

Food and Agriculture Organization of the United Nations

Aquaculture growth potential in Uzbekistan

WAPI factsheet to facilitate evidence-based policy-making and sector management in aquaculture

March 2022



Preparation of this factsheet

- This factsheet provides data and information to facilitate the assessment of aquaculture growth potential in Uzbekistan. It relies on official data and statistics readily available to the public. Some important dimensions such as aquaculture's contribution to GDP and employment are not evaluated due to the lack of data.
- Analyses in the factsheet are based on official data and statistics published by FAO and other international or national
 organizations. The data and statistics may differ from data and statistics used in other WAPI factsheets because of different data
 sources or different versions of the same datasets. They may not be consistent with data and statistics from other sources (e.g.
 national statistics).
- The term "country" used in this factsheet includes non-sovereign territory. The designations employed and the presentation of
 material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture
 Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its
 authorities, or concerning the delimitation of its frontiers or boundaries.
- Unless noted otherwise, country grouping in this factsheet follows the United Nations <u>M49 standard</u>; under which Uzbekistan is listed in <u>Landlocked Developing Countries</u>, <u>Asia</u> and the sub-region of Central Asia.
- The preparation of the factsheet has benefited from tables and charts generated by various World Aquaculture Performance Indicator (WAPI) modules. Most of these data analysis tools are for FAO internal use, yet some of them are available for test use. See <u>Slide 69</u> or visit the <u>WAPI webpage</u> for more information about WAPI information and knowledge products.
- The factsheet was prepared by Junning Cai, Giulia Galli and Xiaowei Zhou. Technical assistance provided by Haydar Fersoy and Sherzod Umarov is acknowledged.
- The validity and relevance of the results depends on the quality (in terms of timeliness and accuracy) of the underlying data and statistics used in the analyses see some remarks on data and statistics in <u>Slide 3</u>. Errors could also occur in the analyses despite our efforts to minimize them. Please let us know if you have any concern.
- Contact: Junning Cai (FAO Aquaculture Officer); junning.cai@fao.org; wapi@fao.org.

Remarks on FAO aquaculture statistical data – Uzbekistan

- FAO aquaculture statistics are based on data submitted by member countries. When there is a lack of data formally reported by a country, FAO usually estimates the country's aquaculture production based on data and information from alternative sources or relies on relatively conservative estimation methods when alternative data sources are not readily available.
- Many countries lack a national statistics system for collection of aquaculture production data on a regular basis for dissemination and for reporting to FAO. In <u>Asia</u>, only 25 countries or territories reported aquaculture production data to FAO in all the five years during 2013–2017, yet Uzbekistan was not one of them.
- A robust national system of aquaculture data collection is first and foremost for the countries' own benefit. Generally speaking from a global perspective, there is an urgent need for national capacity development in aquaculture statistics system at several levels, including (i) the legal status, institutionalization and resource allocation; (ii) development of national statistical standards in line with international standards; (iii) adequate and stable staffing plus an effective mechanism for data collection, compilation, storage, dissemination and reporting.
- For further information about FAO statistics on aquaculture production, contact: Xiaowei Zhou (FAO Aquaculture Officer (Statistics); Xiaowei.Zhou@fao.org).

Species grouping

In this factsheet, "fish" is used as a general term for convenience. When it is necessary to define the scope of a species group for a specific quantitative measure, the following definitions are used:

- Aquatic products = Fish & seafood + Miscellaneous aquatic animal products + Aquatic plants
- Fish & seafood = Finfish + Shellfish + Miscellaneous aquatic animals
- Finfish = Marine fishes + Diadromous fishes + Freshwater fishes
- Shellfish = Crustaceans + Molluscs
- Molluscs = Shell molluscs (i.e. molluscs excluding cephalopods) + Cephalopods

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Highlights (I)

Status and trends

- Aquaculture production in Uzbekistan increased from 5 652 tonnes in 2000 to 81717 tonnes in 2019. The 15.1 percent of annual growth was higher than the sub-regional, regional and world averages (<u>slides 55</u>).
- Over 80 percent of the 81 717 tonnes of aquaculture production in 2019 were carps (slides 59-62).

Supply-side perspective

- Uzbekistan's 0.068 percent share in world aquaculture production tonnage was much smaller than its share in world population (0.43 percent). The country's 0.1531 percent share in world inland aquaculture production was smaller than its 0.25 percent share in world surface area of inland waterbodies yet greater than its 0.09 percent share in world renewable water resources (<u>slides 9-10; slide 67</u>).
- From 2000 to 2019, Uzbekistan's capture fisheries production increased from 3 306 tonnes to 40 000 tonnes (comprised primarily of freshwater fishes; <u>slides 49-53</u>), whereas its aquaculture production increased from 5 652 tonnes to 81 717 tonnes (comprised primarily of freshwater fishes; <u>slides 54-62</u>). Accordingly, the total fishery production increased from 8 958 tonnes to 121 717 tonnes (<u>slide 46</u>) with the share of aquaculture declined from 88.6 percent to 67.1 percent (<u>slide 56</u>).
- In 2017, Uzbekistan's 88 982 tonnes of domestic fish and seafood consumption was provided by its 83 900 tonnes of food fish supply from domestic sources and 5 082 tonnes of net import measured in live weight equivalent (<u>slides 22-23</u>).
- Uzbekistan's aquatic products import increased from USD 1.454 million in 2000 to USD 15.407 million in 2019. Herrings/sardines/anchovies accounted for around one third of the country's import of aquatic products in 2019 (slides 39-44).

Highlights (II)

Demand-side perspective

- Uzbekistan is a lower-middle income country with the largest population in Central Asia (<u>slides 9-12</u>). Its population is expected to increase from 33 million in 2020 to 37 million in 2030 and 43 million in 2050 (<u>slide 64</u>). The country's food security and nutrition status was generally better than world average, except for its higher adult obesity than world average (<u>slide 14</u>).
- Uzbekistan's per capita protein intake in 2019 was higher than world and Central Asia averages (<u>slide 16</u>); its per capita animal protein intake was slightly higher than Central Asia average yet much higher than world average (<u>slide 20</u>). Its fish share in animal protein was slightly higher than Central Asia average yet much lower than world average (<u>slide 21</u>). The life expectancy of its population was lower than Asia and world averages yet higher than the Landlocked Developing Countries average (<u>slide 17</u>).
- Per capita fish and seafood consumption increased from 0.5 kg in 1997 to 2.8 kg in 2017, which was higher than Central Asia average yet lower than Asia and world averages. As the fourth most populous Landlocked Developing Country, Uzbekistan's per capita fish consumption in 2017 was lower than that of Landlocked Developing Countries (slides 25-28).
- Uzbekistan exported only USD 2 thousand of aquatic products in 2000, which was increased to USD 2.767 million in 2019. The 46.3 percent annual growth rate was the highest in the world (<u>slides 34-39</u>).
- Uzbekistan's population is expected to increase from 33 million in 2019 to 37.4 million in 2030, which would need 12 353 tonnes
 more fish to maintain its per capita fish consumption at the baseline level (i.e. 2.78 kg). If Uzbekistan would like to increase its per
 capita fish consumption to world average (i.e. 20.26 kg), the population growth and higher per capita consumption would tend to
 increase its total fish demand by 666 162 tonnes between 2019 and 2030. Trend aquaculture growth in Uzbekistan would be
 sufficient to cover the extra fish demand driven by population growth yet insufficient for the extra demand driven by population
 growth and higher per capita fish consumption. The country's aquaculture needs to grow 22.3 percent a year between 2019 and
 2030 in order to generate enough extra supply to cover the 666 162 tonnes of extra demand driven by both the population growth
 and higher per capita consumption (slide 66).

Geo-location, natural resources, population and income

Uzbekistan (2019): 0.068 percent of world aquaculture production; 0.43 percent of world population; a lower-middle income country (15.9 percent of world average GDP per capita).

	Aquaculture production (2019) ¹		Population (2019) ²		GDP per capita (2019) ³		
Country/area	Tonnes	Share of world total (%)	Million	Share of world total (%)	Current USD	Ratio to world average (%)	
World	120 098 422	100.00	7 713	100.00	11 421	100.00	
Landlocked Developing Countries	511 812	0.43	521	6.75	1 620	14.18	
Asia	110 029 312	91.62	4 601	59.65	7 279	63.73	
Central Asia	92 151	0.08	73	0.95	4 164	36.46	
Central Asia and the Caucasus	112 687	0.09	90	1.17	4 258	37.28	
Central Asia and the Caucasus							
Kazakhstan	6 933	0.0058	18.6	0.24	9 793	85.74	
Kyrgyzstan	2 675	0.0022	6.4	0.08	1 383	12.10	
Tajikistan	736	0.0006	9.3	0.12	871	7.63	
Turkmenistan	90	0.0001	5.9	0.08	7 785	68.16	
Uzbekistan	81 717	0.0680	33.0	0.43	1 816	15.90	
Armenia	17 560	0.0146	3.0	0.04	4 605	40.32	
Azerbaijan	531	0.0004	10.0	0.13	4 794	41.98	
Georgia	2 445	0.0020	4.0	0.05	4 374	38.29	

Data sources: 1. FAO Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (Fishstat). 2. UN World Population Prospects (2019 Revision). 3. GDP per capita calculated by total GDP from IMF World Economic Outlook Database (October 2021) divided by population from UN World Population Prospects (2019 Revision).

Notes: N.a. = not available. Country grouping based on UN-OHRLLS and UN M49 standard. Central Asia includes Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. The Caucasus include Armenia, Azerbaijan and Georgia.

Uzbekistan (mid-2010s): 0.33 percent of world land area (including inland water surface area); 0.25 percent of world inland water surface area; 0.09 percent of world total renewable water resources.

Land and water resources

Country/area	Total country area (excluding coastal waters; 2013-17) ¹		Surface area of inland waterbodies (2018) ²		Coastline length (2019) ³		Total renewable water resources (2013- 17) ¹	
Country/area	km²	Share of world total (%)	km²	Share of world total (%)	km	Share of world total (%)	Billion m³/year	Share of world total (%)
World	134 108 230	100.00	3 485 962	100.00	805 942	100.00	54 737	100.00
Landlocked Developing Countries	16 946 350	12.64	506 196	14.52	n.a.	n.a.	2 746	5.02
Asia	31 978 947	23.85	768 998	22.06	n.a.	n.a.	14 442	26.38
Central Asia	4 001 730	2.98	285 121	8.18	n.a.	n.a.	228	0.42
Central Asia and the Caucasus	4 187 770	3.12	366 809	10.52	n.a.	n.a.	333	0.61
Central Asia and the Caucasus								
Kazakhstan	2 724 900	2.03	177 322	5.09	0	n.a.	108	0.20
Kyrgyzstan	199 950	0.15	7 203	0.21	0	n.a.	24	0.04
Tajikistan	141 380	0.11	1 389	0.04	0	n.a.	22	0.04
Turkmenistan	488 100	0.36	90 479	2.60	0	n.a.	25	0.05
Uzbekistan	447 400	0.33	8 727	0.25	0	n.a.	49	0.09
Armenia	29 740	0.02	1 332	0.04	0	n.a.	8	0.01
Azerbaijan	86 600	0.06	79 992	2.30	0	n.a.	35	0.06
Georgia	69 700	0.05	366	0.01	310	n.a.	63	0.12

Data sources: 1. FAO. 2016. AQUASTAT Main Database – Food and Agriculture Organization of the United Nations (FAO). Website accessed on 16 May 2019. 2. FAOSTAT Land Cover database (updated September 2020; CCI_LC), excluding Antarctica and several uninhabited or isolated islands/atolls. 3. The World Factbook, Central Intelligence Agency (CIA), United States of America. Web accessed on 20 May 2019. Coastline length of world equal to the sum of coastline length of 265 countries and territories listed in the data source.

Notes: Country grouping based on UN-OHRLLS and UN M49 standard. Central Asia includes Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. The Caucasus include Armenia, Azerbaijan and Georgia.

Population prospects in Uzbekistan (2019 versus 2030):

Uzbekistan is the most populous country in Central Asia.

Its population is expected to increase from 33 million in 2019 to 37.4 million in 2030.



Population prospects in Central Asia and the Caucasus, 2019 versus 2030

Data source: United Nations World Population Prospects (2019 revision).

Demographic features in Uzbekistan (2015–2030):

Population expected to increase by 6 million between 2015 and 2030.

Urban ratio of total population expected to increase slightly from 50.75 percent to 51.77 percent.

Female ratio in total population expected to decline slightly from 50.19 percent to 50.12 percent.



Data source: United Nations World Population Prospects (2019 revision;

https://esa.un.org/unpd/wpp/Download/Standard/Population). United Nations World Urbanization Prospects (2018 revision; https://population.un.org/wup).

Food security, nutrition and health

Food security and nutrition status in Uzbekistan:

Prevalence of undernourishment (2018–2020) Less than 2.5 percent of prevalence of undernourishment, lower than the subregional, regional and world averages.

Prevalence of severe food insecurity (2018–2020)

4 percent of prevalence of severe food insecurity, lower than Asia and world averages yet higher than Central Asia average.

Stunted children (2020)

9.9 percent of children under 5 years of age were stunted, which was lower than subregional, regional and world averages.

Obesity (2016):

16.6 percent of adult population obese, lower than Central Asia average, yet higher than world and Asia averages.

Anaemia (2019):

24.8 percent of reproductive-age women anaemic, lower than the world, regional and sub-regional averages.



Data source: FAOSTAT – Suite of Food Security Indicators (updated on 20 August 2021; www.fao.org/faostat/en/#data/FS).

Per capita protein intake in Uzbekistan (1993 versus 2013):

Per capita total protein intake increased from 78.3g/day to 83.4 g/day between 1993 and 2013.

The share of animal protein in total protein intake increased from 33.7 percent to 35 percent.

The share of fish and seafood declined from 0.4 percent to 0.3 percent.



Data source: FAOSTAT Food Balances 1961-2013 (accessed in January 2018; www.fao.org/faostat/en/#data/FBSH). The data here are not comparable to the data from FAOSTAT New Balance Sheet presented in slide 16.

Notes: Food items with a small contribution to total protein intake may not be labelled.

Per capita protein intake in Uzbekistan (2019): The 100.4 g/day of per capita protein intake was higher than the world average (83.2 g/day) and the Central Asia average (95.5 g/day). The animal protein share (42.9 percent) was higher than world average yet lower than Central Asia average.



Data source: FAOSTAT New Food Balances (updated on 14 February, 2022; http://www.fao.org/faostat/en/#data/FBS).

Life expectancy in Uzbekistan (2019):

Life expectancy at birth for the total population was 71.7 years, lower than world and Asia averages, the same as Central average, yet higher than the Landlocked Developing Countries average.

Life expectancy for female population (73.8 years) higher than male population (69.6 years) – a general pattern applying to most countries and areas.



Life expectancy in Uzbekistan

Data source: World Bank World Development Indicators (WDI), downloaded on 3 October, 2021 (<u>http://datatopics.worldbank.org/world-development-indicators/#archives</u>); United Nations World Population Prospects (2019 revision; <u>https://esa.un.org/unpd/wpp/Download/Standard/Population</u>) used to calculate life expectancy at the regional level. Note: LLDC = Landlocked Developing Countries. Contribution of fish to food and nutrition

Animal protein intake in Uzbekistan (1993 versus 2013):

Per capita animal protein intake increased from 26.4 g/day in 1993 to 29.2 g/day in 2013.

The share of fish in animal protein intake declined from 1.1 percent to 0.7 percent.



Uzbekistan (1993)

Uzbekistan (2013)

Data source: FAOSTAT Food Balances 1961-2013 (accessed in January 2018; www.fao.org/faostat/en/#data/FBSH). The data here are not comparable to the data from FAOSTAT New Balance Sheet presented in slide 20.

Note: See slide #4 for the scope of fish & seafood. Food items with a small contribution to animal protein may not be labelled.

Animal protein intake in Uzbekistan (2019): 43 g/day of per capita animal protein intake was slightly higher than Central Asia average (42.8 g/day) and much higher than world average (33.2 g/day). Fish contribution to animal protein intake (1.9 percent) was slightly higher than Central Asia average yet much lower than world average.



Data source: FAOSTAT New Food Balances (updated on 14 February, 2022; <u>http://www.fao.org/faostat/en/#data/FBS</u>). Note: See <u>slide #4</u> for the scope of fish & seafood. **Uzbekistan (2019):** Locating in the fourth quadrant in the bubble chart, indicating that animal protein intake was higher than the world average, yet the fish share was lower.

Contribution of fish to animal protein, 2019



Data source: FAOSTAT New Food Balances (updated on 14 February, 2022; http://www.fao.org/faostat/en/#data/FBS). Notes: Country grouping based on UN-OHRLLS and UN M49 standard. Status and trend of fish and seafood supply and utilization in Uzbekistan (1997–2017):

Food fish supply from domestic sources increased from 10 565 tonnes in 1997 to 83 900 tonnes in 2017.

Total fish consumption increased from 11 876 tonnes in 1997 to 88 982 tonnes in 2017.

Net import increased from 1 311 tonnes to 5 082 tonnes.

In 2017, 88 982 tonnes total fish consumption = 83 900 tonnes food fish supply from domestic sources + 5 082 tonnes net food fish import.



Data source: FAO. 2020. Fishery and Aquaculture Statistics. Food balance sheets of fish and fishery products 1961-2017 (FishStat); www.fao.org/fishery/statistics/software/FishStatl/en). Note: See www.fao.org/fishery/statistics/software/FishStatl/en).

Uzbekistan's food balance sheet for fish and seafood, 2017

83 900 tonnes domestic fish production – 0 tonnes for non-food use = 83 900 tonnes domestic food fish production (100 percent of total food and non-food production).

83 900 tonnes domestic food fish production (94.1 percent of food fish supply) + 5 279 tonnes food fish import (5.9 percent) = 89 179 tonnes food fish supply available for utilization.

89 179 tonnes food fish utilization = 196 tonnes food fish export (0.2 percent of food fish utilization) + 88 982 tonnes (food) fish consumption (99.8 percent).

100 000 90 000 196 5 279 0 80 000 70 000 TONNES 60,000 50 000 88 982 83 900 40 000 30 000 20 000 10 000 0 Food fish import Food fish export Domestic Domestic Inventory Domestic production production for depletion consumption non-food uses Export mpo 0.2% 5.0% Food Consum Domestic fish production 100.0% 99.8% 94.1% Domestic production (2017): Food fish utilization (2017): Food fish supply (2017): 83 900 tonnes 89 179 tonnes 89 179 tonnes

Fish & seafood supply and utilization in Uzbekistan (2017)

Data source: FAO. 2020. Fishery and Aquaculture Statistics. Food balance sheets of fish and fishery products 1961-2017 (FishStat); www.fao.org/fishery/statistics/software/FishStatl/en). Note: See www.fao.org/fishery/statistics/software/FishStatl/en). Note: See www.fao.org/fishery/statistics/software/FishStatl/en). Note: See www.fao.org/fishery/statistics/software/FishStatl/en). Note: See www.fao.org/fishery/statistics/software/FishStatl/en).

Domestic fish market (fish consumption)

Status and trend of fish and seafood consumption in Uzbekistan (1997–2017):

- The increase in total fish and seafood consumption from 12 thousand tonnes in 1997 to 89 thousand tonnes in 2017 was driven by:
- (i) steady population increase from 23.6 million to 32 million and;
- (ii) increase in per capita seafood consumption from 0.5 kg to 2.78 kg.



Data source: FAO. 2020. Fishery and Aquaculture Statistics. Food balance sheets of fish and fishery products 1961-2017 (FishStatJ; <u>www.fao.org/fishery/statistics/software/FishStatJ/en</u>). Note: See <u>slide #4</u> for the scope of fish & seafood. Per capita fish consumption in Uzbekistan (1997 versus 2017): Per capita fish and seafood consumption increased from 0.5 kg in 1997 to 2.8 kg in 2017, which was higher than Central Asia average yet lower than Asia and world averages. As the fourth most populous Landlocked Developing Countries, Uzbekistan's per capita fish consumption in 2017 was lower than that of Landlocked Developing Countries.

kg/year

Status and trend of per capita fish & seafood consumption						
Country/area	Per capi seafood co (kg/y	Annual growth (%)				
	1997	2017	(70)			
World	15.5	20.3	1.4			
Landlocked Developing Countries	2.6	4.6	3.0			
Asia	16.6	24.1	1.9			
Central Asia	0.9	2.4	4.7			
Central Asia and the Caucasus	0.9	2.9	5.8			
Central Asia and the Caucasus						
Kazakhstan	1.7	2.9	2.5			
Kyrgyzstan	0.6	1.1	3.6			
Tajikistan	0.1	0.5	8.8			
Turkmenistan	2.1	2.9	1.7			
Uzbekistan	0.5	2.8	8.9			
Armenia	0.5	5.8	12.9			
Azerbaijan	0.7	3.2	8.1			
Georgia	1.6	8.9	9.0			

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Data source: FAO. 2020. Fishery and Aquaculture Statistics. Food balance sheets of fish and fishery products 1961-2017 (FishStatJ; www.fao.org/fishery/statistics/software/FishStatJ/en). Notes: The scope of Developing Regions (as opposed to Developed Regions) follows the original 1996 definition of the UN M49 standard. See slide #4 for the scope of fish & seafood.

Per capita fish and seafood consumption in Uzbekistan (1997 versus 2017):

Per capita fish and seafood consumption increased from 0.5 kg in 1997 to 2.78 kg in 2017

Finfish (primarily freshwater & diadromous fishes) accounted for nearly entire fish & seafood consumption in Uzbekistan.



Data source: FAO. 2020. Fishery and Aquaculture Statistics. Food balance sheets of fish and fishery products 1961-2017 (FishStat); www.fao.org/fishery/statistics/software/FishStat1/en). *Note*: See slide #4 for the scope of fish & seafood.

Uzbekistan (2017): The 2.78 kg of per capita fish consumption in 2017 was nearly entirely contributed by finfish, including 94.4 percent of freshwater & diadromous fishes and 5.6 percent of marine fishes. The taxonomic composition of the country's fish & seafood consumption was less diversified than Central Asia and world averages.



Data source: FAO. 2020. Fishery and Aquaculture Statistics. Food balance sheets of fish and fishery products 1961-2017 (FishStat); <u>www.fao.org/fishery/statistics/software/FishStatl/en</u>). Note: See <u>slide #4</u> for the scope of fish & seafood.

Fish trade

Status and trend of fish trade in Uzbekistan, 2013-2019



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStatJ;

www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source; see slide #4 for the scope of aquatic products. CIF = Cost, insurance and freight; FOB = Free on board.

Uzbekistan (2013–2019): Fish export quantity << fish import quantity, which is a general pattern for Central Asia.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStat);

www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source; see slide #4 for the scope of aquatic products. CIF = Cost, insurance and freight; FOB = Free on board.

Fish trade deficit in Uzbekistan declined from USD 11.884 million in 2013 to USD 4.158 million in 2017, which nevertheless rebounded back to 12.64 million tonnes in 2019. Fish trade <u>deficit</u> was a common trend in Central Asia (total USD 78.579 million deficit in 2019).



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStat);

www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source; see slide #4 for the scope of aquatic products. CIF = Cost, insurance and freight; FOB = Free on board.

Fish export

Uzbekistan exported only USD 2 thousand of aquatic products in 2000, which was increased to USD 2.767 million in 2019. The 46.3 percent annual growth rate was the highest in the world.

Status and trend of aquatic products exports (2000–2019)						
Country/area	Aquatic pro value (U	Annual growth				
	2000	2019	(%)			
World	55 833 945	163 304 921	5.8			
Landlocked Developing Countries	59 720	262 853	8.1			
Asia	19 193 820	60 402 808	6.2			
Central Asia	14 322	71 754	8.9			
Central Asia and the Caucasus	18 264	121 008	10.5			
Central Asia and the Caucasus						
Kazakhstan	13 490	64 575	8.6			
Kyrgyzstan	48	4 297	26.7			
Tajikistan	n.a.	1.1	n.a.			
Turkmenistan	782	115	-9.6			
Uzbekistan	2	2 767	46.3			
Armenia	95	31 271	35.7			
Azerbaijan	3 711	930	-7.0			
Georgia	136	17 052	29.0			

Status and trend of aquatic products exports (2000–2019)



Uzbekistan's aquatic products export growth from a global

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStat); www.fao.org/fishery/statistics/software/FishStat]/en). Notes: Includes all aquatic commodities recorded in the data source; see subtatistics/software/FishStat]/en). **Uzbekistan's export of aquatic products in 2019** entirely comprised finfish. The taxonomic composition was much less diversified than that of Central Asia or world.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStatJ; www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source; see <u>slide #4</u> for the scope of aquatic products. Species groups less than 0.1 percent of the total value not labelled in the charts.

Uzbekistan's export of aquatic products (quantity; 2019)

Uzbekistan's export of aquatic products in 2019 (in terms of quantity)



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStatJ; www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source. Nei = not elsewhere included.
Uzbekistan's export of aquatic products (value; 2019)

Uzbekistan's export of aquatic products in 2019 (in terms of value)



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStatJ; www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source. Nei = not elsewhere included.

Fish import

Uzbekistan's aquatic products import increased from USD 1.454 million in 2000 to USD 15.407 million in 2019; the 13.2 percent annual growth rate was higher than the world, regional and sub-regional averages.

Status and trend of aquatic products imports (2000–2019)						
Country/area	Aquatic pro value (U	Annual growth				
	2000	2019	(%)			
World	61 029 946	162 176 791	5.3			
Landlocked Developing Countries	97 654	660 293	10.6			
Asia	24 224 979	58 788 106	4.8			
Central Asia	23 591	150 333	10.2			
Central Asia and the Caucasus	30 550	236 466	11.4			
Central Asia and the Caucasus						
Kazakhstan	19 869	117 516	9.8			
Kyrgyzstan	1 937	10 013	9.0			
Tajikistan	212	5 463	18.6			
Turkmenistan	119	1 936	15.8			
Uzbekistan	1 454	15 407	13.2			
Armenia	4 120	10 798	5.2			
Azerbaijan	1 444	34 102	18.1			
Georgia	1 395	41 233	19.5			

Status and trand of aquistic products imports (2000, 2010)



Oceania countries

Uzbekistan's aquatic products import growth from a global

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStat); www.fao.org/fishery/statistics/software/FishStat)/en). Notes: Includes all aquatic commodities recorded in the data source; see slide #4 for the scope of aquatic products.

European countries

Uzbekistan's import of aquatic products (2000 versus 2019):

Aquatic commodities import increased from USD 1.454 million in 2000 to USD 15.407 million in 2019.

The share of finfish declined from 98.8 percent to 92.8 percent, whereas the share of shellfish (primarily crustaceans) increased from 1.1 percent to 3.1 percent.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStat]; <u>www.fao.org/fishery/statistics/software/FishStatJ/en</u>). Notes: Includes all aquatic commodities recorded in the data source; see <u>slide #4</u> for the scope of aquatic products. Species groups less than 0.1 percent of the total value not labelled in the charts.

Uzbekistan's import of aquatic products (2019): The USD 15.407 million of aquatic products import in 2019 comprised 92.8 percent of finfish, 3.1 percent of shellfish and 4.1 percent of aquatic plants.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStatJ; www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source; see <u>slide #4</u> for the scope of aquatic products. Species groups less than 0.1 percent of the total value not labelled in the charts.

Uzbekistan (2019): Herrings/sardines/anchovies accounted for around half of the country's import of aquatic products in terms of volume and around one third in terms of value.

Top 10 import species groups in terms of quantity			Top 10 import species groups in terms of value				
ISSCAAP groups	Product weight (tonnes)	Share of Uzbekistan's total import of all aquatic commodities (%)	Share of world import of the same species group (%)	ISSCAAP groups	CIF value (USD 1 000)	Share of Uzbekistan's total import of all aquatic commodities (%)	Share of world import of the same species group (%)
1. Herrings, sardines, anchovies	4 709	50.40	0.15	1. Herrings, sardines, anchovies	5 290	34.33	0.12
2. Miscellaneous freshwater fishes	1 406	15.05	0.13	2. Salmons, trouts, smelts	2 047	13.28	0.01
3. Marine fishes not identified	867	9.28	0.01	3. Miscellaneous freshwater fishes	1 895	12.30	0.06
4. Miscellaneous pelagic fishes	701	7.51	0.02	4. Marine fishes not identified	1 799	11.67	0.01
5. Carps, barbels and other cyprinids	632	6.77	0.35	5. Miscellaneous pelagic fishes	1 274	8.27	0.02
6. Cods, hakes, haddocks	432	4.62	0.01	6. Cods, hakes, haddocks	808	5.24	0.00
7. Salmons, trouts, smelts	274	2.93	0.01	7. Carps, barbels and other cyprinids	667	4.33	0.21
8. Tunas, bonitos, billfishes	117	1.25	0.00	8. Miscellaneous aquatic plants	629	4.08	0.07
9. Shrimps, prawns	66	0.70	0.00	9. Shrimps, prawns	391	2.53	0.00
10. Miscellaneous aquatic plants	53	0.56	0.01	10. Tunas, bonitos, billfishes	319	2.07	0.00
Others	87	0.93		Others	290	1.88	
Aquatic products	9 343	100.00	0.02	Aquatic products	15 407	100.00	0.01

Uzbekistan's aquatic products import in 2019

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStatJ; www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source; see slide #4 for the scope of aquatic products. CIF = Cost, insurance and freight; ISSCAAP = International Standard Statistical Classification of Aquatic Animals and Plants.

Composition of Uzbekistan's import of aquatic products (2019; in terms of quantity)



Uzbekistan's top-10 fish imports products (2019; in terms of quantity)

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStatJ; www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source. Nei = not elsewhere included.

Composition of Uzbekistan's import of aquatic products (2019; in terms of value)



Uzbekistan's top-10 fish imports products (2019; in terms of value)

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global Fisheries commodities production and trade 1976-2019 (FishStatJ; www.fao.org/fishery/statistics/software/FishStatJ/en).

Notes: Includes all aquatic commodities recorded in the data source. Nei = not elsewhere included.

Total fishery production

Uzbekistan (1990–2019): Total fishery production decreased from 26 763 tonnes in 1990 to 4 993 tonnes in 2004. The production rapidly increased from 10 732 tonnes in 2010 to 121 717 tonnes in 2019, which was driven by both aquaculture and capture fisheries production.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global capture production 1950-2019 (FishStatJ; <u>www.fao.org/fishery/statistics/software/FishStatJ/en</u>). Notes: Production covers all aquatic products measured in tonnage; see <u>slide #4</u> for the scope of aquatic products.

Total fishery production in Uzbekistan (2000 versus 2019):

Total fishery production increased from 8 958 tonnes in 2000 to 121 717 tonnes in 2019.

Finfish (primarily freshwater fishes) contributed to the entire total fishery production.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global capture production 1950-2019 (FishStat]; www.fao.org/fishery/statistics/software/FishStatl/en). Notes: Production covers all aquatic products measured in tonnage; see sile #4 for the scope of aquatic products. Species accounting for less than 0.1 percent of total production not labelled in the charts. **Total fishery production in Uzbekistan in 2019** had a much less diversified taxonomic composition compared to Central Asia and World, with freshwater fishes accounting for nearly the entire total fishery production.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global capture production 1950-2019 (FishStatJ; <u>www.fao.org/fishery/statistics/software/FishStatJ/en</u>). Notes: Production covers all aquatic products measured in tonnage; see <u>slide #4</u> for the scope of aquatic products. Species accounting for less than 0.1 percent of total production not labelled in the charts.

Capture fisheries production

Status and trend of capture fisheries production, 2000 versus 2019

Capture fisheries in Uzbekistan (2000 versus 2019):

Capture fisheries production in Uzbekistan increased from 3 306 tonnes in 2000 to 40 000 tonnes in 2019.

The 14.02 percent annual growth rate was higher than the sub-regional, regional and world averages.

Capture fisheries production (tonnes)			Annual growth (%)		
Country/area	2000	2019	Annual growth (%)		
World	94 778 335	93 591 994	-0.07		
Landlocked Developing Countries	775 998	1 538 534	3.67		
Asia	43 985 526	49 636 057	0.64		
Central Asia	52 373	102 381	3.59		
Central Asia and the Caucasus	74 094	355 991	8.61		
Central Asia and the Caucasus					
Kazakhstan	36 620	45 645	1.17		
Kyrgyzstan	52	20	-4.90		
Tajikistan	167	1 716	13.05		
Turkmenistan	12 228	15 000	1.08		
Uzbekistan	3 306	40 000	14.02		
Armenia	1 133	710	-2.43		
Azerbaijan	18 797	1 145	-13.69		
Georgia	1 791	251 755	29.73		

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global capture production 1950-2019 (FishStatJ; <u>www.fao.org/fishery/statistics/software/FishStatJ/en</u>). Notes: Production covers all aquatic products measured in tonnage; see <u>slide #4</u> for the scope of aquatic products.

Taxonomic composition in Uzbekistan's capture fisheries (2000 versus 2018):

Capture fisheries production increased from 3 306 tonnes to 40 000 tonnes between 2000 and 2019.

The highly concentrated taxonomic composition (dominated by freshwater fishes) remained unchanged.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global capture production 1950-2019 (FishStatJ; <u>www.fao.org/fishery/statistics/software/FishStatJ/en</u>). Notes: Production covers all species measured in tonnage; see <u>slide #4</u> for the scope of aquatic products. Species accounting for less than 0.1 percent of total production not labelled in the charts. **Taxonomic composition in Uzbekistan's capture fisheries production in 2019** was much less diversified than Central Asia and world, with freshwater fishes dominating the production.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global capture production 1950-2019 (FishStat]; www.fao.org/fishery/statistics/software/FishStat]/en). Notes: Production covers all species measured in tonnage; see side #4 for the scope of aquatic products. Species accounting for less than 0.1 percent of total production not labelled in the charts.

ASFIS species items in Uzbekistan's capture fisheries production in terms of quantity (2019)



Top-10 ASFIS species items in Uzbekistan's capture production quantity (2019)

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global capture production 1950-2019 (FishStat); www.fao.org/fishery/statistics/software/FishStat/en). Notes: ASFIS = Aquatic Sciences and Fisheries Information System; more information about ASFIS species items can be found at www.fao.org/fishery/statistics/software/FishStat/en). Notes: ASFIS = Aquatic Sciences and Fisheries Information System; more information about ASFIS species items can be found at www.fao.org/fishery/statistics/software/FishStat/en). Notes: ASFIS = Aquatic Sciences and Fisheries Information System; more information about ASFIS species items can be found at www.fao.org/fishery/collection/asfis/en. Nei = not elsewhere included.

Aquaculture production

Aquaculture production in Uzbekistan increased from 5 652 tonnes in 2000 to 81 717 tonnes in 2019. The 15.1 percent of annual growth was higher than the sub-regional, regional and world averages.

Status and trends of aquaculture production, 2000-2019						
Country/area	Aquaculture all specie	Annual growth				
	2000	2019	(%)			
World	43 014 082	120 098 422	5.55			
Landlocked Developing Countries	76 887	511 812	10.49			
Asia	38 910 396	110 029 312	5.62			
Central Asia	6 677	92 151	14.81			
Central Asia and the Caucasus	7 796	112 687	15.09			
Central Asia and the Caucasus						
Kazakhstan	813	6 933	11.94			
Kyrgyzstan	58	2 675	22.34			
Tajikistan	86	736	11.96			
Turkmenistan	68	90	1.49			
Uzbekistan	5 652	81 717	15.10			
Armenia	893	17 560	16.97			
Azerbaijan	140	531	7.27			
Georgia	86	2 445	19.26			

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Aquaculture growth in Uzbekistan from a global and regional perspective (2000-2019)



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (FishStat]; www.fao.org/fishery/statistics/software/FishStat]/en). Notes: Production covers all aquatic products measured in tonnage; see https://www.fao.org/fishery/statistics/software/FishStat]/en).

Aquaculture production in Uzbekistan increased from 24 thousand tonnes in 1991 to 82 thousand tonnes in 2019, whereas the share of aquaculture in total fishery production declined from 88.6 percent to 67.1 percent.



Uzbekistan: aquaculture's share in total fishery production

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (FishStatJ; <u>www.fao.org/fishery/statistics/software/FishStatJ/en</u>). Notes: Production covers all aquatic products measured in tonnage; see <u>slide #4</u> for the scope of aquatic products. Taxonomic composition in Uzbekistan's aquaculture production (2000 versus 2019):

Aquaculture production in Uzbekistan increased from 5 652 tonnes in 2000 to 81 717 tonnes in 2019.

The production was primarily contributed by freshwater fishes.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (FishStat); www.fao.org/fishery/statistics/software/FishStatJ/en). Notes: Production covers all aquatic products measured in tonnage; see <u>slide #4</u> for the scope of aquatic products. Species group less than 0.1 percent of total production may not be labelled. **Taxonomic composition in Uzbekistan's aquaculture production (2019)** was similar to that of Central Asia yet much less diversified than world aquaculture.



Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (FishStat); www.fao.org/fishery/statistics/software/FishStatJ/en). Notes: Production covers all aquatic products measured in tonnage; see slide #4 for the scope of aquatic products. Species group less than 0.1 percent of total production may not be labelled. Aquaculture species groups in Uzbekistan by tonnage (2019): The 81 717 tonnes of aquaculture production were primarily contributed by carps, barbels and other cyprinids.

Aquaculture production in Uzbekistan by species groups		Year 2019 (in terms of quantity)			
WAPI species groups	ISSCAAP division	Number of species in the group farmed by the country	The country's production quantity of each species group (live weight; tonnes)	Share of the country's production quantity of all species (%)	Share of world production of the same species group (%)
1. Carps, barbels and other cyprinids (ISSCAAP group)	Freshwater fishes	8	65 778	80.49	0.2208
2. Freshwater fishes nei (Osteichthyes)	Freshwater fishes	1	13 024	15.94	0.5178
3. Snakeheads (Channidae)	Freshwater fishes	1	1 350	1.65	0.2342
4. Catfishes (Siluriformes)	Freshwater fishes	1	700	0.86	0.0112
5. Freshwater perch-like fishes (Percoidea, freshwater)	Freshwater fishes	1	500	0.61	0.0593
6. Salmons, trouts, smelts (ISSCAAP group)	Diadromous fishes	1	200	0.24	0.01
7. Sturgeons, paddlefishes (ISSCAAP group)	Diadromous fishes	1	165	0.202	0.136
Aquatic products		14	81 717	100.00	0.0680
Aquatic products I4 61777 100.00 0.0660 Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (Fishstat)); www.fao.org/fishery/statistics/software/fishstatj/en Notes: ISSCAAP (International Standard Statistical Classification of Aquatic Animals and Plants) grouping can be found at IA <					

www.fao.org/tempref/FI/DOCUMENT/cwp/handbook/annex/AnnexS2listISSCAAP2000.pdf. The taxonomic scope of WAPI species groups indicated in bracket. More information about the WAPI species grouping can be found at https://www.fao.org/3/cb5012en/cb5012en.pdf.

Aquaculture species groups in Uzbekistan by value (2019): The USD 187.639 million of aquaculture production were primarily contributed by carps, barbels and other cyprinids.

Aquaculture production in Uzbekistan by species groups		Year 2019 (in terms of value)			
WAPI species groups	ISSCAAP division	Number of species in the group farmed by the country	The country's production quantity of each species group (farmgate value; USD 1 000)	Share of the country's production value of all species (%)	Share of world production of the same species group (%)
1. Carps, barbels and other cyprinids (ISSCAAP group)	Freshwater fishes	8	153 736	81.93	0.2431
2. Freshwater fishes nei (Osteichthyes)	Freshwater fishes	1	19 536	10.41	0.4647
3. Snakeheads (Channidae)	Freshwater fishes	1	4 725	2.52	0.2812
4. Catfishes (Siluriformes)	Freshwater fishes	1	3 500	1.87	0.0339
5. Freshwater perch-like fishes (Percoidea, freshwater)	Freshwater fishes	1	2 500	1.33	0.0347
6. Salmons, trouts, smelts (ISSCAAP group)	Diadromous fishes	1	2 322	1.24	0.01
7. Sturgeons, paddlefishes (ISSCAAP group)	Diadromous fishes	1	1 320	0.703	0.176
Aquatic products		14	187 639	100.00	0.0683

www.tao.org/tempret/FI/DOCUMENT/cwp/handbook/annex/AnnexS2listISSCAAP2000.pdf. The taxonomic scope of WAPI species groups indicated in bracket. More information about the WAPI species grouping can be found at https://www.fao.org/3/cb5012en/cb5012en.pdf.

Uzbekistan (2019): Farmed ASFIS species items ranked by quantity



Top-10 ASFIS species items in Uzbekistan's aquaculture production quantity (2019)

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (FishStat); www.fao.org/fishery/statistics/software/FishStat)/en). Notes: Species item less than 1 percent of total production may not be labelled in the pie chart. ASFIS = Aquatic Sciences and Fisheries Information System; more information about ASFIS species items can be found at www.fao.org/fishery/statistics/software/FishStat]/en).

Uzbekistan (2019): Farmed ASFIS species items ranked by value



Top-10 ASFIS species items in Uzbekistan's aquaculture production value (2019)

Data source: FAO. 2021. Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (FishStat); www.fao.org/fishery/statistics/software/FishStatl/en). Notes: Species item less than 1 percent of total production may not be labelled in the pie chart. ASFIS = Aquatic Sciences and Fisheries Information System; more information about ASFIS species items can be found at www.fao.org/fishery/statistics/software/FishStatl/en). Outlook

Population prospects in Uzbekistan (2010–2050):

Total population is expected to increase from 33.5 million in 2020 to 43 million in 2050.

The ratio of urban population is expected to rise to 61.53 percent in 2050.

The female ratio is expected to remain slightly above 50 percent.



Data sources: United Nations World Population Prospects (2019 revision; https://esa.un.org/unpd/wpp/Download/Standard/Population). United Nations World Urbanization Prospects (2018 revision; https://population.un.org/wup).

Uzbekistan's GDP prospects (2019-2026):

According to IMF's projection, Uzbekistan's GDP per capita is expected to increase from USD 1 816 to USD 3 110 between 2019 and 2026, staying below subregional and world average levels.



Data sources: Per capita GDP equal to total GDP from IMF World Economic Outlook Database (October 2021; https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/download.aspx) divided by population from UN World Population Prospects (2019 Revision). United Nations World Population Prospects (2019 revision; https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/download.aspx) divided by population from UN World Population Prospects (2019 Revision). United Nations World Population Prospects (2019 revision; https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/download.aspx) divided by population from UN World Population Prospects (2019 Revision). United Nations World Population Prospects (2019 revision; https://www.imf.org/unpd/wpp/Download/Standard/Population).

GDP per capita (current USD)

Uzbekistan (2019–2030): Aquaculture growth potential from a demand-side perspective

	Baseline (2019) Year 2030	Projection to 2030			
Uzbekistan		Population growth only		Population growth + higher per capita fish demand	
Ozbekistan			2030		2030
		Year 2030	compared to	Year 2030	compared to
			baseline		baseline
1. Per capita fish demand (kg/capita/year)	2.78	2.78	-	20.26	17.47
2. Population (thousand)	32 982	37 418	4 437	37 418	4 437
3. Total fish demand (tonnes)	91 828	104 180	12 353	757 989	666 162
4. Fish supply from aquaculture (tonnes)	81 717	194 961	113 244	194 961	113 244
5. Supply-demand gap (tonnes)			100 891		- 552 918

Notes: Fish & seafood includes finfish, crustaceans, molluscs and miscellaneous aquatic animals. 1. The 2017 level of per capita fish consumption in Uzbekistan (2.78 kg) and world (20.26) treated as the baseline and the higher benchmark, respectively. 2. Population data from UN World Population Prospects (2019 revision). 3. Equal to (1) x (2). 4. Aquaculture production in 2019 from FAO Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (FishstatJ); projection of aquaculture production in 2030 based on the linear trend of aquaculture production during 2015-2019. 5. Equal to (4) - (3).

- Given the 2.78 kg baseline per capita fish and seafood consumption, 104 180 tonnes of fish and seafood will be needed to satisfy the fish demand of Uzbekistan's 37.418 million total population in 2030, which is 12 353 tonnes higher than the 91 828 tonnes of baseline fish and seafood demand.
- If Uzbekistan would like to increase its 2030 per capita fish and seafood consumption to 20.26 kg (i.e. the baseline world average), then 666 162 tonnes of extra fish and seafood supply are needed to satisfy the extra demand generated by the population growth and the higher per capita consumption.
- Uzbekistan's farmed fish and seafood production increased from 36 896 tonnes in 2015 to 81 717 tonnes in 2019. Following the linear trend during 2015-2019, farmed fish and seafood production in Uzbekistan would reach 194 961 tonnes in 2030, which is 113 244 tonnes higher than the baseline level.
- The 113 244 tonnes of extra fish and seafood supply generated by the trend aquaculture growth would be **sufficient** to cover the 12 353 tonnes of extra fish and seafood demand driven by population growth only (with a surplus of 100 891 tonnes), yet it would be **insufficient** to cover the 666 162 tonnes of extra fish and seafood demand driven by population growth and the higher per capita consumption (with a shortage of 552 918 tonnes).
- Uzbekistan's aquaculture production would need to grow **22.3 percent** a year between 2019 and 2030 in order to generate enough extra supply to cover the 666 162 tonnes extra demand driven by both the population growth and the higher per capita consumption.

Uzbekistan: Aquaculture growth potential from the supply-side perspective

- Uzbekistan's share in world aquaculture production tonnage (0.068 percent):
 - Much smaller than its share in world land area (0.33 percent).
 - Much smaller than its share in world population (0.43 percent).
- Uzbekistan's share in world inland aquaculture production (0.1531 percent):
 - **Smaller than** its share in world surface area of inland waterbodies (0.25 percent).
 - Greater than its share in world renewable water resources (0.09 percent).

Uzbekistan	Share of world total (%)
Total country area (excluding coastal waters, 2013-2017) ¹	0.33
Surface area of inland waterbodies (2018) ²	0.25
Coastline length (2019) ³	0
Total renewable water resources (2013-2017) ¹	0.09
Population (2019) ⁴	0.43
Aquaculture production (all areas, 2019) ⁵	0.0680
Aquaculture production (inland waters, 2019) ⁵	0.1531
Aquaculture production (marine areas, 2019) ⁵	0

Data sources: 1. FAO. 2016. AQUASTAT Main Database – Food and Agriculture Organization of the United Nations (FAO). Website accessed on 16 May 2019. 2. FAOSTAT Land Cover database (updated September 2020; CCl_LC). 3. The World Factbook, Central Intelligence Agency (CIA), United States of America. Website accessed on 20 May 2019; coastline length of world equal to the sum of coastline length of 265 countries and territories listed in the data source. 4. United Nations World Population Prospects (2019 revision). 5. FAO. 2021. FAO Fishery and Aquaculture Statistics. Global aquaculture production 1950-2019 (FishStat)).

Further reading

FAO FISHERIES DIVISION NASO/ NALO FACTSHEETS:

- The National Aquaculture Sector Overview (NASO) collection provides a general overview of the aquaculture sector at national level in a concise and comprehensive product. The NASOs contain detailed information on the history of aquaculture; its human resources and farming systems; and development trends and issues, among others. More than 100 NASO factsheets are available in five languages at: http://www.fao.org/fishery/naso/search/en
- The National Aquaculture Legislation Overview (NALO) consist of a series of comparative national overviews of aquaculture laws and regulations from the top 40 aquaculture producing countries. NALO factsheets have been prepared in collaboration with the FAO Development Law Service and are updated on a regular basis. The NALO collection is available in several languages at: <u>http://www.fao.org/fishery/nalo/search/en</u>

MORE INFORMATION ON WAPI:

- World Aquaculture Performance Indicators (WAPI) is a process to generate information and knowledge products for evidence-based policymaking and sector management. Key WAPI information/ knowledge products include data analysis tools, technical papers and policy briefs. For more details, visit our webpage at: <u>http://www.fao.org/fishery/statistics/software/wapi/en</u>
- World Aquaculture Performance Indicators (WAPI) banner: http://www.fao.org/3/CA0198EN/ca0198en.pdf
- World Aquaculture Performance Indicators (WAPI) Information, Knowledge and Capacity for Blue Growth (brochure): http://www.fao.org/3/19622EN/i9622en.pdf
- The Potential of World Aquaculture Performance Indicators as a Research and Educational Tool (FAN article, April 2017): http://www.fao.org/3/a-i7171e.pdf
- Report of FAO Expert Workshop on Assessment and Monitoring of Aquaculture Sector Performance, Gaeta. Italy, 5–7 November 2012 (FAO Fisheries and Aquaculture Report 1063): <u>http://www.fao.org/3/a-i3539e.pdf</u>