Table S1. Distribution of countries in dataset.

Region	Number of Countries	No. of Observations
Africa	41	697
Asia	34	570
Europe	38	617
North America	2	34
South America	30	507
Oceania	6	102

Table S2. Variable description.

Variable	Unit	Source	Timeframe
Fish consumption per capita	Kg/capita/year, edible weight	FAO 2020	1988–2017
Disposal income	Current US$	WDI, World Bank	1988–2017
Fish price	Local currency	FAOSTAT Database	1988–2017
Urban population	% of total population	UN DESA, 2018	1988–2017
Price of substitutes	Annual	FAOSTAT Database	2001–2017

Table S3. Summary statistics.

Variable	Obs	Mean	Std. Dev.	Min	Max
Per capita fish consumption	4472	18.6893	19.5143	0.02	191.75
Disposal income	4406	9693.368	15243.5	22.7953	118823.6
Fish price	4560	2072.178	1662.607	0.01	11711.7
Urban population	4560	55.1743	22.4201	5.27	100
Price of substitutes	2584	6.9328	15.6790	−11.0209	480.8634

Summary statistics show the observation, mean, standard deviation (SD), maximum and minimum statistics for all annual variables.

Table S4. Correlation matrix.

	Fish_cap	Disposal income	Fish price	Urban population	Food price inflation
Fish_cap	1.00				
Disposal income	0.43**	1.00			
Fish price	−0.71*	0.64*	1.00		
Urban population	0.67*	0.56*	0.37*	1.00	
Price of substitutes	−0.59	−0.33*	−0.29*	−0.33	1.00

Notes: Fish cap = per capita fish consumption (Kg/capita/year, edible weight), Disposal income = GDP per capita (Current US$), Fish price = Aggregate import quantities and values, Price of substitutes/ Food price inflation = price of substitutes, and Urban population = (% of total population) *, significance at 5% level in correlation matrix.

Table S5. Dependent variable: Global per capita fish consumption (kg/cap/year).

Variables	Pooled	Fixed Effects
Constant	14.1199	
	(1.0306)	
logDisposable income	0.5100***	0.4821***
	(0.005)	(0.0038)
logFish price	−0.880***	0.7030
	(0.0057)	(0.006)
logUrban population (% total population)	−1.9525*	0.8427***
	(0.0072)	(0.0034)
logPrice of substitutes	−0.6147**	−0.5490
	(0.0054)	(0.0039)
Observation	2547	2547
No. of countries	151	151
Country effects	No	Yes
Adj. R^2	0.1522	0.3197
F-statistic	73.08***	14.18***

Notes: (1) Time dummies are tested but not significant. (2) Random effect was tested. The Hausman test (Prob > chi2 = 0.0461, i.e., was significant indicating fixed effects was appropriate for the data), however, rejects random effects (3) Robust standard errors in parentheses and (4) *, **, *** show significant at 1%, 5%, and 10% levels, respectively.

Table S6. Dependent variable: per capita fish consumption (kg/cap/year). Regional panel data.

	Africa		**Asia**		**Europe**		**North America**		**South America**		**Oceania**	
	Fixed Effects	Random effects	Fixed Effects	Random effects	Fixed Effects	Random effects	Fixed Effects	Random effects	Fixed Effects	Random effects	Fixed Effects	Random effects
Constant	5.3733**	4.5459*	19.9999	21.6078	18.5869***	13.8034**	17.0105	41.9176*	4.4423*	13.58.43***	21.9899***	24.2157*
	(1.5977)	(1.8505)	(6.4249)	(6.1726)	(3.8354)	(4.2916)	(38.458)	(23.8045)	(2.5644)	(2.8049)	(5.0244)	(10.9077)
logDisposable Income	0.523	0.672	0.420	0.4000	0.5000***	0.6200***	−0.7000	−0.5000	0.6120***	0.740***	0.8150***	0.9120***
	(0.0001)	(0.0001)	(0.0001)	(0.00006)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0001)	(0.0000)	(0.0000)
logFish price	0.8912	−0.5600	0.0712	0.8120*	0.8210*	0.5410	−0.5470	−0.6540*	−0.8712**	−0.9410***	−0.6315***	−0.7314**
	(0.0001)	(0.0001)	(0.0004)	(0.0004)	(0.0001)	(0.0001)	(0.0006)	(0.0002)	(0.0001)	(0.0002)	(0.0003)	(0.0003)
logUrban population (% of total)	0.8279**	0.7503***	0.57979	0.8302	0.4205	0.3809	0.7263	−0.1978	0.2237***	0.0628	0.6793***	0.8359***
	(0.0417)	(0.0369)	(0.1181)	(0.0938)	(0.0554)	(0.0532)	(0.4974)	(0.3049)	(0.0436)	(0.0398)	(0.0980)	(0.0953)
logPrice of substitutes	−0.4400	0.5600	−0.7683	−0.9697	−0.6421	−0.7324	−0.5574	−0.8702	−0.6150	−0.8267*	0.7206	0.8985
	(0.0097)	(0.0096)	(0.0474)	(0.0488)	(0.0117)	(0.0119)	(0.0833)	(0.0815)	(0.0132)	(0.0139)	(0.0406)	(0.0408)
Observation	697	697	570	570	617	617	34	34	507	507	102	102
No. of countries	41	41	34	34	38	38	2	2	30	30	6	6
Country effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overall R	0.1844	0.1903	0.4196	0.2981	0.1961	0.2715	0.5201	0.5502	0.1546	0.0071	0.2013	0.2032
F-statistic/ Wald chi2	6.17***	33.77****	3.53**	20.18***	15.32***	66.32****	6.76***	35.47****	22.30****	60.48****	7.18****	25.92****

Table S7. Fish demand elasticities.

Author	Product	Country	Type of Data	Method Used	Elasticity/ Flexibility	Own price elasticity		Income elasticity
						Uncompensated	Compensated	
Lambert *et al.*, (2006)	Fish and other meat product	Canada	Canada's food expenditure survey for 1992 and 1996	QAIDS	Elasticity	−0.43 to −0.82	−0.404 to-0.714	0.45 to 0.68
Salvanes and DeVoretz (1997)	Fish and meat product	Canada	1986 Food Expenditure Survey	LA/AIDS	Elasticity	−0.877	−0.885	1.0382
Hayes *et al.*, (1990)	Fish and other 3 meat items	Japan	From different departments during 1947 to 1978	LA/AIDS	Elasticity	−0.70	−0.31	0.78
Talukder (1993)	Fish with other 5 food items	Bangladesh	Bangladesh household survey data, 1981–82	Log- Polynomial	Elasticity			
Pitt (1983)	Fish with other 8 food items	Bangladesh	Household expenditure survey of Bangladesh 1973–74	Limited dependent variable model	Elasticity	−0.97 to −0.66	−0.89 to −0.62	
Hovhannisyan and Gould (2010)	Seafood (fish, shrimp and other), other food products.	Urban China	Household expenditure survey data for the years 1995 and 2003.	GQ-AIDS using maximum likelihood estimation	Elasticity	−0.558 to −0.658	−0.477 to −0.492	
Lambert *et al.*, (2006)	Fish and other meat product	Canada	Canada's food expenditure survey for 1992 and 1996	QAIDS	Elasticity	−0.43 to −0.82	−0.404 to −0.714	0.45 to 0.68
Salvanes and DeVoretz (1997)	Fish and meat product	Canada	1986 Food Expenditure Survey	LA/AIDS	Elasticity	−0.877	−0.885	1.0382

Hayes *et al.*, (1990)	Fish and other 3 meat items	Japan	From different departments during 1947 to 1978	LA/AIDS	Elasticity	−0.70	−0.31	0.78
Talukder (1993)	Fish with other 5 food items	Bangladesh	Bangladesh household survey data, 1981–82	Log- Polynomial	Elasticity			1.334 to 1.098
Pitt (1981)	Fish with other 8 food items	Bangladesh	Household expenditure survey of Bangladesh 1973–74	Limited dependent variable model	Elasticity	−0.97 to −0.66	−0.89 to −0.62	1.02 to 0.50
Hovhannisyan and Gould (2010)	Seafood (fish, shrimp and other), other food products.	Urban China	Household expenditure survey data for the years 1995 and 2003.	GQ-AIDS using maximum likelihood estimation	Elasticity	−0.558 to −0.658	−0.477 to −0.492	0.789 to 1.501
Gale and Huang (2007)	Fish products	China	Household Survey Data for 2002–03 from Chinese NBS	Engel curve regression estimations using log-log inverse	Elasticity			0.35 to 0.57
Liu and Sun (2005)	Fish and other 3 meat products	Taiwan	Cross-sectional national household survey data for 1981 and 1991	AIDS	Elasticity	−1.599 to −1.652		0.578 to 0.633
Jung and Koo (2002)	Fish products along with other commodities	South Korea	Time series- data for 1980–98	LA/AIDS with 3SLS estimation	Elasticity	−0.847	0.196	0.179
Meenakshi and Ray (1999)	Meat, egg and fish as a group and other 4 food items	India	NSSO data from 1972–73 to 1987–88	AIDS	Elasticity	−0.913 to −1.965		1.074 to 1.227

Gao *et al.*, (1996)	fish and other 8 food commodities	China	rural household survey data from China's state statistical Bureau for 1990	A demand system for food commodities with upper-level AIDS model and lower level GLES	Elasticity	−0.807		0.892
Nguyen and Jolly (2013)	Fish products	Caribbean Region	Time series data from different sources from 1976–2006	Co-integration and Error Correction Model	Elasticity	1.72		0.22
Regoršek and Erjavec (2007)	Fish, with meat as a unit, and six other food commodities	Slovenia	Household budget survey year 2001	LA/AIDS	Elasticity	−0.206 to −0.397	−0.064 to 0.038	0.924 to 0.968
Dhehibi *et al.*, (2005)	Fish	Tunisia	Time-series data covering 1975–2000	Double-log demand model	Elasticity	−0.367		0.273
Agbola *et al.*, (2003)	Fish with meat, fish products along with other food items	South Africa	1993 South Africa Integrated Household Survey	LA/AIDS	Elasticity	−0.894 to −1.309	−0.53 to −0.949	1.413 to 1.389
Ackah, and Appleton (2003)	Fish with other food commodities	Ghana	Household survey data 1991–92, 1998–99	LA/AIDS	Elasticity	−0.874 to −0.988		0.699 to 0.781
Gould *et al.*, (2002)	Fish with other 4 food commodities	Mexico	Nation-wide household survey using weekly diary	Trans-log indirect utility function	Elasticity		−0.472 to −0.492	
Fayyad and Johnson (1995)	Fish with other food items	Egypt	Time series data	LA/AIDS	Elasticity	−0.173		0.936

Table S8. Annual average growth in consumption per capita in different periods (%).

	1988-1998	1999-2008	2009-2017	1988-2017
World	1.52	1.50	0.8	1.4
Asia	3.3	1.8	1.9	2.4
Africa	−0.9	2.4	−0.2	0.5
Europe	−1.0	1.4	−0.1	0.1
North America	−0.1	−0.3	0.3	0.05
South America	0.2	1.2	1.4	0.9
Oceania	0.5	1.3	−0.2	0.7

Source: Authors' computation based on data extracted from the FAOSTAT database.

Table S9. Fish consumption per capita based on countries (2017).

Country	Per Capita	Country	Per Capita	Country	Per Capita
Albania	5.36	Grenada	27.1	North Macedonia	6.21
Algeria	3.86	Guatemala	2.58	Norway	51.35
Angola	20.22	Guinea	10.09	Oman	28.54
Antigua and Barbuda	52.54	Guyana	30.48	Pakistan	1.72
Argentina	7.29	Haiti	4.53	Panama	13.12
Armenia	5.83	Honduras	3.15	Paraguay	4.17
Australia	25.87	Hong Kong	70.75	Peru	25.04
Austria	14.09	Hungary	6.3	Philippines	28.14
Bahamas	27.31	Iceland	90.71	Poland	10.69
Bangladesh	24.31	India	6.9	Portugal	56.84
Barbados	39.97	Indonesia	44.67	Romania	5.96
Belarus	16.28	Iran	11.73	Russia	20.07
Belgium	23.01	Iraq	3.37	Rwanda	7.66
Belize	12.16	Ireland	23.43	Saint Kitts & Nevis	36.05
Benin	17.6	Israel	25.92	Saint Lucia	34.1
Bolivia	2.57	Italy	29.8	Saint Vincent	18.14
Botswana	3.8	Jamaica	25.41	Samoa	46.32
Brazil	9.09	Japan	45.49	Sao Tome & Principe	28.3
Bulgaria	7.05	Jordan	5.87	Saudi Arabia	11.33
Burkina Faso	7.06	Kenya	3.98	Senegal	18.09
Cambodia	42.69	Kiribati	76.69	Serbia	6.18
Cameroon	18.06	Kuwait	11.48	Slovakia	9.7
Canada	22.45	Kyrgyzstan	1.14	Slovenia	11.96
Cape Verde	11.1	Laos	25.26	South Africa	5.97
Chad	7.18	Latvia	24.86	South Korea	54.97
Chile	11.78	Lebanon	8.73	Spain	42.47
China	38.17	Lesotho	1.84	Sri Lanka	30.84
Colombia	7.16	Liberia	5.88	Sudan	1.03
Congo	29.34	Lithuania	33.09	Suriname	16.69

Country	Per Capita	Country	Per Capita	Country	Per Capita
Costa Rica	18.46	Luxembourg	32.15	Sweden	32.81
Cote d'Ivoire	17.97	Madagascar	5.29	Switzerland	16.94
Croatia	18.74	Malawi	9.5	Taiwan	29.69
Cuba	5.69	Malaysia	57.62	Switzerland	16.94
Cyprus	24.94	Maldives	90.41	Taiwan	29.69
Czechia	9.31	Mali	9.34	Tanzania	6.8
Denmark	22.7	Malta	31.9	Thailand	29.17
Djibouti	3.69	Mauritania	9.16	Togo	11.73
Dominica	28.06	Mauritius	23.07	Trinidad & Tobago	23.85
Dominican Republic	9.56	Mexico	14.38	Tunisia	13.16
Ecuador	7.77	Moldova	11.58	Turkey	4.85
Egypt	23.69	Mongolia	0.48	Uganda	11.27
El Salvador	6.64	Montenegro	14.06	Ukraine	11.67
Estonia	14.72	Morocco	19.47	UAE	24.71
Eswatini	3.88	Mozambique	11.46	The UK	19.73
Fiji	34.83	Myanmar	47.32	The US	22.36
Finland	33.62	Namibia	11.56	Uruguay	9.23
France	34.37	Nepal	2.83	The US	22.36
Gabon	30.94	New Caledonia	23.8	Uruguay	9.23
Gambia	27.53	New Zealand	24.73	Vietnam	37.66
Georgia	8.04	Nicaragua	6.51		
Germany	12.75	Niger	2.03		
Ghana	25.51	Nigeria	9.12		
Greece	19.44	North Korea	11.4		

Country	Per Capita	Country	Per Capita	Country	Per Capita
Afghanistan	0.25	Grenada	27.1	North Macedonia	6.21
Albania	5.36	Guatemala	2.58	Norway	51.35
Algeria	3.86	Guinea	10.09	Oman	28.54
Angola	20.22	Guinea-Bissau	1.3	Pakistan	1.72
Antigua and Barbuda	52.54	Guyana	30.48	Panama	13.12
Argentina	7.29	Haiti	4.53	Paraguay	4.17
Armenia	5.83	Honduras	3.15	Peru	25.04
Australia	25.87	Hong Kong	70.75	Philippines	28.14
Austria	14.09	Hungary	6.3	Poland	10.69
Azerbaijan	3.2	Iceland	90.71	Portugal	56.84
Bahamas	27.31	India	6.9	Romania	5.96
Bangladesh	24.31	Indonesia	44.67	Russia	20.07
Barbados	39.97	Iran	11.73	Rwanda	7.66
Belarus	16.28	Iraq	3.37	Saint Kitts & Nevis	36.05
Belgium	23.01	Ireland	23.43	Saint Lucia	34.1
Belize	12.16	Israel	25.92	Saint Vincent	18.14

Country	Per Capita	Country	Per Capita	Country	Per Capita
Benin	17.6	Italy	29.8	Samoa	46.32
Bolivia	2.57	Jamaica	25.41	Sao Tome & Principe	28.3
Botswana	3.8	Japan	45.49	Saudi Arabia	11.33
Brazil	9.09	Jordan	5.87	Senegal	18.09
Bulgaria	7.05	Kazakhstan	4.5	Serbia	6.18
Burkina Faso	7.06	Kenya	3.98	Sierra Leone	26.3
Cambodia	42.69	Kiribati	76.69	Slovakia	9.7
Cameroon	18.06	Kuwait	11.48	Slovenia	11.96
Canada	22.45	Kyrgyzstan	1.14	Solomon Islands	30.14
Cape Verde	11.1	Laos	25.26	South Africa	5.97
Chad	7.18	Latvia	24.86	South Korea	54.97
Chile	11.78	Lebanon	8.73	Spain	42.47
China	38.17	Lesotho	1.84	Sri Lanka	30.84
Colombia	7.16	Liberia	5.88	Sudan	1.03
Congo	29.34	Lithuania	33.09	Suriname	16.69
Costa Rica	18.46	Luxembourg	32.15	Sweden	32.81
Cote d'Ivoire	17.97	Macao	56.33	Switzerland	16.94
Croatia	18.74	Madagascar	5.29	Taiwan	29.69
Cuba	5.69	Malawi	9.5	Tajikistan	0.37
Cyprus	24.94	Malaysia	57.62	Tanzania	6.8
Czechia	9.31	Maldives	90.41	Thailand	29.17
Denmark	22.7	Mali	9.34	Timor	7.98
Djibouti	3.69	Malta	31.9	Togo	11.73
Dominica	28.06	Mauritania	9.16	Trinidad & Tobago	23.85
Dominican Republic	9.56	Mauritius	23.07	Tunisia	13.16
Ecuador	7.77	Mexico	14.38	Turkey	4.85
Egypt	23.69	Moldova	11.58	Uganda	11.27
El Salvador	6.64	Mongolia	0.48	Ukraine	11.67
Estonia	14.72	Montenegro	14.06	UAE	24.71
Eswatini	3.88	Morocco	19.47	The UK	19.73
Ethiopia	0.44	Mozambique	11.46	The US	22.36
Fiji	34.83	Myanmar	47.32	Uruguay	9.23
Finland	33.62	Namibia	11.56	Uzbekistan	2.25
France	34.37	Nepal	2.83	Vanuatu	28.4
Gabon	30.94	New Caledonia	23.8	Venezuela	10.1
Gambia	27.53	New Zealand	24.73	Vietnam	37.66
Georgia	8.04	Nicaragua	6.51	Yemen	3.17
Germany	12.75	Niger	2.03	Yugoslavia	8.56
Ghana	25.51	Nigeria	9.12	Zambia	12.05
Greece	19.44	North Korea	11.4	Zimbabwe	3.73

Source: Authors' computation based on data extracted from the FAOSTAT database.