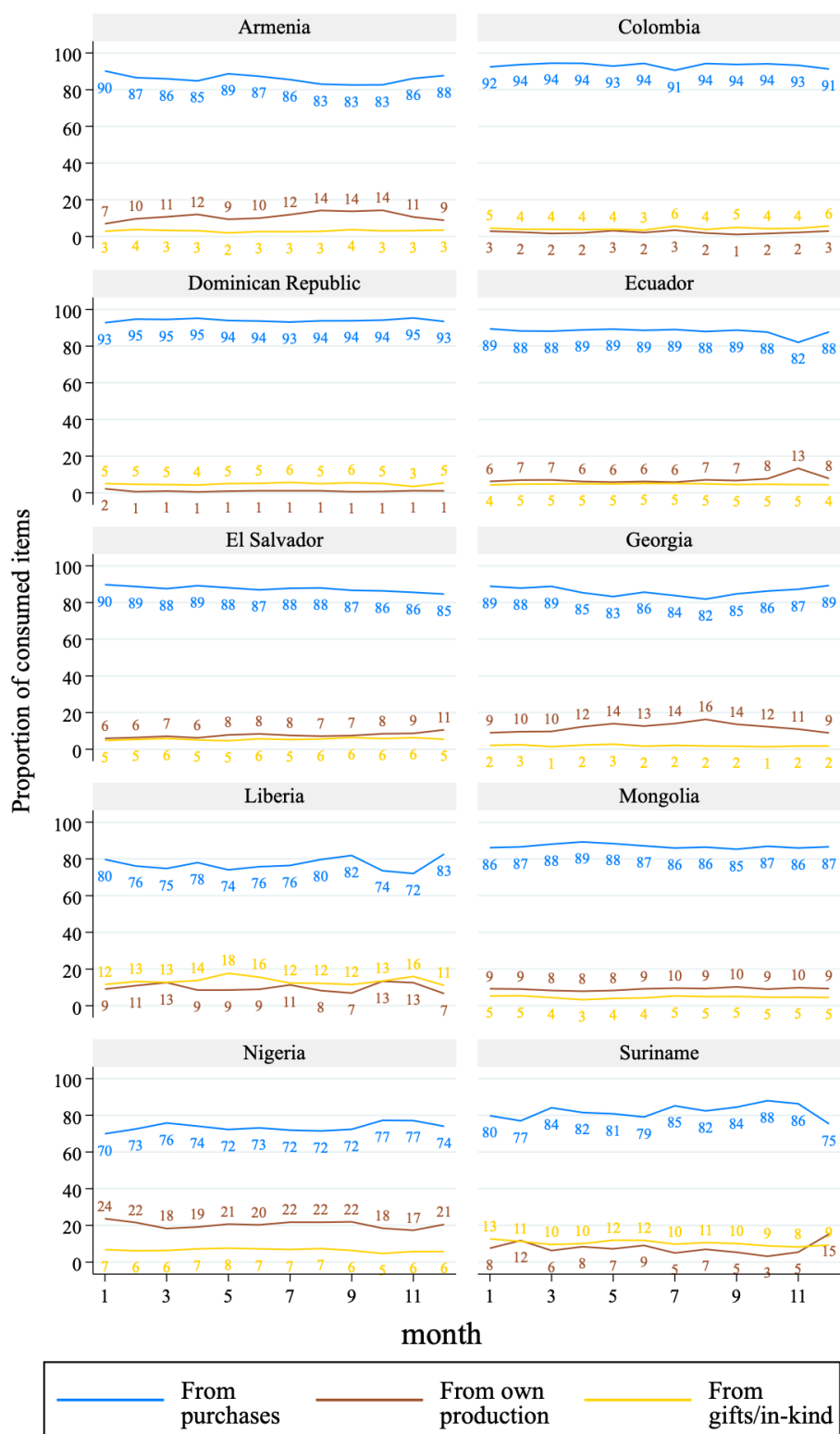


**Figure 13: Development of household dietary diversity and food sources over time.** The blue area depicts the dietary diversity from purchases with numbers indicating the proportion of the total HDDS that is met through purchases. The green area shows the absolute diversity that cannot be met through purchases. The brown line indicates the dietary diversity from own consumption with numbers indicating the proportion from the total HDDS. The yellow line indicates dietary diversity from gifts and in-kind.

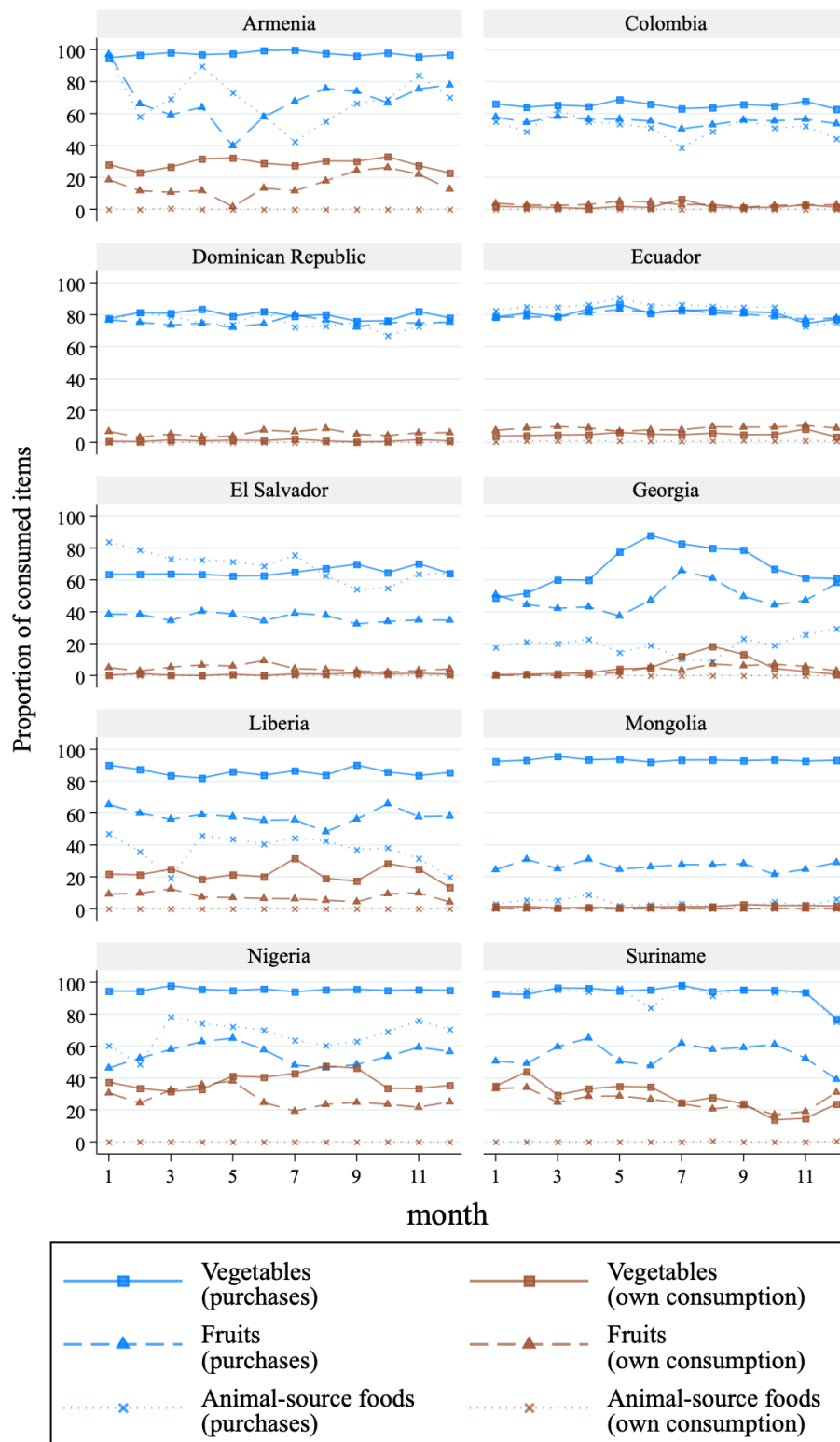


**Figure 14: Monthly household dietary diversity score (HDDS) and food sources in six countries.** The blue area depicts the dietary diversity from purchases with numbers indicating the proportion of the total HDDS that cannot be met through purchases. The green area shows the absolute diversity that can currently not be met through purchases. The yellow line indicates dietary diversity from own consumption with numbers indicating the proportion of current diversity that can be covered through own consumption. All surveys were conducted over a period of 12 months and had at least 100 observations in each month. We selected countries where the monthly rural-urban proportion did not vary by more than 10 percentage points around the annual mean to ensure equal spatial representation in each month.





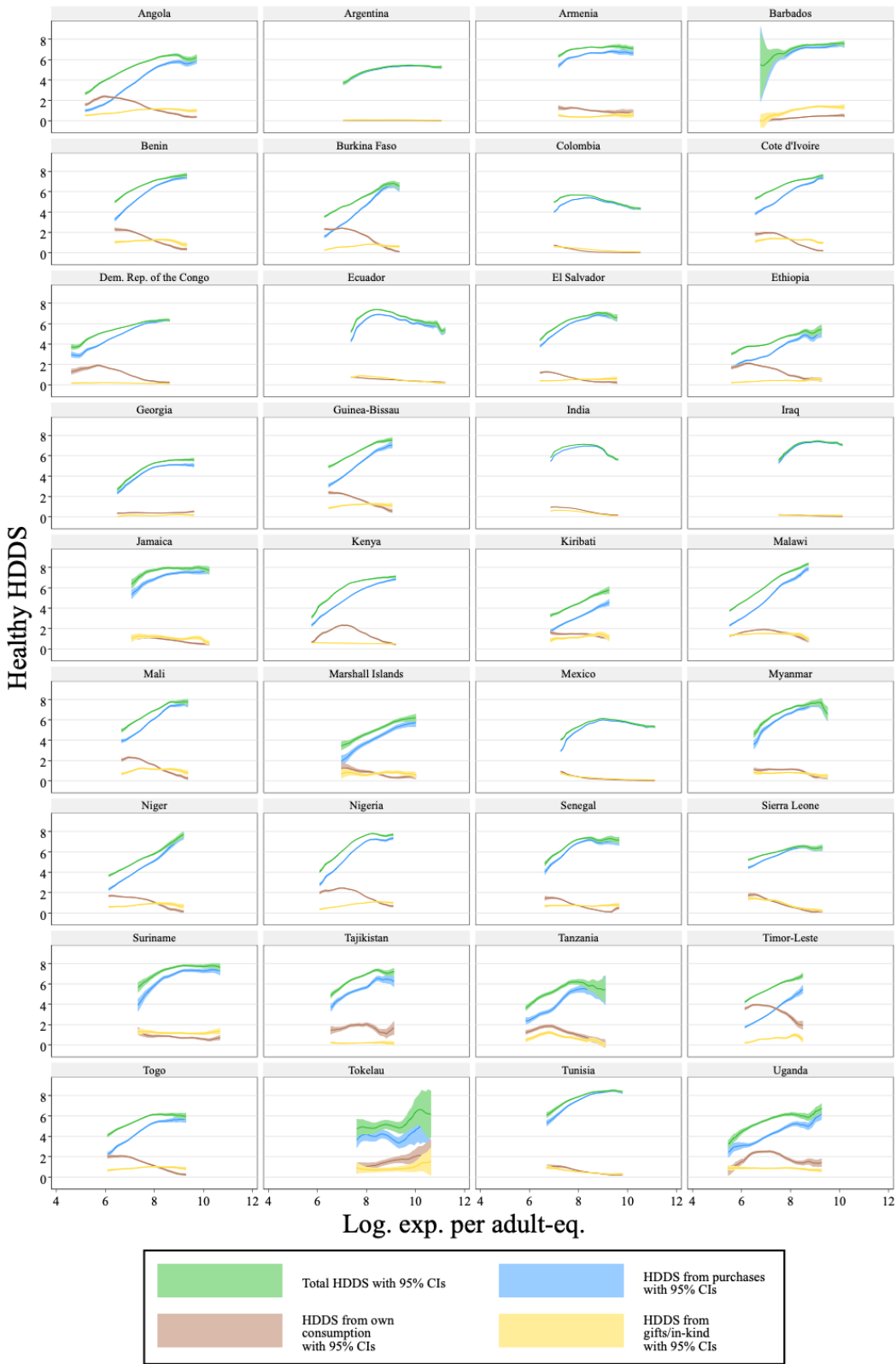
**Figure 15: Food item sources for ten countries by month.** The x-axis represents the month and the y-axis the proportion of all food items consumed from each source. Blue represents the proportion of food items sourced from purchases. Brown shows the proportion from own production, while yellow exhibits the share of food items from gifts or in-kind.



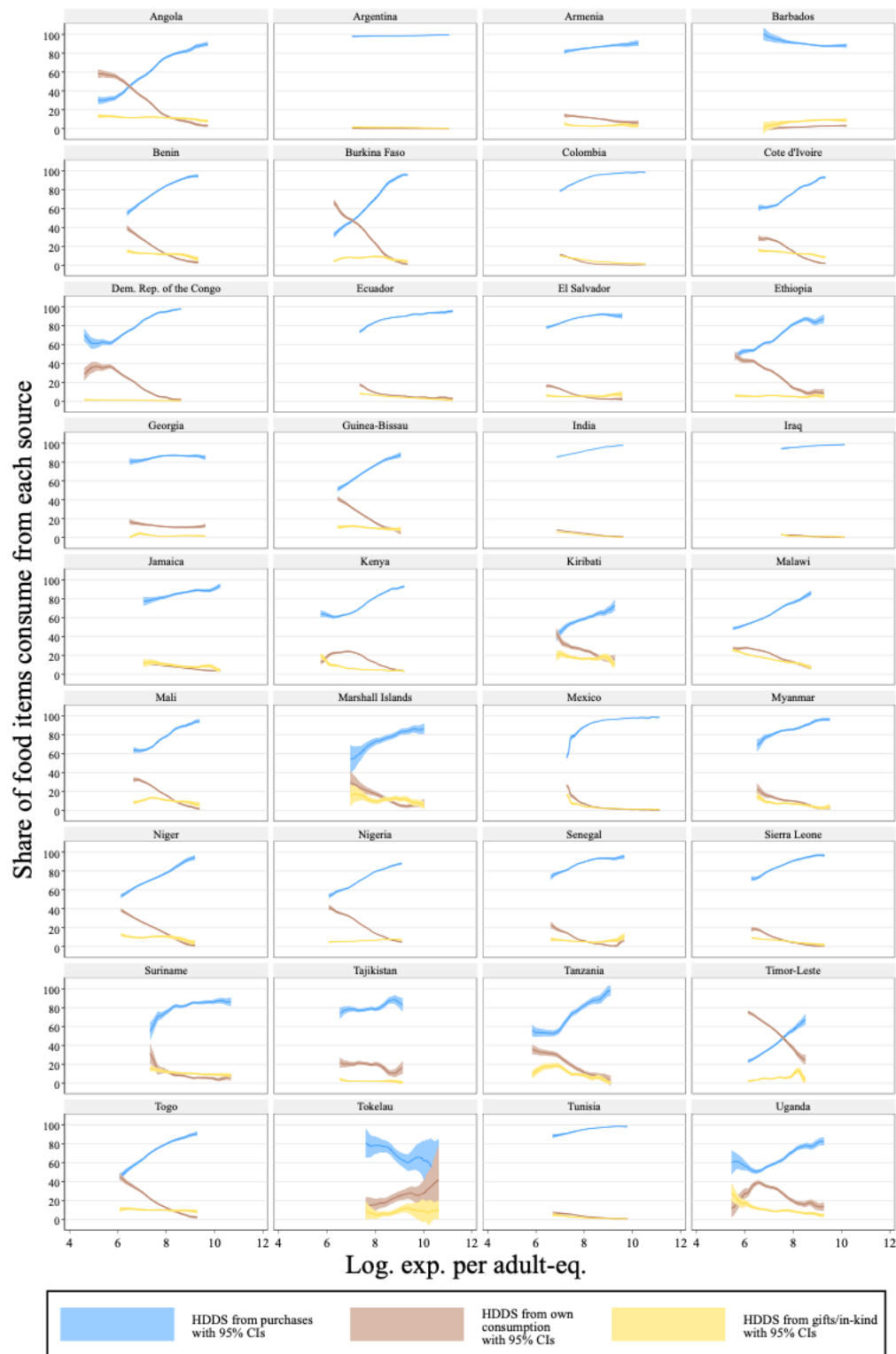
**Figure 16: Seasonality of food groups.** The x-axis represents the month and the y-axis the proportion of all food items consumed from purchases and own production. Squares represent vegetables, diamonds are representative for fruits and x shows animal-source foods (meat, fish and seafood, milk and dairy products, eggs).



**Figure 17. Dietary diversity by country, food source, and engagement in agricultural activities.** Green depicts the healthy HDDS with 95% confidence intervals, blue the HDDS of foods consumed from purchases, brown the HDDS from own consumption. Thereby, dark colors and diamonds represent households in which head or spouse is employed in agriculture and shallow dots represent non-agricultural households.



**Figure 18: Relationship between dietary diversity from different sources and income by country.** In this graph, we use local polynomial smooth plots with 95% confidence intervals to show the relationship between healthy household dietary diversity from purchases, own production and gifts/in-kind and logarithmized household per adult-equivalent income.



**Figure 19: Relationship between food item diversity from different sources and income by country.** In this graph, we use local polynomial smooth plots with 95% confidence intervals to show the relationship between the proportion of food items sourced from purchases, own production and gifts/in-kind and logarithmized household per adult-equivalent income.

## Supplementary Tables

**Table 1: Household dietary diversity and food sources at country-level by rural-urban location and expenditure terciles.**

Country & Year	Rural								Urban							
	Poorest tercile				Richest tercile				Poorest tercile				Richest tercile			
	HDDS purch	% from tot.	HDDS own	% from tot.	HDDS purch	% from tot.	HDDS own	% from tot.	HDDS purch	% from tot.	HDDS own	% from tot.	HDDS purch	% from tot.	HDDS own	% from tot.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Angola 2018	1.4	33	3.0	71	3.4	59	2.5	43	3.8	82	0.9	20	5.9	93	0.5	7
Armenia 2018	5.3	76	2.8	41	6.1	83	2.6	36	6.7	96	0.2	3	7.0	97	0.1	1
Benin 2018	4.3	72	2.5	41	6.6	92	1.4	20	5.1	84	1.5	25	7.0	96	0.4	6
Bhutan 2012	2.9	62	2.6	56	4.6	83	1.8	33	4.8	97	0.3	7	6.0	99	0.2	3
Burkina Faso 2018	2.5	57	2.5	58	4.5	79	2.4	42	3.8	84	1.1	25	6.1	97	0.2	3
Colombia 2016	4.5	83	0.8	15	4.7	90	0.5	9	5.5	96	0.0	0	4.8	98	0.0	0
Cook Island 2014	3.4	79	1.3	30	4.0	87	1.1	23	4.0	95	0.2	6	4.1	97	0.3	6
Cote d'Ivoire 2018	4.4	73	2.4	40	5.6	82	1.7	25	5.3	86	1.1	17	7.1	96	0.2	3
DRC 2012	3.5	71	2.4	49	4.7	83	2.3	40	5.0	98	0.4	8	6.2	99	0.2	3
Ecuador 2011	5.5	85	1.0	16	5.8	88	1.0	16	7.4	96	0.3	3	6.2	96	0.3	4
El Salvador 2014	4.9	87	1.4	25	6.0	91	1.0	15	5.5	95	0.4	7	6.8	99	0.1	2
Ethiopia 2019	2.3	63	2.1	56	3.1	72	2.0	46	3.7	93	0.4	11	5.0	97	0.2	4
Georgia 2021	3.0	80	0.8	21	4.0	79	1.1	21	4.8	97	0.1	1	5.7	97	0.1	1
Ghana 2016	3.0	72	1.9	45	3.6	88	0.9	23	3.8	92	0.8	19	4.0	98	0.2	4
Guinea-Bissau 2018	3.2	60	2.8	53	4.4	69	2.8	44	5.3	89	0.9	14	6.9	94	0.5	6
India 2022	6.5	95	1.0	15	6.7	97	0.9	13	6.8	99	0.2	3	6.7	100	0.1	2
Indonesia 2018	5.9	88	2.5	37	6.9	94	2.1	29	6.8	94	1.7	23	7.3	98	1.0	13
Iraq 2012	6.3	96	0.4	5	7.0	97	0.4	5	7.1	99	0.0	0	7.4	99	0.0	0
Kenya 2015	3.9	74	2.1	39	5.5	80	2.7	39	4.8	87	1.2	21	6.6	97	0.4	6
Kiribati 2019	1.8	49	1.8	49	2.7	60	1.8	40	3.2	79	0.9	23	4.7	86	1.0	18
Malawi 2019	3.1	67	1.7	36	5.5	80	2.2	32	4.9	92	0.5	9	7.4	96	0.5	7
Mali 2018	4.5	77	2.4	41	6.5	89	1.5	21	5.7	92	0.9	15	7.6	98	0.3	3
Marshall Islands 2019	2.1	52	1.9	46	2.6	55	1.5	31	3.8	91	0.3	7	5.5	94	0.2	4
Mexico 2020	5.1	93	0.6	10	5.7	96	0.3	5	5.5	96	0.2	3	5.7	99	0.1	1
Myanmar 2015	5.4	87	1.2	20	6.8	93	1.5	21	7.0	98	0.2	3	7.4	99	0.2	3
Niger 2018	3.1	72	1.6	39	4.7	84	1.4	26	4.2	92	0.5	12	6.3	97	0.2	3
Nigeria 2018	4.5	78	2.6	45	6.6	87	2.4	32	5.6	91	1.1	18	7.5	96	0.6	8
Rwanda 2016	3.8	84	1.8	40	4.9	86	2.5	44	4.9	96	0.7	14	6.0	98	0.5	8
Senegal 2018	5.1	88	1.6	27	6.5	92	1.1	15	6.2	95	0.5	8	7.2	98	0.2	2
Sierra Leone 2018	4.9	88	1.8	33	5.7	92	1.6	25	5.7	98	0.6	10	6.4	99	0.1	2
Tajikistan 2009	4.4	76	2.1	36	5.4	77	2.6	37	5.6	95	0.6	11	6.9	95	0.6	8
Tanzania 2019	3.0	63	1.7	37	5.3	85	1.6	26	3.8	75	1.2	24	5.5	95	0.3	5
Timor-Leste 2008	2.1	44	4.0	83	3.1	53	4.1	71	3.4	65	3.2	60	6.3	90	1.4	20
Togo 2018	3.3	64	2.4	47	5.0	79	2.0	32	4.4	89	0.5	11	5.6	94	0.2	4
Tunisia 2010	6.1	87	1.3	19	7.6	93	1.3	16	7.6	98	0.3	3	8.5	99	0.2	2
Uganda 2019	3.4	66	2.4	46	4.5	74	2.6	43	4.3	83	1.3	25	5.6	91	0.8	14

Notes: Columns display means for population groups in absolute food groups and percent of total HDDS from own consumption (brown) and purchases (blue). Population groups are rural households from the poorest and richest income terciles of a country and their urban counterparts.

176

**Table 2: Differences in household dietary diversity and food sources by rural-urban location and expenditure terciles at country-level.**

Country & Year of survey start	Combined (RT1-UT3)					Physical constraints										Economic constraints									
						Tercile 1 (RT1-UT1)					Tercile 3 (RT3-UT3)					Rural (RT1-RT3)					Urban (UT1-UT3)				
	Own consumption		Purchases			Own consumption		Purchases			Own consumption		Purchases			Own consumption		Purchases			Own consumption		Purchases		
	ΔHDDS	Δ%	ΔHDDS	Δ%	Δ%	ΔHDDS	Δ%	ΔHDDS	Δ%	Δ%	ΔHDDS	Δ%	ΔHDDS	Δ%	Δ%	ΔHDDS	Δ%	ΔHDDS	Δ%	Δ%	ΔHDDS	Δ%	ΔHDDS	Δ%	Δ%
Angola 2018	-2.1	2.6	64	-4.5	-61	-0.4	2.1	51	-2.4	-49	-0.5	2.0	35	-2.5	-35	-1.6	0.5	28	-2.0	-26	-1.7	0.5	13	-2.1	-11
Amenia 2018	-0.3	2.8	40	-1.7	-21	0.0	2.6	38	-1.4	-20	0.1	2.5	35	-1.0	-15	-0.4	0.2	5	-0.7	-6	-0.2	0.1	2	-0.3	-1
Benin 2018	-1.3	2.0	35	-2.7	-24	-0.1	0.9	16	-0.8	-12	-0.1	1.0	14	-0.4	-5	-1.2	1.0	22	-2.3	-19	-1.2	1.1	19	-1.9	-12
Bhutan 2012	-1.4	2.4	53	-3.1	-37	-0.3	2.3	49	-1.9	-35	-0.5	1.6	30	-1.4	-16	-0.9	0.8	23	-1.7	-21	-1.1	0.1	4	-1.2	-2
Burkina Faso 2018	-2.0	2.3	56	-3.6	-40	-0.2	1.4	34	-1.4	-27	-0.5	2.3	40	-1.6	-19	-1.4	0.1	16	-2.1	-22	-1.7	1.0	22	-2.3	-13
Colombia 2016	0.5	0.8	15	-0.3	-15	-0.3	0.8	15	-1.0	-13	0.3	0.5	9	-0.1	-8	0.2	0.3	6	-0.2	-7	0.8	0.0	0	0.7	-2
Cook Island 2014	0.1	1.0	24	-0.7	-18	0.1	1.1	25	-0.6	-16	0.4	0.8	17	-0.1	-10	-0.3	0.2	7	-0.6	-8	0.0	0.0	-1	-0.1	-2
Cote d'Ivoire 2018	-1.3	2.2	37	-2.7	-23	-0.2	1.3	23	-0.9	-13	-0.6	1.5	23	-1.5	-14	-0.7	0.7	14	-1.2	-9	-1.2	0.9	14	-1.8	-11
DRC 2012	-1.3	2.2	46	-2.7	-28	-0.2	2.0	42	-1.5	-27	-0.5	2.1	37	-1.5	-17	-0.7	0.2	9	-1.2	-12	-1.1	0.2	5	-1.2	-2
Ecuador 2011	0.0	0.7	12	-0.7	-11	-1.2	0.7	12	-1.9	-11	0.1	0.8	12	-0.5	-8	0.0	0.0	0	-0.2	-3	1.3	0.0	-1	1.2	0
El Salvador 2014	-1.3	1.2	23	-1.9	-11	-0.2	1.0	18	-0.7	-8	-0.2	0.9	13	-0.8	-8	-1.1	0.4	10	-1.2	-3	-1.1	0.3	5	-1.3	-3
Ethiopia 2019	-1.5	1.9	52	-2.7	-34	-0.3	1.6	45	-1.3	-30	-0.9	1.8	42	-1.9	-25	-0.6	0.1	10	-0.8	-9	-1.2	0.2	7	-1.4	-4
Georgia 2021	-2.1	0.7	20	-2.7	-17	-1.1	0.7	20	-1.7	-17	-0.9	1.0	20	-1.7	-18	-1.2	-0.2	0	-0.9	0	-1.0	0.0	0	-1.0	0
Ghana 2016	0.1	1.7	41	-1.0	-27	0.1	1.1	27	-0.8	-20	0.0	0.8	19	-0.4	-10	0.0	1.0	22	-0.6	-16	0.0	0.6	15	-0.3	-6
Guinea-Bissau 2018	-2.0	2.4	47	-3.7	-34	-0.7	2.0	39	-2.1	-28	-1.0	2.3	37	-2.5	-25	-1.0	0.1	9	-1.2	-9	-1.4	0.4	8	-1.6	-6
India 2022	0.0	0.9	13	-0.3	-5	-0.1	0.8	12	-0.3	-4	0.2	0.8	11	0.0	-3	-0.2	0.1	2	-0.3	-2	0.1	0.1	1	0.1	-1
Indonesia 2018	-0.8	1.5	24	-1.4	-10	-0.5	0.8	14	-0.9	-6	-0.1	1.2	16	-0.4	-4	-0.7	0.4	8	-1.0	-5	-0.3	0.7	10	-0.5	-4
Iraq 2012	-0.8	0.3	5	-1.0	-4	-0.5	0.3	5	-0.7	-3	-0.2	0.3	5	-0.4	-2	-0.6	0.0	1	-0.7	-1	-0.3	0.0	0	-0.3	0
Kenya 2015	-1.5	1.7	33	-2.6	-23	-0.2	0.9	18	-0.8	-13	0.1	2.3	33	-1.1	-17	-1.6	-0.6	1	-1.6	-6	-1.3	0.8	15	-1.8	-10
Kinbati 2019	-1.9	0.8	31	-3.0	-37	-0.4	0.9	27	-1.4	-30	-1.0	0.8	22	-2.0	-26	-0.9	0.0	9	-0.9	-11	-1.5	-0.1	5	-1.5	-7
Malawi 2019	-3.1	1.1	29	-4.3	-29	-0.7	1.2	27	-1.8	-25	-0.9	1.6	25	-1.9	-16	-2.2	-0.5	4	-2.3	-13	-2.4	-0.1	2	-2.5	-4
Mali 2018	-2.0	2.1	37	-3.1	-21	-0.4	1.4	26	-1.2	-15	-0.5	1.3	18	-1.1	-9	-1.4	0.8	19	-2.0	-12	-1.6	0.7	11	-1.9	-6
Marshall Islands 2019	-1.8	1.6	42	-3.4	-42	-0.2	1.6	39	-1.7	-39	-1.2	1.2	27	-2.9	-39	-0.7	0.4	15	-0.5	-3	-1.7	0.1	3	-1.7	-3
Mexico 2020	-0.2	0.5	9	-0.6	-6	-0.1	0.4	7	-0.3	-4	0.1	0.2	4	0.0	-2	-0.4	0.3	5	-0.6	-4	-0.1	0.1	2	-0.2	-3
Myanmar 2015	-1.4	1.0	17	-2.1	-12	-1.0	1.0	17	-1.6	-11	-0.2	1.3	18	-0.7	-6	-1.2	-0.3	-1	-1.4	-5	-0.4	0.0	-1	-0.4	-1
Niger 2018	-2.2	1.5	36	-3.2	-25	-0.3	1.1	27	-1.1	-19	-0.8	1.2	23	-1.6	-13	-1.4	0.2	13	-1.6	-11	-1.9	0.4	9	-2.1	-6
Nigeria 2018	-2.0	2.0	38	-3.0	-18	-0.5	1.5	27	-1.2	-13	-0.2	1.8	24	-0.9	-9	-1.8	0.2	14	-2.1	-9	-1.5	0.5	10	-1.9	-6
Rwanda 2016	-1.6	1.3	32	-2.2	-14	-0.5	1.1	27	-1.1	-12	-0.4	2.0	35	-1.1	-12	-1.2	-0.7	-3	-1.1	-2	-1.0	0.2	5	-1.1	-2
Senegal 2018	-1.5	1.4	25	-2.1	-11	-0.7	1.1	20	-1.1	-7	-0.3	0.9	12	-0.7	-6	-1.2	0.6	13	-1.4	-4	-0.8	0.3	5	-1.0	-3
Sierra Leone 2018	-0.9	1.7	31	-1.6	-12	-0.2	1.2	22	-0.8	-10	-0.4	1.4	23	-0.8	-7	-0.6	0.3	7	-0.8	-5	-0.7	0.5	8	-0.8	-2
Tajikistan 2009	-1.5	1.5	28	-2.5	-19	0.0	1.5	25	-1.1	-19	-0.3	2.0	29	-1.6	-18	-1.1	-0.5	-1	-0.9	-1	-1.5	0.0	2	-1.4	0
Tanzania 2019	-1.2	1.5	32	-2.6	-31	-0.3	0.5	13	-0.8	-12	0.5	1.3	21	-0.2	-10	-1.7	0.1	12	-2.4	-21	-0.9	0.9	19	-1.8	-19
Timor-Leste 2008	-2.2	2.6	63	-4.1	-46	-0.5	0.8	23	-1.3	-21	-1.2	2.7	51	-3.2	-37	-1.0	-0.1	12	-1.0	-9	-1.7	1.7	40	-2.8	-25
Togo 2018	-0.9	2.2	44	-2.4	-30	0.1	1.9	37	-1.2	-25	0.4	1.8	28	-0.6	-15	-1.2	0.4	15	-1.7	-15	-1.0	0.3	7	-1.2	-5
Tunisia 2010	-1.5	1.1	17	-2.4	-12	-0.8	1.1	16	-1.5	-11	-0.3	1.1	14	-0.8	-6	-1.2	0.0	3	-1.6	-6	-0.8	0.1	1	-0.9	-1
Uganda 2019	-1.1	1.5	33	-2.2	-25	-0.1	1.1	21	-0.9	-17	-0.1	1.8	30	-1.1	-17	-0.9	-0.3	3	-1.1	-8	-0.9	0.5	11	-1.3	-8

Notes: RT1 are rural households from the poorest income tercile of a country, RT3 are rural households from the richest income tercile, UT1 are urban households from the richest income tercile, UT3 are urban households from the richest income tercile. ΔHDDS is the difference in healthy household dietary diversity between groups and Δ% is the difference in proportion sourced from own consumption and purchases between groups in percentage points.

**Table 3: Association between healthy household dietary diversity score (HDDS) and household demographic and socioeconomic characteristics by world region.**

	(1) East Asia and Pacific	(2) Central Asia	(3) Latin America and Caribbean	(4) Middle East and North Africa	(5) South Asia	(6) Sub- Saharan Africa
<b>HDDS</b>						
Cons. exp. per AE, log	3.395***	4.434***	2.349***	3.681	3.573***	1.324***
Cons. exp. per AE, log, squared	-3.166***	-3.961***	-2.324***	-3.344	-3.420***	-0.924***
Highest education in HH						
Less than basic	-0.089***	-0.056*	-0.047***	-0.053	-0.035***	-0.088***
Basic	ref. cat.	ref. cat.	ref. cat.	ref. cat.	ref. cat.	ref. cat.
Intermediate	0.020***	0.125*	-0.000	0.074	-0.016***	0.044***
Advanced	0.022***	0.164***	-0.060***	0.112	-0.064***	0.043***
Household size	0.267***	0.214***	0.236***	0.084	0.144***	0.200***
Age of household head	0.023***	-0.007	0.050**	0.003	0.007	0.001
HH engaged in agricultural activities (1=Yes)	-0.035***	0.074**	0.013	-0.035	-0.059***	0.049***
Sex HHH (1=Female)	-0.015***	-0.035*	0.023*	-0.049	-0.018*	0.036***
Location (1=Urban)	0.076***	0.108**	0.024	0.121	-0.036***	0.033***
Observations	291,650	6,598	119,744	4,183	245,836	186,197
<b>HDDS from purchases</b>						
Cons. exp. per AE, log	3.277***	2.811***	2.477***	3.379	3.384***	1.039***
Cons. exp. per AE, log, squared	-3.028***	-2.483***	-2.419***	-3.064	-3.240***	-3.028***
Highest education in HH						
Less than basic	-0.110***	-0.021	-0.061***	-0.046	-0.028***	-0.091***
Basic	ref. cat.	ref. cat.	ref. cat.	ref. cat.		
Intermediate	0.040***	0.105*	0.006	0.090	-0.008*	0.044***
Advanced	0.040***	0.126**	-0.046***	0.126	-0.050***	0.045***
Household size	0.252***	0.128***	0.241***	0.079	0.101***	0.180***
Age of household head	-0.007	-0.026	0.028	-0.012	-0.003	-0.042***
HH engaged in agricultural activities (1=Yes)	-0.087***	-0.099***	-0.027*	-0.119	-0.126***	-0.084***
Sex HHH (1=Female)	-0.010*	-0.015	0.022	-0.041	-0.010	0.032***
Location (1=Urban)	0.125***	0.359***	0.103***	0.256	0.026**	0.149***
Observations	291,650	6,598	119,744	4,183	245,836	186,197
<b>HDDS from own consumption</b>						
Cons. exp. per AE, log	0.570***	1.082***	-0.295**	-0.173	0.258**	0.884***
Cons. exp. per AE, log, squared	-0.628***	-0.978***	0.300***	0.171	-0.221*	-0.804***
Highest education in HH						
Less than basic	0.011*	-0.012	-0.003	-0.019	-0.043***	-0.022***
Basic	ref. cat.	ref. cat.	ref. cat.	ref. cat.	ref. cat.	ref. cat.
Intermediate	-0.055***	0.079	-0.006	-0.017	0.003	-0.008*
Advanced	-0.063***	0.080	-0.015	-0.027	0.004	-0.016***
Household size	0.025***	0.109***	0.029	0.039	0.099***	0.092***
Age of household head	0.070***	0.056**	0.056***	0.045	0.051***	0.052***
HH engaged in agricultural activities (1=Yes)	0.206***	0.258***	0.206***	0.251	0.269***	0.430***
Sex HHH (1=Female)	-0.004	-0.024	-0.025**	-0.034	-0.023***	-0.018***
Location (1=Urban)	-0.191***	-0.388***	-0.240***	-0.406	-0.232***	-0.282***
Observations	291,650	6,598	119,744	4,183	245,836	186,249

*Continued on next page.*



184 *Table 3 continued.*

<b>HDDS from gifts/in-kind</b>						
Cons. exp. per AE, log	0.478	-0.408	0.327	-1.373	0.631***	0.332***
Cons. exp. per AE, log, squared	-0.436	0.405	-0.422	1.239	-0.791***	-0.263***
Highest education in HH						
Less than basic	0.038	-0.031*	0.030***	0.014	0.002	0.010
Basic	ref. cat.	ref. cat.	ref. cat.	ref. cat.		
Intermediate	-0.035*	-0.129*	-0.023***	-0.040	-0.018***	-0.025***
Advanced	-0.058**	-0.146*	-0.044***	-0.050	-0.081***	-0.022***
Household size	-0.028	-0.063*	-0.017***	-0.055	-0.049***	-0.046***
Age of household head	0.066***	-0.057	0.024***	-0.024	0.052***	0.069***
HH engaged in agricultural activities (1=Yes)	-0.017	-0.030	-0.010	0.006	-0.004	-0.008
Sex HHH (1=Female)	0.025	0.064**	0.035**	0.038	0.028***	0.077***
Location (1=Urban)	-0.156***	-0.047	-0.061***	-0.062	-0.128***	-0.090***
Observations	11,127	6,598	119,744	4,183	236,872	157,684

185 Notes: This table depicts OLS regression coefficients of standardized healthy household dietary diversity from  
186 different sources on various standardized socioeconomic characteristics. We employ country-fixed effects, survey  
187 weights and clustered standard errors.  
188

**Table 4: Data sources for the main analysis.**

Country name	Year or start year	Name of the survey
Angola	2018	Encuesta de Hogares de Propósitos Múltiples (EHPM)
Argentina	2017	Encuesta Nacional de Gastos de los Hogares
Armenia	2018	Integrated Living Conditions Survey
Barbados	2016	Barbados Survey of Living Conditions
Benin	2018	Enquête Harmonisée sur le Conditions de Vie des Ménages
Bhutan	2012	Living Standards Survey
Burkina Faso	2018	Enquête Harmonisée sur le Conditions de Vie des Ménages
Colombia	2016	Encuesta Nacional de Presupuestos de los Hogares (ENPH)
Cook Island	2014	Household Income and Expenditure Survey
Cote d'Ivoire	2018	Enquête harmonisée sur les conditions de vie des ménages (EHCVM)
Democratic Republic of the Congo	2012	National Household Survey
Dominican Republic	2018	Encuesta Nacional de Gastos e Ingresos de los Hogares (ENGIH)
Ecuador	2011	Encuesta Nacional de Ingresos y Gastos de Hogares Urbanos y Rurales
El Salvador	2014	Encuesta de Hogares de Propósitos Múltiples (EHPM)
Ethiopia	2019	Socioeconomic Survey
Gambia	2015	Integrated Household Survey
Georgia	2021	Households Incomes and Expenditures Survey
Ghana	2016	Ghana Living Standard Survey
Guinea-Bissau	2018	Inquérito Harmonizado sobre as Condições de vida dos Agregados Familiares
India	2022	Household Consumption and Expenditure Survey
Indonesia	2018	Survei Sosial Ekonomi Nasional
Iraq	2017	Rapid Welfare Monitoring Survey
Jamaica	2019	Jamaica Survey of Living Conditions
Kenya	2015	Kenya Integrated Household Budget Survey
Kiribati	2019	Household Income and Expenditure Survey
Liberia	2016	Household Income and Expenditure Survey
Malawi	2019	Fifth Integrated Household Survey
Mali	2018	Enquête Harmonisée sur le Conditions de Vie des Ménages
Marshall Islands	2019	Household Income and Expenditure Survey
Mexico	2020	National Survey of Household Income and Expenditure (ENIGH)
Mongolia	2021	Household Socio-Economic Survey
Myanmar	2015	Poverty and Living Conditions Survey
Niger	2018	Enquête Harmonisée sur le Conditions de Vie des Ménages
Nigeria	2018	Living Standards Survey
Rwanda	2016	Rwanda - Integrated Household Living Conditions Survey (EICV5), 2016-2017, Cross-Sectional Sample
Senegal	2018	Enquête Harmonisée sur le Conditions de Vie des Ménages
Sierra Leone	2018	Integrated Household Survey

Suriname	2016	Survey of Living Conditions
Tajikistan	2009	Living Standards Survey
Tanzania	2019	National Panel Survey 2019-2020
Timor-Leste	2008	Survey of Living Standards 2007 and Extension 2008
Togo	2018	Enquête Harmonisée sur le Conditions de Vie des Ménages
Tokelau	2015	Household Income and Expenditure Survey
Tunisia	2010	Enquête Nationale sur le Budget, la Consommation et le Niveau de vie des ménages
Uganda	2019	National Panel Survey (UNPS)

**Table 5: Data availability by survey.**

Country name	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Angola	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Argentina	no	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes
Armenia	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Barbados	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Benin	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Bhutan	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
Burkina Faso	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Colombia	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Cook Island	yes	yes	no	yes	no	yes	yes	yes	yes	yes	yes	no
Cote d'Ivoire	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Dem. Rep. of the Congo	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Dominican Republic	no	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes
Ecuador	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
El Salvador	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Ethiopia	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Gambia	no	yes	yes	yes	yes	no	no	yes	yes	yes	yes	yes
Georgia	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
Ghana	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
Guinea-Bissau	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
India	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Indonesia	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
Iraq	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
Jamaica	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Kenya	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Kiribati	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Liberia	yes	yes	yes	yes	yes	no	no	yes	yes	yes	yes	yes
Malawi	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Mali	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Marshall Islands	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Mexico	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
Mongolia	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes
Myanmar	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Niger	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Nigeria	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Rwanda	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
Senegal	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Sierra Leone	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Suriname	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Tajikistan	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Tanzania	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

Timor-Leste	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Togo	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Tokelau	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Tunisia	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Uganda	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
<b>Total</b>	<b>38</b>	<b>45</b>	<b>44</b>	<b>45</b>	<b>44</b>	<b>42</b>	<b>40</b>	<b>43</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>40</b>

Notes: (1) Rural-urban location, (2) Household size, (3) Adult equivalents, (4) Sex of household head, (5) Age of household head, (6) Max. education of any household member, (7) Household income/expenditure, (8) Engagement in any agricultural activities, (9) Consumption, (10) Consumption from purchases, (11) Consumption from own production, (12) Consumption from gifts/in-kind.