

Aquaculture



Daan Delbare ¹ Nancy Nevejan ² Patrick Sorgeloos ² Hans Pirlet ³

Reviewer

Secretariat of the Strategic Advisory Council for Agriculture and Fisheries (SALV)

¹ Institute for Agricultural and Fisheries Research (ILVO)

Citation:

Delbare, D., Nevejan, N., Sorgeloos, P., Pirlet, H., 2013. Aquaculture. In: Lescrauwaet, A.K., Pirlet, H., Verleye, T., Mees, J., Herman, R. (Eds.), Compendium for Coast and Sea 2013: integrating knowledge on the socio-economic, environmental and institutional aspects of the Coast and Sea in Flanders and Belgium. Oostende, Belgium, p. 167-176.

²Ghent University

³ Flanders Marine Institute (VLIZ)

Aquaculture is globally the fastest growing food production sector with an annual growth of 6.6 % (compared to an annual growth of the human population of 1.8 %) and provides for half of the food deriving from fish worldwide (*State of World Aquaculture, FAO 2006* ¹⁰⁷⁰⁶⁸). In 2011, the total global production of aquaculture amounted to 62.3 million tons, of which 19.3 million tons originates from marine aquaculture (figure 1) (*State of World Fisheries and Aquaculture, FAO 2012* ²¹⁶⁸⁸⁶). In 2009, the aquaculture sector of the European Union (EU) produced 1.3 million tons, which is 20.4% of the total volume of the fish production in the EU. This share increased to 25 % in 2012. This increase can mainly be attributed to enhanced import of breeding species, given the reduction in the European volume of breeding species in spite of the initiatives taken by the European Commission (EC) to support the aquaculture sector.

The importance of the Belgian aquaculture production is rather limited and amounts to 0.04 % of the European production volume and 0.12 % in terms of value (*Facts and figures on the Common Fisheries Policy, 2012* ²²⁵³⁵⁷).

In the current text, we will primarily focus on marine aquaculture (offshore aquaculture) in the Belgian Part of the North Sea (BNS), as well as on developments with regard to aquaculture in the coastal zone.

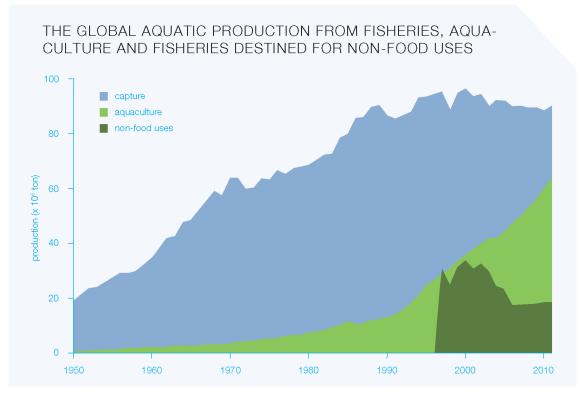


Figure 1. The global aquatic production from fisheries (blue), aquaculture (light green) and fisheries destined for non-food uses (dark green – animal food, cosmetics, etc.) (State of World Fisheries and Aquaculture, FAO 2012 ²¹⁶⁸⁸⁶).

7.1 Policy context

On the European level, the policy concerning aquaculture (incl. mariculture) is included in the *Common Fisheries Policy* (CFP) (*Regulation 2371/2002*, more information: *handleiding voor het GVB* (2009) ¹⁴⁰⁵⁰⁸ and *overview European legislation concerning CFP*). In 2013 a reform of the *CFP* is scheduled (Green Paper reform *CFP* (*COM* (2009) 163), consultation reform *CFP* (*SEC* (2010) 428, *COM* (2011) 417). In September 2012, the European Commission (EC) published a communication (*COM* (2002) 511) concerning the strategy for a sustainable development of European aquaculture. In 2009, this communication was renewed by communication (*COM* (2009) 162) concerning a new impetus for the strategy for the sustainable development of European aquaculture. Furthermore, the European Fishery Fund (EFF) (*Regulation 1198/2006*) considers sustainable aquaculture as one of the main priorities (website *EFF*, *Nationaal Strategisch Plan voor de Belgische visserijsector 2007-2013* ¹⁹⁶¹³⁵).

Considering that mariculture is an offshore activity, the latter is a federal competence (Minister competent for the North Sea / FPS Health, Food Chain Safety and Environment). Aquaculture on land, however, is a Flemish competence. In this regard, the Agricultural and Fisheries Policy Division (Afdeling Landbouw en Visserijbeleid) of the Department of Agriculture and Fisheries (Department Landbouw en Visserij) is the management authority of the Operational Programme in implementation of the National Strategic Plan for the Belgian fisheries sector (2007-2013) (het Operationeel Programma in uitvoering van het Nationaal Strategisch Plan voor de Belgische visserijsector 2007-2013 ¹⁹⁶¹³⁶), which also includes measures to support aquaculture. The regulations and competent authorities for mariculture and aquaculture are discussed on the following website: Flemish Platform for Aquaculture (more information: Coppens & Stoop 2003 ¹⁶²⁷⁷⁰).

In 2011, a first attempt was made to develop a Flemish aquaculture policy (*Visserijrapport* (*VIRA*) 2012 ²²⁴⁹⁵⁷). In this context, the existing initiatives were mapped and a vision note was drafted by the Flemish government to better disclose the sector and the relevant research. In 2012, a *platform for aquaculture* was established to create sufficient support from policy and research and to raise awareness to create synergies within research actors and to stimulate sustainable aquaculture.



7.2.1 Oyster farming in the Sluice Dock of Ostend

In the Belgian coastal zone, aquaculture can be found in the Sluice Dock of Ostend where the European flat oyster (Ostrea edulis) and the Pacific oyster (Crassostrea gigas) are farmed. The Sluice Dock is an artificial water basin of 85 ha in which the aquaculture activities occupy 4 and 5 ha (website Oostendse Spuikom).

Given that several users, whose activities are often not compatible, are present in the Sluice Dock, a management commission 'Spuikom' has been established (website Oostendse Spuikom). Each activity and each administration concerned is represented in the commission. The consultation platform 'Spuikom' constitutes a direct contact point and has the responsibility of reaching a consensus between the different users. Furthermore, it provides advice to the actual administrator / owner which is the Flemish government and more specifically the Coastal Division of the Department for Maritime Services and Coast (MD&K). In addition to the 'organised users', such as nature, aquaculture and recreation, the anglers and the surrounding community are invited to the consultation platform as well. The permits for aquaculture and in the future for the potential production of energy are directly granted by the Coastal Division.

7.2.2 Restocking in the North Sea

In 1998, a zone was demarcated (51°12'00 N and 02°45'60 E) where fishing was prohibited, because of the release of farm-raised turbot in the context of restocking. In 2000, a similar zone was defined in the coastal waters between Nieuwpoort and Bredene, east of the *Stroombank* sandbank, for the restocking of sole (*De Wachter & Volckaert 2005* ⁷⁸³⁰³, *GAUFRE project BELSPO*). The restocking of cultured turbot was continued in the *GAUFRE project (BELSPO)*, in which the impact of the quality of the turbot on the restocking success in the North Sea was evaluated. Although the results were positive, both restocking programmes were stopped as most of the restocked animals were fished outside the BNS and by fishermen from other nationalities. This experience shows that this kind of restocking programmes need to be dealt with on a European level. Hence, a European 'Ecosystem-based Stock Enhancement Workshop' was organised in Bruges in 2007.

7.2.3 Mussel farming

After the experimental use of the 'Buiten Ratel' area, a permit for the production of bivalve molluscs in 4 zones (table 1 and figure 2) in the BNS was granted on 7 October 2005 (Ministerial Decree of 7 October 2005). This permit was based on the environmental impact assessment (EIA) that had been published as stipulated by the law of 20 January 1999 and two Royal Decrees (the Royal Decree of 7 September 2003 and the Royal Decree of 9 September 2003). In this context, the Ministerial Decree of 8 July 2005 defines a simplified procedure and model form for this EIA.

Table 1. Overview of the areas allocated to shellfish production (Milieu-effectenbeoordeling Mosselcultuur, 2005 114817 and Report of the Working Group on Marine Shellfish Culture (ICES WGMASC), 2011 225359).

ZONE	Z1	Z2	Z3	Z4	
Total surface (km²)	0.21	0.27	0.23	277.14	
Total culture surface (km²)	0.21	0.27	0.23	0.25	
Distance to the harbour (km) ¹	10	25	32	24 – 58	
Depth (m)	8	7	11	12 – 30	
Use	commercial	experimental	experimental	none	
¹ distance to Nieuwpoort for Z1, Z2 and Z3 or Zeebrugge for Z4					

The four areas reserved for shellfish production are situated in the so-called Natura 2000 areas (see theme Nature and environment). Europe has published guidelines in the publication: *Guidance on aquaculture and Natura 2000* (2012) ²²¹⁷⁰⁸, to analyse what aquaculture activities can be executed in these Natura 2000 areas.

The four areas were planned as shellfish production areas based on the presence of obstacles (Z1: wreck, Z2 and Z3: towers, Z4: windmills) that may hinder the other operators in their activities. At the start of the construction of the C-Power wind farm on the Thornton Bank, the Foundation for Sustainable Fishery Development (SDVO) and the Management Unit of the North Sea Mathematical Models (MUMM) (RBINS) decided in mutual consultation to remove the experimental cage in location Z4, in order not to hinder the construction of the wind farm. In 2011, all shellfish production activities were stopped.

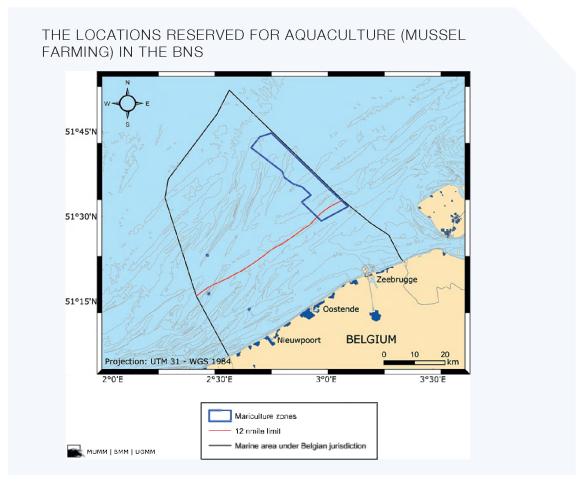


Figure 2. The locations reserved for aquaculture (mussel farming) in the BNS (Source: Direction Natural Environment, Royal Belgian Institute of Natural Sciences (RBINS)).

7.2.4 Marine Spatial Plan

The possibility for integrated mariculture (under strict conditions) in the wind farms Belwind I and C-Power has been formulated in the draft of the Marine Spatial Plan (*Ontwerp van koninklijk besluit tot vaststelling van het marien ruimtelijk plan* ²²⁷⁵²⁷), as proposed by the Minister competent for the North Sea (see theme Energy (incl. cables and pipelines)). The compatibility of mariculture and passive fisheries in the wind farms was already investigated in the context of the MARIPAS Project (*Verhaeghe et al.* 2011 ²⁰⁵¹⁸⁶). No other areas have been designated for mariculture as there is no demand for it. This situation may change during the next revision of the Marine Spatial Plan.



7.3 Societal interest

Within the EU, 90 % of the aquaculture enterprises are SMEs, which account for 70,258 jobs (*EU Data Collection Framework*). The importance of the aquaculture sector in Belgium is limited. In 2007, 150 persons worked in the Belgian aquaculture sector (*Globaal actie- en herstructureringsplan voor een duurzame Vlaamse zeevisserijsector, Task Force Visserij 2006* ¹⁰⁶⁵²⁷). The *FPS Economy, SMEs, Self-Employed and Energy* monitors the annual production of aquaculture (both aquaculture on land and mariculture) in Belgium, as commissioned by the *Food and Agriculture Organisation (FAO) (Regulation 762/2008)*. In the period from 2006 to 2008 an average annual production of 127 tons was reported (figure 3). In 2009, the production increased to 575.9 tons. This strong increase can be attributed to one additional aquaculture enterprise, namely a tilapia farm that closed down in 2010. Although no official data are known yet, the production probably decreased to the level before 2009 (*Visserijrapport (VIRA) 2012* ²²⁴⁹⁵⁷).

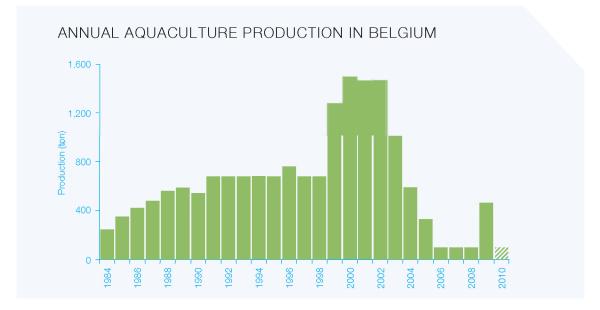


Figure 3. The annual aquaculture production in Belgium (Source: FAO - Fisheries and Aquaculture Information and Statistics Service - 25/06/2012).

In 2003, the total value of the Belgian export of important aquaculture species (such as mussels, oysters, sea bass and sea bream, trout, salmon) amounted to 0.37 million dollar (figure 4). However, the main part of this export is the result of prior import. The Belgian import of these species represented a value of 214.70 million dollar (source: FAO FISHSTAT Plus, 2005 in *Rana* 2007 ¹¹³⁵⁴⁰).

The Belgian aquaculture sector is mainly situated in Wallonia and is not discussed further in the current text. The Flemish aquaculture sector is rather small (17 enterprises) and the main species are the common carp, sturgeon (mainly production of caviar), shellfish, fish for anglers and ornamental fish. An overview of the aquaculture enterprises in Flanders is listed on the website of the *Flemish Platform for Aquaculture*. Only one company is situated in the coastal area, namely the oysterfarm in the Sluice Dock of Ostend.

From a historical perspective, the oyster farms along our coast had a significant commercial importance. In particular the 'Ostend Oyster' (l'Ostendaise or Royal Ostendaise) has known worldwide fame. Prior to the First World War,

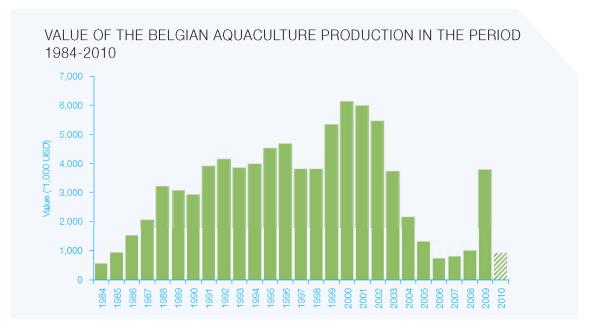


Figure 4. The value of the Belgian aquaculture production in the period 1984-2010 (Source: FAO - Fisheries and Aquaculture Information and Statistics Service - 25/06/2012).

oyster farming reached a peak with 26 oyster farms along the Belgian coast. Every year, 30-35 million oysters were imported from England and further cultivated in the Belgian oyster farms (*Halewyck & Hostyn 1978* ⁶⁴⁷⁵⁴, *Polk 2002* ²⁴⁸⁸³). An overview of the history of the Belgian oyster farms is presented on the following website: http://www.vliz.be/wiki/Historiek_van_de_Belgische_oesterkweek (more information: *Pirlet 2012* ²²²²⁴⁵). Since 1996, oysters have been commercially farmed in the Sluice Dock of Ostend (*Curé et al. 2000* ²⁴⁸⁸⁶). Currently 2 parks of 4 and 5 ha are in use (*website Spuikom*).

In the BNS, some initiatives were taken to start some offshore aquaculture activities such as the production of bivalve molluscs by means of hanging structures (*Milieu-effectenbeoordeling Mosselcultuur, 2005* ¹¹⁴⁸¹⁷, *Delbare 2005* ⁷³⁷⁴⁶, *Report of the Working Group on Marine Shellfish Culture (ICES WGMASC), 2011*) ²²⁵³⁵⁹ and the restocking of sole and turbot (*De Wachter & Volckaert 2005* ⁷⁸³⁰³, *GAUFRE project BELSPO*). Furthermore, a study was conducted to assess the possibilities of a turbot farm off the Belgian coast (*Dierckens et al. 2004* ⁶⁸⁷⁷⁸, *project BELSPO*).

7.4 Impact

Mariculture has a number of effects on the environment and the users of the sea (*Milieu-effectenbeoordeling Mosselcultuur, 2005* ¹¹⁴⁸¹⁷, *De Wachter & Volckaert 2005* ⁷⁸³⁰³ (*GAUFRE project BELSPO*), *Goffin et al. 2007* ¹¹⁴²²⁵, *Strategische Milieubeoordeling van het Nationaal Operationeel Plan voor de Belgische visserijsector, 2007 - 2013* ¹³¹⁰⁹³). In the environmental impact report, drafted prior to the installation of the offshore mussel cages, the following specific (local) effects on the marine ecosystem and users of the sea were listed:

- Effect on the quantity of suspended matter: mussels feed on suspended particles;
- Effect on the primary production: consumption of the phytoplankton;
- Effect on the secondary production: competition with other organisms;
- Modifications in the natural nutrients flux: excretion of organic nitrogen compounds (ammonium compounds);
- Transfer of material from the planktonic towards the benthic food web and the organic enrichment of sediments: excrements of mussels;
- Accumulation of mussel shells below the farm;
- Presence of a fouling community that settles on artificial hard structures;
- Attraction of birds, fishes and parasites;
- Diseases;
- Loss of parts of the mussel farm:
- Danger to shipping due to mariculture structures.

(Milieu-effectenbeoordeling Mosselcultuur, 2005 114817)

The impact of aquaculture on the ecosystem and other users strongly depends on the used technique. The potential effects are discussed in publications such as *State of World Aquaculture (FAO 2006)* 10708, *OSPAR QSR (2010)* 198817 and *Report of the Global Conference on Aquaculture 2010 (FAO 2012)* 216587 and *inter alia* include:

- Eutrophication due to nutrient enrichment by food and excretion products of aquaculture organisms;
- Introduction of non-indigenous species;
- The demand for wild fish:
- Pollution of the bottom due to accumulation of organic material;
- Competition of escaped aquaculture species with wild fish;
- Use of chemicals
- The impact on wild fish, seals, birds and other fauna as a result of the measures to prevent predation of aquaculture species;
- The alteration and destruction of natural habitats and ecosystem functions;
- Competition for the use of fresh water;
- Competition with livestock for food;
- · Impact due to the collection of seed;
- The potential spreading of diseases and parasites in cultivated and wild stocks.



7.5 Sustainable use

7.5.1 Mitigation of the impact on the environment

In COM (2009) 162, the European Commission (EC) committed itself to guarantee an environmentally friendly aquaculture. The EC promised to emphasise the importance of an ecologically sustainable development of aquaculture in its policy and measures. Furthermore, Europe imposes directives for an aquaculture-friendly environment in order to guarantee the health of the aquatic animals and the safety and quality of the aquaculture products. The European legislation that is relevant in this context is listed in table 2 (not exhaustive).

Table 2. A selection of relevant European legislation with regard to a sustainable aquaculture.

EUROPEAN LEGISLATION	SUBJECT
Directive 91/676/EC	'Nitrates Directive'. The protection of water against pollution caused by nitrates from agricultural sources
Directive 92/43/EC	'Habitats Directive'. The conservation of natural habitats and of wild fauna and flora
Directive 2000/60/EC	The 'Water Framework Directive' establishing a framework for Community action in the field of water policy
Directive 2006/88/EC	Animal health requirements for aquaculture animals and products thereof, and the prevention and control of certain diseases in aquatic animals
Directive 2006/113/EC	The quality required of shellfish waters
Regulation (EC) 708/2007	The use of alien and locally absent species in aquaculture
Regulation (EC) 762/2008	The submission by Member States of statistics on aquaculture
Directive 2008/56/EC	'Marine Strategy Framework Directive'. A framework for community action in the field of marine environmental policy
Directive 2008/1/EC	Integrated pollution prevention and control
Directive 2009/147/EC	'Birds Directive'. The conservation of wild birds

On the Belgian level, the mariculture activities have to comply with the *law of 22 April 1999* (the EEZ law) concerning the exclusive economic zone (EEZ) of Belgium in the North Sea and the *law of 22 April 1999* concerning the protection of the marine environment and the organisation of marine spatial planning in the BNS (see theme **Nature and environment**). Associated with these laws, a number of Royal Decrees are of specific importance for mariculture such as the *Royal Decree of 9 September 2003* in context of the EIA, the *Royal Decree of 7 September 2003* concerning the permit procedure, the *Royal Decree of 23 June 2010* concerning the marine strategy and the *Royal Decree of 23 June 2010* concerning the achievement of a good condition of the surface water. The *Royal Decree of 18 May 2008* stipulates that in the context of the National Operational Plan, a strategic EIA is required with regard to the mariculture

activities in the BNS. For certain offshore activities, such as the production of bivalve molluscs by means of hanging structures, a simplified procedure may be applied (*Ministerial Decree of 8 July 2005*).

A list of the Belgian/Flemish regulations to minimise the environmental impact of aquaculture and mariculture installations is given in *Coppens & Stoop (2003)* ¹⁶²⁷⁷⁰ and *Wettelijke Europese en Belgische regelgeving voor aquacultuurinrichting (2008)* ²²⁶⁵³⁷ (website www.aquacultuurvlaanderen.be).

7.5.2 A sustainable development of aquaculture

In recent publications, the FAO discusses the large contribution of environmentally friendly extractive aquaculture in Asia (removal of organic material by shellfish culture, removal of inorganic nutrients by macro algae culture) to the total aquaculture production. Furthermore, FAO highlights the possibilities of integrated (multitrophic) mariculture systems that aim for a more sustainable aquaculture and a reduction of the impact on the ecosystem (*Soto 2009* ¹⁹⁶⁵¹⁹, *Report of the Global Conference on Aquaculture 2010 (FAO 2012)* ²¹⁶⁵⁸⁷).

In COM (2009) 162, the European Commission (EC) intends to give a new impetus for a sustainable development of European aquaculture. 3 priorities were stipulated:

- Increasing the competitiveness of the sector by means of support to research and development, better spatial
 planning in coastal regions and river basins as well as more specific support via the fisheries market policy;
- Guaranteeing sustainability by maintaining environmentally friendly production methods and high demands for animal health and welfare and consumer protection (see above);
- Better governance and an enterprise-friendly environment on all levels (local, national and European) so that the sector can optimise its potential.

The sustainable development and installation of aquaculture facilities at sea and in the coastal area are discussed in the context of the *Integrated Maritime Policy (COM (2007) 575*) as well.

In the Operational Programme in implementation of the National Strategic Plan for the Belgian fisheries sector (2007-2013) (het Operationeel Programma in uitvoering van het Nationaal Strategisch Plan voor de Belgische visserijsector 2007-2013 ¹⁹⁶¹³⁶), the development of a sustainable aquaculture, the diversification of the species and of the markets as well as the modernisation of existing enterprises in the aquaculture sector are listed among the main priorities. To achieve these targets a number of measures are discussed in the Operational Programme. The intention is that by 2015 the aquaculture production will increase to 5.440 tons, 5 new aquaculture enterprises will be active and 2 new species will be cultivated. The establishment of hatcheries and the valorisation of the efforts of renowned Belgian research institutes will be explored (Operationeel Programma in uitvoering van het Nationaal Strategisch Plan voor de Belgische visserijsector 2007-2013 ¹⁹⁶¹³⁶).

Several groups and institutes conduct research on the sustainable development of aquaculture in Flanders and in the BNS (see the list on the website *Flemish Aquaculture Platform* and *Visserijrapport (VIRA) 2012* ²²⁴⁹⁵⁷). A specific example is the MARIPAS project, which investigated the compatibility of mariculture and offshore wind farms (*Verhaeghe et al. 2011* ²⁰⁶¹⁸⁶).

7.5.3 Monitoring in the BNS

A monitoring programme has been elaborated to review the environmental impact of the mussel farming installations. In this programme the following parameters have been studied (*Milieu-effectenbeoordeling Mosselcultuur, 2005* ¹¹⁴⁸¹⁷):

- Upstream-downstream water sampling to quantify the transfer of material from the planktonic to the benthic food web and the modifications of natural nutrients flux;
- Impact on the composition of the phytoplankton and organic enrichment of the benthic habitat;
- Accumulation of mussel shells due to farming;
- Presence of a fouling community;
- · Attraction of fishes.

The latter monitoring programme was not retained in the permit and was therefore not executed. Furthermore, one of the stations for the monitoring of the chemical quality in the context of the OSPAR monitoring programme is situated at the location of the mussel farm (*André et al. 2010* ²⁰⁰⁶¹³).

Legislation reference list

Table with European legislation. The consolidated version of this legislation is available on *Eurlex*.

EUROPEAN LEGISLATION					
Abbreviations (if available)	Title	Year	Number		
Directives					
Nitrates Directive	Council Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources		676		
Habitats Directive	Council Directive on the conservation of natural habitats and of wild fauna and flora		43		
Water Framework Directive	Directive 2000/60/EC establishing a framework for Community action in the field of water policy	2000	60		
	Council Directive on animal health requirements for aquaculture animals and products thereof, and on the prevention and control of certain diseases in aquatic animals	2006	88		
	Directive on the quality required of shellfish waters	2006	113		
	Directive concerning integrated pollution prevention and control	2008	1		
Marine Strategy Framework Directive	Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy	2008	56		
Birds Directive	Directive on the conservation of wild birds	2009	147		
Regulations					
Common Fisheries Policy	Council Regulation (EC) on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy	2002	2371		
	Council Regulation (EC) on the European Fisheries Fund	2006	1198		
	Council Regulation (EC) concerning use of alien and locally absent species in aquaculture	2007	708		
	Regulation (EC) on the submission by Member States of statistics on aquaculture and repealing Council Regulation (EC) No 788/96	2008	762		
Other (Decisions, Communications, White Papers, etc.)					
	Communication from the Commission to the Council and the European Parliament - A strategy for the sustainable development of European aquaculture	2002	511		
	Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - An Integrated Maritime Policy for the European Union	2007	575		
	Communication from the Commission to the European Parliament and the Council - Building a sustainable future for aquaculture - A new impetus for the Strategy for the Sustainable Development of European Aquaculture	2009	162		
	Green Paper - Reform of the Common Fisheries Policy	2009	163		
	Synthesis of the Consultation on the Reform of the Common Fisheries Policy	2010	428		
	Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Reform of the Common Fisheries Policy	2011	417		

Table with Belgian and Flemish legislation. The consolidated version of this legislation is available on *Belgisch staatsblad* and the *Justel-databases*.

BELGIAN AND FLEMISH LEGISLATION			
Date	Title		
Laws			
Wet van 20 januari 1999	Wet ter bescherming van het mariene milieu en ter organisatie van de mariene ruimtelijke planning in de zeegebieden onder de rechtsbevoegdheid van België		
Wet van 22 april 1999	Wet betreffende de exclusieve zone van België in de Noordzee.		
Royal Decrees			
KB van 7 september 2003	Koninklijk besluit houdende de procedure tot vergunning en machtiging van bepaalde activiteiten in de zeegebieden onder de rechtsbevoegdheid van België		
KB van 9 september 2003	Koninklijk besluit houdende de regels betreffende de milieu-effectenbeoordeling in toepassing van de wet van 20 januari 1999 ter bescherming van het mariene-milieu in de zeegebieden onder de rechtsbevoegdheid van België		
KB van 18 mei 2008	Koninklijk besluit tot vaststelling van het feit dat een beoordeling van de gevolgen op het milieu vereist is voor het nationaal operationeel programma voor de visserijsector en dat een beoordeling van de gevolgen op het milieu niet vereist is voor het Nationaal Strategisch Plan voor de visserijsector		
KB van 23 juni 2010	Koninklijk besluit betreffende de vaststelling van een kader voor het bereiken van een goede oppervlaktewatertoestand		
KB van 23 juni 2010	Koninklijk besluit betreffende de mariene strategie voor de Belgische zeegebieden		
Ministerial Decrees			
MB van 8 juli 2005	Ministerieel besluit betreffende de bepaling van een activiteit van publicitaire en commerciële ondermemingen onderworpen aan de vereenvoudigde procedure en de vaststelling van het modelformulier voor de opstelling van het milieueffectenrapport		
MB van 7 oktober 2005	Ministerieel besluit houdende verlening aan de AG haven Oostende van een vergunning voor de productie van tweekleppige weekdieren door middel van hangstructuren in de zones Z1, Z2, Z3 en Z4 in de zeegebieden onder rechtsbevoegdheid van België		