Principles of Common Agricultural Policy and Fisheries policy

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UNIVERSITÀ DEGLI STUDI DI NAPOLI
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DIPARTIMENTO DI
AGRARIA

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Agenda

We are a team….a dream team !

- Teresa Del Giudice (UNINA) – CAP and Fisheries Policy: priciples
- Giuseppina Olivieri (UNINA)- AKIS and Advisory services to support sustainable transition: some analyses
- Serena Monaco – Campania Region, Agriculture and Fisheries division: CAMPANIA REGION: A CASE STUDY
- Ahamed Saidi (UNINA): Consumers' preferences for fish products

TREATY OF ROME: THE STARTING POINT

The Common Fisheries Policy was already created by the Treaty of Rome in 1957 and is provided for in Article 38 of the Treaty establishing the European Communities.

«The common market includes agriculture and trade in agricultural products. Agricultural products are understood to be the products of the soil, of agriculture and **fisheries**, as well as products of primary processing directly related to these products.»

So fisheries was initially included in the Common Agricultural Policy.

So, when we talk about "agricultural" or "farming" in Articles 39-46, we also mean fishery products.

Art. 39

The aims of the common agricultural policy are:

(a) to **increase agricultural productivity** by developing technical progress, ensuring the rational development of agricultural production and the better use of the factors of production, in particular labour,

(b) thus to **ensure a fair standard of living for the agricultural community**, in particular by increasing the individual earnings of persons engaged in agriculture,

(c) **to stabilise markets**

(d) **to ensure security of supply**,

(e) **to ensure reasonable prices** in deliveries **to consumers**.

HOW TO IMPLEMENT THE CAP?

However, the formulation of the objectives in Article 39 did not clarify the instruments and lines of action through which they could be achieved;

The lines of action of the CAP were identified in 1960 and referred to two main concepts:

- Regulating agricultural prices and markets, bearing in mind the price differentials between member countries and the resulting income disparities

- Improving agricultural production structures in order to facilitate the modernisation of enterprises, especially family enterprises, which are considered to be "backward" and unfit to participate in achieving the objectives set out in the Treaty of Rome.

GOALS: STRESA CONFERENCE AND THE FIRST DECISION

The operational tools to achieve the identified objectives were essentially two:

- Establishment of guaranteed common prices valid for the entire Community market

- Establishment of Common Market Organisations (CMOs)

- Established tools characterized by a strong link beetwen subsides and production

From the success to the crisis of the model

The objectives were achieved (some at least):

Eu agriculture increased production and productivity

BUT

the tool of coupled subsidies provided:

- high environmental impact
- international crises: the European Union from net importer to exporter with low prices
- spending for agricultural policy about 80% of the EU budget

The European model of farming

- Emphasises the non-commodity outputs provided by farming activity
  - Cultural heritage
  - Rural development
  - Landscape
  - Biodiversity and environment
  - Food security
- Does provision of these non-commodity outputs provide a distinct justification for support to farming?
- Is underpinned by the idea of **multifunctionality**

Context

- Discourse emerged in the late 1990s
  - Partly to provide a new legitimation of public payments to farmers as the compensation justification became less convincing
  - To defend some types of support to agriculture in WTO negotiations aiming to continue the agricultural policy reform process
- Endorsed by the European Council in December 1997 which approved the Agenda 2000 strategy
  - "The Union is determined to continue developing the present European model of agriculture while seeking greater internal and external competitiveness"

Multifunctionality

- The existence of multiple commodity and non-commodity outputs that are **jointly produced, AND**
- The fact that some of these non-commodity outputs exhibit characteristics of **externalities or public goods**
- Why multifunctionality matters:
  - High protection countries argue that maintaining agricultural production is a necessary prerequisite for these non-commodity benefits

The issue of jointness

- Think about jointness with cultural heritage, rural viability via agricultural employment, landscape, environmental quality, food security
  - Can these non-commodity outputs be provided by the non-agricultural sector?
  - Are there economies of scope such that agriculture has a competitive advantage in supplying these outputs?
  - Does jointness imply fixed proportions?
  - Could there be non-agricultural provision?

The issue of externalities/public goods

- Non-commodity outputs that constitute positive externalities do not necessarily cause market failure
- The existence of a positive externality is not necessarily an argument for intervention; how much of the non-commodity output is optimal?
  - The problem of valuation
- The spatial and scale dimensions of non-commodity outputs

Policy implications

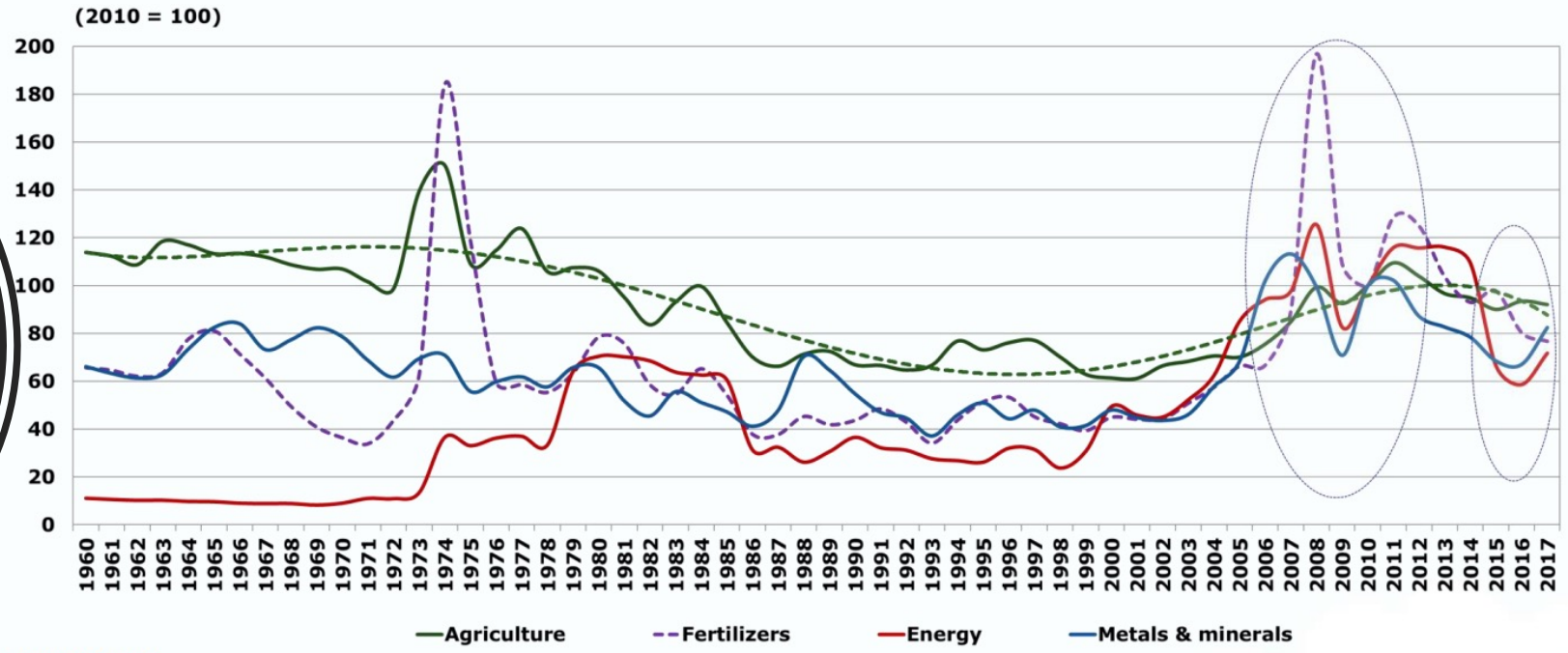
- Agriculture produces negative as well as positive spillovers, yet advocates of multifunctionality do not net out or consider these negative effects
- Using agricultural support in one country to attain multifunctional benefits lower the benefits from agriculture, including multifunctional benefits, everywhere else
- Unlikely that blanket measures to encourage agricultural production will ensure just the right outputs of non-commodity benefits in the right places at reasonable cost
  - Provides an argument for improving targeting and decoupling of policy measures

Policy implications

- Many non-commodity outputs, especially those relating to land use, may be linked to a certain amount of commodity production but not directly to the level of production (threshold effects) or may be linked to a particular technology of production (choice of inputs) rather than level of output
  - E.g. olive grove produces landscape, organic olive grove produces health, environment …etc
- Measurement of the demand for the non-commodity output, however difficulty, is critical in determining whether a market failure exists

Why do we need a CAP?

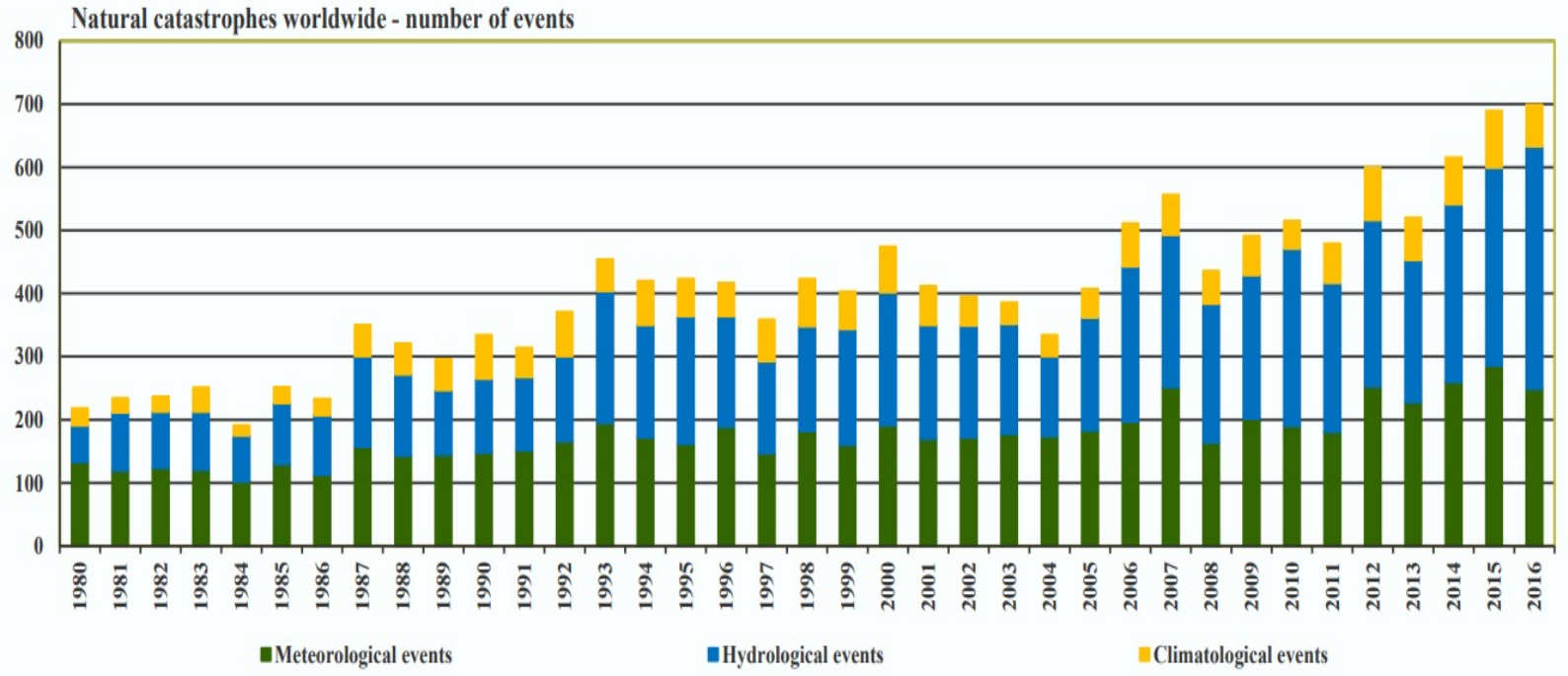
COMMODITY PRICE WAVES (REAL PRICE INDICES)



Source: World Bank.

Why do we need a CAP?

WORLDWIDE EXTREME WEATHER EVENTS

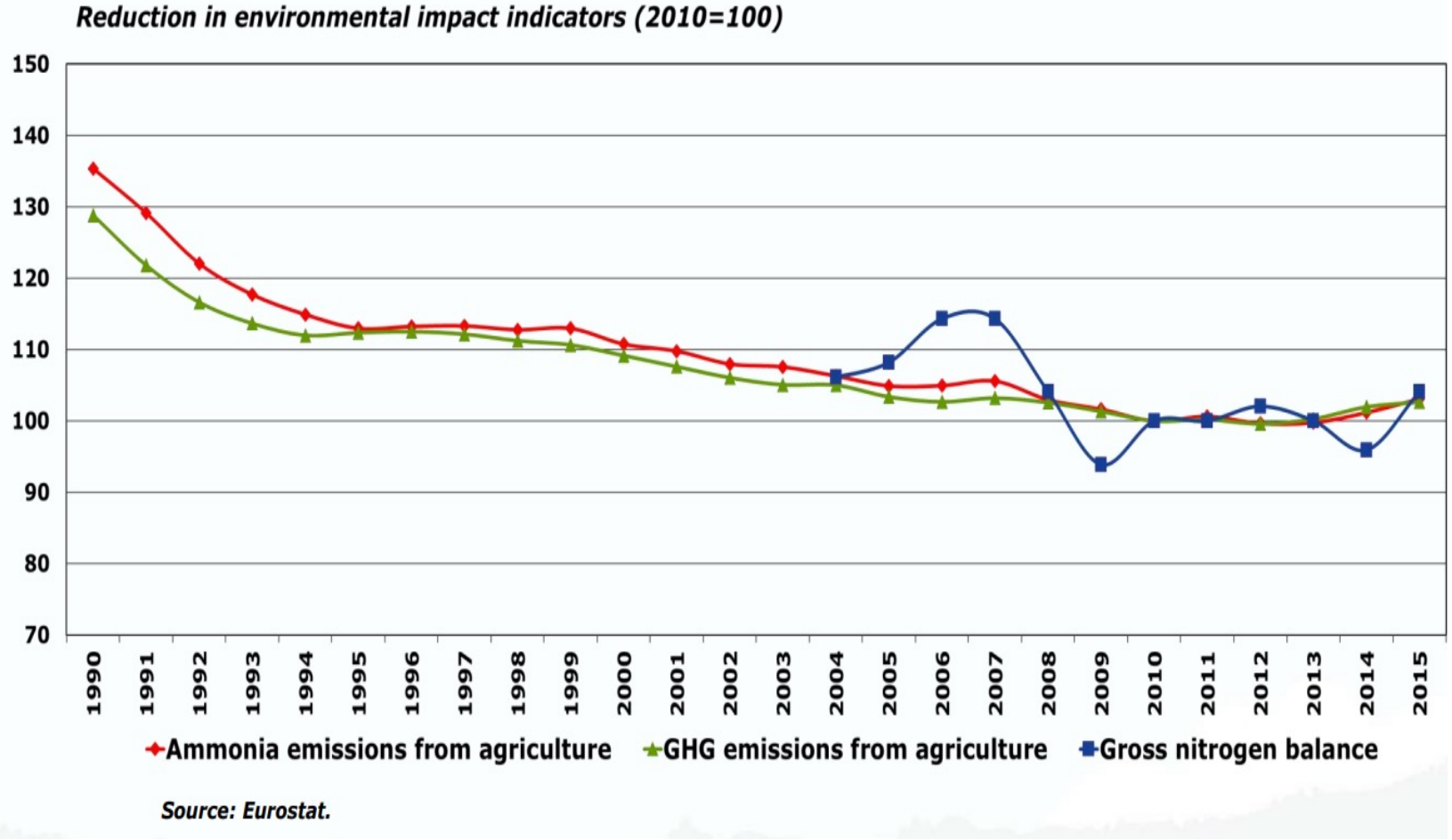


Meteorological events: Tropical storm, extra-tropical storm, convective storm, local storm,
Hydrological events: Flood, mass movement
Climatological events: Extreme temperature, drought, forest fire

Source: © 2017 Münchener Rückversicherungs-Gesellschaft, Geo Risks Research, NatCatService (January 2017)

Why do we need a CAP?

THE NEED TO DO MORE ON CLIMATE AND ENVIRONMENT



TO SUMMARIZE: a context dominated by 'scarcity'.

World population growth:
More than 9 bilion people in 2050

Increased food demand:
- D/O balance with + 70% of agricultural production
- Asymmetrical welfare development

CONSTRAINTS
- **Scarcity of resources (land, water, energy)**
- **Preservation of the environment**
- **Climate change**

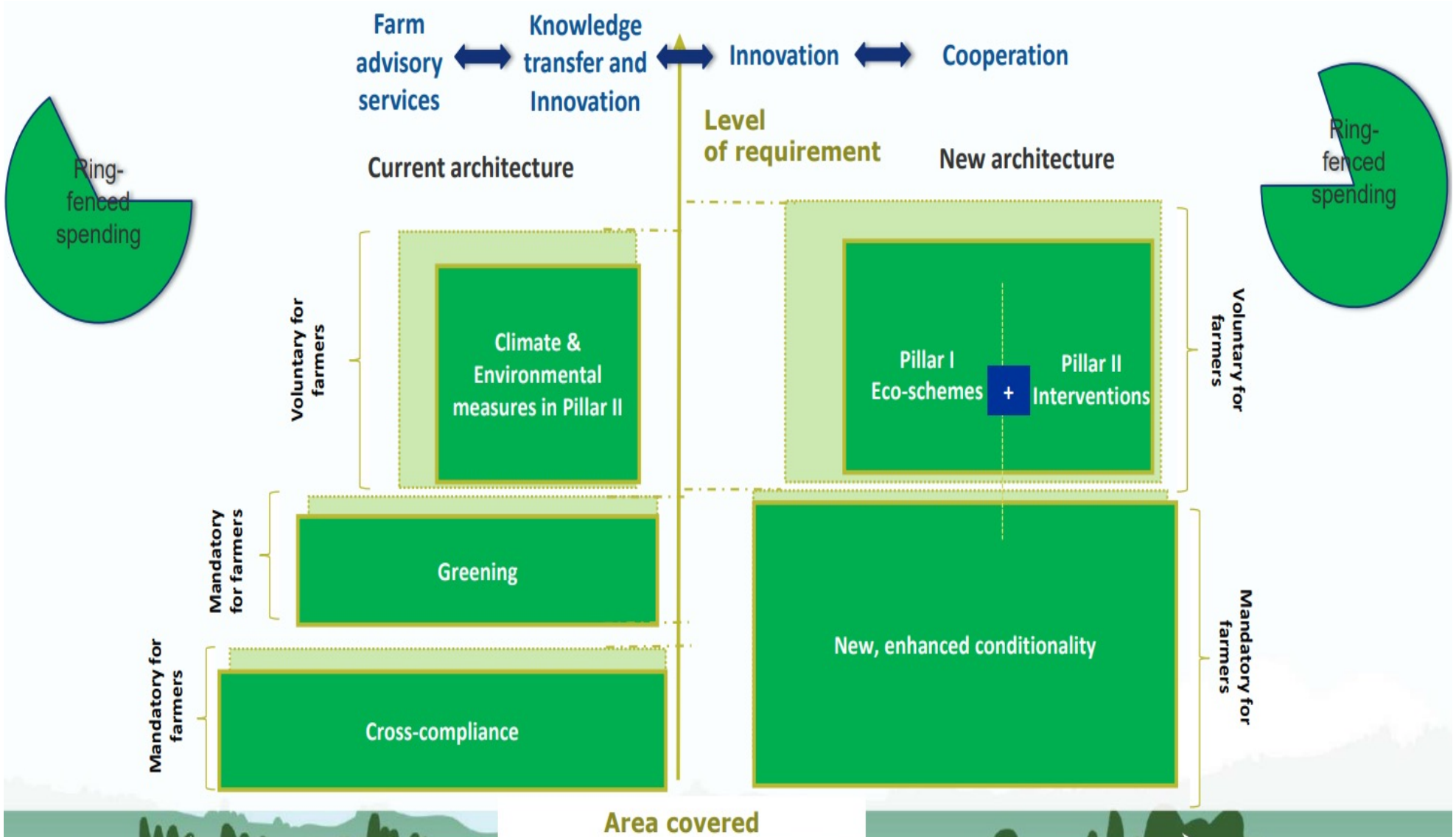
IMPACTS ON BUSINESSES
- **Price volatility**
- **Competitive pressure**
- **Adaptation costs**
- **Opportunities in new markets**

Cap 2023-2027

Pillar I	Pillar II
Basic Income Support for Sustainability (BISS)	Areas of Natural Constraint (ANC)
Complementary Redistributive Income Support for Sustainability (CRISS)	Agri-environment climate measure (AECM General & Co-operation)
Complementary income support for young farmers (CIS-YF)	AECM Training
Eco-Scheme	Straw Incorporation Measure
Coupled Income Support for Protein Aid	Organic Farming Scheme
National Apiculture Programme	On farm investments
Fruit and Veg Producer Organisation	Suckler Carbon Efficiency Programme incl training
	Early Stage support for Producer Organisations
	Continuous Professional Development for Advisors
	European Innovation Partnerships (EIPs)
	Knowledge Transfer Groups
	Dairy Beef Welfare Scheme
	Sheep Improvement Scheme
	Collaborative Farming Grant
	Technical Assistance
	LEADER

Specific objectives of CAP

The new architectu re of CAP



The European Green Deal (EGD)

The European Green Deal (2020): a set of policy initiatives by the European Commission with the overarching aim of making the EU climate neutral in 2050

Defines goals extending to many different sectors.

Plans to review each existing law on its climate merits, and also introduce new legislation on the circular economy, building renovation, biodiversity, farming and innovation.

Defines a strategy for the future of farming in the Farm to Fork Strategy

Other strategies linked to agriculture (e.g. biodiversity strategy, zero pollution action plan)

The Farm to Fork strategy (F2F) and the Green Deal

- The Farm to Fork Strategy (F2F)'s objective: to make food systems fair, healthy and environmentally-friendly.
- Aims to change the entire food system, from production to consumption, including processing, packaging, transport, distribution, etc.
- Sets non-binding targets to be reached by 2030, for agricultural production:
- Reaching 25% of EU agricultural area under organic farming;
- Reducing the use and risk of chemical pesticides by 50% and reducing the use of more hazardous pesticides by 50%;
- Reducing the use of fertilizers by at least 20% and nutrient loss by at least 50% ;
- Reducing the sales of antimicrobials for farmed animals and in aquaculture by 50%.
- In addition, the Biodiversity strategy sets a non-binding target for semi-natural habitat on farmland:
- Establishing biodiversity rich landscape features on at least 10% of the EU farmland

The Common Agricultural Policy and its reform

- The CAP has an overall budget of around EUR 387 billion (decreasing compared to the previous one), split between two funds:
  1. The Pillar I (EAGF, funding measures such as income support) which totals EUR 291.1 billion from 2021-7 (in current prices). Access to this funding is conditional on respecting good agricultural and environmental conditions. 25% should be dedicated to Eco-schemes.
  2. The Pillar II (EAFRD) which totals EUR 95.5 billion from 2021-7. It funds rural development as well as agri-environmental and climate commitments (min. 35% of the budget).
- Each MS's budget is defined in the Multi-annual financial framework' (MFF).

The Common Agricultural Policy and the green deal targets

- Reaching 25 % of farmland under organic farming
- Reducing the use of fertilisers by at least 20% and nutrient loss by at least 50% by 2030
- Establishing biodiversity rich landscape features on at least 10% of the EU farmland
- Reducing the use of chemical pesticides by 50%
- Reducing the sales of antimicrobials by 50%

Vision and work on the future of farming and the CAP

- a “public money for public goods” approach to subsidies, rather than production support and payments that can promote intensification (e.g. direct payments or coupled income support);
- Targeted payments and innovative approaches e.g. result-based and collective payments
- Some forms of production based on ecological or socio-cultural grounds e.g. High Nature Value farming
- Moving towards a transition logic. For instance, through the provision of time-limited adjustment aid
- The continuous revision of the CSP between 2023 and 2027 as MS can amend their plans each year

Beyond farming: the transition of food system

- The transformation should go beyond farming systems: it also requires major changes in the rest of the food system (e.g. in consumption) and in the land use sector (e.g. for nature restoration).
- It is needed in a short timeframe, to address climate, biodiversity and wider environmental and social challenges e.g., health;
- Other policies e.g. the upcoming Sustainable Food System law, will play an important role. Such law could also put more requirements on the CAP (e.g. binding targets), potentially already in this funding period.
- The transition need to be just, in the sense that the social and economic effects of the ecological transition should be addressed, for those who will face the greatest challenges

Key priorities for future CAP

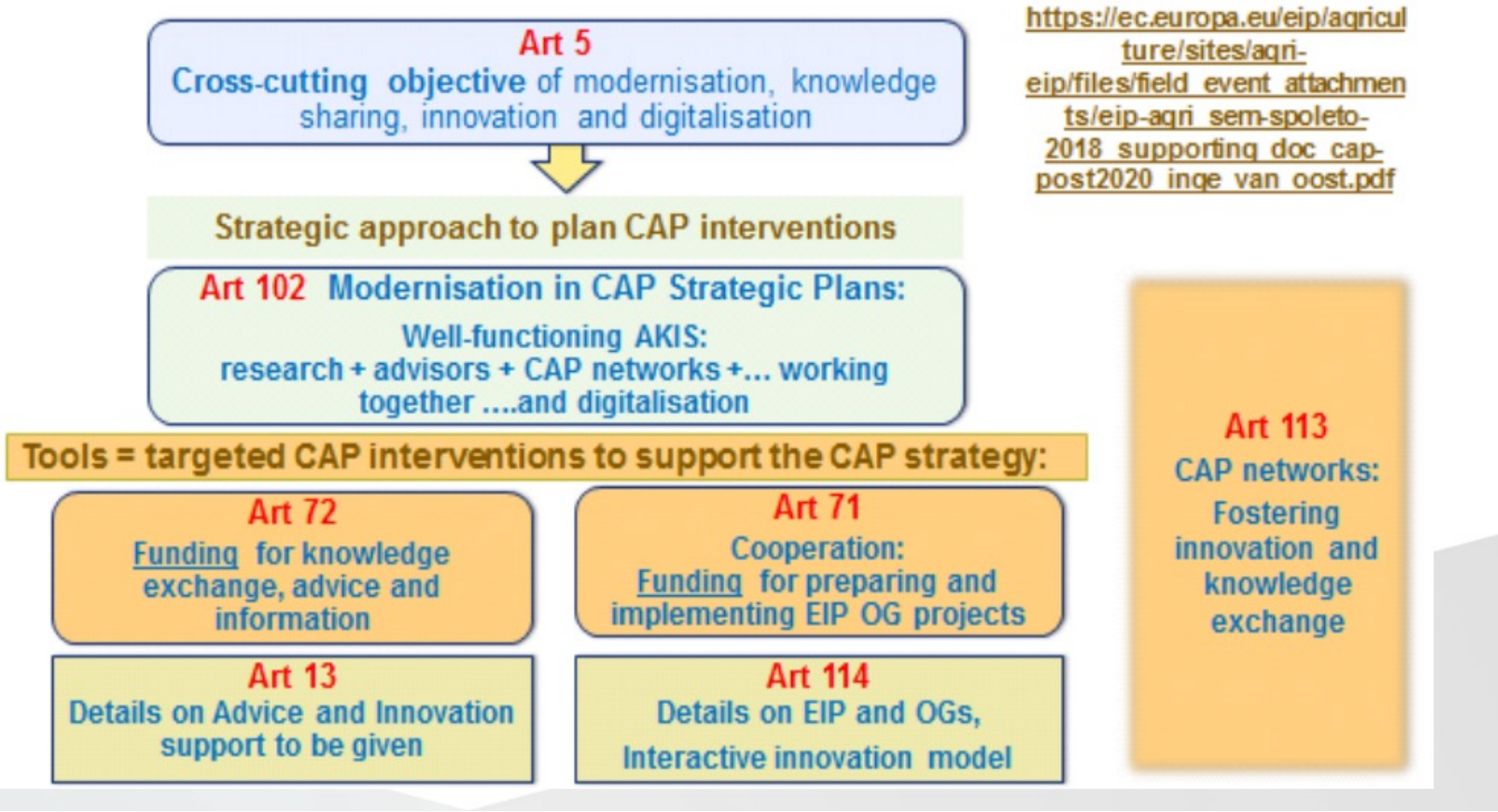
1. A **simplified** and **modernised** CAP
2. Support for the development of **knowledge-based** agriculture
3. Fairer and better targeted **distribution of direct support** between Member States and farmers
4. Greater **environmental and climate ambition**
5. Generational renewal for **rural areas** and **young farmers**
6. Better integration of **societal expectations**

Agricultural Knowledge & Innovation System (AKIS)

- Agricultural Knowledge and Innovation Systems (AKIS) is the combined organisation, knowledge flows and interactions between persons, organisations and institutions that use and produce knowledge and innovation for agriculture and interrelated fields in rural areas.

Agricultural Knowledge & Innovation System (AKIS)

Integrated approach for modernization, innovation and knowledge flows



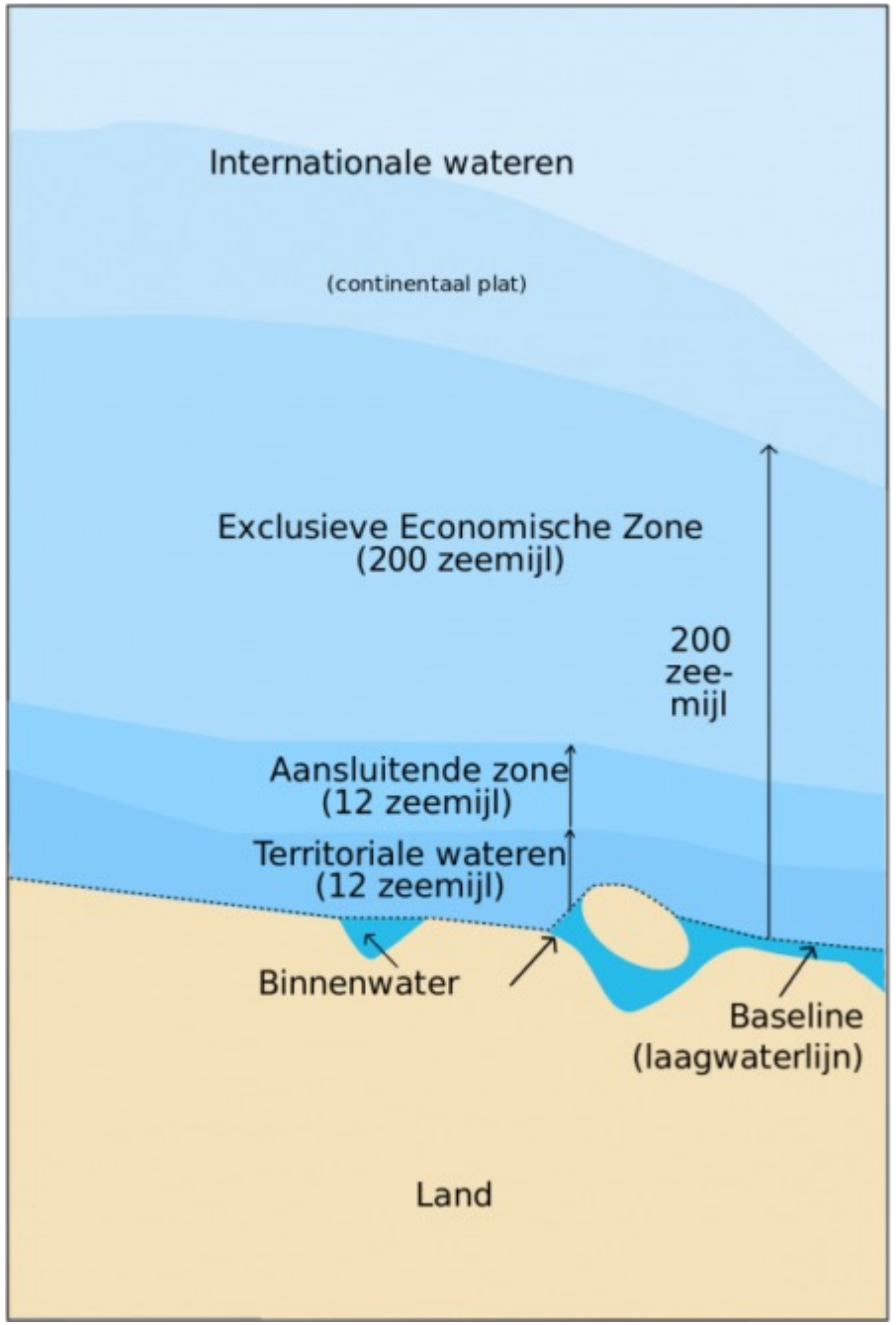
BUT: FOR FISHERIES?

Marine Policy: from CFP to EMFF

The evolution of CFP: 1970

The Council adopted the acts to establish a **common market organisation for fishery products** and put in place a Community structural policy for fisheries.
Fisheries played an important role in the negotiations that led to the accession of the United Kingdom, Ireland and Denmark to the EEC in 1972.

Member States accepted that the management of fisheries resources fell within the competence of the European Community.



The evolution of CFP: 1983 Regulations

The Council adopted Regulation (EEC) No 170/83 **in 1983, establishing the new generation CFP**, which enshrined:

- the commitment to respect the EEZ

- formulated the concept of relative stability, providing for conservation management measures based on total allowable catches (TACs) and quotas.

The evolution of CFP: 1992 Regulations

In 1992 sought to redress the serious imbalance between fleet capacity and catch potential. The remedy advocated was the reduction of the Community fleet, accompanied by structural measures to mitigate the social consequences.

The regulation introduced the notion of 'fishing effort» to restore and maintain the balance between available resources and fishing activities.

Access to resources was provided for through an **effective licensing system.**

The evolution of CFP: 2002 Reform

To reduce the damage of overfishing, three regulations were adopted in 2002:

- Framework Regulation (EC) No 2371/2002 on the conservation and sustainable exploitation of fisheries resources [repealing Regulations (EEC) No 3760/92 and (EEC) No 101/76];
- Regulation (EC) No 2369/2002 laying down the detailed rules and arrangements regarding Community structural assistance in the fisheries sector [amending Regulation (EC) No 2792/1999];
- Regulation (EC) No 2370/2002 establishing an emergency Community measure for scrapping fishing vessels.

The evolution of CFP: 2013 CFP Reform

In 2009, the Commission launched a public consultation on the reform of the CFP, with the aim of integrating new principles to govern EU fisheries in the 21st century. After a long discussion in the Council and, for the first time, in the Parliament, an agreement was reached on 1 May 2013 on a new fisheries regime based on three main pillars:

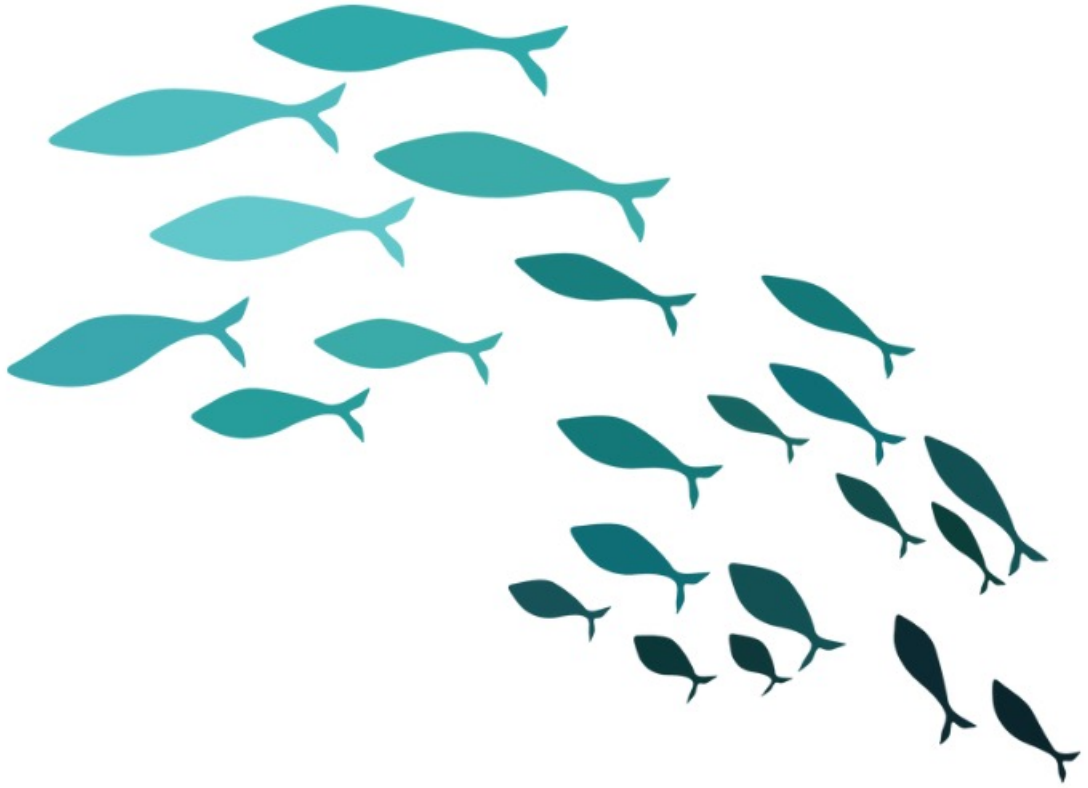
1) the new CFP (Regulation (EU) No 1380/2013);
2) the common organisation of the markets in fishery and aquaculture products (Regulation (EU) No 1379/2013);
3) the new European Maritime and Fisheries Fund (EMFF) (Regulation (EU) No 508/2014).

The 2013 CFP

Main points:

- **Multi-annual ecosystem-based management**
- **Maximum Sustainable Yield (MSY)**
- **Ban on discards**

- ✓ **<u>Sustainable aquaculture</u>**



The 2013 CFP (2)

The Common Fisheries Policy (CFP) is a set of rules governing the management of European fishing fleets and the conservation of fish stocks.
It aims to manage Europe's fisheries as a common resource, giving all European fleets equal access to EU waters and allowing fishermen to compete fairly.

Thus, the CFP aims to ensure that fisheries and aquaculture are ecologically, economically and socially sustainable and provide a source of healthy food for EU citizens.

The EMFF

The European Maritime and Fisheries Fund (EMFF) was established for the financing of fisheries policy within the 2014-2020 planning.

- helps fishers adapt to sustainable fishing
- supports coastal communities in diversifying their economies
- finances projects that create new jobs and improve quality of life along European coasts
- supports sustainable aquaculture developments
- makes it easier for applicants to access financing
- supports the implementation of the maritime policy

The EMFF (2)

- The EMFF is the fund to finance the fishery sector
- It’s value is about 6 bilion euro
- The 4 area of EMFF are: Sustainable fisheries, Control and Enforcement, Data Collection, Blue Economy
- The EMFF is divided in 5 chapter

Sustainable development of fisheries

Sustainable development of fishing and aquaculture areas

Integrated Maritime Policy

Measures for the sustainable development of aquaculture

Measures for marketing and processing

Blue economy definition

According to the World Bank, the blue economy is the "sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem."

European Commission defines it as "All economic activities related to oceans, seas and coasts. It covers a wide range of interlinked established and emerging sectors."

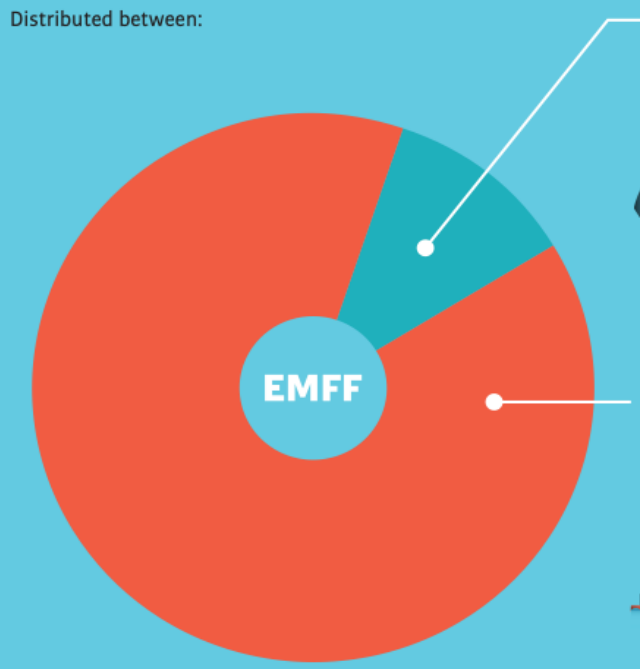
The Commonwealth of Nations considers it "an emerging concept which encourages better stewardship of our ocean or 'blue' resources."

Conservation International adds that "blue economy also includes economic benefits that may not be marketed, such as carbon storage, coastal protection, cultural values and biodiversity."

The Center for the Blue Economy says "it is now a widely used term around the world with three related but distinct meanings- the overall contribution of the oceans to economies, the need to address the environmental and ecological sustainability of the oceans, and the ocean economy as a growth opportunity for both developed and developing countries."

The EMFF (3)

The total amount allocated to the EMFF
for the period 2014-2020 it amounts to approximately 6.4 billion.



11%

Managed by the European Commission

To support EU-wide objectives in maritime and coastal affairs:

International governance
Cooperation through exchange of information and best practices
Public informatio n and support to networking platforms
Marine Knowledge
Maritime Spatial Planning

89%

Managed by the member states

Divided amongst EU countries, the funds are used for:

Reducing impact of fishing on the marine environment
More market tols for professionals and consumers
Joint stewardship of protected areas ans Natura 2000 sites
Special support to small-scale fishermen

Among which:

€4340 M

Sustainable Fisheries

Making fisheries and aquaculture more sustainable and profitable

Ensuring and creating sustainable jobs
Local development and support to fisheries areas
Marketing and processing

€580 M

Control and Enforcement

To monitor compliance with the European Common Fisheries Policy and protect a fair access to healthy stocks:

Access to fishing grounds
Controlling fishing effort, TACs and quotas
Other technical measures to improve selectivity and sustainability

€520 M

Data Collection

To collect the data the scientists need to improve our knowledge of the seas and the long term management of our fisheries:

Understanding and monitoring of commercial species
Dynamics of single stocks and mixed fisheries
Ecological modelling of regional basins

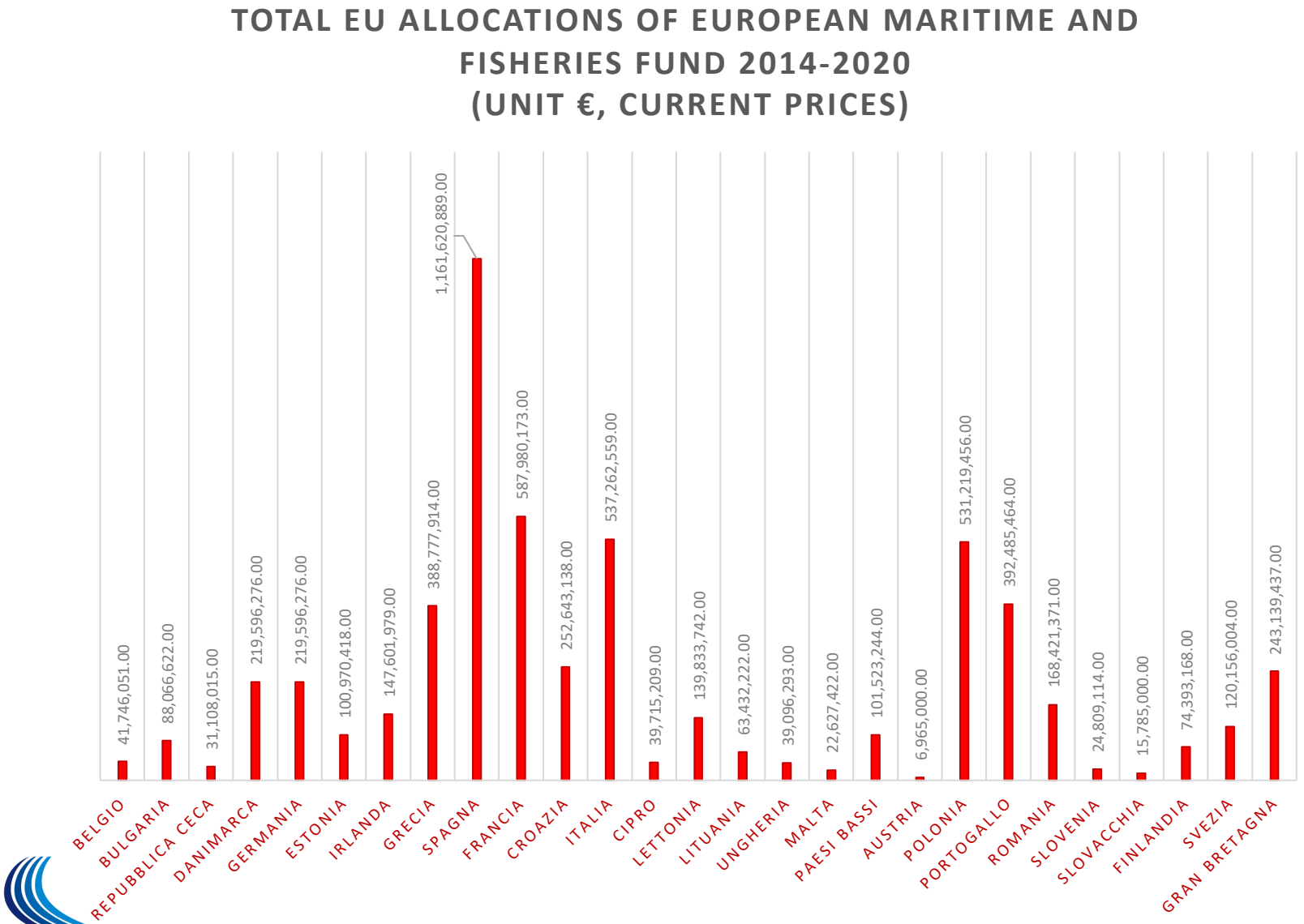
€71 M

Blue Economy

To unlock sustainable growth and job creation from our seas and oceans, in areas such as:

Maritime surveillance (CISE)
Improved knowledge of the seas and ecosystems
Enabling rational exploitation of new marine resources (e.g. energy, biotech)

The EMFF (4)



The top 4 countries (Spain, Italy, France and Poland) intercept 45% of the resources.

The EMFAF 2021-2027

The fund helps achieve sustainable fisheries and conserve marine biological resources. This leads to:

- food security through the supply of seafood products
- growth of a sustainable blue economy
- healthy, safe and sustainably managed seas and oceans

The EMFAF 2021-2027 (2)

Projects financed by the fund must have as objectives:

- environmental protection
- restoration of habitats
- the livelihood of fishing enterprises
- positive impacts on the social sphere

The EMFAF 2021-2027 (3)

The total budget for 2021-2027 is €6.108 billion.

The EMFAF co-finances projects in conjunction with national resources: in fact, each Member State is assigned a share of the total Fund allocation, depending on the importance of the fishing sector (level of employment and production, size of the fishing fleet, etc.).

Each Member State then draws up an operational program (OP) describing the allocation of funding resources, which must be approved by the Commission. The national authorities are responsible for choosing which projects to finance, and are responsible with the Commission for implementing the operational program.

The EMFAF 2021-2027 (4)

The total budget for 2021-2027 is €6.108 billion.

- EMFAF will particularly support small-scale coastal fisheries and vessels up to 24 meters, as well as promoting aquaculture.
- The negotiated text also aims to simplify fund disbursement processes while improving outcomes.
- The negotiated text contains provisions to finance investments that will improve safety, efficiency energy and catch quality on EU fishing vessels. For example, the fund can be used to finance the replacement or modernization of fishing vessel engines to increase their efficiency energy and reduce CO2 emissions.

NP-EMFAF in Italy 2021-2027

The National Program of the European Maritime, Fisheries and Aquaculture Fund 21-27 aims to contribute increasingly to environmental sustainability and to support an increasingly compromised sector in terms of loss of competitiveness.

Three challenges:

GREEN Transition

Digital Transition

Innovation

NP-EMFAF in Italy 2021-2027 (2)

Green transition:

- The reduction of fishing overcapacity by investing 7.14% of total resources;
- Investments to encourage the transition to more sustainable means of production;
- Decarbonization, in response to the current global energy crisis, contributing to 30% of CO2 reduction;
- Biodiversity policies
- Consistent with the Farm to Fork Strategy, the development of quality production for an fair, healthy and sustainable food system, with measures involving the entire fish chain, from production to consumption and actions to reduce waste and reuse of waste;
- The role of fishermen in the recovery of waste at sea and diversification of activities.

NP-EMFAF in Italy 2021-2027 (3)

Digital transition:

- To businesses, incentivizing technology diffusion and expertise on ICT, blockchain, labeling and smart packaging, encouraging telesales, direct relationships based on digital network, social networks and food delivery;
- For control activities, with investment in digital tools for transparent, efficient and of fisheries that is transparent, efficient and user-friendly, investing in automated systems and the real-time information exchange;
- To improve the system of data collection, management and use, acting both on the organization and enhancing the uploading and analysis platforms, promoting the traceability and sharing of big data;
- To support the digitization processes of the Administrations involved in the implementation of the NP.

NP-EMFAF in Italy 2021-2027 (4)

Innovation:

- Innovative economic transformation and competitiveness of fisheries and aquaculture activities through investments in innovation and for the improvement of the quality of production processes;
- Training, partnership and cooperation initiatives between industry players and scientific experts;
- Research and pilot projects to foster technology transfer and experimentation with new development models;
- A strategic vision.

NP-EMFAF in Italy 2021-2027 (5)

Resilience:

- Actions to increase business competitiveness and resilience;
- Actions for young people (business start-ups, generational turnover, etc.);
- Actions to compensate businesses from damages for climate, environmental, and public health events;
- Actions to foster the fishing port system and related services;
- Actions to enhance local productions.

NP-EMFAF in Italy 2021-2027 (6)

1. **FISHING.** Promoting sustainable fishing, restoration and conservation of aquatic biological resources.
2. **AQUACULTURE + processing and marketing.** Processing and marketing of fishery and aquaculture products, contributing to the food security EU.
3. **GOVERNANCE OCEANS.** Strengthen international ocean governance and ensure safe, secure, clean and sustainably managed oceans and seas.
4. **FISHING and AQUACULTURE LAGS.** Enable the growth of a sustainable blue economy in the coastal, island and inland areas and promote the development of fishing and aquaculture communities.

NP-EMFAF in Italy 2021-2027 (7)

The total budget for the Italian 2021-2027 program is 987.2 million euros for the next six years, of which the European contribution amounts to 518.2 million euros

Priority 1 (49%)- 466.85 million
Priority 2 (32.85%)- 340.43 million
Priority 3 (10%)- 103.81 million
Priority 4 (1,35%)- 4 million euros to which Technical Assistance (6%) is added, receiving 62.18 million euros.

FISH PRODUCTION: Capture and aquaculture production

- The share of global supply of fish products for human consumption from aquaculture went from being 16% in 1990 to 57% in 2020 including aquatic plants.

- The total estimated global production from captured fisheries and aquaculture increased from 199 million tonnes in 2016 to 214 million tonnes in 2020.

- The global value of aquaculture production reached €246 billion (281 billion USD) in 2020.

- China is the most important producer of aquaculture products in the world, producing 57% of the global aquaculture products.
- European Union aquaculture production represented only 1.0% of the world aquaculture production in terms of weight and 1.5% in value.

FISH PRODUCTION: Capture and aquaculture production

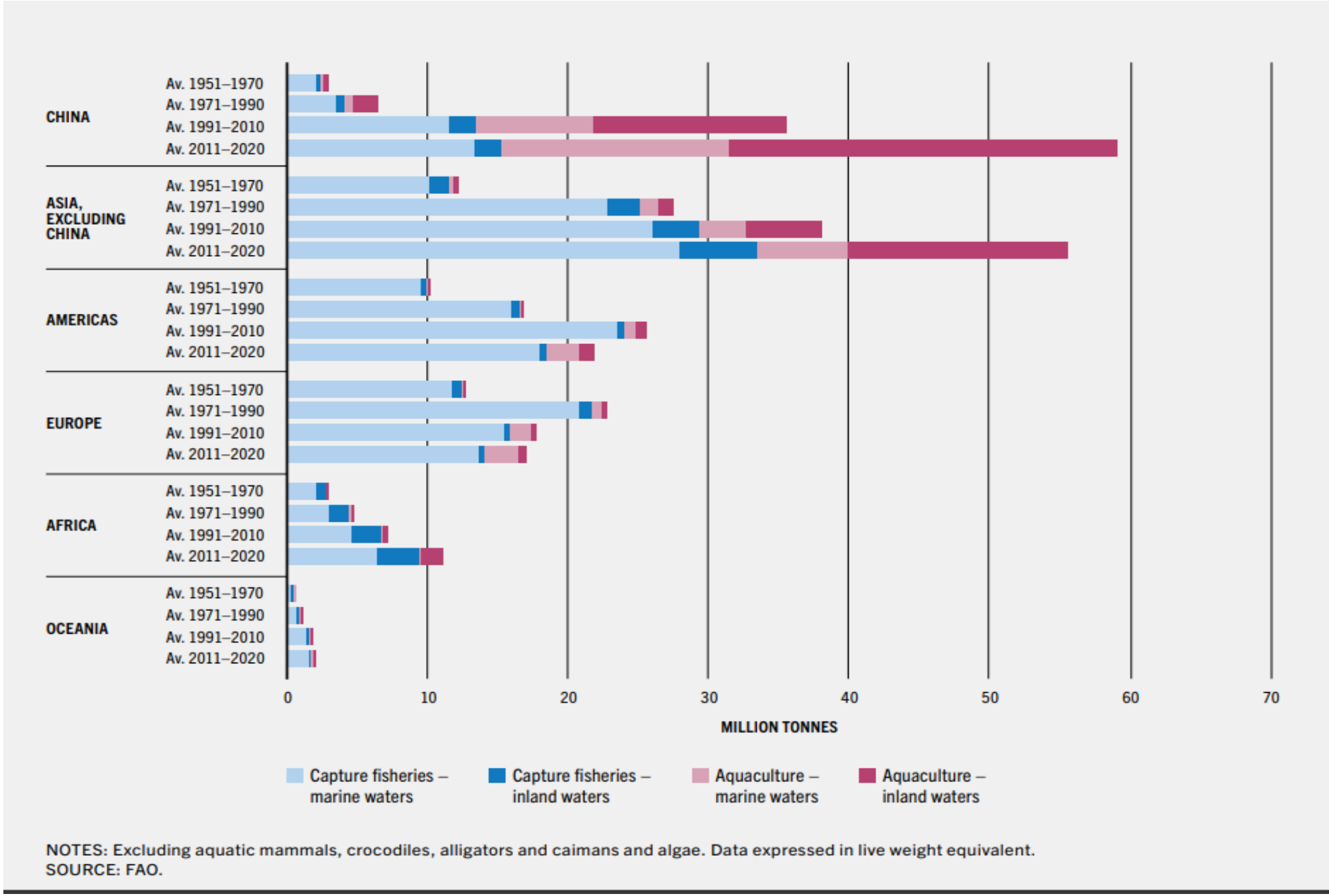
	1990s	2000s	2010s	2018	2019	2020
	Average per year					
	Million tonnes (live weight equivalent)					
Production						
Capture:						
Inland	7.1	9.3	11.3	12.0	12.1	11.5
Marine	81.9	81.6	79.8	84.5	80.1	78.8
Total capture	**88.9**	**90.9**	**91.0**	**96.5**	**92.2**	**90.3**
Aquaculture:						
Inland	12.6	25.6	44.7	**51.6**	**53.3**	**54.4**
Marine	9.2	17.9	26.8	**30.9**	**31.9**	**33.1**
Total aquaculture	**21.8**	**43.4**	**71.5**	**82.5**	**85.2**	**87.5**
Total world fisheries and aquaculture	**110.7**	**134.3**	**162.6**	**178.9**	**177.4**	**177.8**
Utilization[2]						
Human consumption	81.6	109.3	143.2	156.8	158.1	157.4
Non-food uses	29.1	25.0	19.3	22.2	19.3	20.4
Population (billions)[3]	5.7	6.5	7.3	7.6	7.7	7.8
Per capita apparent consumption (kg)	14.3	16.8	19.5	20.5	20.5	20.2
Trade						
Exports – in quantity	39.6	51.6	61.4	66.8	66.6	59.8
Share of exports in total production	*35.8%*	*38.5%*	*37.7%*	*37.3%*	*37.5%*	*33.7%*
Exports – in value (USD 1 billion)	46.6	76.4	141.8	165.3	161.8	150.5

Main fishing countries

In 2018 **China** accounted for around 15 percent of total global captures, more than the total captures of the second- and third-ranked countries combined.

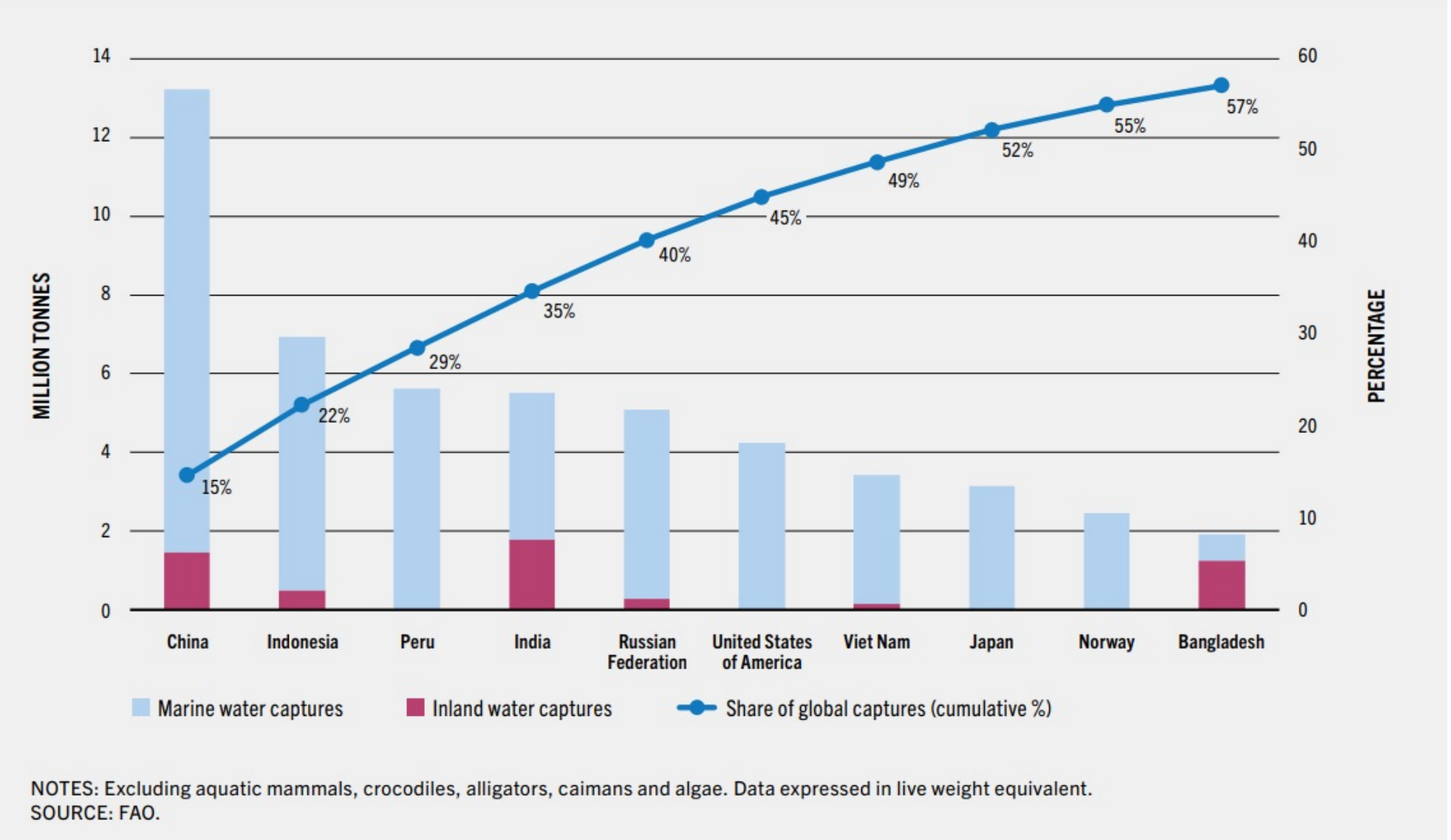
The top seven capture producers (**China**, **Indonesia**, **Peru**, **India**, the **Russian Federation**, the **United States of America** and **Viet Nam**) accounted for almost 50 percent of total global capture production; while the top 20 producers accounted for almost 74 percent of total global capture production.

Main fishing countries: regional contribution to world capture fisheries and aquaculture production



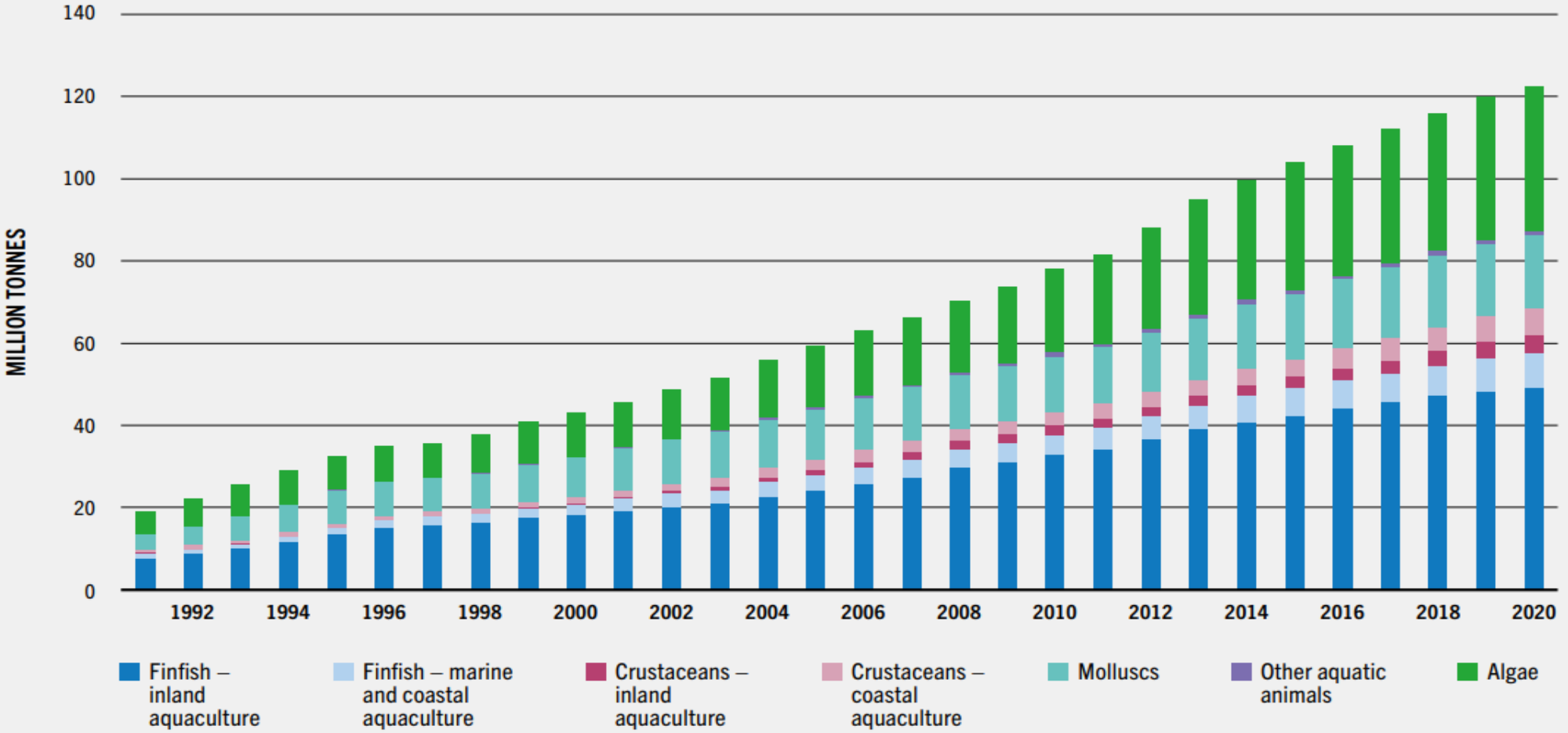
NOTES: Excluding aquatic mammals, crocodiles, alligators and caimans and algae. Data expressed in live weight equivalent.
SOURCE: FAO.

Main aquaculture producer in 2020



NOTES: Excluding aquatic mammals, crocodiles, alligators, caimans and algae. Data expressed in live weight equivalent.
SOURCE: FAO.

World aquaculture products 1991-2020



NOTES: Data exclude shells and pearls. Data expressed in live weight equivalent.
SOURCE: FAO.

Fishery fleet and employment : world employment for fishers and fish farmers by region for selected years, 1995–2020

	1995	2000	2005	2010	2015	2020
	(thousands)					
Fisheries and aquaculture						
Africa	2 812	3 589	4 159	5 032	5 562	5 641
Americas	2 072	1 905	1 978	2 321	2 501	2 621
Asia	31 632	41 265	45 693	50 401	52 079	49 425
Europe	476	514	463	426	375	388
Oceania	466	475	478	482	481	474
Total	**37 456**	**47 748**	**52 770**	**58 662**	**60 999**	**58 549**
Fisheries						
Africa	2 743	3 395	3 906	4 671	5 057	5 007
Americas	1 793	1 605	1 679	1 981	2 156	2 015
Asia	24 205	28 335	30 476	31 994	31 833	30 102
Europe	378	418	380	333	286	294
Oceania	460	465	469	473	471	464
Total	**29 579**	**34 219**	**36 909**	**39 452**	**39 803**	**37 882**
Aquaculture						
Africa	69	194	252	361	505	634
Americas	279	301	299	340	345	606
Asia	7 426	12 930	15 217	18 407	20 246	19 323
Europe	98	96	83	93	89	94
Oceania	6	9	9	9	10	10
Total	**7 878**	**13 529**	**15 861**	**19 211**	**21 195**	**20 667**

SOURCE: FAO.

FOCUS: VESSELS IN EUROPE

STATO	NUMERO DI BATTELLI PER CLASSE DI LUNGHEZZA					TOTALE	% <10mt.
	VL0010	VL1012	VL1224	VL2440	VL≥40		
BEL		1	35	36		72	0,00%
BGR	1.739	65	83	11		1.898	91,62%
CYP	720	47	31	7		805	89,44%
DEU	1.029	85	232	35	17	1.398	73,61%
DNK	1.774	107	288	37	35	2.241	79,16%
ESP	6.155	657	1.772	614	104	9.302	66,17%
EST	1.468	74	20	20	5	1.587	92,50%
FIN	2.925	154	45	18	3	3.145	93,00%
FRA	4.767	929	705	146	43	6.590	72,34%
GBR	4.872	409	700	181	47	6.209	78,47%
GRC	13.747	491	691	177	1	15.107	91,00%
HRV	6.556	367	478	121		7.522	87,16%
IRL	1.553	241	179	84	23	2.080	74,66%
ITA	**7.703**	**968**	**3.267**	**328**	**21**	**12.287**	**62,69%**
LVA	601	9	13	43	13	679	88,51%
MLT	804	52	55	9		920	87,39%
NLD	325	40	241	143	98	847	38,37%
POL	539	134	118	46	4	841	64,09%
PRT	6.892	311	564	170	22	7.959	86,59%
ROM	97	23	15	3		138	70,29%
SVN	156	12	17			185	84,32%
SWE	919	201	125	25	8	1.278	71,91%
Totale	**65.341**	**5.377**	**9.674**	**2.254**	**444**	**83.090**	**78,64%**

Fonte: Common Fleet Register, http://ec.europa.eu/fisheries/fleet/; giugno 2017

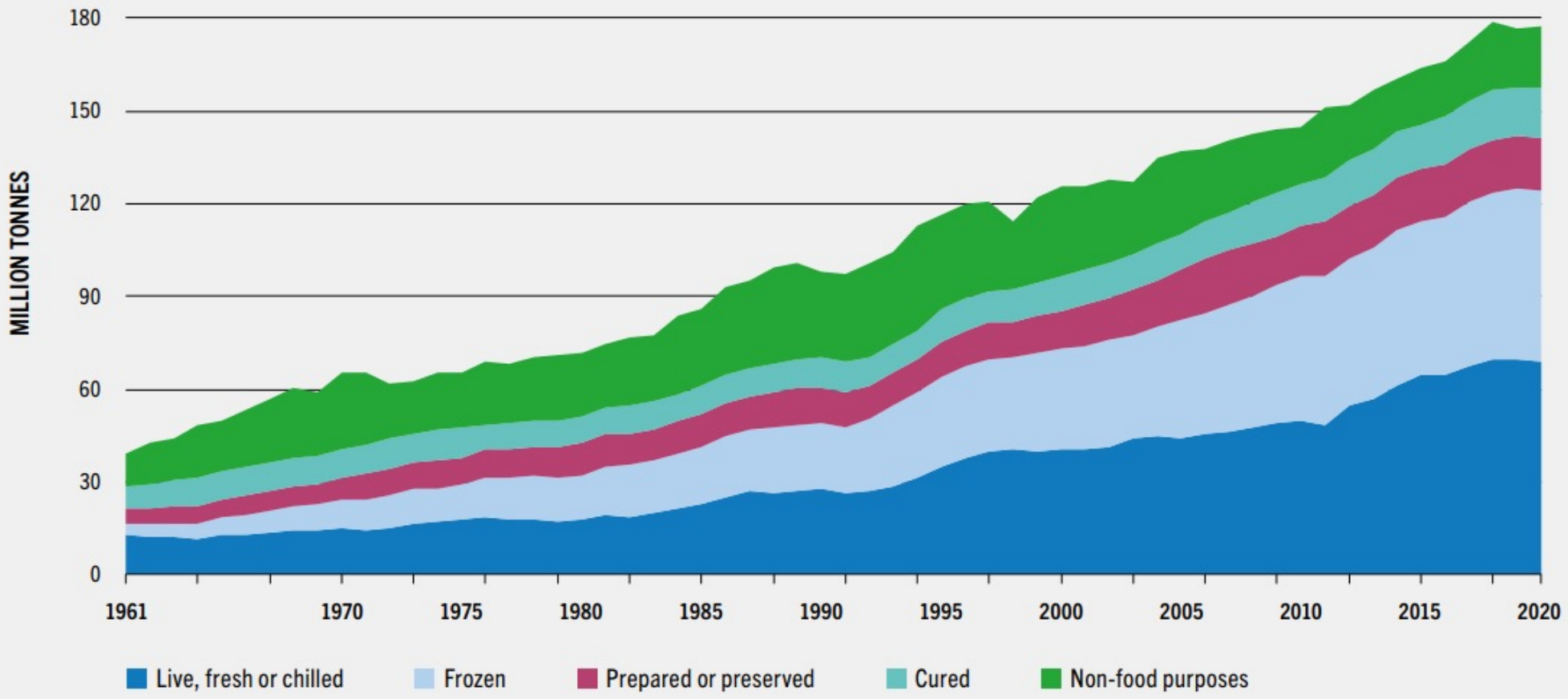
Il simbolo VLyyzz indica i vascelli (Vessels=VL) con classe di lunghezza tra yy metri e zz metri (estremo di destra escluso).

- Italy has the second largest fleet in Europe
- In particular, it ranks first in Europe for medium-sized boats (12-24 metres)

FISH UTILIZATION

The proportion of fisheries and aquaculture production of aquatic animals used for direct human consumption has increased significantly from 67 % in the 1960s to about 89 % in 2020 (that is over 157 million tonnes of the 178 million tonnes of total fisheries and aquaculture production, excluding algae15). The remaining 11 % (over 20 million tonnes) was used for non-food purposes; of this, 81 % (over 16 million tonnes) was reduced to fishmeal and fish oil, while the rest (about 4 million tonnes) was largely utilized as ornamental fish, for culture (e.g. fry, fingerlings or small adults for ongrowing), as bait, in pharmaceutical uses, for pet food, or as raw material for direct feeding in aquaculture and for the raising of livestock and fur animals.

FISH UTILIZATION: UTILIZATION OF WORLD FISHERIES AND AQUACULTURE PRODUCTION, 1961–2020



NOTES: Excluding aquatic mammals, crocodiles, alligators and caimans and algae. Data expressed in live weight equivalent.
SOURCE: FAO.

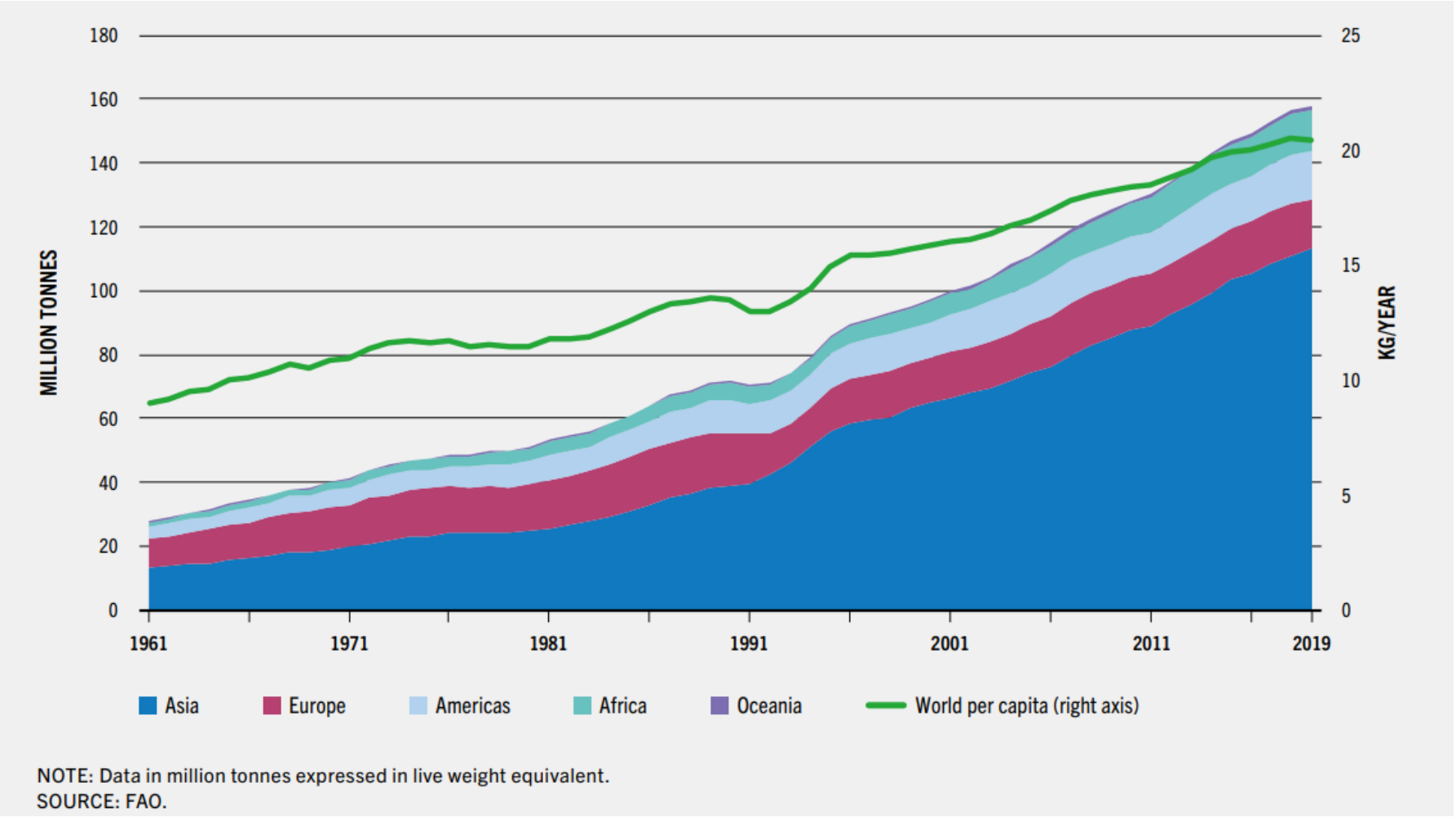
CONSUMPTION

In 2019, global aquatic food consumption was estimated at 158 million tonnes, up from 28 million tonnes in 1961.

Of the 158 million tonnes of aquatic foods available for human consumption in 2019, Asia accounted for 72 percent of the total while its population represented 60 percent of the world population.

Global annual per capita consumption of aquatic foods grew from an average of 9.9 kg in the 1960s to 11.4 kg in the 1970s, 12.5 kg in the 1980s, 14.4 kg in the 1990s, 17.0 kg in the 2000s and 19.6 kg in the 2010s, with a record high of 20.5 kg in 2019.

CONSUMPTION: AQUATIC FOOD CONSUMPTION BY CONTINENT, 1961–2019



NOTE: Data in million tonnes expressed in live weight equivalent.
SOURCE: FAO.

TRADE

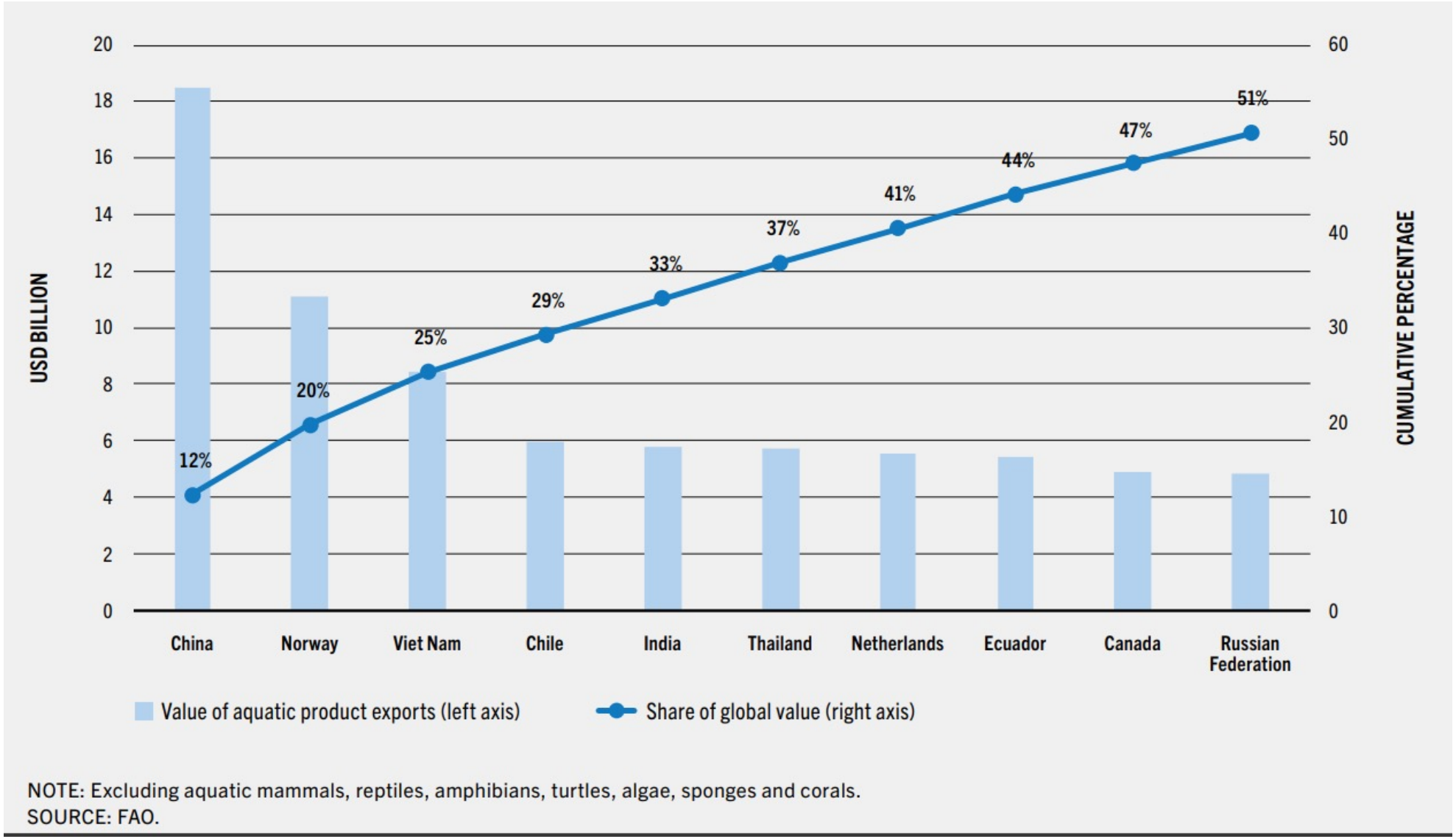
In 2020, 225 states and territories reported some trading activity of fisheries and aquaculture products. World exports of aquatic products, excluding algae,25 totalled 59.8 million tonnes live weight, worth USD 151 billion.

From 1976 to 2020, the value of trade in aquatic products increased at an average annual rate of 6.9 percent28 in nominal terms and 3.9 percent in real terms.

IMPORT and EXPORT

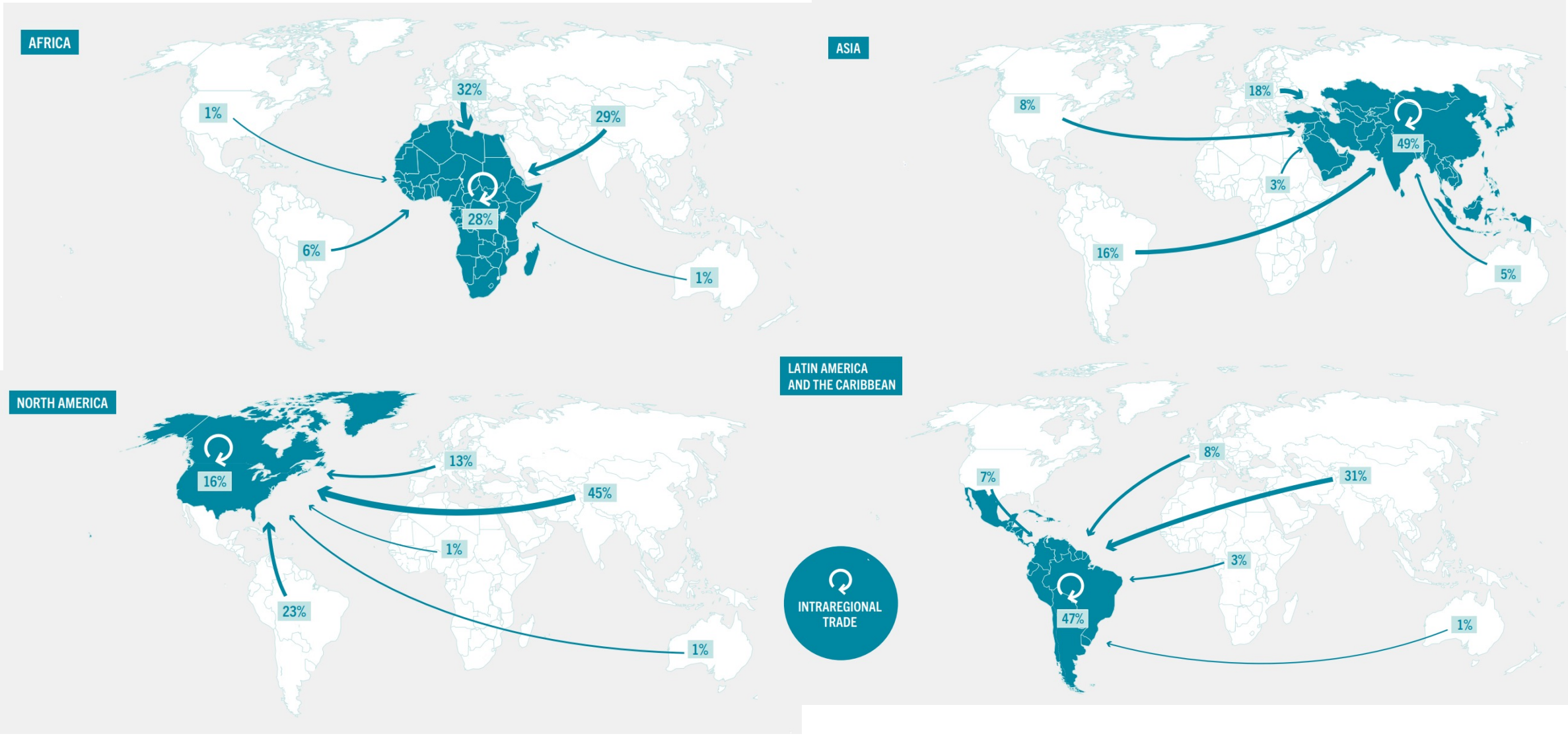
The European Union was the largest single market, accounting for 34 % (and 16 %, excluding intra-European Union trade) of the global value of aquatic imports in 2020. In terms of individual countries, the largest importing country in 2020 was the United States of America, accounting for 15 % of world import value of aquatic products, followed by China (10 %), Japan (9 %), Spain (5 %) and France (4 %). However, it is worth mentioning that, in terms of volume (live weight), China is the top importing country of aquatic products, far ahead of the United States of America. China imports large quantities of species not locally produced, not only for domestic consumption but also as raw material to be processed in China and then re-exported.

IMPORT and EXPORT: TOP TEN EXPORTING COUNTRIES OF AQUATIC PRODUCTS BY VALUE, 2020

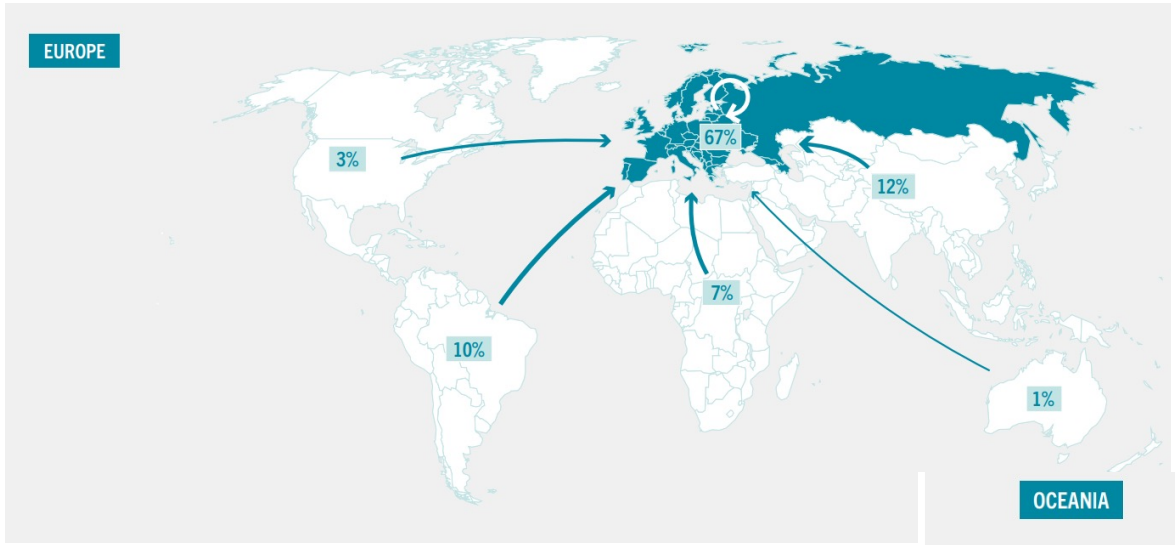


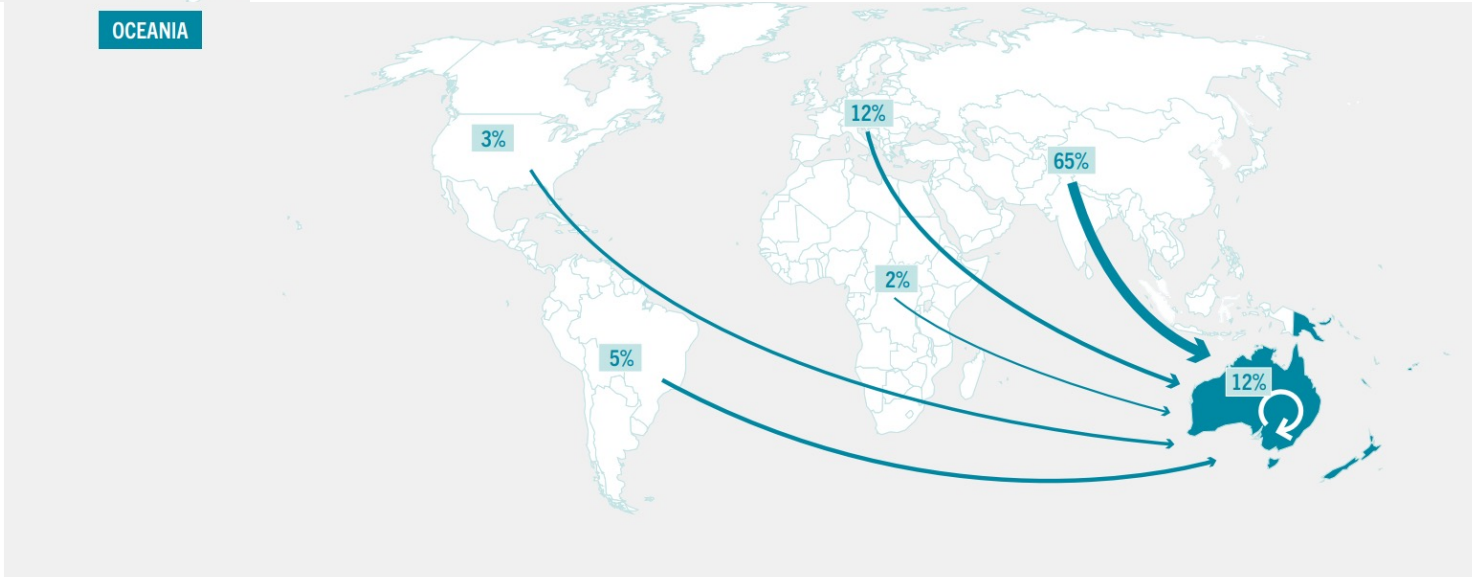
NOTE: Excluding aquatic mammals, reptiles, amphibians, turtles, algae, sponges and corals.
SOURCE: FAO.

TRADE FLOWS OF AQUATIC PRODUCTS BY REGION (SHARE OF TOTAL IMPORTS, IN VALUE), 2020



TRADE FLOWS OF AQUATIC PRODUCTS BY REGION (SHARE OF TOTAL IMPORTS, IN VALUE), 2020





WORLD AQUACULTURE PRODUCTION BY REGION AND SELECTED MAJOR PRODUCERS

Regions and selected countries		2010			2020		
		Animals	Algae	All species	Animals	Algae	All species
		(thousand tonnes, live weight)					
Africa	***(percentage in world)***	**1 286.1**	**138.3**	**1 424.4**	**2 250.2**	**104.1**	**2 354.3**
		(2.23)	***(0.69)***	***(1.83)***	***(2.57)***	***(0.30)***	***(1.92)***
Egypt	*(percentage in Africa)*	919.6		919.6	1 591.9		1 591.9
		(71.50)		*(64.56)*	*(70.74)*		*(67.62)*
Northern Africa, excluding Egypt	*(percentage in Africa)*	10.1		10.1	40.1	0.3	40.4
		(0.78)		*(0.71)*	*(1.78)*	*(0.27)*	*(1.72)*
Nigeria	*(percentage in Africa)*	200.5		200.5	261.7		261.7
		(15.59)		*(14.08)*	*(11.63)*		*(11.12)*
Sub-Saharan Africa, excluding Nigeria	*(percentage in Africa)*	155.9	138.3	294.2	356.5	103.8	460.3
		(12.12)	*(100.00)*	*(20.66)*	*(15.84)*	*(99.73)*	*(19.55)*
Americas	***(percentage in world)***	**2 514.6**	**12.9**	**2 527.6**	**4 375.2**	**25.3**	**4 400.5**
		(4.35)	***(0.06)***	***(3.24)***	***(5.00)***	***(0.07)***	***(3.59)***
Chile	*(percentage in Americas)*	701.1	12.2	713.2	1 485.9	19.6	1 505.5
		(27.88)	*(94.17)*	*(28.22)*	*(33.96)*	*(77.39)*	*(34.21)*
Rest of Latin America and the Caribbean	*(percentage in Americas)*	1 154.5	0.8	1 155.3	2 270.1	5.4	2 275.5
		(45.91)	*(5.83)*	*(45.71)*	*(51.89)*	*(21.43)*	*(51.71)*
North America	*(percentage in Americas)*	659.0		659.0	619.2	0.3	619.5
		(26.21)		*(26.07)*	*(14.15)*	*(1.19)*	*(14.08)*
Asia (excluding Cyprus)	***(percentage in world)***	**51 228.8**	**20 008.2**	**71 237.0**	**77 377.0**	**34 916.3**	**112 293.3**
		(88.70)	***(99.18)***	***(91.41)***	***(88.43)***	***(99.54)***	***(91.61)***
China (mainland)	*(percentage in Asia)*	35 513.4	12 273.3	47 786.7	49 620.1	20 862.9	70 483.1
		(69.32)	*(61.34)*	*(67.08)*	*(64.13)*	*(59.75)*	*(62.77)*
India	*(percentage in Asia)*	3 785.8	4.2	3 790.0	8 636.0	5.3	8 641.3
		(7.39)	*(0.02)*	*(5.32)*	*(11.16)*	*(0.02)*	*(7.70)*
Indonesia	*(percentage in Asia)*	2 304.8	3 915.0	6 219.8	5 226.6	9 618.4	14 845.0
		(4.50)	*(19.57)*	*(8.73)*	*(6.75)*	*(27.55)*	*(13.22)*
Viet Nam	*(percentage in Asia)*	2 683.1	18.2	2 701.3	4 600.8	13.9	4 614.7
		(5.24)	*(0.09)*	*(3.79)*	*(5.95)*	*(0.04)*	*(4.11)*
Bangladesh	*(percentage in Asia)*	1 308.5		1 308.5	2 583.9		2 583.9
		(2.55)		*(1.84)*	*(3.34)*		*(2.30)*
Rest of Asia	*(percentage in Asia)*	5 633.1	3 797.4	9 430.5	6 709.6	4 415.8	11 125.4
		(11.00)	*(18.98)*	*(13.24)*	*(8.67)*	*(12.65)*	*(9.91)*
Europe (including Cyprus)	***(percentage in world)***	**2 537.3**	**2.1**	**2 539.4**	**3 270.0**	**21.8**	**3 291.7**
		(4.39)	***(0.01)***	***(3.26)***	***(3.74)***	***(0.06)***	***(2.69)***
Norway	*(percentage in Europe)*	1 019.8		1 019.8	1 490.1	0.3	1 490.4
		(40.19)		*(40.16)*	*(45.57)*	*(1.54)*	*(45.28)*
European Union (27)	*(percentage in Europe)*	1 072.1	1.4	1 073.5	1 093.8	0.5	1 094.3
		(42.25)	*(70.17)*	*(42.27)*	*(33.45)*	*(2.38)*	*(33.24)*
Rest of Europe	*(percentage in Europe)*	445.5	0.6	446.1	686.1	20.9	707.0
		(17.56)	*(29.83)*	*(17.57)*	*(20.98)*	*(96.08)*	*(21.48)*
Oceania	***(percentage in world)***	**189.7**	**12.8**	**202.5**	**228.5**	**10.1**	**238.6**
		(0.33)	***(0.06)***	***(0.26)***	***(0.26)***	***(0.03)***	***(0.19)***
WORLD		**57 756.4**	**20 174.3**	**77 930.7**	**87 500.9**	**35 077.6**	**122 578.5**

SOURCE: FAO.

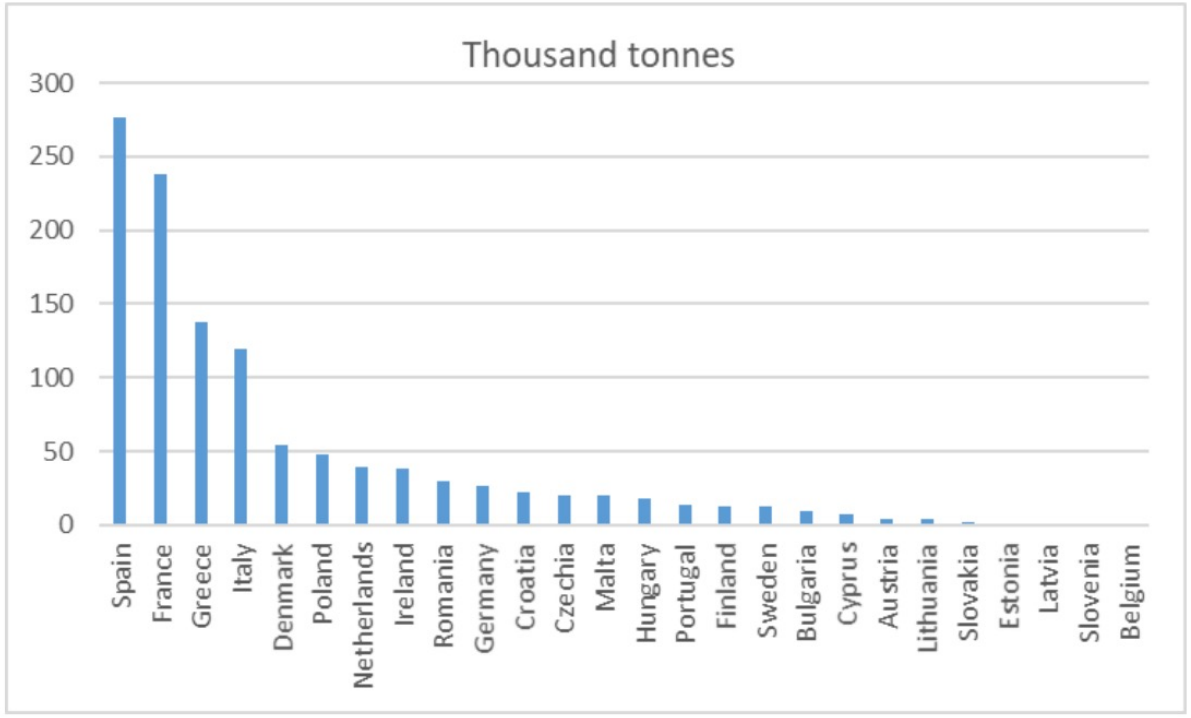
EUROPE

The data shown are further elaborated from Economic Report of the EU Aquaculture sector 2023 (STECF-22-17)

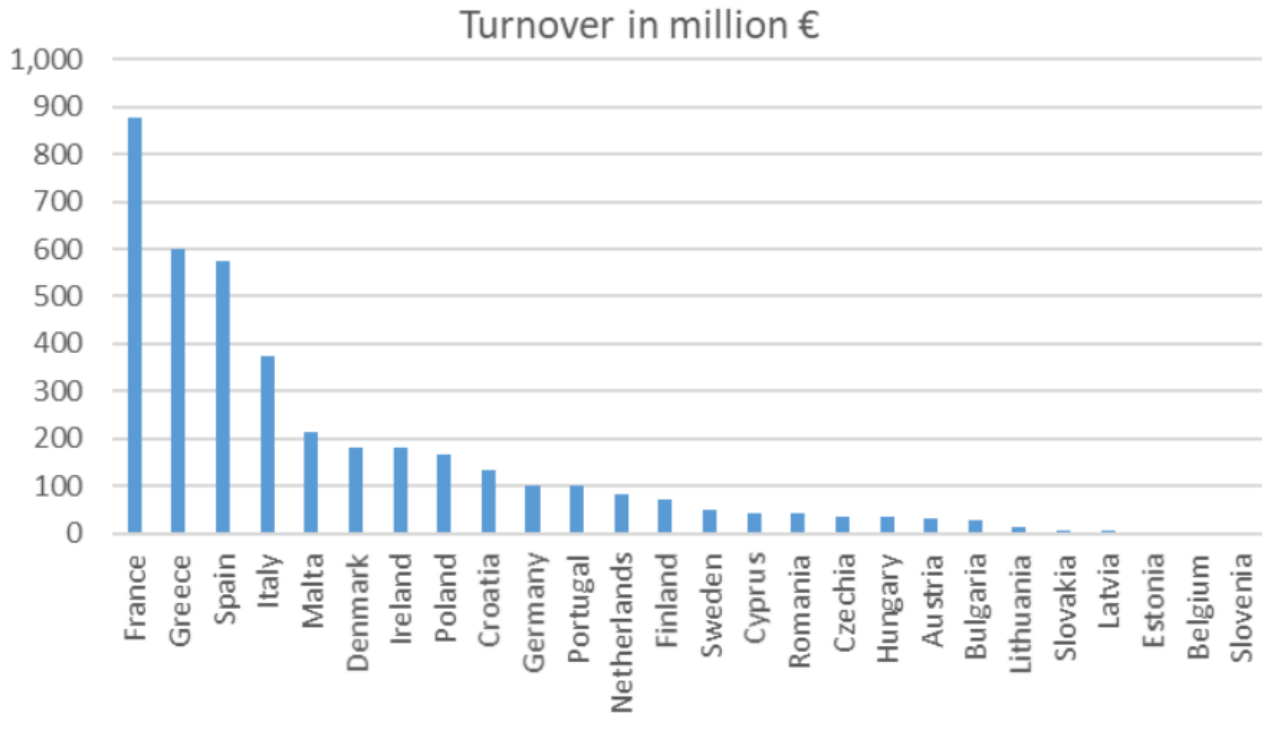
FOCUS: THE AQUACULTURE SECTOR

Aquaculture production in the 27 EU Member States was almost 1.2 million tonnes and accounted for €3.9 billion in 2020 (DCF and EWG estimates). The EU represents 1.0% of the world aquaculture production in volume and 1.5% in value5. EU aquaculture production is mainly concentrated in four countries: Spain (24%), France (21%), Greece (11%) and Italy (10%). These four countries account for 67% of the total EU aquaculture production volume (Figure 2.2). In terms of value, France is the largest contributor in EU with 22% of the total turnover, followed by Spain (15%), Greece (15%) and Italy (9%). These four countries combine 61% of the total EU aquaculture turnover

Aquaculture production in EU MS in terms of weight: 2020.



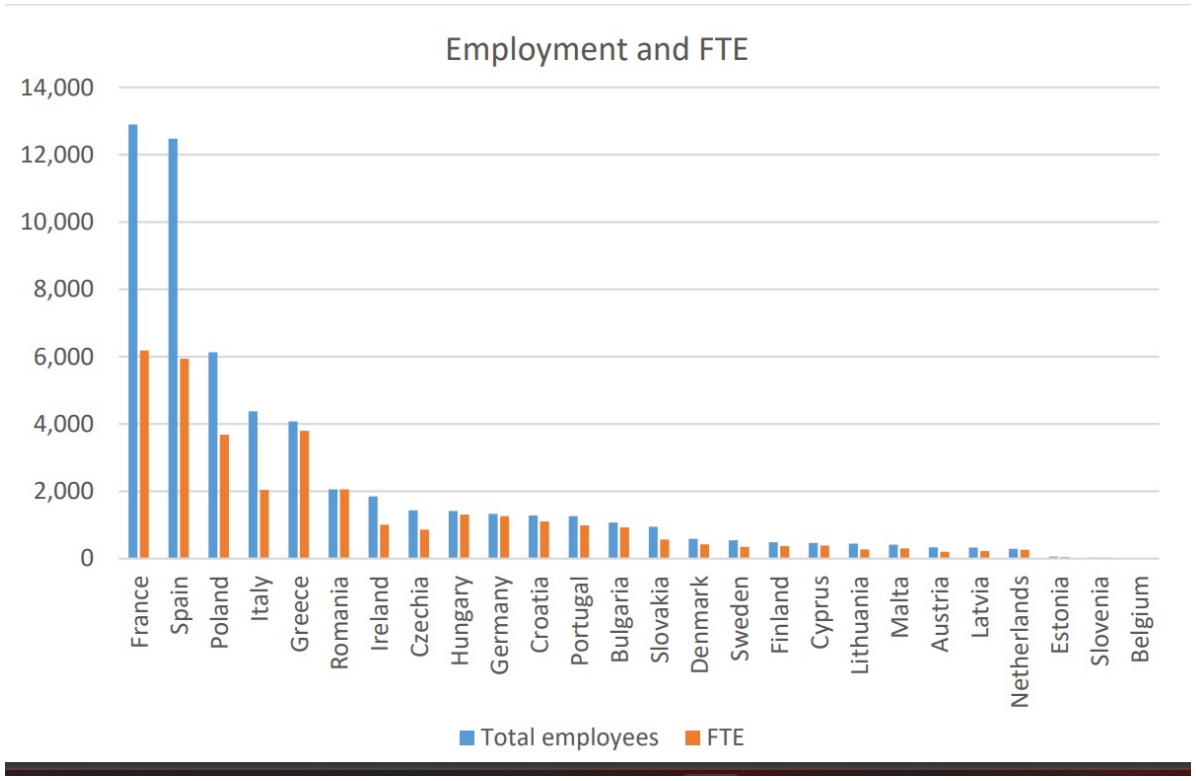
Aquaculture production in EU MS in terms of value: 2020



EMPLOYEMENT IN AQUACULTURE SECTOR

Approximately 32 528 persons in 2020, which was 5% less than in 2019 (34 106 employed). Taking into account the estimates for the Member States not reporting data, the EU 27 aquaculture sector directly employed around 56 592 persons 22 in 2020 (figure 2.8). The estimated EU 27 employment in 2019 was 60 537 persons, corresponding to a decrease of 7%. The shellfish sector employs half of the employees in the sector, freshwater finfish production employs 35% and marine finfish production 14% of the persons employed in the EU aquaculture. The nowcast estimate for 2021 indicates a decrease approximately by 1% to 56 085 employees.

Numbers of Employees and FTEs in the Member States Aquaculture sector: 2020



Economic and employment indicators for the EU aquaculture sector: 2020

	Total weight of sales (tonnes)		Turnover (million euro)		Number of enterprises		Employment (number)		FTE (number)	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Austria	4 250	4 527	29.6	30.3	175	183	331	333	198	200
Belgium	86	209	0.5	1.4	3	8	6	15	4	9
Bulgaria	12 979	9 796	35.7	27.0	745	780	1 118	1 072	998	930
Croatia	20 443	21 740	120.8	133.0	162	155	1 263	1 283	1 108	1 105
Cyprus	8 173	7 428	50.8	43.1	16	16	511	466	420	388
Czechia	21 151	20 083	39.8	36.4	235	221	1 433	1 433	860	860
Denmark	64 516	54 099	210.7	180.8	94	90	581	585	426	425
Estonia	857	966	3.2	3.8	10	10	57	62	47	51
Finland	12 649	13 108	76.5	73.3	165	160	473	485	320	370
France	242 187	238 215	942.9	878.6	2 544	2 551	13 877	12 897	6 205	6 185
Germany	37 141	26 958	108.7	100.3	2 642	2 403	1 815	1 328	1 415	1 263
Greece	139 240	137 505	564.9	600.8	691	691	4 039	4 074	3 761	3 795
Hungary	17 283	18 373	36.1	35.4	325	325	1 393	1 415	1 320	1 309
Ireland	38 313	37 735	175.3	179.8	292	316	1 980	1 848	1 086	1 007
Italy	125 743	119 459	406.8	372.4	582	582	4 378	4 378	2 042	2 042
Latvia	689	832	4.4	4.3	79	78	323	330	175	223
Lithuania	4 215	4 477	13.5	13.8	80	84	430	446	258	268
Malta	13 825	19 829	161.9	215.4	9	9	341	410	293	300
Netherlands	41 200	38 895	80.4	83.0	101	100	304	291	268	258
Poland	44 719	47 700	154.5	164.7	1 242	1 242	6 172	6 131	3 703	3 678
Portugal	12 881	13 648	118.5	100.0	727	721	1 240	1 262	1 237	987
Romania	17 781	29 947	55.8	42.4	475	471	2 295	2 055	2 295	2 055
Slovakia	2 688	2 296	7.2	5.6	43	34	579	943	347	566
Slovenia	804	551	1.4	1.2	6	6	29	30	25	26
Spain	311 025	276 562	637.1	573.2	2 895	2 895	15 134	12 478	6 221	5 934
Sweden	12 133	12 824	45.2	48.6	85	98	435	543	325	348
TOTAL	**1 206 972**	**1 157 764**	**4 082.1**	**3 948.6**	**14 424**	**14 229**	**60 537**	**56 592**	**35 358**	**34 581**

Source: EU MS data submission (DCF, EU-MAP), Eurostat, FAO and EWG estimations, 2022.

TRADE: IMPORT and EXPORT

The EU trade of fisheries and aquaculture products, which comprises both imports and exports with third countries, totalled EUR 33,37 billion and 8,55 million tonnes in 2019, making **the EU the second largest trader of these products in the world after China**. Imports, which accounted for around 80% of the total, amounted to EUR 27,21 billion and 6,34 million tonnes.

IMPORTS OF FISHERIES AND AQUACULTURE PRODUCTS OF MAIN WORLD TRADERS (VOLUME IN MILLION TONNES AND NOMINAL VALUE IN EUR BILLION) AND % OF IMPORTS ORIGINATING FROM THE EU ON TOTAL IN 2019

Source: EUMOFA elaboration of data from EUROSTAT (for EU trade flows, online data code DS-016890), StatBank Norway and Global Trade Atlas - IHS Markit (for other non-EU countries)

	2015		2016		2017		2018		2019		2019/2018	
Country	**Volume**	**Value**	**Volume**	**Value**	**Volume**	**Value**	**Volume**	**Value**	**Volume**	**Value**	**Volume**	**Value**
EU-28	**5,94**	**22,80**	**6,10**	**24,85**	**6,07**	**25,98**	**6,32**	**26,55**	**6,34**	**27,21**	**+0,3%**	**+2%**
US	2,64	17,03	2,72	17,77	2,80	19,22	2,88	19,26	2,81 (3% from the EU)	19,84 (3% from the EU)	**-2%**	**+.3%**
China	4,04	7,84	3,98	8,15	4,84	9,70	5,16	12,45	6,20 (2% from the EU)	16,36 (2% from the EU)	**+20%**	**+.31%**
Japan	2,47	12,28	2,36	12,73	2,46	13,52	2,36	13,12	2,44 2% from the EU)	13,60 (4% from the EU)	**+3%**	**+.4%**
Thailand	1,60	2,33	1,85	2,85	1,92	3,24	2,13	3,39	1,98 (1% from the EU)	3,35 (1% from the EU)	**-7%**	**-1%**
Norway	0,63	1,12	0,63	1,15	0,66	1,08	0,61	1,08	0,61 (43% from the EU)	1,19 (39% from the EU)	=	**+10%**

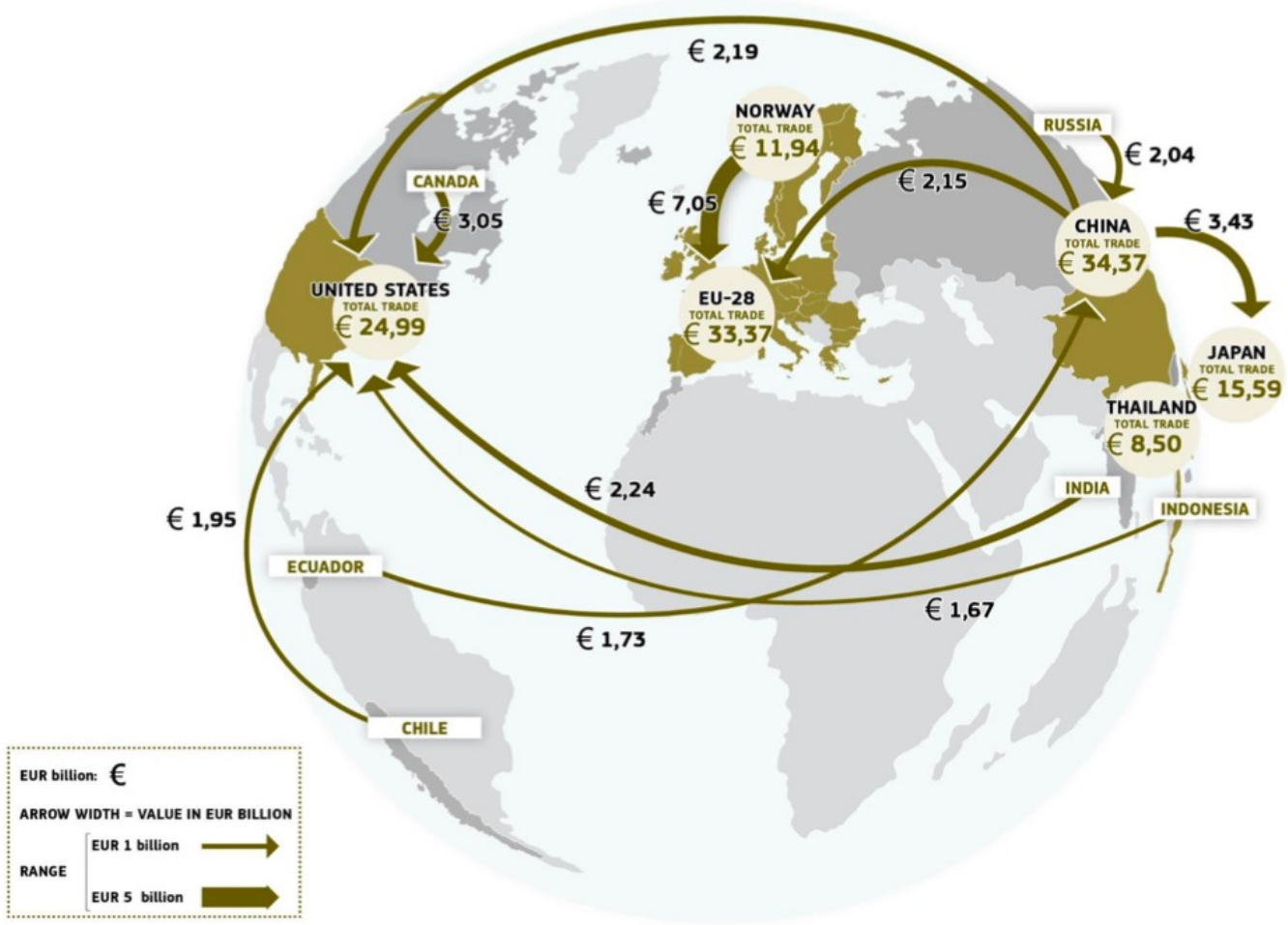
EXPORTS OF FISHERIES AND AQUACULTURE PRODUCTS OF MAIN WORLD TRADERS (VOLUME IN MILLION TONNES AND NOMINAL VALUE IN EUR BILLION) AND % OF EXPORTS DESTINED FOR THE EU ON TOTAL IN 2019

Source: EUMOFA elaboration of data from EUROSTAT (for EU trade flows, online data code DS-016890), StatBank Norway and Global Trade Atlas - IHS Markit (for other non-EU countries)

	2015		2016		2017		2018		2019		2019/2018	
Country	**Volume**	**Value**	**Volume**	**Value**	**Volume**	**Value**	**Volume**	**Value**	**Volume**	**Value**	**Volume**	**Value**
China	3,98	17,86	4,16	18,31	4,26	18,21	4,23	18,48	4,18 (12% to the EU)	18,02 (11% to the EU)	**-1%**	**-2%**
Norway	2,57	8,21	2,45	9,77	2,61	10,06	2,76	10,29	2,64 (60% to the EU)	10,74 (60% to the EU)	**-4%**	**+4%**
EU-28	**2,06**	**5,01**	**1,99**	**5,24**	**2,13**	**5,67**	**2,20**	**5,73**	**2,21**	**6,17**	**+0,5%**	**+8%**
US	1,65	5,45	1,59	5,35	1,70	5,46	1,57	5,20	1,55 (21% to the EU)	5,15 (19% to the EU)	**-1%**	**-1%**
Thailand	1,48	5,07	1,44	5,25	1,28	5,26	1,31	5,08	1,30 (4% to the EU)	5,15 (5% to the EU)	**-1%**	**+1%**
Japan	0,53	1,73	0,51	1,85	0,57	1,82	0,71	1,98	0,60 (1% to the EU)	1,99 (2% to the EU)	**-15%**	**+1%**

THE FLOW CHART OF THE TRADE

MAIN TRADE FLOWS OF FISHERY AND AQUACULTURE PRODUCTS IN THE WORLD (2019, NOMINAL VALUES)
Source: EUMOFA, based on elaboration of data from EUROSTAT (for EU trade flows, online data code DS-016890), StatBank Norway, and Global Trade Atlas - IHS Markit (for trade flows of other non-EU countries)



The graph shows the values traded by the major players.

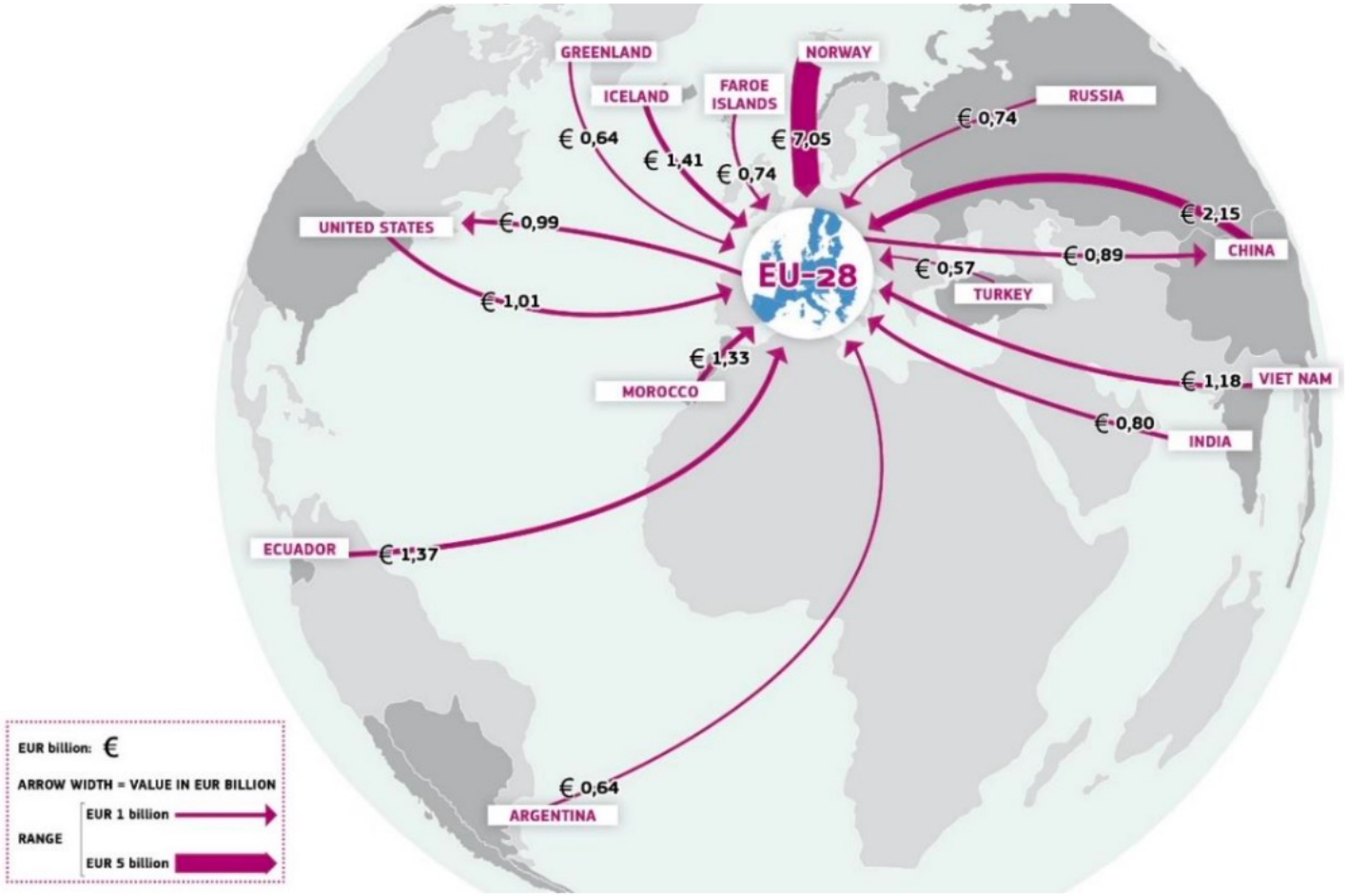
While Europe sources mainly from China and Norway, the US prefers India, Indonesia and China.

China has trade relations with Russia and Ecuador inbound.

MORE IN-DEPTH

MOST RELEVANT EXTRA-EU TRADE FLOWS IN 2019, IN NOMINAL VALUE (EUR BILLION)

Source: EUMOFA elaboration of Eurostat-COMEXT data (online data code: DS-016890).



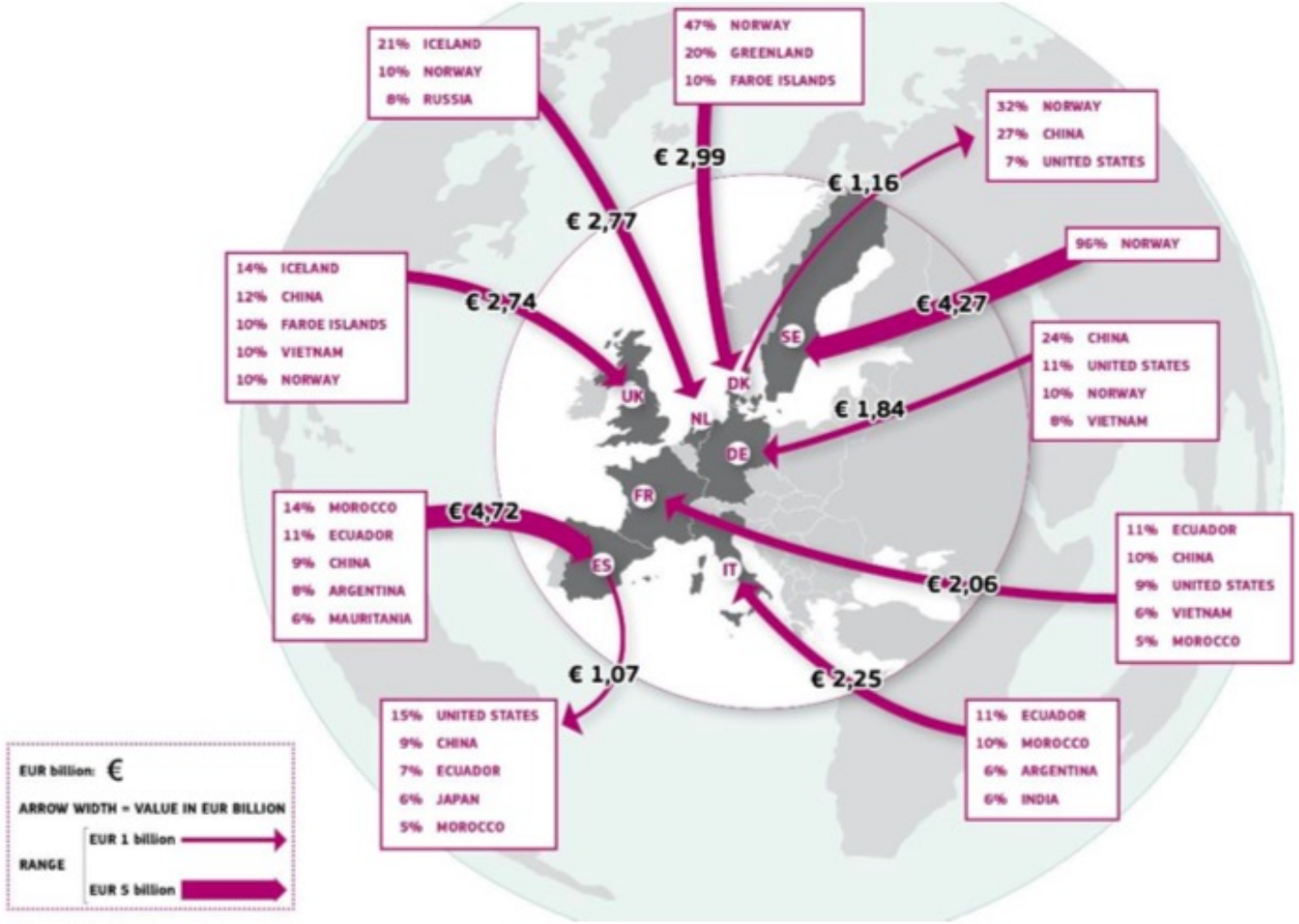
1. Norway and China are the most important partner for EU.

2. the relationship with the USA, which has an almost neutral balance of trade between imports and exports

MORE IN-DEPTH

MOST RELEVANT EXTRA-EU TRADE FLOWS BY MEMBER STATE IN 2019, IN NOMINAL VALUE (EUR BILLION)

Source: EUMOFA elaboration of Eurostat-COMEXT data (online data code: DS-016890).



1. This graphic shows the reports of the individual countries.

2. As far as **Italy** is concerned, it can be seen that the most important trade relations are **Ecuador, Morocco, Argentina and India**

CONSUMPTION: AN OVERVIEW

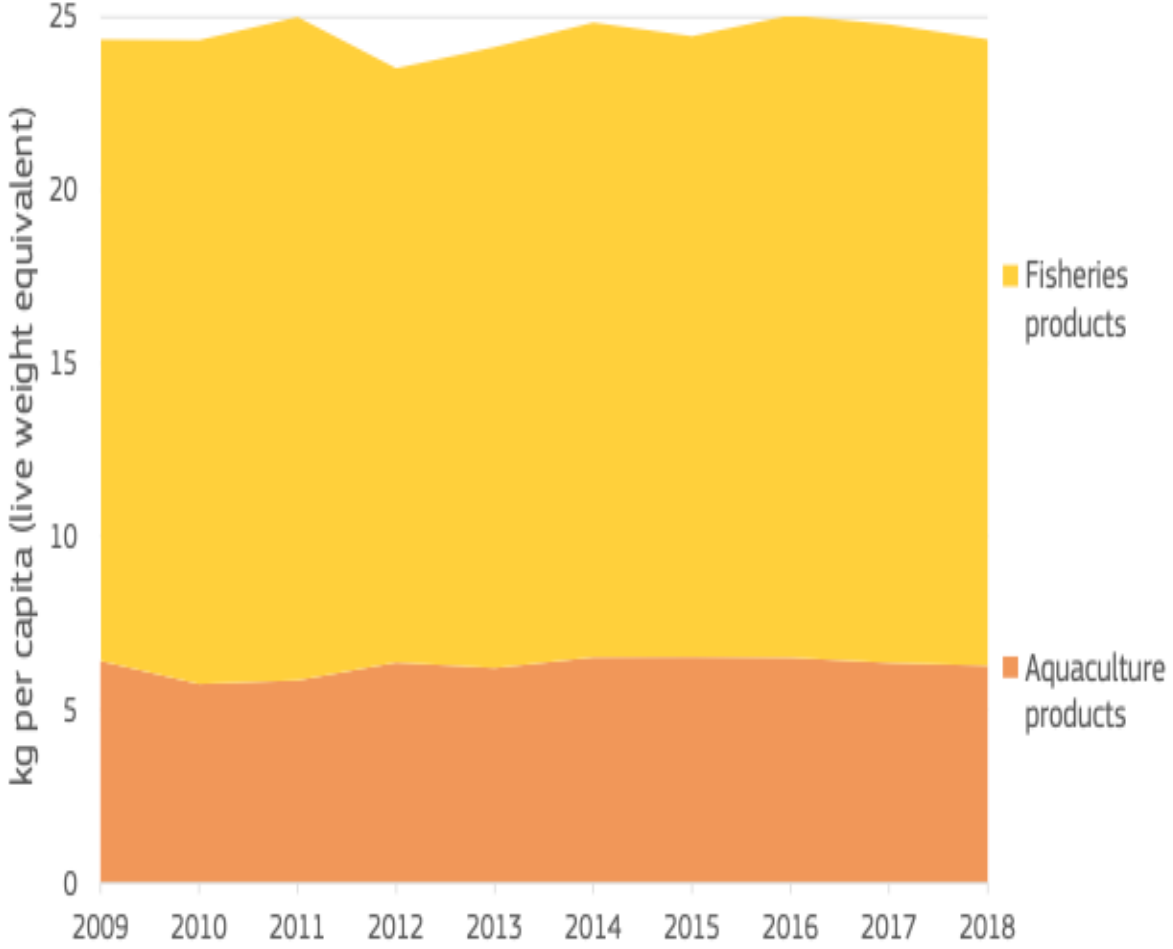
In 2018, consumption of fishery and aquaculture products in the EU amounted to 12,48 million tonnes.

From 2017 to 2018, per capita consumption decreased from 24,79 kg to 24,36 kg,

Wild-caught products accounted for three-quarters of total apparent consumption.

PER CAPITA APPARENT CONSUMPTION OF FISHERY AND AQUACULTURE PRODUCTS

Source: EUMOFA, based on EUROSTAT (online data codes: fish_aq2a, fish_ca_main and DS-016890), FAO, national administrations and FEAP data. Details on the sources and on the methodological approach used for assessing the production method of imports and exports can be found in the Methodological background.

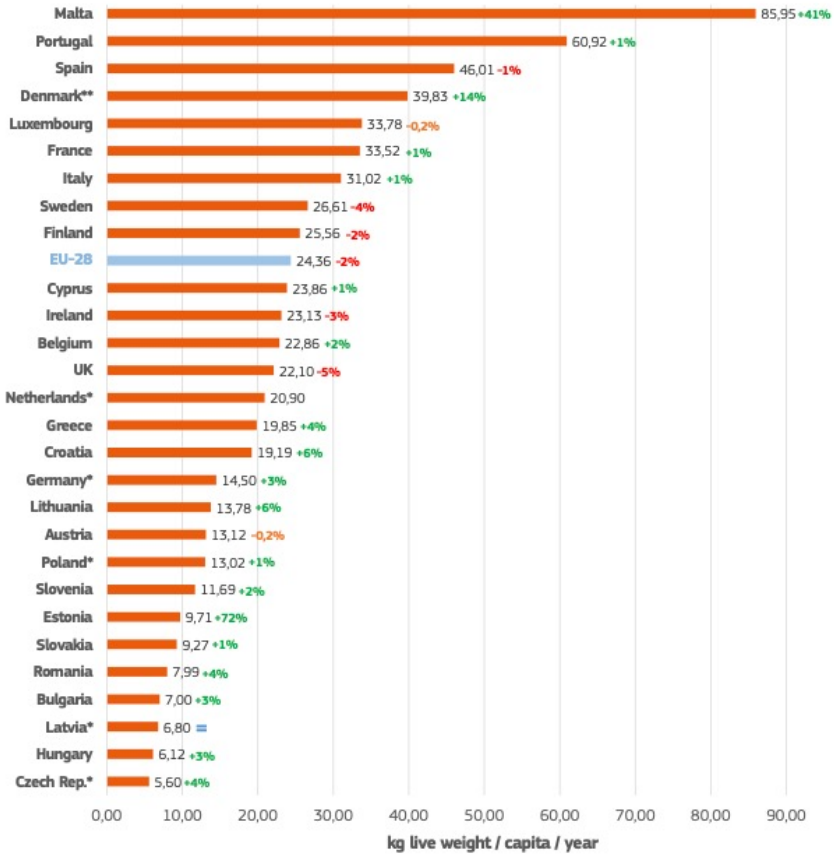


SOME DATA ON CONSUMPTION

PER CAPITA APPARENT CONSUMPTION OF FISHERY AND AQUACULTURE PRODUCTS BY MEMBER STATE IN 2018 AND % VARIATION 2018/2017

Source: EUMOFA estimates.

*Data are provided by the following National sources: BMEL-Statistik (Germany), CZSO Czech Statistical Office (Czech Republic), Centrālā statistikas pārvalde (Latvia), Dutch Fish Marketing Board (Netherlands) and Statistics Poland (Poland). For the Netherlands, the National source has not developed estimates for 2017; however, based on dead weight figures, there was a decrease by 1-3%.
**Estimates for Denmark were not confirmed by the National contact point.



APPARENT CONSUMPTION OF MOST CONSUMED PRODUCTS (2018)

Source: EUMOFA, based on EUROSTAT (online data codes: fish_aq2a, fish_ca_main and DS-016890) and FAO data. Details on the sources and on the methodological approach used for assessing the production method of imports and exports can be found in the Methodological background.

Products	Per capita consumption (kg, live weight equivalent)	Consumption evolution 2018/2017	% wild	% farmed
Tuna	3,05	-1%	98,63%	1,37%
Salmon	2,24	-0,2%	0,16%	99,84%
Cod	2,14	-17%	99,97%	0,03%
Alaska pollock	1,68	+9%	100%	0%
Shrimps	1,58	+7%	52,34%	47,66%
Mussel	1,21	-7%	6,29%	93,71%
Herring	1,18	-0,2%	100%	0%
Hake	1,00	+6%	100%	0%
Squid	0,66	-1%	100%	0%
Mackerel	0,60	-8%	100%	0%
Surimi[29]	0,59	+6%	100%	0%
Sardine	0,57	-2%	100%	0%
Trout	0,42	-1%	2,05%	97,95%
Sprat (=Brisling)	0,40	+3%	100%	0%
Saithe (=Coalfish)	0,34	+3%	100%	0%
Total	**24,36**	**-2%**	**74,27%**	**25,73%**

Italy has a higher average consumption than Europe and the trend is also growing with +1%. The most consumed species in Europe are Tuna (WILD) and Salmon (FARMED).

ITALY: SOME DATA FOR AQUACULTURE SECTOR (STECF 2018-2019)

Production volume and value

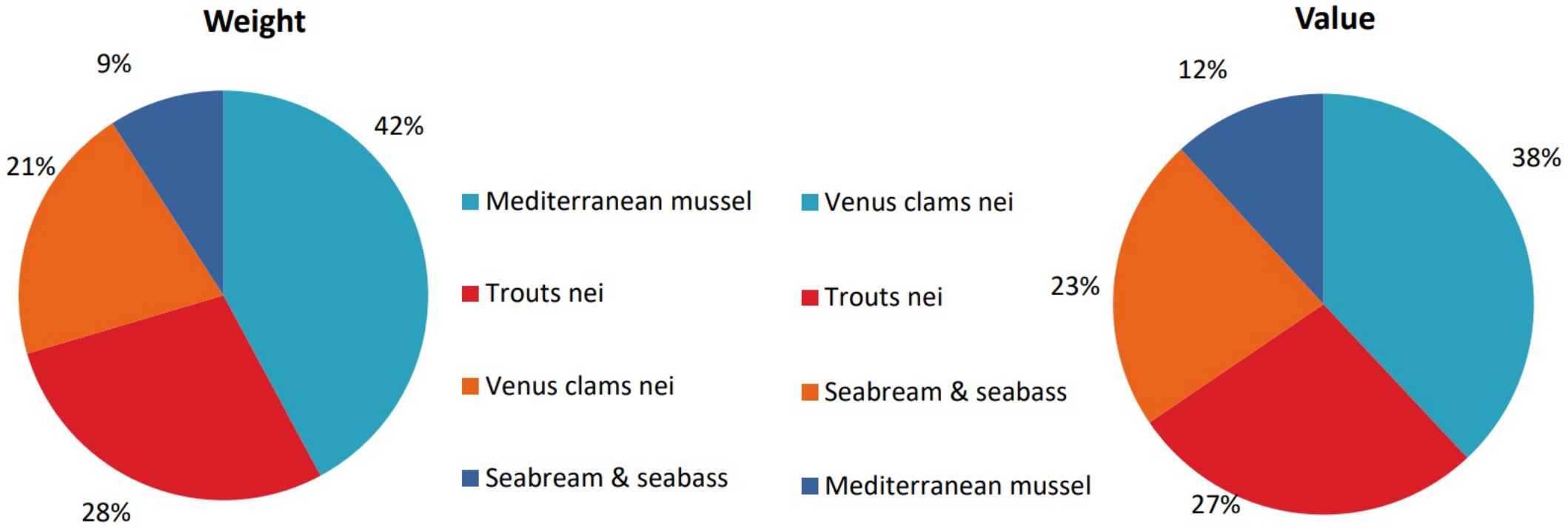
In 2020, both the volumes and the volume of aquaculture production decreased by 5% and 8% respectively. The volumes sold were 119.5 thousand tonnes for an income exceeding €372.4 million. The first sector in terms of volumes sold is shellfish (74.8 thousand tonnes, followed by freshwater (33.8 thousand tonnes) and marine (about 11 thousand tonnes) which ensure employment for approximately 4 400 employees. The productivity of capital in 2020 was about 40% higher than in 2018 but decreased by 8% between 2019-2020. The profit in 2020 was €144.2 million, an increase of 14% compared to 2018. Net financial costs have been the lowest since 2008, equal to approximately €1.4 million, probably due to a lower recourse to investments. ROI of 2020 was over 60% higher than that of 2018 but decreased by 11% compared to 2019. In any case, the ROI of 2020, equal to 46.4%, still makes the sector a good investment able to attract new capital.

Production and sales, industry structure and employment for Italy: 2008-2020

Variable	2008	2010	2012	2014	2016	2017	2018	2019	2020	Change 2019-20	Develop. 2020/(08-19)
Sales weight (thousand tonnes)	**222.6**	**270.8**	**191.2**	**185.8**	**148.2**	**152.1**	**150.3**	**125.7**	**119.5**	-5%	-34%
Marine	112.1	80.9	70.0	56.1	11.7	14.3	13.0	11.1	10.9	-2%	-80%
Shellfish	12.6	16.2	11.7	24.0	95.6	104.7	96.2	78.5	74.8	-5%	80%
Freshwater	97.9	173.7	109.5	105.7	40.9	33.0	41.1	36.2	33.8	-7%	-60%
Sales value (million €)	**439.5**	**585.3**	**464.9**	**566.9**	**344.9**	**390.8**	**380.3**	**406.8**	**372.4**	-8%	-20%
Marine	257.6	264.0	249.6	239.2	84.6	103.2	95.4	79.8	84.4	6%	-56%
Shellfish	113.2	138.5	79.9	181.0	137.8	183.5	156.0	214.9	185.6	-14%	34%
Freshwater	68.7	182.9	135.3	146.7	122.5	104.1	128.9	112.1	102.4	-9%	-24%
Number of enterprises	**696**	**692**	**587**	**587**	**592**	**592**	**592**	**582**	**582**	0%	-7%
Marine	108	105	70	70	46	46	46	43	43	0%	-38%
Shellfish	318	323	291	291	400	400	400	398	398	0%	16%
Freshwater	270	264	226	226	146	146	146	141	141	0%	-34%
Employment	**4,357**	**5,836**	**5,159**	**5,112**	**4,546**	**4,488**	**4,761**	**4,378**	**4,378**	0%	-12%
Marine	848	999	352	630	373	411	375	389	389	0%	-26%
Shellfish	1,932	4,053	3,892	3,422	3,614	3,546	3,703	3,455	3,455	0%	-2%
Freshwater	1,577	784	915	1,060	559	531	683	534	534	0%	-42%
FTE	**3,428**	**2,839**	**1,938**	**1,695**	**1,893**	**2,128**	**1,609**	**2,042**	**2,042**	0%	-14%
Marine		176	113	141	93	100	109	128	128	0%	-33%
Shellfish	3,296	2,637	1,694	1,454	1,688	1,933	1,361	1,823	1,823	0%	-11%
Freshwater	132	26	131	100	112	95	139	91	91	0%	-46%

Source: EU Member States DCF data submission, 2022.

Main species produced and economic performance by segmen



Source: EU Member States DCF data submission, 2022.

OUTLOOK

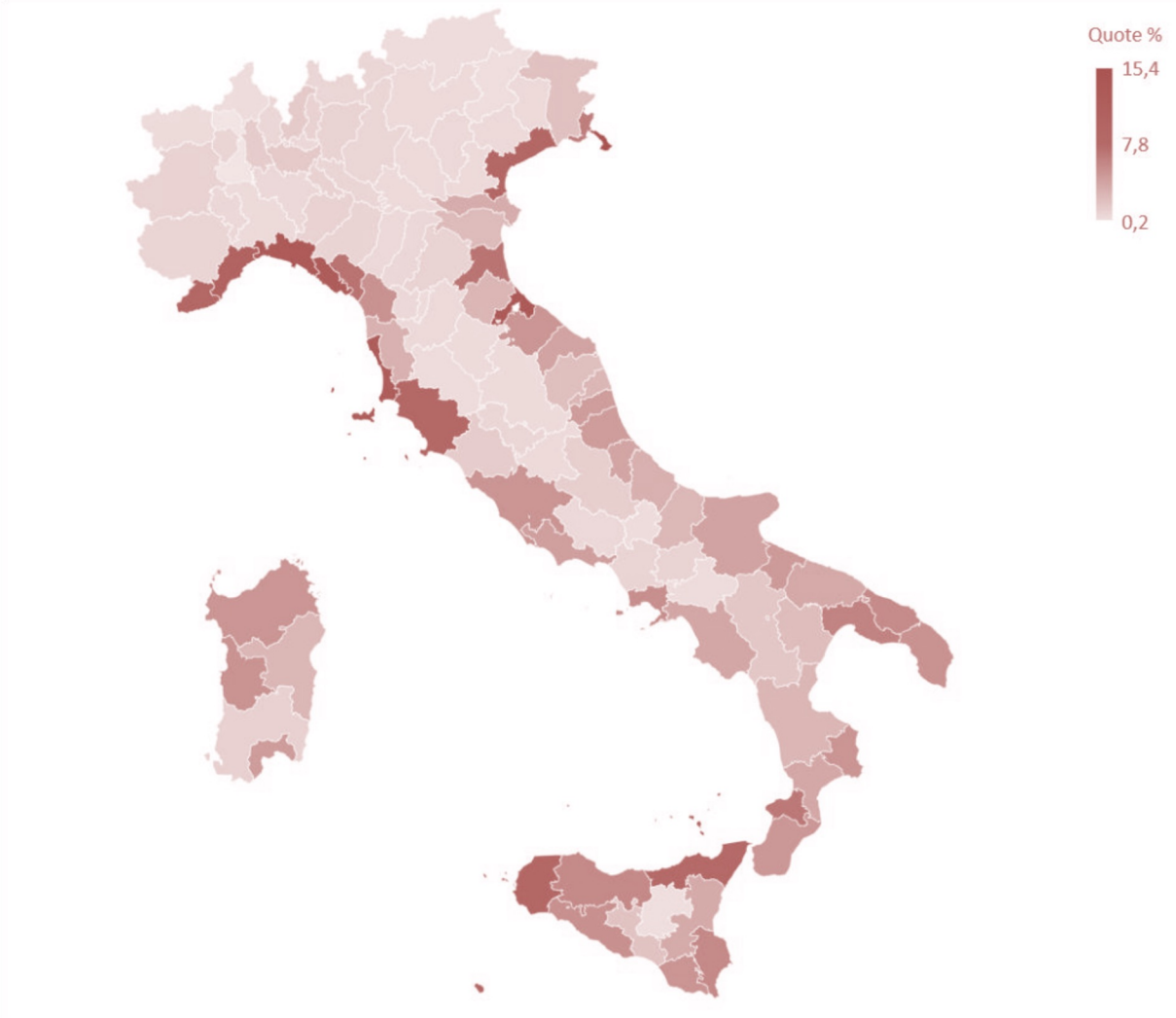
The Italian sector expects a growth that, based on forecast analyses, should be about 5% per annum (estimates based on FAO data and on the values reported in the Strategic Plan for Aquaculture (PSA-Italy 2014-2020).

ECONOMICS: FINANCIAL ASPECTS

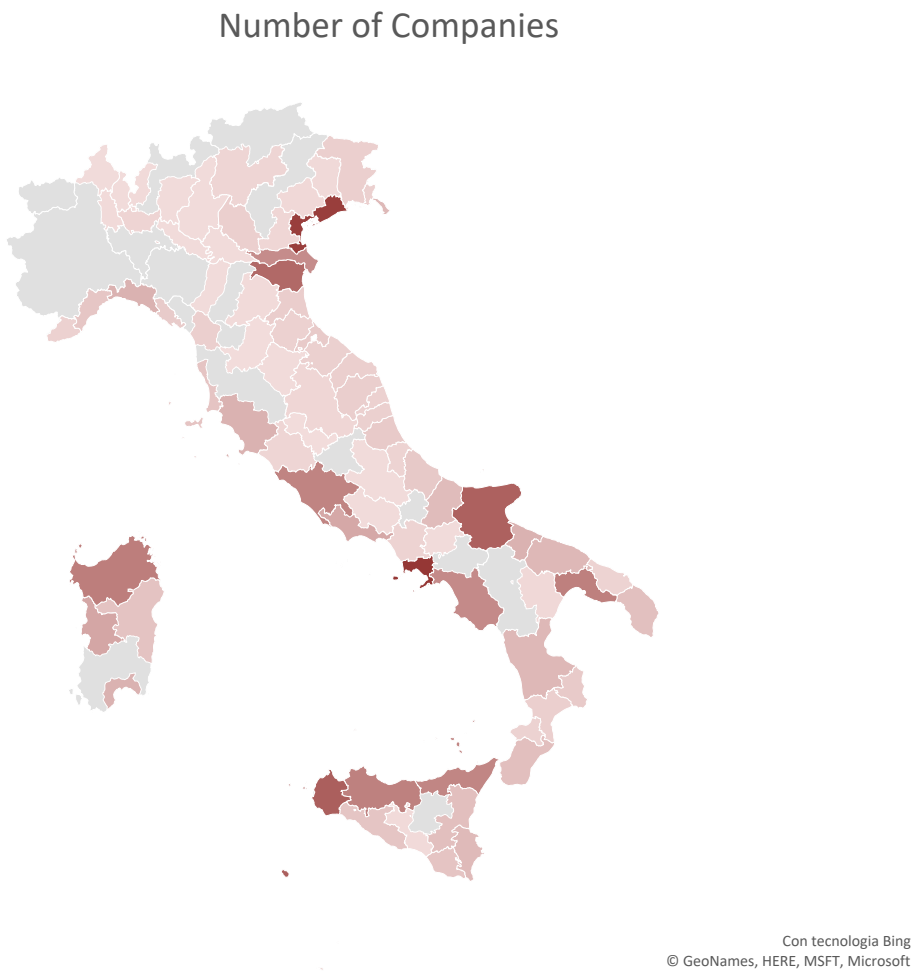
A focus on Italian Market. The data shown are our elaboration from Istat, AIDA, Banca di Italia

Incidence of added value produced by the maritime economy per province (data: UnionCamere)

The map drawn on the basis of the role played by the blue economy in the provinces in terms of added value (the one relating to employment is very similar) highlights the special nature of this composite sector, which is obviously conditioned by the presence of outlets on the sea in the provincial territories.



Number of companies and descriptive statistics of the AIDA dataset



	N	Minimum	Maximum	Mean
TURNOVER	1305	0	57825525	645283
EMPLOYEE	1271	0	248	8,91
PROFIT	1305	-3349257	1253957	-6975,47
ASSETS	1305	1	34706313	729431,6
NET ASSETS	1305	-5900905	20132807	209375,6
NFP	684	-3009929	14523859	100435,2

The number of farms surveyed is 1305, about 40% of the total. They are distributed mainly in the south.
It is worth noting that the average profit is negative.
In addition, the average size of the companies is less than 10 employees.

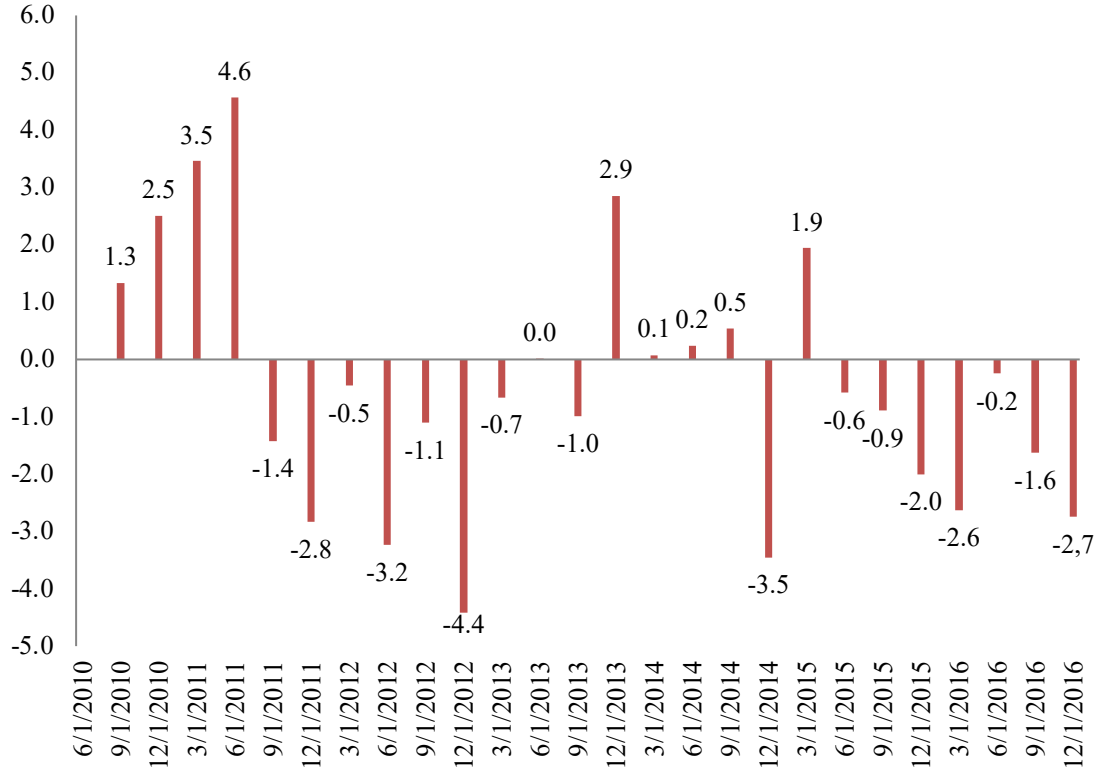
ANALYSIS OF THE FINANCIAL SUSTAINABILITY OF THE SECTOR

Percentage variation of the use in the fishery and aquaculture sector. Italy, 2012-2016.

The first variable to be considered is the *use* of financing in the fishery sector, **measured through the value of loans supplied by the banking sector to the actors of the fishery chain.**

From the second half of 2011 to 2016, the value of loans given to the fishery branch has been continuously decreasing (-21%).

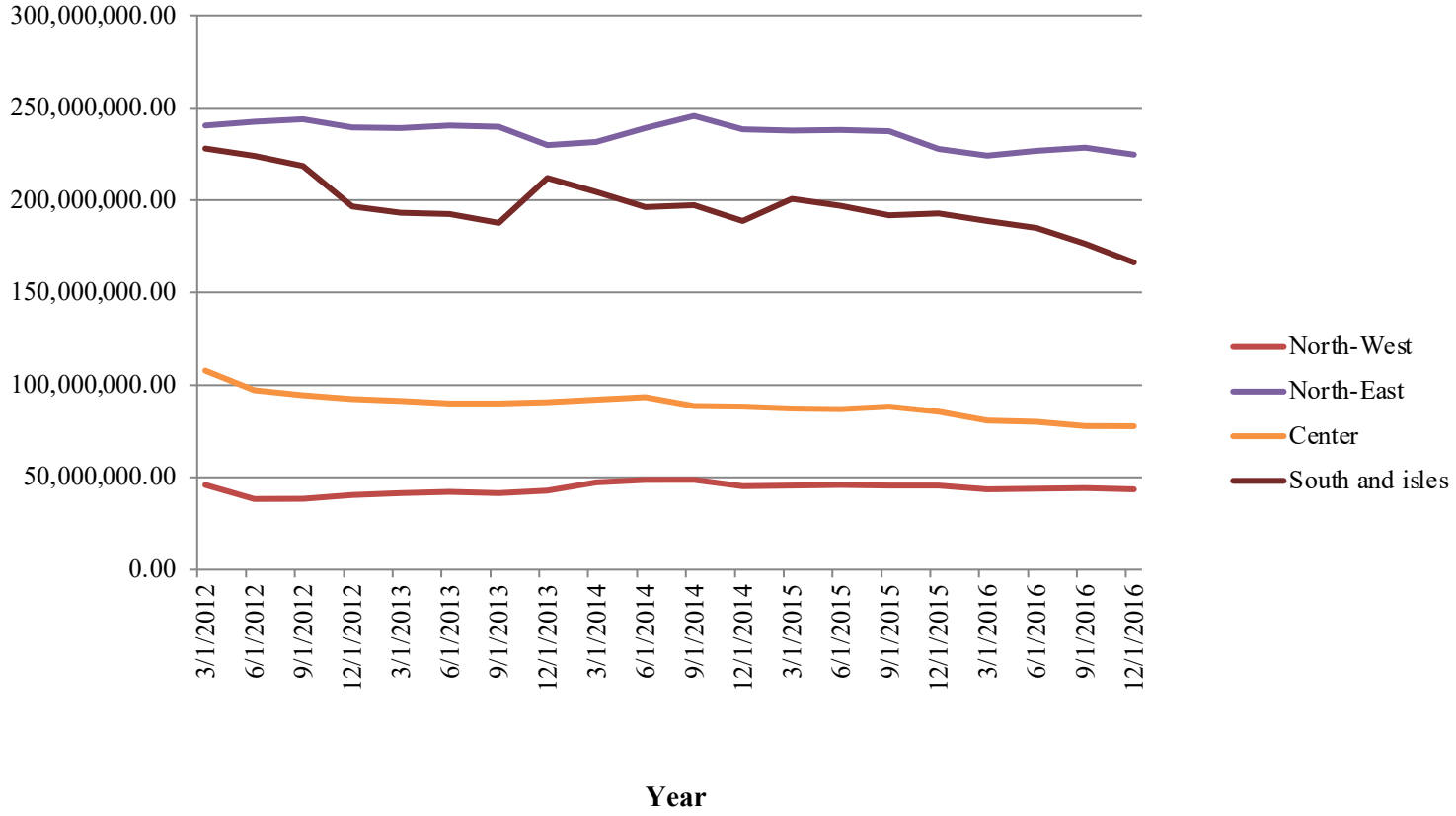
THIS INDICATOR SHOW DIFFICULTY IN ACCESSING CREDIT



Trend of the use in the fishery and aquaculture sector in value (M€) on a geographical distinction. Italy, 2012-2016 (banca d'italia)

A further analysis of the use of financial loans in the fishery and aquaculture sector in Italy can be made on the basis of a geographical distinction

Northern regions have the greatest capacity to attract financing with respect to all the Italian regions.



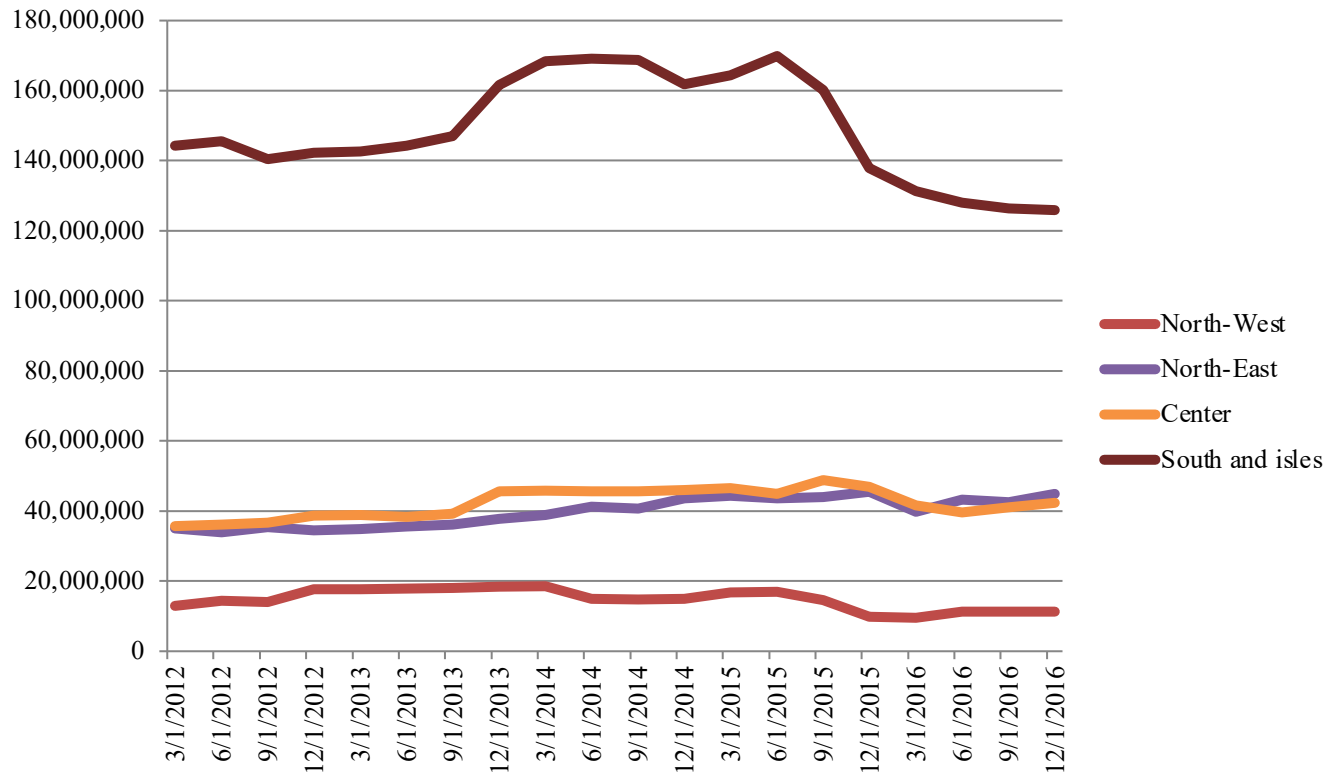
Trend of the sufferings of the fishery and aquaculture sector in value (M€) on a geographical distinction. Italy, 2012-2016.

Banca d'Italia has measured, as an indicator of *suffering*, the amount of those credits whose collectability is not certain

the uncollectability of credits is due to a condition of insolvency of debtors.

Between 2012 and 2016, the sufferings were reduced by 1.6%

A geographically-based distinction, more than a half of the total Italian sufferings is absorbed by the Southern regions (56%) in 2016, even though this percentage is smaller than that of 2012 (63%).

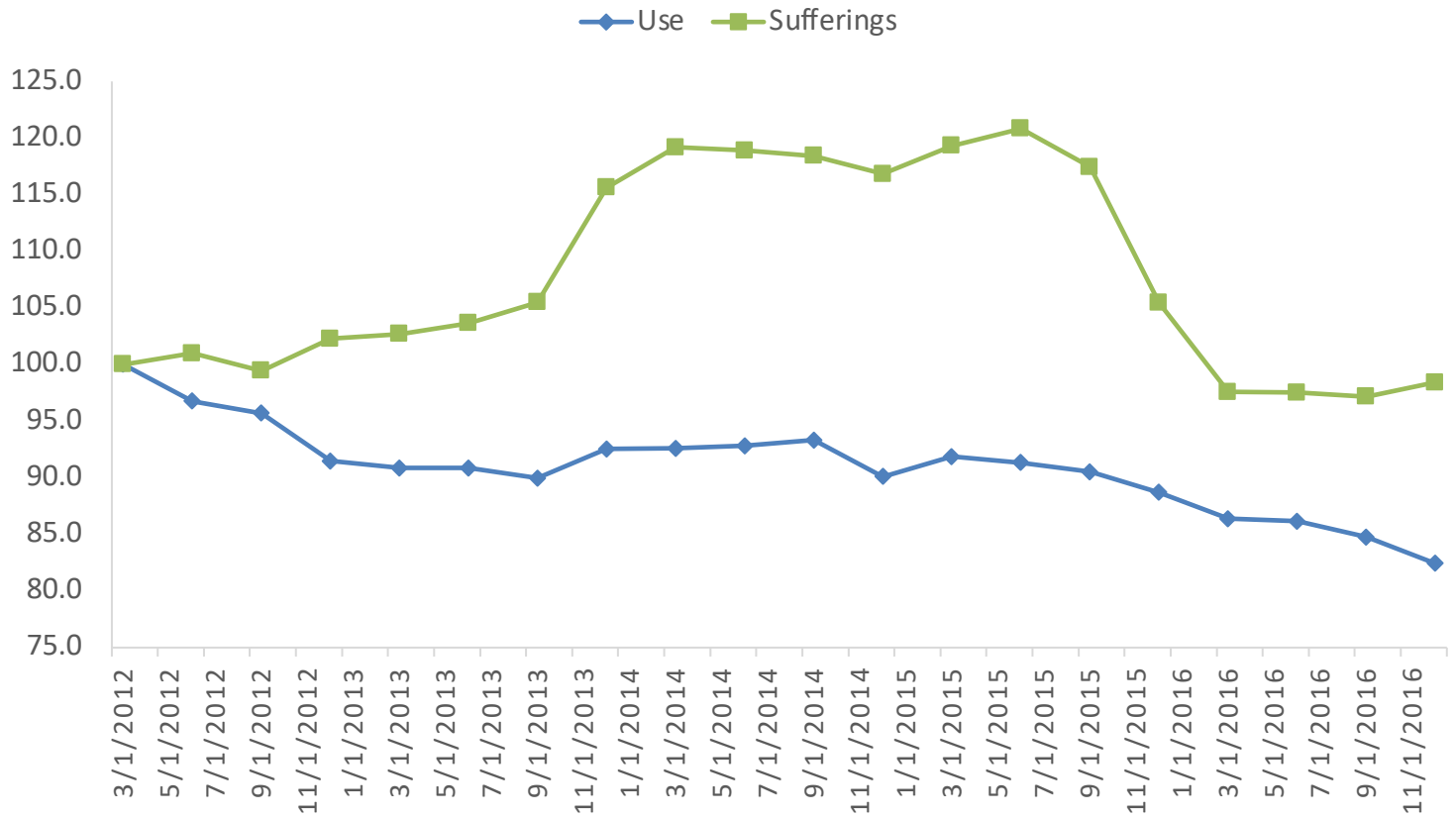


Trend of the sufferings and use in the fishery and aquaculture sector. Index numbers 2012-2016 2012=100).

IN CONCLUSION:

Analysis of combination of the *use* and *sufferings* of loans in the fishery and aquaculture sector (2012-2016).

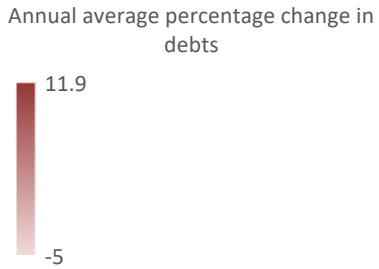
Figure shows the deterioration of credits as well as of their relative quality from 2012 to 2016; in particular, the *use* curve shows a reduction equal to 18%, while the *sufferings* curve is quite stable, with a smaller decrease of 2%.



Annual average percentage change in debts (2007-2015).

The Italian fishery sector faces a difficult situation in terms of debt exposure, with a positive percentage change in debt exposure from 2007 to 2015 equal to 28% and an annual average growth rate equal to 3.1%.

This trend is very diversified across the Nation, with most Northern regions in a dramatic situation and Central regions with slightly lower percentages. Among the Central regions, only Marche records a favourable situation, with a negative annual percentage average growth rate of the debt level equal to 0.2%. Finally, the Southern regions present a diversified scenario, with generally negative values reaching -5% for Calabria.



TO SUM UP

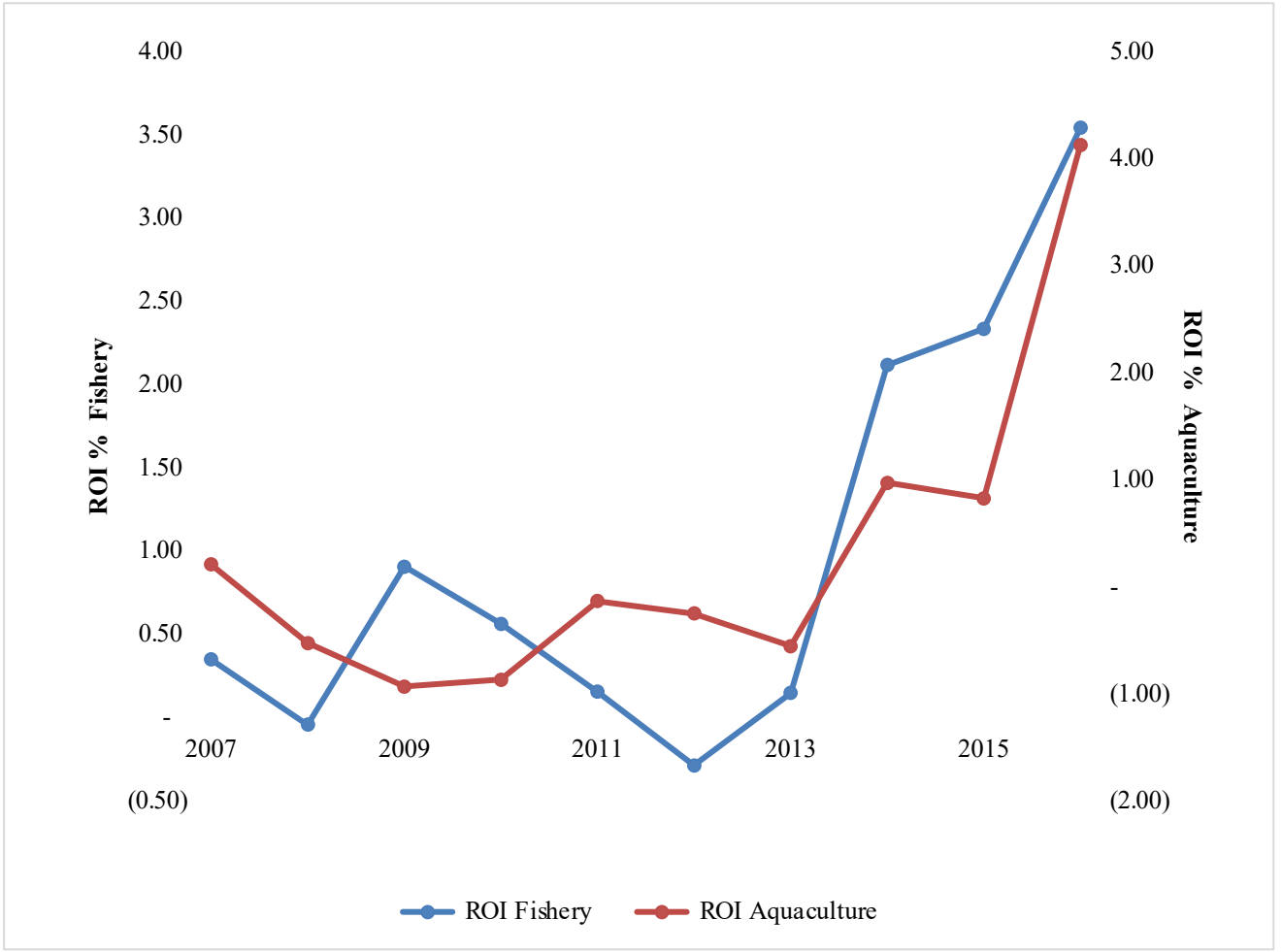
- Companies in the sector suffer from difficulties in accessing credit
- There are several reasons for this, such as the lack of specialisation in agricultural credit or the lack of adequate guarantees.

- Companies in the North of Italy have less bad balance sheets and can access credit more easily, despite significantly higher exposure on debt situation

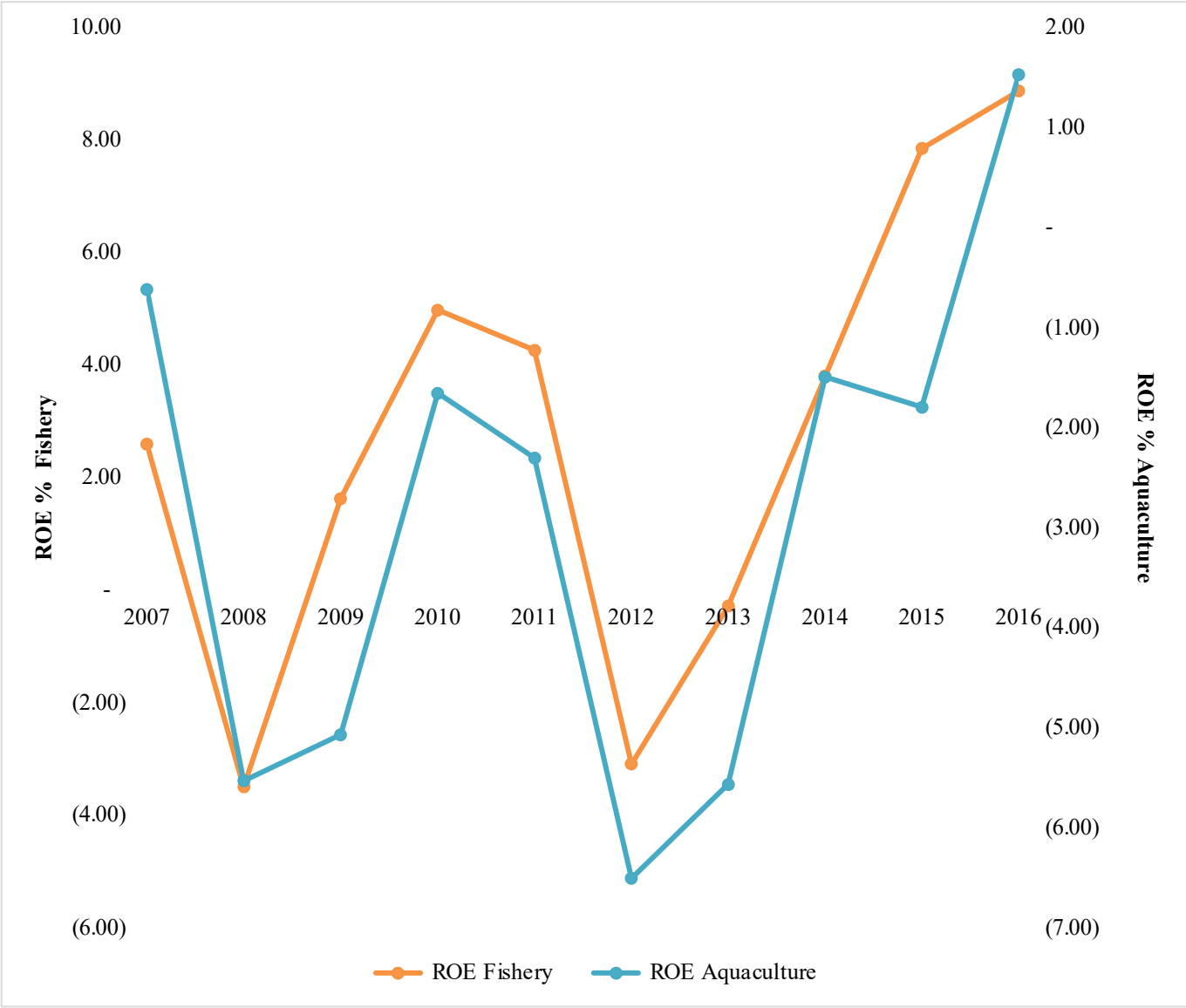
- The sector has suffered a serious crisis, in fact the lack of loans has deteriorated the quality of the balance sheets of the companies which have increased their difficulties

ROI

The first considered indicator is the *ROI* (Return on Investment), that display how investments in the fishery sector start to generate profits after a downturn period, especially from 2013. A quite similar situation is recorded by the aquaculture enterprises, that faced a positive trend of the ROI only from 2014. Between 2015 and 2016, the ROI of both sectors converged in the same value of +4.13%.



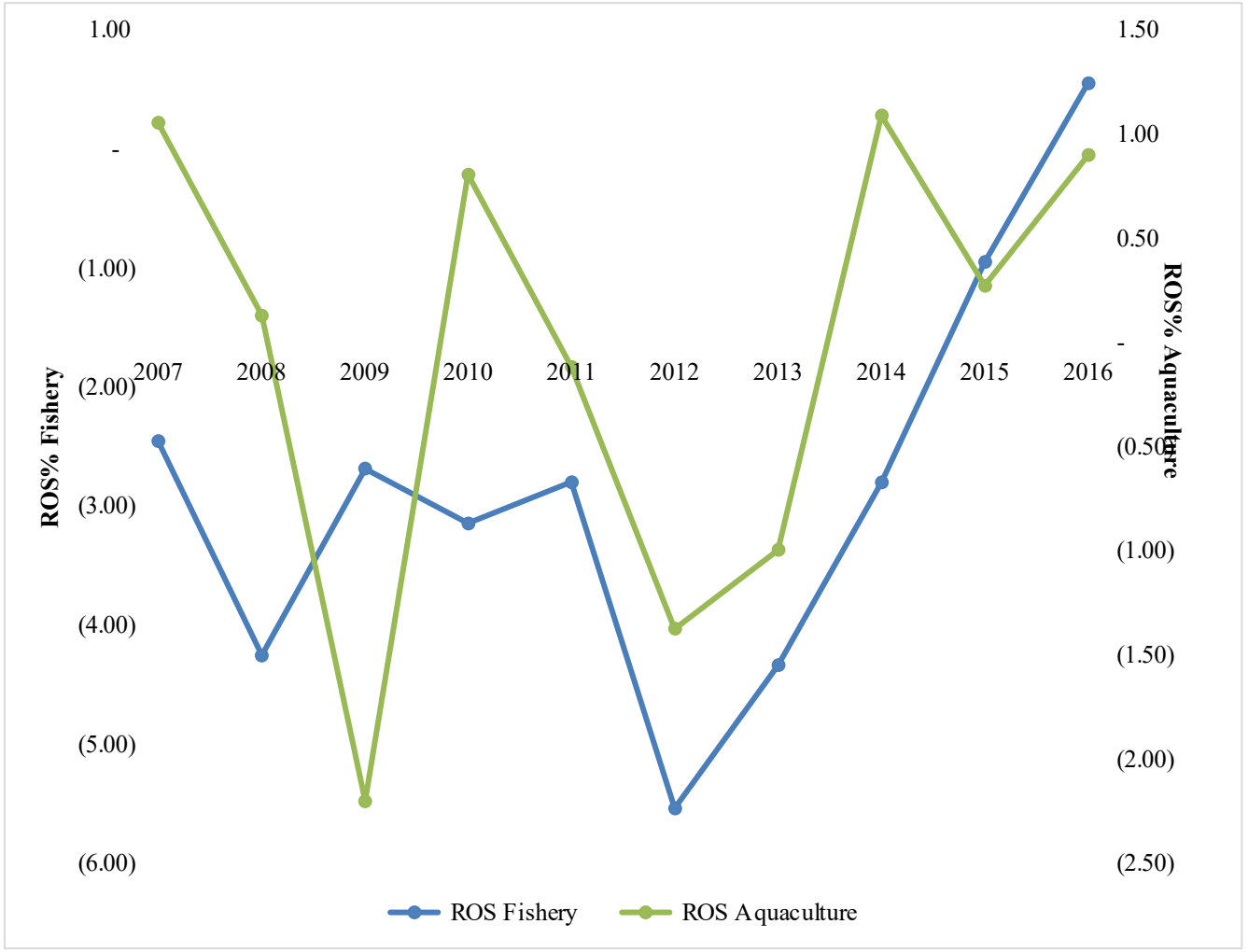
ROE



The second indicator taken in examination is the *ROE* (Return on Equity), that has a positive trend for the fishery and aquaculture sectors from 2013. Although the value of aquaculture fell in 2015, its value reached that of the fisheries sector in 2016.

ROS

The third analyzed indicator is the *ROS* (Return on Sales) that registers some differences between the fishery sector and the aquaculture sector: the former measures clearly negative values between 2007 and 2012, while the latter shows very diversified results.



Blue transformation

Blue Transformation is the vision and the process by which FAO, its Members and partners can use existing and emerging knowledge, tools and practices to secure and maximize the contribution of aquatic (both marine and inland) food systems to food security, nutrition and affordable healthy diets for all.

Blue Transformation is a targeted effort to promote innovative approaches that expand the contribution of aquatic food systems to food security and nutrition and affordable healthy diets.

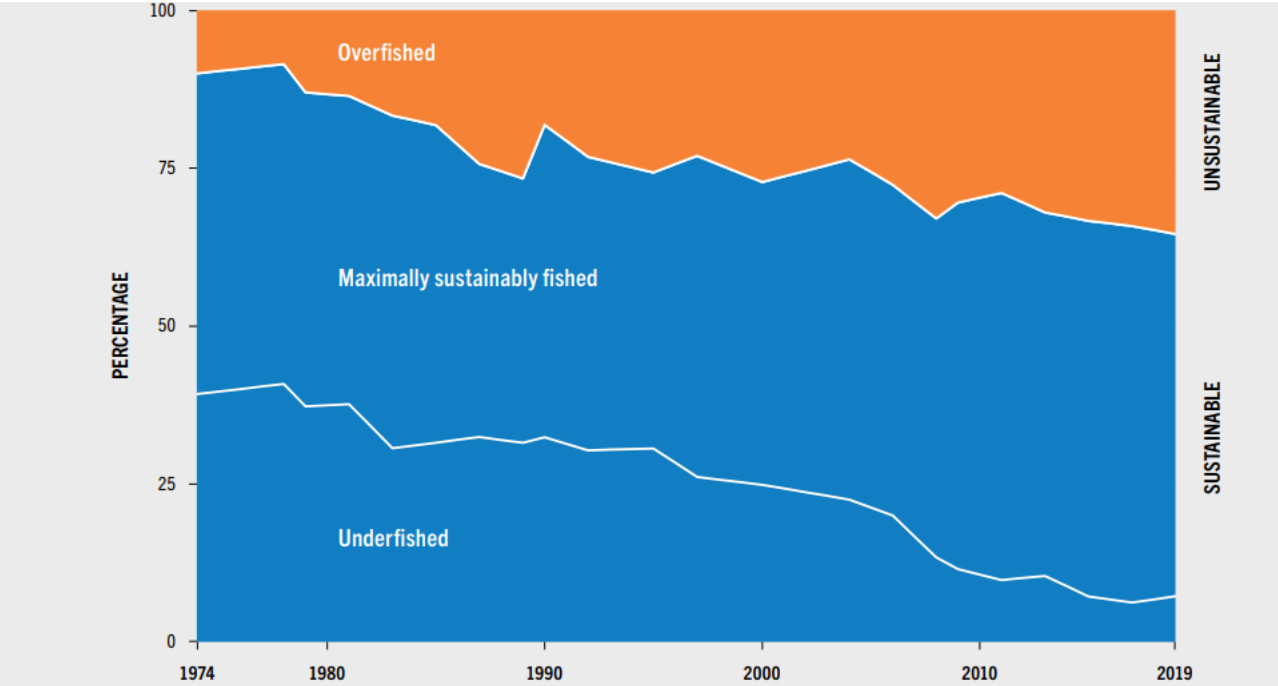
Blue Transformation has three core objectives:

1. Sustainable aquaculture expansion and intensification – to support global food security targets and satisfy global demand for nutritious aquatic food and equitable distribution of the benefits.
2. Effective management of all fisheries – to deliver healthy stocks and secure livelihoods.
3. Upgraded value chains – to ensure the social, economic and environmental viability of aquatic food systems, and secure nutritional outcomes.

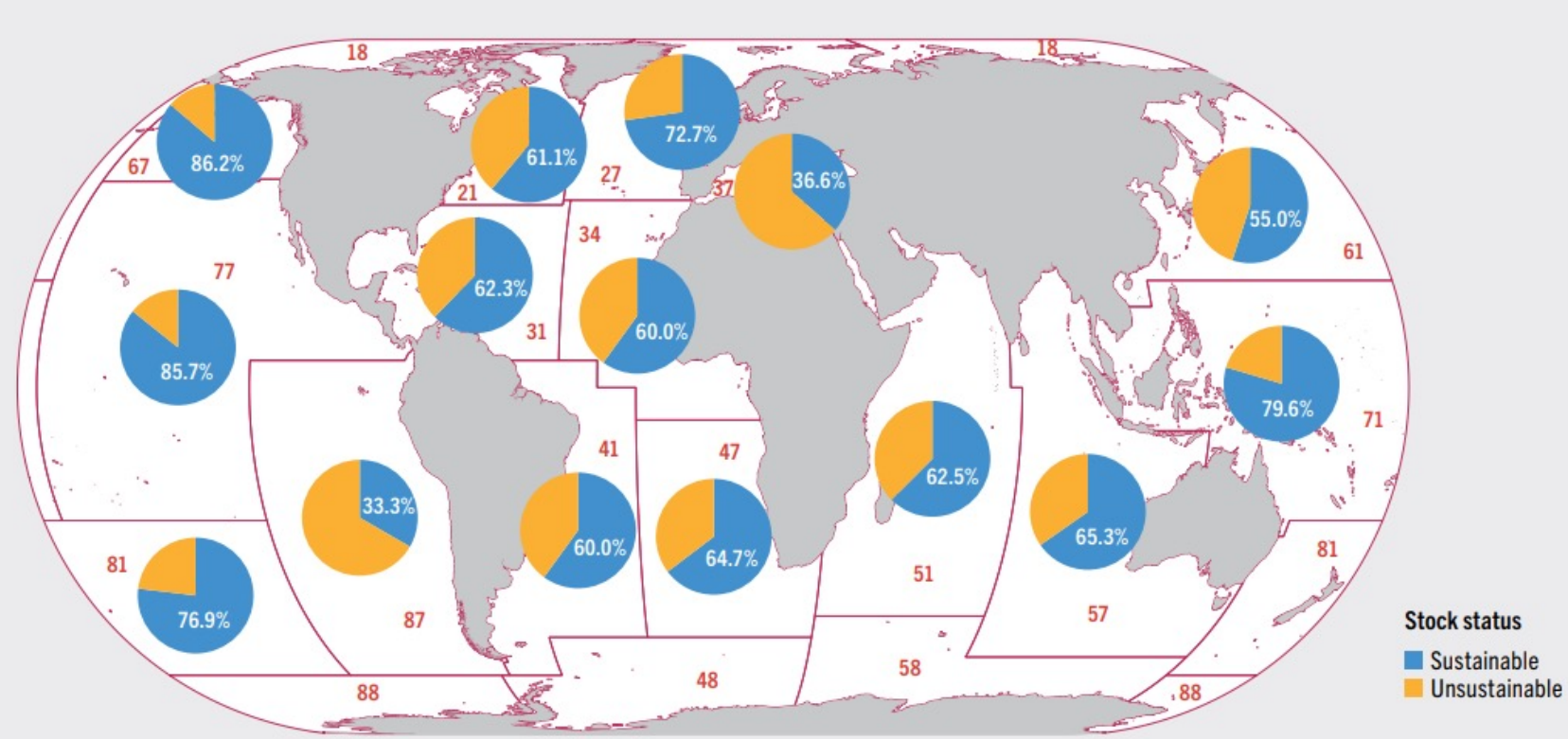
Status of fishery resources

Based on FAO's assessment,13 the fraction of fishery stocks within biologically sustainable levels decreased to 64.6 percent in 2019, that is 1.2 percent lower than in 2017 (Figure 23). This fraction was 90 percent in 1974. In contrast, the percentage of stocks fished at biologically unsustainable levels has been increasing since the late 1970s, from 10 percent in 1974 to 35.4 percent in 2019. This calculation treats all fishery stocks equally regardless of their abundance and catch. Biologically sustainable stocks account for 82.5 percent of the 2019 landings of assessed stocks monitored by FAO.

GLOBAL TRENDS IN THE STATE OF THE WORLD'S MARINE FISHERY STOCKS, 1974–201



PERCENTAGES OF BIOLOGICALLY SUSTAINABLE AND UNSUSTAINABLE FISHERY STOCKS BY FAO MAJOR FISHING AREA, 2019



NOTE: The digital percentages represent the proportion of sustainable stocks.
SOURCE: FAO.

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DIPARTIMENTO DI AGRARIA

Thank you for your attention!

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