

## Aquaculture Economic benefits in Northern Ireland and Border Counties

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## Status of Aquaculture on the Island of Ireland 2006

**Northern Ireland 2006**  
Total Production – 11,100 tonnes  
Total Value – €10.5 million (over £8 million)

**Republic of Ireland 2006**  
Total Production – 57,422 tonnes  
Total Value – €124.6 million

**Of which**

Border Counties in ROI  
Total Production – 26,733 tonnes  
Total Value – over €49.5 million  
(40% of ROI production)



## Cross-Border Aquaculture Initiative EEIG

**Mission Statement**

“To provide a range of support services for the sustainable development of the aquaculture sector, increasing volume, value and employment in the six counties of Northern Ireland and the six border counties of the Republic of Ireland”

**Quality and Environment Section**

Provides advice and support to enable producers to meet increasingly rigorous environmental responsibilities with respect to the sustainable use of natural resources.



## Aquaculture Species

**Freshwater:-**

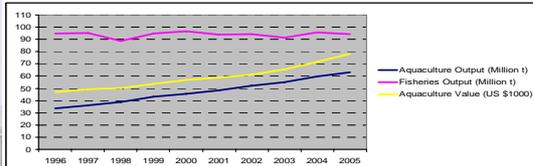
Rainbow Trout  
Brown Trout  
Salmon Smolts  
Char  
Perch  
Crayfish

**Marine**

Salmon  
Rainbow Trout  
Mussels  
Oysters  
Scallop  
Clam



## Overview Aquaculture in the Global Context



Source FAO

World Capture Fisheries will remain relatively static at 95million tonnes annually while requirement is expected to increase to 180 million tonnes by 2030 (FAO, 2006). It is expected that world wide Aquaculture production will increase substantially to help meet this demand.

- Capture Fisheries largely static
- Aquaculture increasing (filling demand)



## Finfish WFD further integrates management of the freshwater aquatic environment and the marine environment

**Traditional species.** Trout and juvenile Salmon are grown in flow through systems.

(EHS NI stated at a freshwater conference that freshwater installations currently have no adverse affect downstream of farms – The industry has a high compliance rate with discharge consent conditions.)

**Diversification and New Species**

Char and Perch are being reared in state of the art re circulation systems utilising novel treatment systems including reed beds.

Freshwater Crayfish – Cross-border project to develop rearing techniques, to be used primarily for restocking areas depleted due to invasive species.



### Char




### Shellfish

**Mussels**

- Suspended culture – mussel lines usually suspended by barrels
- Bottom culture – mussel seed relayed on bottom

**Oysters**

- Trestles holding bags with juvenile oysters

**Scallop**

- Suspended culture – lantern systems
- Bottom Culture – juveniles reared on bottom substrate

**Clams**

- Placed in sandy substrate




### Perch




### Mussel




### Freshwater Crayfish




### Gigas Oysters




## Scallop




## Environmental benefits of Aquaculture

Monitoring carried out as result of presence of Aquaculture

- Biotoxin monitoring
- Phytoplankton monitoring
- Ecoli monitoring
- Benthic monitoring
- Water quality being maintained through Shellfish Waters Directive where applied both north and south.

All of above assist in maintaining water quality



## Sustainability

- Feed

**Finfish:-**  
Aquaculture allows for more optimal use of feedgrains than the poultry or beef industry (this means less grain per pound is needed for fish than those sources).  
Recent developments have resulted in increased use of vegetable in feeds reducing need for fish meal and oils.  
(cultured rag worm now used in some brood stock diets)

**Shellfish:-**  
Feed on plankton in water column, no extra inputs required.

**Medicines:-**  
Use of vaccines now negate need for antibiotics with finfish.  
Medicines not used in shellfish culture.



## Environmental Management Systems

- BIM developed a basis EMS for Aquaculture in the ROI called Ecopact which was launched in Northern Ireland in 2004.
- This system is being applied to all farmed species
- Recent development of an Eco-standard being developed for different species to European EN45011
- Currently available for Salmon, Trout and Mussels




## Economic benefits to NI and Border Counties

**Direct Employment**  
Aquaculture provides jobs in rural and peripheral coastal regions of the Island of Ireland.

	Fulltime	Part-time	Total
Northern Ireland :-	145	72	217
Border Counties :-	309	210	519



## Aquaculture and ICZM

### Co-ordinated Local Aquaculture Management Systems (CLAMS) Groups

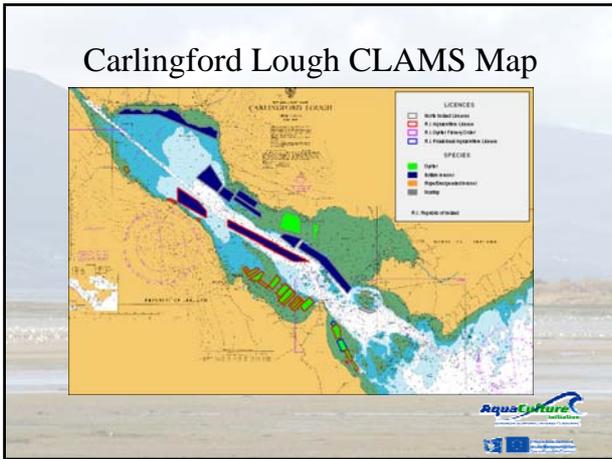


In the remit area of Northern Ireland and the Border counties of the Republic of Ireland there are currently seven CLAMS groups established.

**Northern Ireland :-** Belfast Lough, Larne Lough  
**Border Counties :-** Lough Swilly, Donegal Bay, Mulroy Bay, Trawbreaga Bay  
**Cross-Border Lough :-** Carlingford Lough



### Carlingford Lough CLAMS Map



Thank You

