



Sustainability and challenges of Chilean salmon industry

RICARDO GARCÍA, VICE CHAIRMAN
SEPTEMBER 25, 2023, FUTURE FISH

Salmones Camanchaca at a glance

ABOUT THE COMPANY

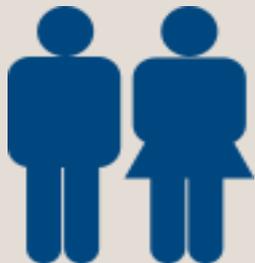
FARMS 56-60K MT IN PATAGONIA'S PRISTINE WATERS

FARMS >90% OF VALUE ADDED ATLANTIC & COHO

INTEGRATED VALUE CHAIN FROM GENETICS TO BUYERS

AMBITION SUSTAINABILITY TARGETS

1,800
EMPLOYEES



70% 30%

DUALLY LISTED
SINCE 2018

B O L S A
SANTIAGO

OSLO BØRS

OVERVIEW OF PRODUCTIVE ASSETS

3

Freshwater hatcheries for 12m smolts of Atlantic salmon



2

Freshwater hatcheries for Coho



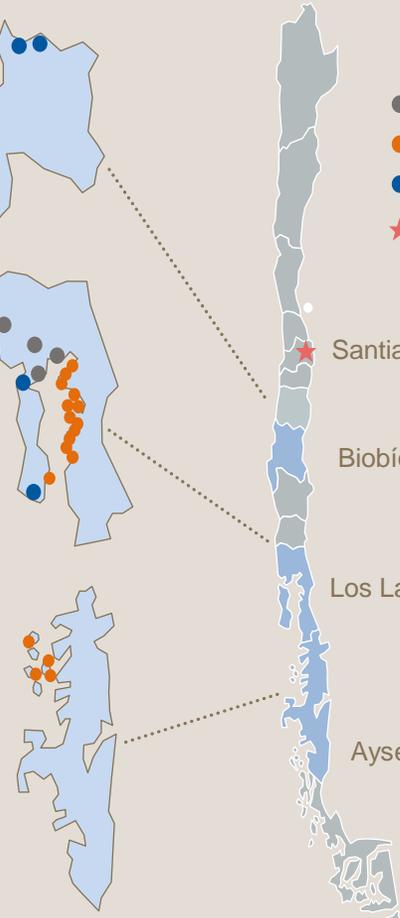
74

Farming site licenses along two Chilean regions



4

Processing plants, 2 VA



- Freshwater hatcheries
- Farming site
- Processing
- ★ Headquarters

Santiago

Biobío Region

Los Lagos Region

Aysén Region



Committed to sustainable farming



DOW JONES SUSTAINABILITY INDEX
72/100 points in 2022; #1 IN CHILE
(+8 points vs 2021 & +33 points vs 2020)



COLLER FAIRR GLOBAL INDEX
RANKED 6° GLOBALLY in 2022
(10° in 2021 & 18° in 2020)



ASC
MAJORITY OF ATLANTIC PRODUCTION CERTIFIED
2021-2022 cycle: 73% certified



CARBON NEUTRAL
BY 2025
40% reduction in 2022 vs 2020



50% REDUCTION
ANTIBIOTIC USE BY 2025
24% reduction in 2022 vs 2017



COMMUNITIES
VALUABLE MEMBER OF
OUR COMMUNITIES

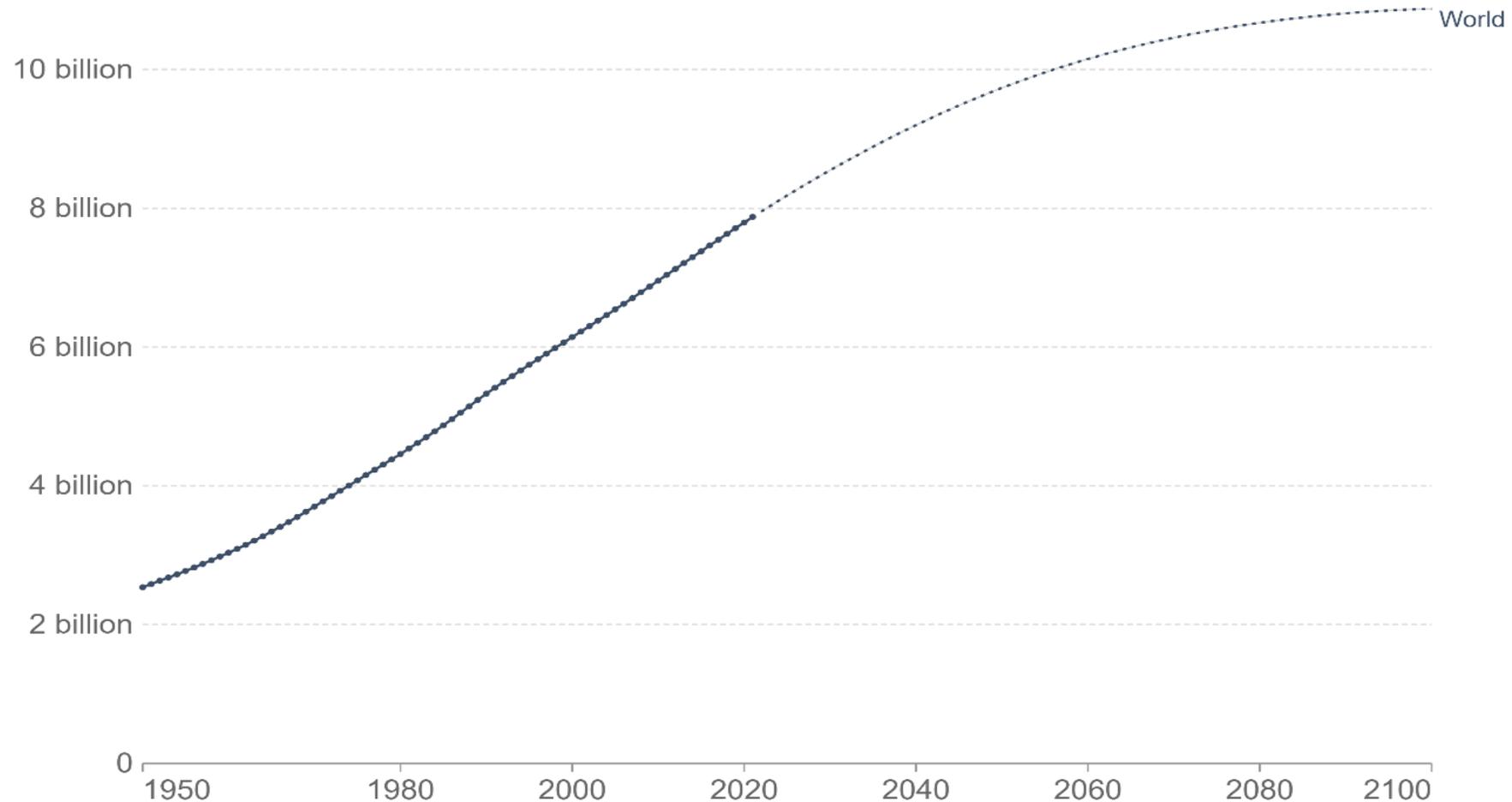


World's biggest challenge

Population projection by the UN, World, 1950 to 2100

Shown is the total population since 1950 and the 'medium variant' projections by the UN Population Division.

Our World
in Data

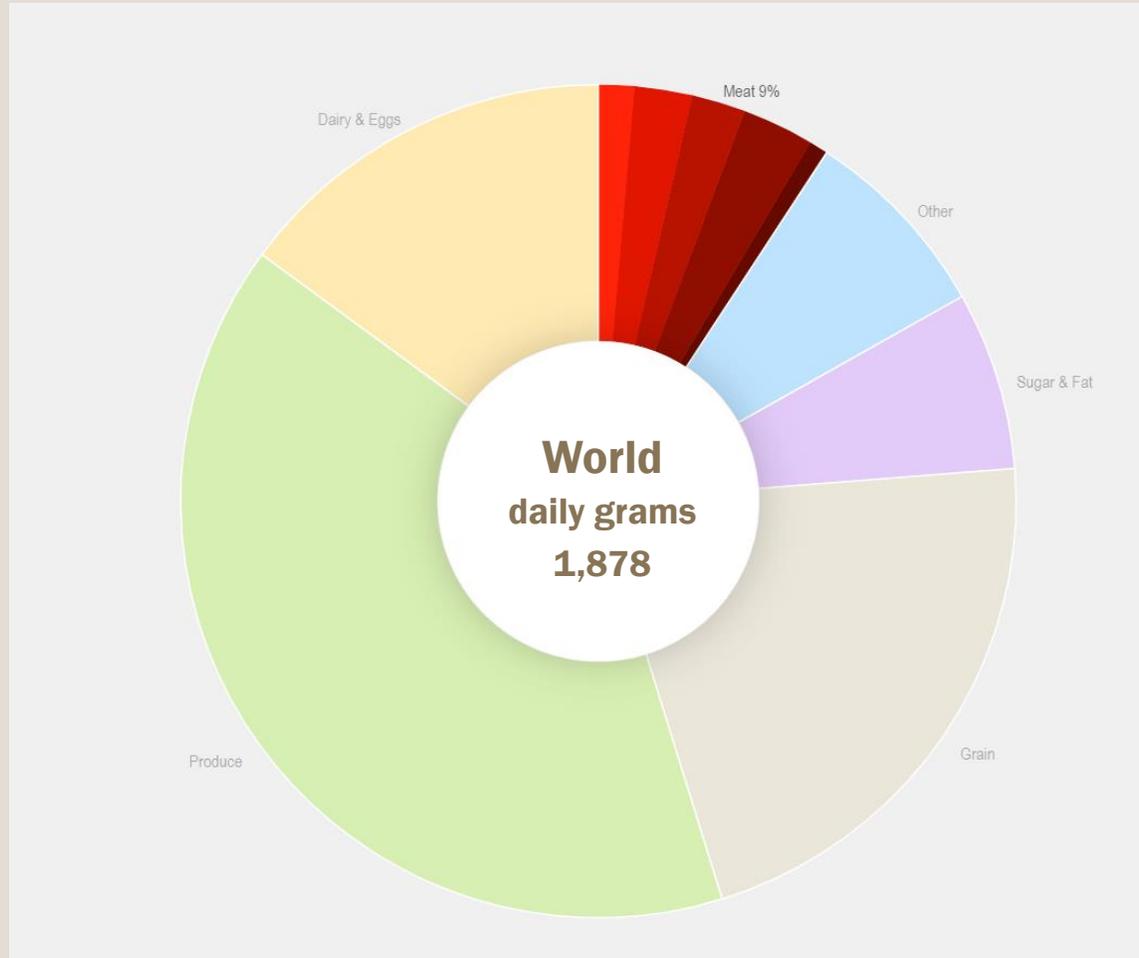


Source: UN (2019)

OurWorldInData.org/future-population-growth/ • CC BY



World's diet



World's diet composition:

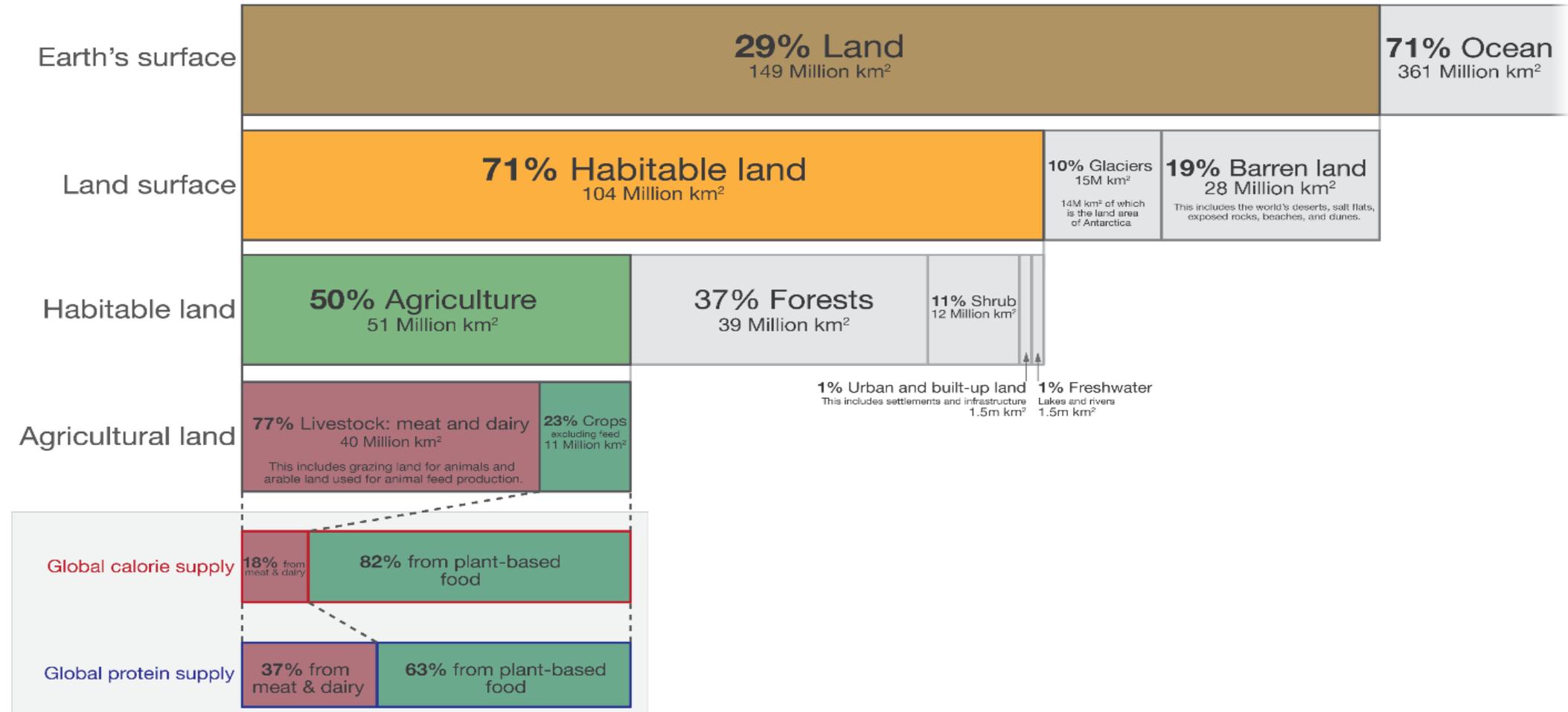
- **21% grains**
- **20% vegetables**
- **13% milk**
- **11% fruits**
- **9% starchy roots**
- **7% sugar & fat**
- **9% meat**
 - **3% seafood.**

The world will need 750-1,000 million MT per year of additional food in the next 30-40 years



Use of the Planet Earth

Global land use for food production



Data source: UN Food and Agriculture Organization (FAO)
OurWorldinData.org - Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the authors Hannah Ritchie and Max Roser in 2019.

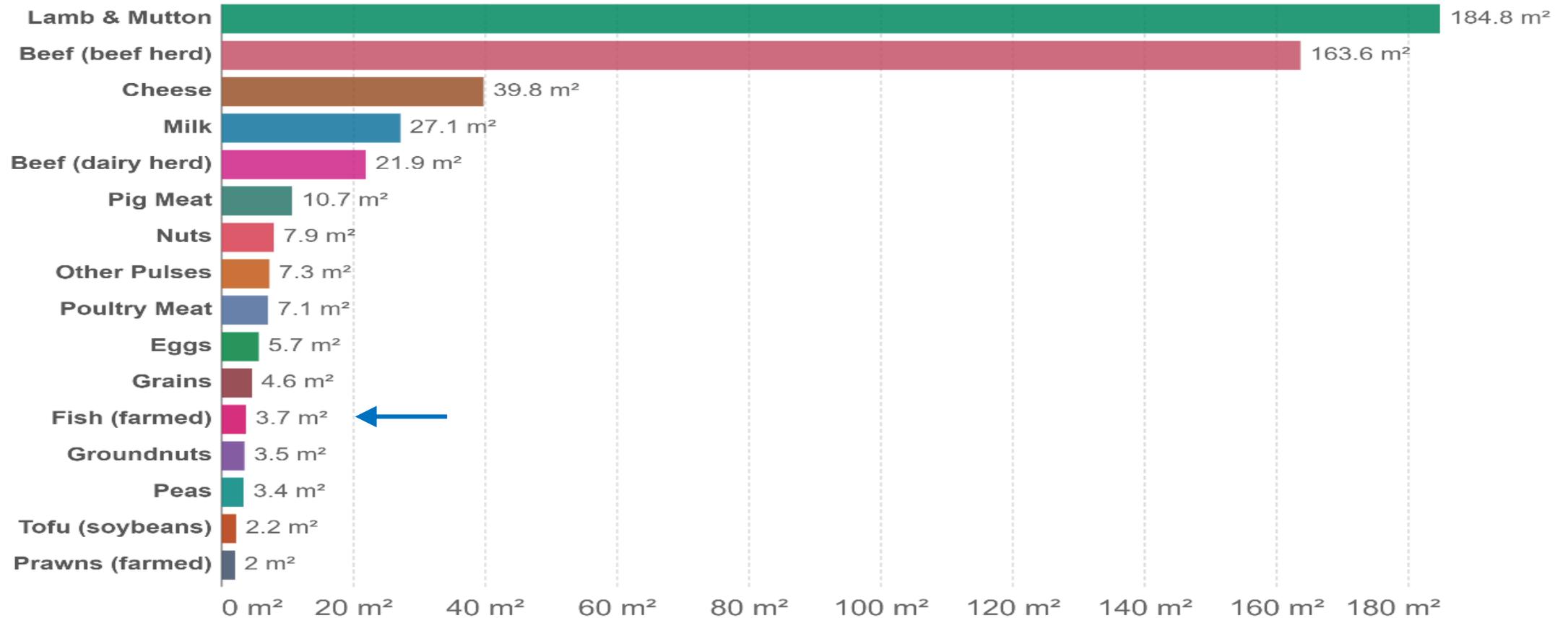


World needs to change diets

Land use per 100 grams of protein

Land use is measured in meters squared (m²) per 100 grams of protein across various food products.

Our World
in Data



Source: Poore, J., & Nemecek, T. (2018). Additional calculations by Our World in Data.
OurWorldInData.org/environmental-impacts-of-food • CC BY

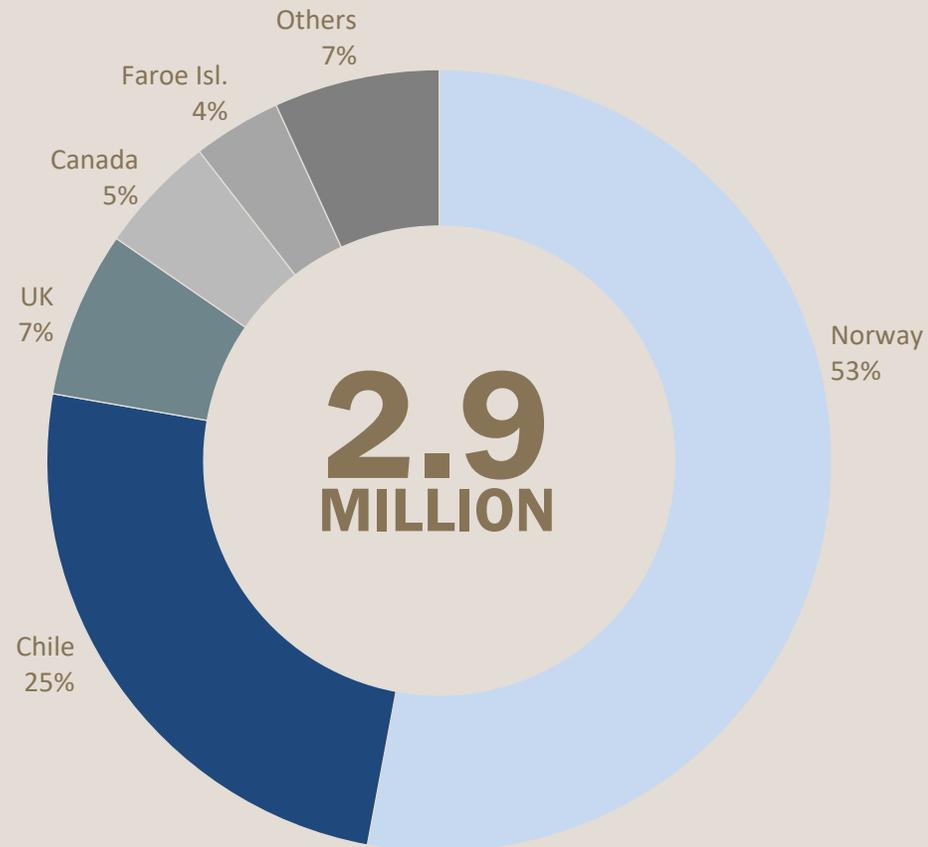


The ocean is a supplier of sustainable food

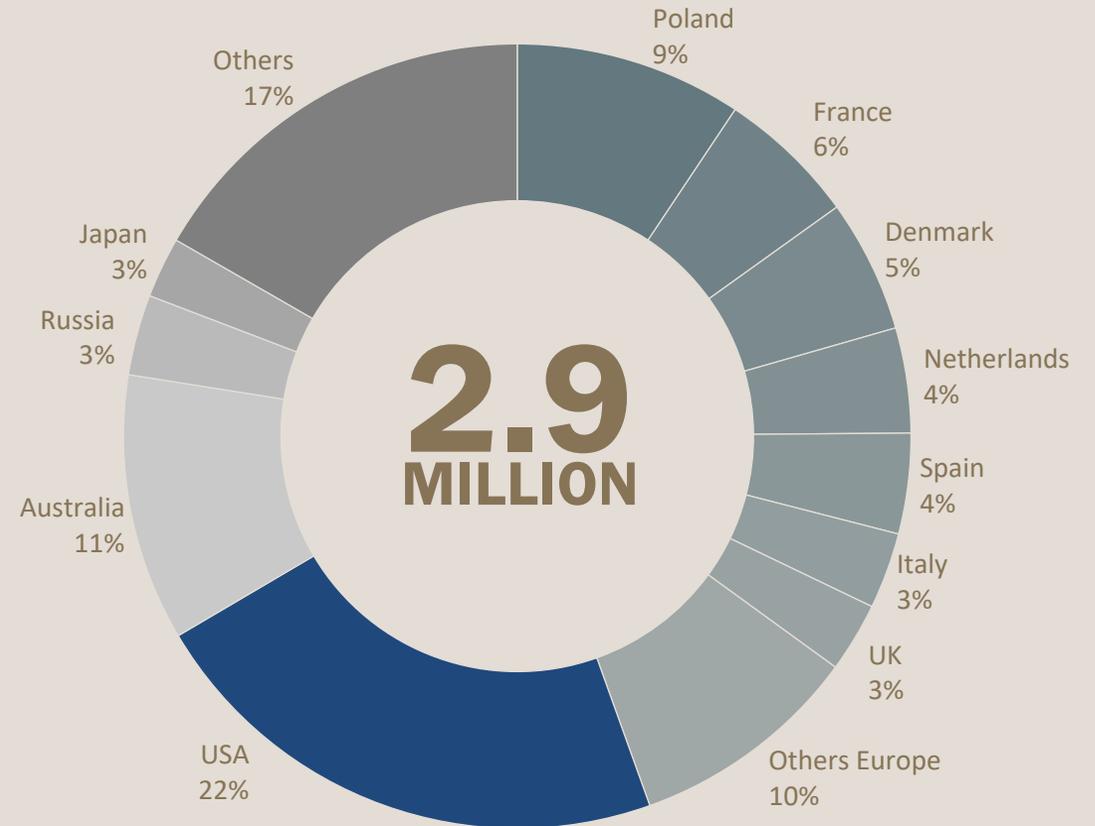
				
Carbon footprint (g CO ² /40g edible meat)	0.60	0.88	1.30	5.92
Feed conversion ratio	1.2	2.0	3.5	8.0
Water consumption (litres/kg)	2,000	4,300	6,000	15,400



Chile: World's 2nd largest farmer



MT WFE ANNUAL ATLANTIC PRODUCTION

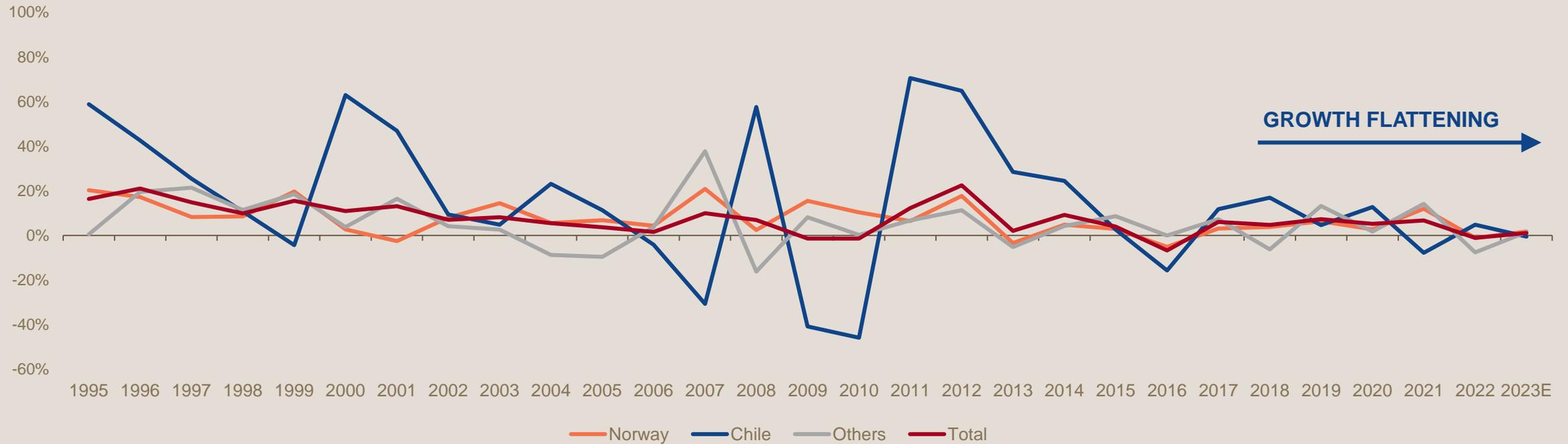


MT WFE ANNUAL ATLANTIC DEMAND

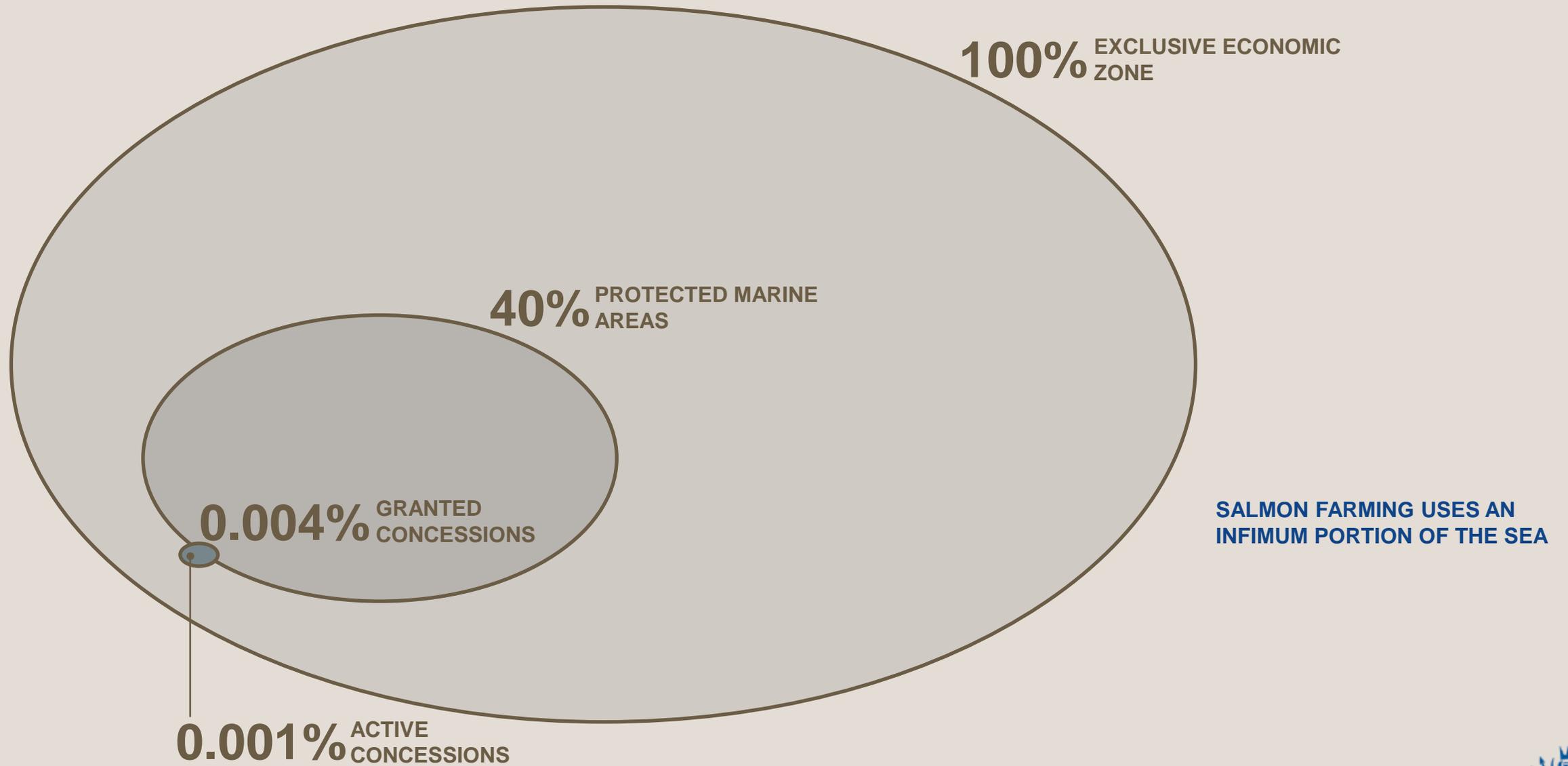


World production: Flattening since 2015

GROWTH RATES YoY

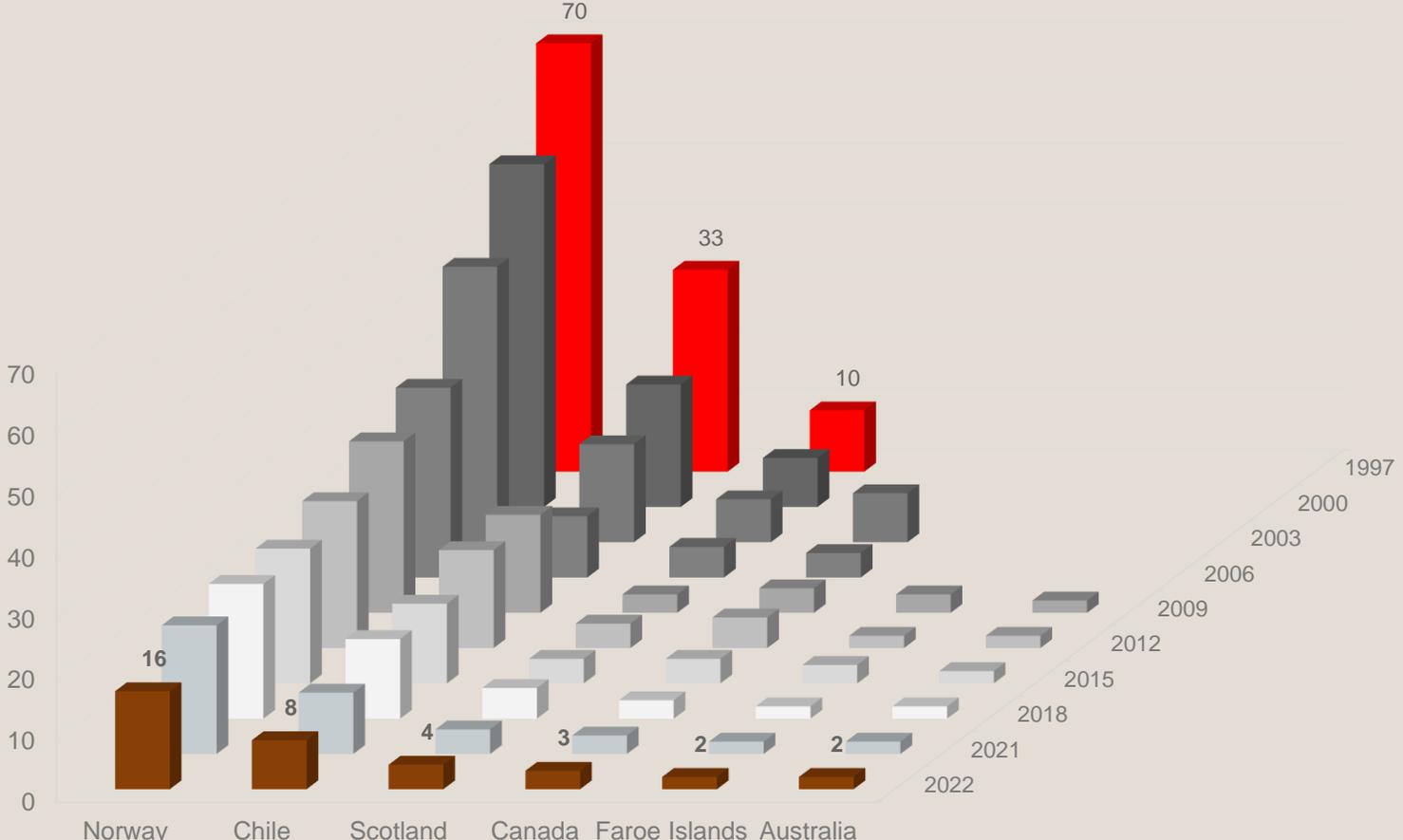


Chile's challenge: high growth potential unexploited

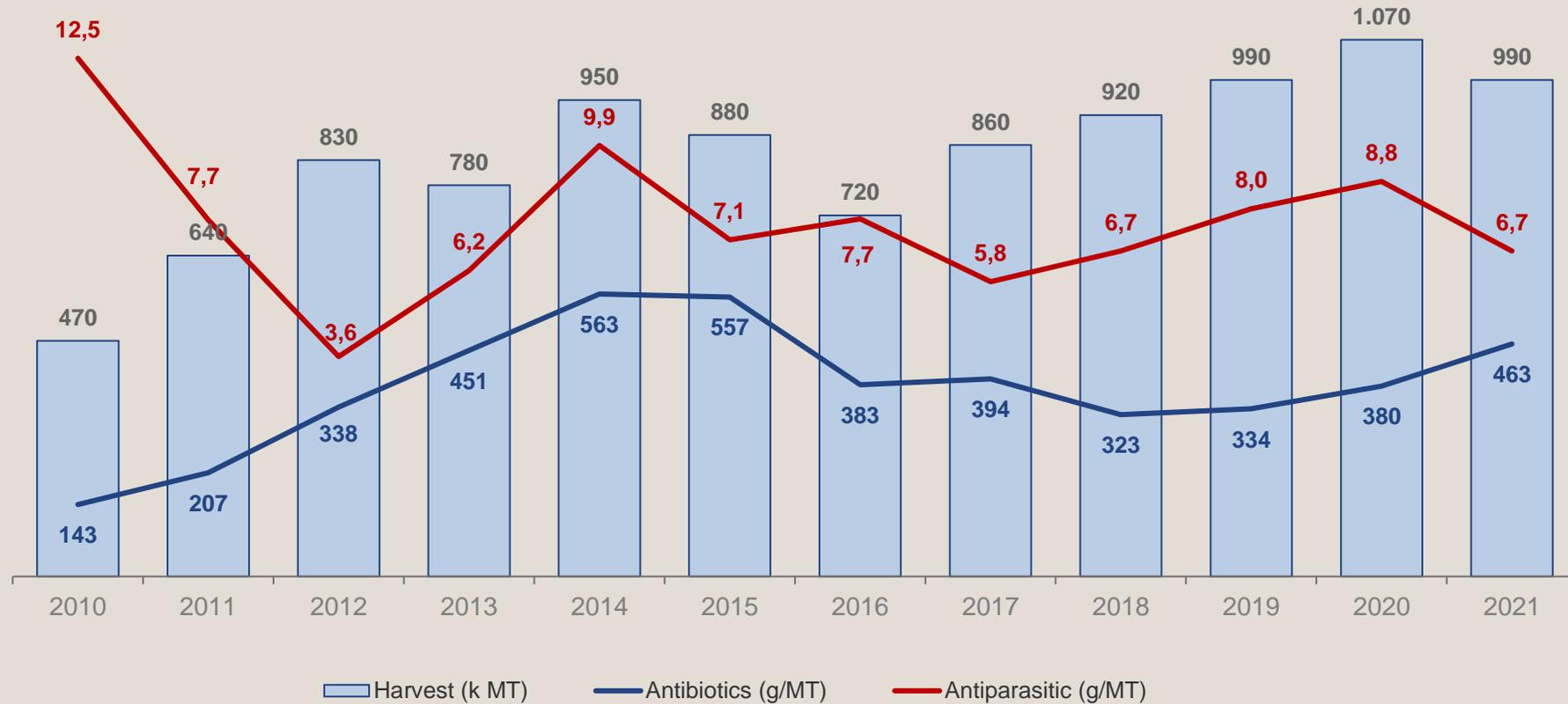


Lack of growth fuels consolidation

Companies to reach 80% salmonid production (by country)



Operational challenge



Distance challenge

FOB OSLO VS FOB CHILE (2006-2021)

USD/KG HOG



Other challenges limiting Chilean capacity



CLIMATE CHANGE

**DRIER AND
SUNNIER
SUMMER**

**LARGER
ALGAE
IMPACT**

**LOW
OXYGEN
EVENTS**

SOCIAL & POLITICAL CHANGES

**OCTOBER 2019
SOCIAL VIOLENT
UNREST**

**NEW
CONSTITUTION
IN PROCESS**

**NEW GOVERNMENT
DECLARED SALMON
FARMING UNDESIRABLE**

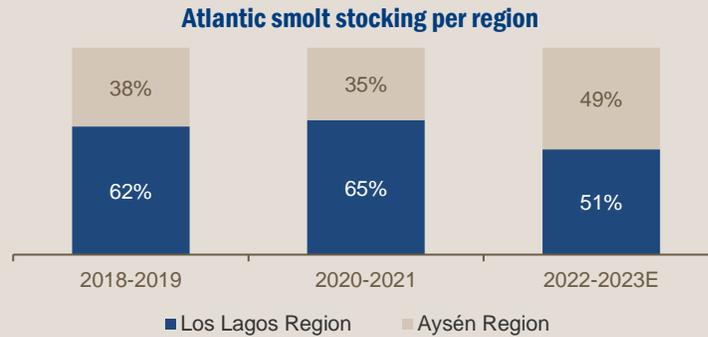


Addressing Climate Change

Salmocam mitigating risk

1. Diversifying location of sea farms

- Relocation to southern territories
- Northern Aysén is best suited for summer



2. Diversifying species in northern seafarms to Pacific salmon

3. New mitigating technologies



- HAB mitigation upwelling system placed in fjords
- New Atlantic sites in XI region
- 2 Coho sites + processing equipment

Summary

1. Population growth challenges the World by adding food demand for 2 more billion people, adding carbon emissions
2. 750-1,000 million MT more food will be needed in 30-40 years.
3. People need to change diets to avoid more climate change impact and global warming.
4. Marine food is essential and farmed salmon is a sustainable solution, where Chile is the 2nd biggest producer.
5. But world salmon production is flattening.
6. Health and regulations are limiting growth, particularly in Chile which has no aquaculture long term strategy.
7. Salmones Camanchaca aims to reach its potential by 2025-2026 at around 70,000 MT of production and embraces climate change strategy.





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