**Agriculture & Rural Development Committee ARD 12-00(p3)**

**Date:** Thursday 14 September 2000
**Time:** 2.00pm to 4.20pm
**Venue:** Committee Room, National Assembly Building

## A STUDY TO ASSESS THE ECONOMIC DEVELOPMENT POTENTIAL OF SEA AND INLAND FISHERIES IN WALES

### Purpose

1. The Committee is invited to consider the final report of a study by Nautilus Consultants Ltd. in association with EKOS Economic Consultants Ltd. for the National Assembly for Wales Agriculture Department.

2. Crick Carleton, Managing Director of Nautilus Consultants Ltd., who led the study team, will make a presentation to the Committee about the report.

### Background

3. In March this year the Agriculture and Rural Development Committee agreed that the National Assembly for Wales Agriculture Department commission a study to identify potential opportunities for the sustainable economic development of sea and inland fisheries in Wales, having regard to:

- conclusions reached from existing work carried out on possible aquaculture development and , in respect of inland fisheries the recently published report on the Assembly / Government's Review into Salmon and Freshwater Fisheries.
- the opportunities arising from the EU Structural Fund programmes in Wales and the measures outlined in them.
- identifying the relevant bodies and agencies who might carry out the actions necessary to maximise opportunities within the fishing industries, together with an assessment of their ability and suitability for coherent and strategic planning and management of those opportunities.
- identifying any necessary legislative or administration arrangements

4. The contract for the study was won by Nautilis Consultants and their final report has now been received and will be circulated to interested parties in the industry for comment. These include the Environment Agency, the Welsh Development Agency, both Welsh Local Authority Sea Fisheries Committees and groups representing sea and inland fisheries interests.

5. Financial and compliance implications will be fully considered if decisions are taken to adopt any or all of the recommendations of the report.

6. A copy of the Executive Summary of the report is attached.

**Agriculture Policy Division**
**National Assembly for Wales**

---

**Annex**

## Executive summary

### *Overview*

The aquatic resources and natural heritage of Wales are amongst the country's most valuable assets, providing a steady stream of high quality seafood and angling opportunities, offering both seasonal and full-time employment, and contributing to the rich cultural heritage of the rural communities of Wales. Whilst the quality of its sea trout fishing has been widely recognised for some time, and the ports of Milford Haven and Holyhead have been long recorded as the centres of commercial fishing in Wales, lower profile, higher value, activities in both recreational and commercial fishing are less well known.

It is estimated that commercial and recreational fisheries contribute annually over £100 M to the Welsh economy, and provide the equivalent of full-time employment for some 1600 people. Whilst much of this activity is associated with rural communities, the generally good health of the sector, and the continuing strong demand for the products and services of this sector, place it in marked contrast to the farming sector where the future is less secure. And yet there is more that the sector can offer in both output and employment. In particular, further development of the sector can be seen to address three key ambitions of the newly formed National Assembly for Wales, namely:

- maintenance and enhancement of the high quality and unique conformation of the natural environment in Wales;
- development of Welsh economic output, employment and quality of life in ways that enhance rather than diminish the unique qualities of the geography of Wales;
- pursuit of the above employing sustainable systems that achieve a practical balance between economic, social and natural resource interests, and ensure the long-term viability of both rural and urban communities.

In today's highly competitive market place, the many qualities that have confounded larger scale development within the sector in Wales, and have denied local entrepreneurs the advantages that economies of scale might have offered, are now highly sought after. For seafood there is growing demand for sustainably produced, low volume, high quality produce; for recreational fishing, the demand is for quality angling opportunities in often remote and exceptional environments. Whilst there

is no denying that a fragmented sector and poor distribution infrastructures continue to constrain business, there is much that quality, good practice, high environmental standards, and modern technology and communications can overcome.

For many parts of the fisheries sector the future looks good. In this report we profile each element of the sector, and identify where opportunities exist, and where weaknesses undermine future development. Building on this overview of the industry, we map out a five year integrated development strategy for the sector. Given the *ad hoc* and largely reactive nature of recent development support, weak industry infrastructure, and the generally low level of re-investment in the sector, we believe that a focused development programme has the potential to realise significant added value within the industry. Accordingly, we have put together a focused £70 M five year development and investment programme which we believe can boost output by 20 per cent, and sector employment by 10 per cent.

## *2. Contribution of Welsh fisheries to the economy*

Table 7.1 summarises the current contribution to the economy and development potential of the main sectors of the Welsh industry - fishing, processing, aquaculture and angling. The table brings together all the information gathered about each sector. The costs, risks, synergy, etc. of investing public funds in the sector have been evaluated on the basis of information gathered, recent trends and the consultants' knowledge of the future development of the fisheries industry. Table 1 presents the overall contribution that the various fisheries sectors make to the Welsh economy in terms of turnover each year and in terms of employment. For commercial fisheries, most of the economic benefit is represented in terms of production. For recreational fisheries, however, in addition to direct spend on the sport, much of the benefit derives from the use by visiting anglers of overnight accommodation and catering facilities. In addition to the annual economic output that the sector generates, the capital value of Welsh fisheries, as represented by property rights (notably for recreational fisheries), can be far greater than the annual contribution presented here.

The collation and extrapolation of existing data presented in Table 1 comes from a variety of sources. No similar calculation has been presented before for Welsh fisheries, and it is thought that at least some of these figures underestimate the full scale of contribution to the economy. As such, it is recommended that further work be conducted to establish more accurate figures for the economic contribution of fisheries to the Welsh economy. This is particularly important given the socio-economic importance of fisheries to certain rural communities in Wales.

**Table 1. Fisheries Contribution to the Welsh Economy**

| | **Turnover (£ millions)** | **Employment (FTE)** |
|---|---|---|

| | | |
|---|---|---|
| Inshore fishing[1] | 8.8 | 598 |
| Offshore fishing[1,2] | 11.8 | 162 |
| Processing | 2.0 | 40 |
| Shellfish aquaculture | 2.5 | 28 |
| Finfish aquaculture | 4.0 | 99 |
| Game angling[3] | 8.2 | 171 |
| Coarse angling | 39.4 | 90 |
| Sea angling | 28.7 | 471 |
| **Total** | **105.4** | **1,659** |

[1] these figures are based on data from the Seafish Fishermen's Handbook and the CEMARE report Economic and Financial Performance of the UK English Channel Fleet.

[2] vessels registered in Wales but that list their main port of landing as outside the country (Spain or Holland) have not been included in these calculations. Two non-flagship beam trawlers have also been excluded from the calculation, as they are known to operate mainly in the North Sea.

[3.] extrapolation of spend by game anglers on River Teifi, Environment Agency Report

## *Industry profiles*

### Commercial fisheries

The commercial fishing sector comprises the sea-going fleet, which is made up of large offshore vessels, smaller inshore vessels, hand gatherers and commercial diadromous fishermen.

#### *Inshore*

Inshore fishing includes activities by the small boat fleet, as well as hand gathering of shellfish, and fishing for salmon and sea trout (sewin).

The majority of registered fishing vessels in Wales are less than 10m registered length. The largest section of the Welsh fleet is made up of vessels of between five and six meters, most of which have a crew of one. Members of the inshore fleet mainly fish close to the coast for a wide range of species including bass, crabs, scallops, lobster and whelks. Many of these species are of high commercial value and high quality due to the methods of capture used and short time between capture and landing.

Hand gathering occurs to a greater or lesser extent on mud flats all round the Welsh coast. The two main shore-based fisheries are the cockle fishery in the South and the mussel fishery in the North. The largest concentration of gatherers is located in Burry Inlet in South Wales where a well-established cockle fishery supports a number of local gatherers and a local processing industry. In addition to cockles, winkles, mussels, lugworms and seaweed (for lava bread) are gathered. The majority of hand gathering is not closely regulated although some fisheries operate under Several Orders such as the Burry Inlet cockle fishery.

Commercial diadromous fisheries (for salmon and sea trout, eels and elvers) are in decline. Salmon netting licences are in the process of being retired by Environment Agency Wales as part of an integrated plan to help conserve and re-build stocks of salmon. Commercial elver fishing remains fairly profitable due to high demand from the Far East, where elvers are on-grown for consumption.

There is considerable scope for improvement in the economic strength of this sub-sector, primarily through initiatives aimed at countering the highly fragmented nature of the sub-sector. On the one hand these involve improved stewardship of the coastal environment, and the shouldering of greater management responsibilities by fishermen, and on the other they involve initiatives to improve industry organisation and representation, and the achievement of improved industry logistics. The growth potential in the sub-sector is good, underpinned by more focused marketing and promotion, such as the accreditation of the Bury Inlet cockle fishery by the Marine Stewardship Council.

***Offshore***

The offshore fleet comprises over 10m vessels that fish both within and outside the 12 mile coastal waters around Wales. A large proportion of the offshore fleet is made up of flagships - vessels registered in Wales but owned and operated by interests outside the UK. The majority of the flagships are Spanish-owned, though there are also a small number of Dutch-owned vessels. Flagships must comply with economic-linkages, but they do not contribute a great deal to the local economy as only a small proportion of fish is sold over Milford Haven auction; the majority is loaded onto lorries and transported for sale in Spain or Holland. In addition to flagships, many Dutch and Spanish registered vessels operate in the seas around Wales and land to Milford Haven but these too transport their fish out of the region. The Welsh fleet includes two beamers, but these are operated in the North Sea, and whilst the beneficial ownership is in Wales the operation of these vessels provides little direct contribution to the local economy.

This sub-sector is relatively large in terms of economic turnover, but contributes little to the Welsh

economy as most fish from the flagships is consigned to ports in Spain and most landings by the local fleet are consigned to ports outside the region. The sub-sector shows an overall downwards trend in scale and economic health due to a contraction in the resource base (TAC cuts), in fleet and in the volume of landings. The relatively limited control that the National Assembly for Wales has over the offshore fishing sub-sector, coupled with the limited economic benefit to Wales from such activity, makes this a particularly difficult sub-sector to influence for the better.

Positive change would require heavy investment in areas such as new harbour developments and quota purchase, both of which are high risk with relatively poor chances of achieving real impact. This is not to suggest that there should be no public investment in the sector, but that a tight rein should be placed on the public purse. Potential lays in maximising the use of existing landings, the deployment of more sustainable fishing techniques, the modernisation of the fleet and improvement in the handling of fish. There is also potential in encouraging entrepreneurs to capture more added value from product before it leaves Wales.

Overall, the sector shows limited development potential under current conditions, and is likely to represent poor value for money for public or private funding investment. It also shows poor synergy with investments in other aspects of the economy outside fisheries. Any improvements to shore-based facilities such as provision of ice, storage and improvement of handling aimed at increasing the potential of the inshore fleet will also benefit the offshore fleet.

***Processing***

Very little processing of finfish occurs in Wales. There are a few small filleting / re-packing operations situated in Milford Haven but they suffer from a lack of continuity of supply and often have to buy product from other auctions. They employ only a handful of people.

As a result, the main centres of seafood processing in Wales are associated with the main cockle and mussel gathering / farming areas. There are four cockle processors based around the Burry Inlet in South Wales who buy from local hand gatherers. The local beds do not produce enough cockles to satisfy the processors' demand so supplies are supplemented with cockles from elsewhere. The largest processor in South Wales employs 25 full-time staff.

The main mussel growers and processors are located in the Menai Straits in North Wales, near to the mussel beds. Potential exists for the value added processing of mussels in North Wales, but to date the majority of harvested mussels is washed and packed in 25kg bags for export to the Continent where they are processed further. Additional processing such as cooking, pickling, manufacture or ready-meals occurs outside Wales and does not, therefore, contribute to the Welsh economy.

A small amount of crab is processed by fishermen at home and sold "farm gate" style to passers-by. It is unclear how much crab is sold in this way or if it is caught by commercial fishermen or by unlicenced fishermen who sell it to supplement their income.

The current Welsh processing sector is small. There appears to be little interest from the industry in expanding this sector with most fish and shellfish being transported from landing and production sites to export markets where much of it is subsequently processed prior to final sale. Nevertheless, there are many opportunities for fish processing in Wales, given the high quality sources of raw material available around the coast. Processing offers the great potential for capturing additional economic benefit from primary producers, further under-pinning the viability of the commercial fishery infrastructure of Wales. The greatest potential is in encouraging small-scale local processing for local or niche market sale. The formation of co-operative ventures that can take advantage of larger premises and lower transport and marketing costs than individuals is advised.

**Aquaculture**

Aquaculture operations in Wales can be divided into those situated in the marine environment and those in the freshwater environment. Marine aquaculture is mainly confined to extensive culture of mussels in the Menai Strait in North Wales. Other shellfish culture operations are limited although oyster farming has been attempted in the past. The coastal morphology of Wales does not lend itself to the sea cage culture of finfish as in Scotland and Ireland. There are proposals to construct both a turbot and a bass farm in the near future, using re-circulation systems - a new technique for the UK.

Freshwater aquaculture is mainly concerned with the culture of salmon and trout. Salmon farming focuses on the production of parr, smolt and fry for stocking on-growing sites outside Wales. Trout farming operations produce fish for stocking commercial sport fishing ponds and rainbow trout for consumption. Some operations combine sport fishing and table production by operating "put and take" farms where anglers can fish for rainbow trout that they can keep for home consumption. There are proposals for two eel farms to be set up in South Wales but currently there is no freshwater culture other than for salmon and trout.

**Recreational fisheries**

Recreational angling can be subdivided into game, coarse and sea angling. Angling is a hugely popular participatory sport in Wales with a wide range of target species for game, coarse and sea fishing.

***Game angling***

There are in the region of 240 salmon and trout rivers in Wales. Of those, 26 rivers account for over 99 per cent of rod caught sea trout - the most important species to game fishing in Wales. More sea trout are caught in West Wales than anywhere else in Britain.

Other species attracting game fishermen to Wales (particularly Central and Northern areas) are grayling and brown trout. Stillwater game fishing is also to be found throughout Wales where brown and rainbow trout are targeted broth from the banks and from the boat in larger reservoirs.

As an indication of the popularity of the sport, it is estimated that just over 90,000 days were spent game fishing in Wales in 1999.

It is widely accepted that Welsh salmon stocks will not support further fishing pressure as the evidence suggests the stocks are currently overfished. Game fishing in Wales can, however, develop its reputation for excellent sea trout fishing, as catches remain high enough to attract visiting anglers. Future development of the sub-sector rests with continued upgrading in river system quality and management, and more focused marketing and promotion of the quality of local fisheries.

Unlike the mature game fishing market in Scotland, there are many opportunities to increase the income derived from existing game fishing centres as well as to develop new or relatively undiscovered game fisheries. The draft "Celtic Fishing" initiative proposed by Environment Agency Wales seeks to develop a joint marketing initiative for the two countries. This offers potential benefits for Wales through association with a more established game fishing and holiday destination for overseas visitors such as Ireland, but operators in the Welsh game fishing sector need to ensure that Welsh ‘product’ does not suffer by comparison with the Irish.

***Coarse angling***

Environment Agency Wales maintains a database of over 250 still water coarse fisheries in Wales, from one acre ponds to larger lakes and reservoirs. River coarse fishing opportunities are more limited, but the river fisheries on the Wye, Dee, Usk and Taff are of high quality.

There are estimated to be 20,000 coarse anglers in Wales. Many of these do not belong to an angling club or take part in organised competitions. The range of coarse angling species available in Wales is not as large as in England and many of the venues are smaller. A large number of recreational coarse anglers regularly travel to England to fish these larger venues.

There is considered to be untapped development potential in the this sub-sector, potential that needs to be released through a combination of improved site management and more focused marketing and promotion. Coarse fishing is amongst the most popular recreational activities in the UK, and incorporates a strengthening competitive sport element. Wales provides a wide range of venues and species for the coarse angler, with significant corollary contribution to the local, and particularly rural, economy.

Development of the sector displays strong synergies with the movement towards greater rural sustainability, promotion of the Welsh environment, and of Wales as a tourism venue for all the family.

This sector is considered to offer substantial economic and development gain for relatively little public spend at low risk.

***Sea angling***

Sea angling is also very popular in Wales, undertaken from the shore or from boats. A number of commercial fishermen operate charter vessels for sea angling trips during the tourist season.

**Fishery Sector Management**

Fisheries sector management, with the exception of offshore fisheries, rests with the National Assembly for Wales. For offshore fisheries, management responsibility rests with MAFF. The NAWs' executive agencies in advising on and implementing fisheries policy, bearing in mind that this covers both commercial and recreational fisheries, rests with Environment Agency Wales, the Countryside Commission for Wales, and the two Sea Fisheries Committees that cover most of Wales. Development support is also provided by the Welsh Development Agency, the Wales Tourist Board and the local councils.

In general, the professional capacities and resources of the fisheries management agencies are well developed and appropriate. In terms of development support, general capacities are good, but sector specific expertise and focus is poor (largely in line with the fragmented nature of the sector). In the former area, the one exception is the role and operational structure of the Sea Fisheries Committees. These committees form the focal point for all matters associated with inshore fisheries, but whilst they possess the professional capacities to fulfil their role, they lack secure and adequate funding. Perennial concerns about funding undermine the capacity of these institutions to operate at full capacity. Given the importance of inshore fishing in the current and future mix of economic activity in the coastal zone, this issue needs to be addressed with some urgency.

As a secondary, but no less important, issue, the fact that the North Wales and North West Sea Fisheries Committee covers territories in both Wales and England compromises the linkage between the NAW and its key source of advice on management and development of inshore fisheries. As they stand at the present, the Sea Fisheries Committees report to both local government and central government, and operate through local byelaw. Consideration should be given to strengthening the formal linkage between the NAW and the SFCs.

On this basis, the NAW should press for an early review of how England and Wales SFCs are funded, the territorial coverage of the SFCs, and the institutional linkages between the SFCs and regional government.

In a third issue, it is considered that the SFCs possess the requisite expertise in marine matters, and Environment Agency Wales in freshwater issues. Areas of potential conflict arise in the management of estuarine environments and in the management of diadramous fisheries. Further, there is overlap in the roles of these bodies and those of the CCW. Despite this, co-operation between these agencies is particularly strong, but would benefit from more formal structure. This could be achieved by a combination of framework planning, where agencies work out common operational plans in the areas where they overlap (an extension of the local environmental action plans and integrated coastal

management plans already in circulation), and the development and sharing of a case record, documenting decisions and arguments that have been addressed in one area which can also be applied in others. In addition, EAW should retain its seaward responsibilities in respect of diadramous fisheries, but consideration should be given to releasing responsibility for some estuarine environments to the SFCs (notably the Dee and areas of the Severn).

### *Development potential*

Table 7.1 summarises the current contribution to the economy and development potential of the main sectors of the Welsh industry - fishing, processing, aquaculture and angling. The table brings together all the information gathered about each sector. The costs, risks, synergy, etc. of investing public funds in the sector have been evaluated on the basis of information gathered, recent trends and the consultants' knowledge of the future development of the fisheries industry.

**Table 7.1 Development potential by sub-sector**

| | Fishing | | Processing | Aquaculture | | Angling | | |
|---|---|---|---|---|---|---|---|---|
| | **Inshore*** | **Offshore** | | **Shellfish** | **Finfish** | **Coarse** | **Game** | **Sea** |
| a. Economic contribution | £8.8M | £11.8M | £2M | £2.5M | £4M | £39.4M | £8.2M | £28.7M |
| b. Employment | 598 | 162 | 40 | 28 | 99 | 90 | 171 | 471 |
| c. Recent trend | ⇑ | ⇓⇓ | ⇔ | ⇔ | ⇔ | ⇑⇑ | ⇔ | ⇑ |
| d Cost | ££ | £££££ | £££ | £ | ££££ | £ | £ | £ |
| e Risks | xxx | xxxxx | xxx | xx | xxxx | x | xxx | x |
| f. Returns | £££ | £ | ££ | ££££ | ££££ | ££££ | £££ | £££££ |
| g Synergy | Φ Φ Φ Φ | Φ | Φ Φ Φ | Φ Φ Φ Φ Φ | Φ Φ Φ Φ | Φ Φ Φ Φ Φ | Φ Φ Φ Φ Φ | Φ Φ Φ Φ |
| h Cost effective | ££££ | £ | ££ | ££££ | ££££ | ££££ | £££ | £££££ |
| i. Ranking | Φ Φ Φ Φ Φ | Φ | Φ Φ Φ | Φ Φ | Φ Φ | Φ Φ Φ Φ Φ | Φ Φ Φ Φ | Φ Φ Φ Φ Φ |

* Inshore figures include shore-based fisheries

Key

a. **Economic Contribution**. Estimated current economic contribution (from Sections 2 - 5).
b. **Employment**. Estimated employment (from Sections 2 - 5).
c. **Recent trend**. An indication of whether the sub-sector has expanded or contracted in the last five years.
d. **Cost**. An indication of the scale of public sector investment considered to be required to bring about a significant level of development in the sub-sector, where

£££££ indicates greatest investment and £ the least.

e. **Risks**. An indication of the risk that such public investment might not achieve the desired development gain, where XXXXX indicates the greatest risk and X the lowest.
f. **Returns**. An indication of the scale of development gain that public sector investment could stimulate, where £££££ indicates the greatest gain and £ the lowest.
g. **Synergy**. The degree to which development in the sub-sector is likely to underpin other NAW development ambitions, where **Φ Φ Φ Φ Φ** indicates the greatest synergy and **Φ** the lowest.
h. **Cost effective**. The cost-effectiveness of public sector investment - a combination of the leverage that development expenditure might be expected to achieve, tempered by the risk attaching to the desired results not being achieved (combines d and e). £££££ indicates the most cost-effective areas for public fund investment and £ the least.
i. **Ranking**. The importance that should be given by public agencies in allocating scarce development resources between sub-sectors, where **Φ Φ Φ Φ Φ** indicates the most important areas for development and **Φ** the least.

Linkage between the high quality of the natural environment and the health of the fisheries sector is well established. Indeed there are particularly strong impacts associated with recreational and inshore fisheries, both of which depend on the high quality of coastal, river, and lake environments. Yet despite the high standing of much of the aquatic environment in Wales (in the order of ninety per cent of the coastline is subject to one form of environmental designation or another), there is still considered to be room for further improvement.

Of note, achievement of greater efficiencies in the husbanding and harvesting of coastal resources is likely to generate substantial increases in the value of landings. In addition, such improvements offer the potential for the evolution of small niche seafood processors, a development that is difficult with current supply chain structures. In the area of aquaculture, the exploration of innovative aquaculture and habitat management systems that focus on integrated low effluent systems have the potential to revolutionise environmental management at the land / water interface. For recreational fisheries, it is felt that much added value can be generated through the combination of improved marketing and promotion, and improvement in the quality of sector facilities and services.

In general, whilst Wales offers a unique geography and mix of aquatic resources and exploitation patterns, it does not display innate comparative advantage over similar environments and exploitation patterns found in the UK and western Europe. Efforts to enhance economic contribution, let alone achieve comparative advantage, will require clear vision, strong leadership and confidence in the appropriate allocation of financial and skilled resources. This strategy provides the beginnings of a framework for such advance, but much further debate, planning and action will be needed to convert these strategic thrusts into positive and sustainable development. It will be necessary for public agencies to seek funding from sources far outside simply the Financial Instrument for Fisheries Guidance (FIFG) and other structural funds, but to tap into other sources of development funding and to mobilise private

and institutional investment funds.

Re-establishing the balance of interest between economic, social and natural resource is now more firmly on the agenda. It is this that forms the main thrust of the fishery development strategy. The strategy focuses on the common cause of economic operators and environmental interest groups, and the synergy that exists, and can be enhanced, across sectoral borders.

These synergies are captured within the strategy by:

- raising awareness of the scale and profile of the existing economic, social and environmental contribution of fisheries to Wales and pin-pointing where exploitation of fishery sector opportunities also contributes to sustainability and the achievement of environmental improvements
- encouraging a focus away from exclusive environmental conservation influences towards sustainable exploitation
- encouraging a planned and strategic response to development opportunities through the re-orientation and stream-lining of institutional networks and the provision of dedicated sectoral development support
- re-focusing public sector investment on the facilitation of development, actively promoting exploitation of development opportunities rather than simply responding to requests for capital and infrastructural support
- ***creating comparative advantage in sustainable aquatic environmental management and exploitation by channelling Welsh R&D, entrepreneurs and venture capital resources towards the development and commercial exploitation of both low and hi-tech aquatic management systems.***

The main beneficiaries of this strategy are the fishery related businesses in rural and coastal communities where alternate economic opportunities are limited and where the future viability of the community is closely allied to the high quality of the surrounding environment and the application of more sustainable practices.

### *Overall programme dimensions*

Overall, a programme of development expenditure of £60 million is proposed comprising about sixty per cent public funding, and forty per cent private investment. It is proposed that this development thrust be underpinned by attracting research funding of approximately £10 million.

At the core of the strategy is the Objective 1 programme. Valued at £55 million over five years, this is expected to draw down a little over half of its funds from EU structural assistance, match funding from local and central government of 6 per cent, and a little under forty per cent from private investment.

£31 M of expenditure is programmed under Objective 1 sub-measure 5.9 - "support for fisheries and

aquaculture", and £22 M split between sub-measures 5.7, and 5.8 - "a sustainable countryside - enhancement and protection of the natural environment and countryside management (EAGGF)" and "support for recreational opportunities and management of the natural environment (ERDF)" respectively. A further £2 M is programmed under sub-measures 1.1 (assistance to SMEs) and 2.1 (information and communications technology infrastructure).

At the end of the five year programme the sector will be expected to be in better financial shape, operating more efficiently and profitably, employing practices that focus on value rather than volume, and operating sustainably within the capacities of the natural resource systems on which the businesses depend.

The thrust of this programme is to provide an environment in which fishery related businesses will prosper (54 per cent of programme funding). This is achieved through:

- **Facilitation** in the form of the focused umbrella projects Seafood Wales and Fishing / Angling Wales and incentives towards stronger representation within the industry (4 per cent).
- Achievement of **improvements in resource management systems** as they apply to both commercial and recreational fisheries (8 per cent).
- Redirection of fishing activities to embrace **more sustainable practices** (5 per cent).

Support is also provided in the form of infrastructure improvements through programmes of **habitat improvement** (18 per cent) and **upgrading of harbours** (18 per cent), with the emphasis on small harbours, jetties and launch sites. Further support is provided in the promotion of **higher levels of research and development expenditure** through the Aqua-Innovation project (3 per cent), drawing down up to £10 million in additional EU, public and private sector research funding from sources largely outside the Structural Fund programmes.

Direct support in promoting business growth and achieving improvements in the quality and value of associated products and services will be provided along three fronts. Support in **business development** will be provided to both new and existing ventures (19 per cent). Support in establishing **standards of practice and quality**, and in meeting such standards, will be provided (20 per cent). Stimulation of additional business, based on the high quality of products and services available in Wales, will be provided in focused **marketing and promotion** programmes (6 per cent). The composition of the Wales fishery development programme is summarised in table 8.1 below.

**Table 8.1 Proposed programme expenditure by category**

| | £'000 | | | |
|---|---|---|---|---|
| **Objective 1 programme** | **Total** | **EU** | **Public** | **Private** |
| Facilitation | 2,950 | 2,218 | 223 | 510 |
| Improved resource management systems | 4,150 | 2,693 | 258 | 1,200 |

| | | | | |
|---|---|---|---|---|
| Adjustment of fishing effort | 2,719 | 1,419 | 186 | 1,114 |
| Physical infrastructure | 19,880 | 12,440 | 1,494 | 5,946 |
| Quality control | 11,153 | 5,784 | 558 | 4,777 |
| Business development | 10,300 | 3,770 | 515 | 5,990 |
| Marketing and promotion | 3,400 | 1,815 | 170 | 1,415 |
| **Total** | **54,552** | **30,138** | **3,403** | **20,952** |
| | | **55%** | **6%** | **38%** |
| **Non-Objective 1 programme[1]** | **5,000** | **3,500** | **500** | **1,000** |
| | | **70%** | **10%** | **20%** |
| **Research and Development[2]** | **10,000** | **7,000** | **1,000** | **2,000** |
| | | **70%** | **10%** | **20%** |

[1] - includes other structural fund programmes and funding under specific European Community initiatives, such as INTERREG.

[2] - comprises drawings on the EUs Framework Five Programme, central government research programmes, the matched funding elements of such programmes, and contract research.

### *Facilitating change - spearhead initiatives: Seafood Wales, Angling/Fishing Wales and Aqua-Innovation*

Providing the institutional mechanism for realisation of the development opportunities identified, it is proposed to establish facilitation services in two programming offices, and one co-ordination body. The facilitation services are to be provided through two umbrella initiatives under which projects to support the development opportunities outlined in the previous section can be pursued. These umbrella projects are:

- **Seafood Wales project** - dealing with commercial fisheries and aquaculture and
- **Angling / Fishing Wales project** - dealing with recreational fishing

It is proposed that the bodies fall, respectively, under the organisational control of The National Assembly for Wales in the case of the Seafood Wales project, and Environment Agency Wales in the case of the Angling / Fishing Wales project.

As the vehicle for placing Wales at the forefront of technology and practice in integrated aquatic resource management, it is proposed to form a strategy group under the heading **Aqua-Innovation**. The mandate of this group will be to act as a catalyst in bringing together financial and human capital in the development and application of innovative aquatic resource management and exploitation systems, and associated sustainable technologies and production systems.

***Seafood Wales***

Dealing with commercial fishing, aquaculture and processing industries, this programme should be organised by the National Assembly for Wales.

There are four main thrusts to the Seafood Wales project:

1. **Business**

   Including harbour developments; start-up grants to encourage new entrants; vessel modernisation/ training grants (which does not increase capacity e.g. improving catch quality, working conditions), safety grants; diversification grants into other fisheries or activities; fishing heritage; local processing development

2. **Promotion / marketing**

   Promotion of specific sustainable inshore fisheries; promotion of Welsh fisheries in general

3. **Pilot studies / feasibility studies / R&D**

   Investigations into new fisheries; new aquaculture techniques and species; processing ventures (R&D for new products and services).

4. **Conservation / management**

Stock conservation & management schemes; education; formation of representative bodies.

***Angling/Fishing Wales***

Dealing with recreational fishing this programme should be organised by Environment Agency Wales. This project is a broadening of the existing Fishing Wales project being undertaken by the Environment Agency and Wales Tourist Board, building on the success of this initiative. The name "Fishing Wales" is already established and it may cause confusion to change it at this stage but it is recommended that "angling" is specifically mentioned in the project heading in order to avoid any confusion with commercial fishing.

There are four development thrusts to the project:

1. **Business**

   Development of new and existing fisheries (improved facilities, access, coaching); development

of associated industries (angler-friendly accommodation); development of code of conduct (managers and users).

2. **Tourism / marketing**

   Promotion of welsh angling; "one stop shop" for visitors; development of web-based resources; accreditation scheme for fisheries and facilities; information provision; development of specialist fishing holidays; angling competitions.

3. **In Wales promotion**

   Development of the sport; coaching qualifications;

4. **Conservation / management**

Habitat improvement projects; restocking; management; water quality; research; education.

***Aqua-Innovation***

The Aqua-Innovation programme is explicitly set-up to support and add value to the development activities of the umbrella initiatives, Seafood Wales and Angling / Fishing Wales. It is charged to identify, support and promote the development and promulgation of front-line technology and integrated management systems in all aspects of aquatic environment management and exploitation. It will achieve this by encouraging public / private partnerships in applying for applied research funding from all available sources.

Key aspects of its operation will be:

- the establishment of research priorities in aquatic resource management and exploitation, as a service to both public and private sector funding agencies;
- the sponsoring / commissioning of specialist reports in support of such advice;
- the establishment of a case record database of best practice (web-mediated) as a means of further promoting excellence within Wales; and
- the organisation of an annual conference to promulgate Welsh achievements in this area, and exchange experience with sector practitioners from other geographic areas.

Key areas of research activity are likely to be in relation to environmental management systems, integrated coastal management systems, catchment area management systems, and water-based elements of rural diversification.