DAMAGES ON MARINE RESOURCES AND ITS ASSESSMENT

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ABSTRACT

Coastline communities can be direct or indirectly affected by oil spill damages. Oil spills and any temporary fishing, harvesting or marketing bans which are imposed can have potentially serious economic impacts on the fishing industry. International arrangements are in place to provide compensation for economic losses resulting from spills, including commercial fishing activities. Because the international compensation system is not well understood by those affected by spills, this paper reviews the approach used by the IOPC Fund and its experts to handle claims for fisheries damages, assess and quantify losses and provide compensation. Illustrations are drawn from recent incidents.

Rapid and accurate assessment of claims is straightforward if good supporting documentation is available, such as detailed accounts and sales records for previous years. Where documentary support may be limited, closer investigation will be required. In all circumstances, close cooperation between claimants, compensators and experts advisers is the best approach for making accurate assessments in a local context, and thereby achieving amicable settlements without need for litigation.

INTRODUCTION

The purpose of this paper is to review a few lessons of interest on the methodology used by IOPC Funds experts to assess damages caused by oil spills on fishery and aquaculture from recent incidents. I would like to share with you some personal experience, with the idea that much sharing of experience is needed to facilitate mutual understanding in pollution compensation procedures.

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Experts contracted by the IOPC Fund to assess the technical reasonableness of claims received are all specialist in a very specific field. In my case, that field is shellfish culture, and my first assignment for the Fund was in my own country, Galicia, to participate in the assessment of mussel farming claims following the Aegean Sea incident.

On paper, the task of an IOPC Fund experts looks easy and straightforward : to compare the claim with personal knowledge and experience of the sector and advise IOPC Fund claim handlers on the conformity of the claim with good professional practice, or pinpoint any possible discrepancies with the established professional standards. We do not value claims, or propose compensation ourselves. We provide the technical elements out of which claim handlers make up their minds on what is admissible, based on the rules which have been established by the member countries of the Fund.

I have learnt from a number of spill such as the Mare Princess in Cuba, the Sea Prince in Korea, the Sea Empress in UK, the San Jorge in Uruguay and the Erika in France, that this apparently straightforward task is far from easy. In the economic and psychological situation resulting from a pollution incident, information that was openly available in normal circumstances may become suddenly confidential, or disputed by the professional themselves, on the ground that it does not reflect reality. Our task, always made very clear to us by the IOPC Fund, is to find what that reality really is, and to advise the claim handlers on it.

BACKGROUND

After an oil spill, fisheries can be affected direct or indirectly. Oil can directly contaminate boats and the gear used for caching or cultivating marine species. Reduced catches of fish, shellfish and other marine organisms are also occasionally reported after an oil spill. However, experience from major spills has shown that the possibility of long-term effects is remote because the normal over-production of eggs provides a reservoir to compensate for any localised losses. Catch statistics are rarely sufficiently detailed to enable any decline due to an oil spill to be isolated from changes brought about by other factors such as variable fishing effort and natural fluctuations in the size of the stock.

Cultivated stocks are more at risk from an oil spill: contamination of floating structures and facilities, such as shellfish racks in the intertidal zone or cultivated seaweeds in tidal areas, are a common problem. Mussels, oysters and other species cultivated near the sea surface and in shallow waters may become tainted by dispersed oil. Although natural self cleaning may be possible, heavy contamination may require destruction of the stock.

Bans on the fishing, harvesting and marketing of marine products may be imposed following a spill, to maintain market confidence and to protect fishing gear and catches from contamination as well as consumers from unpalatable and potentially unsafe seafood. Such bans are easily imposed but fishing and harvesting bans can have potentially serious economic impacts on fishing and aquaculture industry. A rational basis is needed for maintaining and lifting them.

Financial compensation is normally available in the event of oil spill damage to fisheries and aquaculture through international arrangements. Claims are assessed and paid in accordance with uniform admissibility criteria. A claim is admissible only when the amount of the loss or damage is actually demonstrated. The criteria adopted by the IOPC Funds allow for a certain degree of flexibility in respect of the requirement to present documents, taking into account particular circumstances of the claimant or the industry concerned or of the country in question.

The guiding principle in assessing claims for lost earnings or equipment damage is simply that the claimant should ultimately be no worse and no better off as a result of the oil spill. Losses can be quantified by comparing post-spill production with yields and market values in previous years and in nearby areas. The damage to fishing gear and aquaculture facilities can usually be verified visually to judge if compensation for cleaning, repair or replacement is the appropriate remedy. Saved costs and age and life expectancy of the equipment must be taken into account.

Indirect effects can be recorded following an oil spill: loss of market and fall of prices because of the negative repercussion of the oil pollution on seafood markets. From the perspective of the compensator, in order to accept such losses, it is necessary to demonstrate a reasonable degree of geographic and economic proximity between the contamination and the alleged loss or damage sustained by the claimant.

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Rapid and accurate assessment of claims is straightforward if good supporting documentation is available, such as detailed accounts and sales records for previous years. However, the documentary support may in some cases be limited, for example where private sales are not controlled statistically or where losses result to newly established commercial activities. In these cases a closer investigation will be required to permit the IOPC Funds´ experts to form their own opinion on the amount of the loss or damage actually suffered.

Because of the risk of oil spill impact on commercial fisheries and aquaculture is increasing as coastal resources become more heavily exploited, contingency planning is vital to promote a successful response to any emergency. Fishing and aquaculture operators, as well as local and central government response personnel, should be involved if oil spill response is to be both; effective and efficient.

The approach used by the IOPC Fund and its experts to handle claims for fisheries damages, and to assess and quantify losses and provide compensation will be illustrated here by examples drawn from recent incidents

EXAMPLES FROM INCIDENTS IN EUROPE

These examples were taken from incidents in Europe where the International Oil Pollution Compensation Fund (IOPC Fund) has been involved.

1.- AEGEAN SEA, 1992

This incident took place the 3rd December 1992 in La Coruña harbour in Galicia in North-Western Spain, during a period of severe winter weather. In the area affected there were fishing and shellfish-gathering activities, three on-land fish farms cultivating salmon and turbot as well as plants used to depurate shellfish such mussels, cockles, clams and oysters. After the oil spill the Galician Fisheries Council imposed a fishing and harvesting ban to protect the fishing and aquaculture industry as well as public health.

Fishery closures were imposed where oil and sheen were visible on the sea surface. As conditions improved, the fishing ban was gradually removed for various species and parts of the affected area during the period January – September 1993, after which fishing returned to normal.

In the area affected by the spill there was an important aquaculture industry where the cultivation of mussels was the main activity, representing more than 80% of the total harvest value in the area. A ban was imposed for over a year where mussel farms were located. Mussels had been strongly tainted by the spill and depuration was slow. On April 1993 the Galician Fisheries Council decreed that all cultivated production should be destroyed.

The experts engaged by the IOPC Fund and the UK Club did not consider a total destruction to be reasonable but accepted that a partial destruction of the largest mussels was justified to make space for new seed intakes. Experts considered it premature to destroy smaller mussels in view of the possibility of any taint disappearing by the process of natural depuration, before mussels reached commercial size. Tainting of living tissue is well known to be reversible once the source of contamination has removed.

However the decision of the Galician Fisheries Council prevailed some 8,000 tonnes of mussels, from about 110 mussel rafts, were complete destroyed by September 1993 but the ban was not lifted until May 1994 when the mussel cultivation was allowed to resume. This drastic intervention by the Fisheries Council was allegedly to protect the image of seafood product rather than having any scientific basis or to protect public health. Far too much account was taken of the initial fears of possible long-term effects, and the authorities refused to change this position as conditions improved following clean up and natural depuration.

Following the mussels destruction a total of ten mussel producers presented claims on the basis of an unrealistic model of evaluation developed by the Galician Fisheries Council from December 92 to the end of 1995, without adequate documentations. This model neglected to take into account the approximate 20% weight loss resulting from, among other factors, the cleaning of shells prior marketing. It has also not accounted for the saved production costs during the loss period. The model did not take into account that at that moment approximately 50% of production was processed and 50% was sold fresh. The model used a price which was practically double the correct average price for the whole of Galicia.

The IOPC Fund experts requested detailed accounts and production and sales records for previous years from claimants, with little success. To be able to assess these claims experts looked for references outside the affected area, carrying out a study on both; production and commercial market for mussels in the Arousa´s Bay. The Arousa´s Bay, located in the South of Galicia at more than 100 km of the area affected by the Aegean Sea oil spill, held more than 2,500 mussel rafts, producing around 175,000 tonnes. Through this study it was possible to have a good understanding of the mussel cultivation, making it possible to calculate an average of the marketable production per raft per year, as well as costs of production, market prices and its merchandising.

The experts of the Fund considered that it was reasonable to evaluate losses from the date when the ban was imposed up to the first harvest after the incident took place. The losses were assessed on the value of three harvests, less saved production costs and commercial discounts.

Amicable settlement proved impossible and these 10 claims were presented in Court, eight in civil proceeding and two in criminal proceeding. The Court did not accept the conclusions of a study carried out by the University of Santiago de Compostela regarding the global quantification of losses allegedly suffered by mussel farmers. The Criminal Court found that only one mussel producer had proved the quantum of the damage suffered to be compensated and he was paid.

Nine years later the IOPC Fund and the Spanish Government still search for a global settlement for the nine other claimants.

SEA EMPRESS, WALES, 1996

On February 1996 the Sea Empress incident occurred at the entrance of Milford Haven in South-west Wales. Around 200 km of coastline were affected by the spill. Inside the affected area, there was diverse inshore fishing activity by small boats and hand-gathering of shellfish in the intertidal zone.

A temporary fishing ban was imposed in respect of certain areas affected by the spill. Fisheries were closed until hydrocarbon contents in water had reduced to background levels and when no taste of oil was detected in fish

and shellfish. The fishing ban imposed on the exploitation of shellfish living on the sea bed, notably whelks and crustaceans was gradually lifted for species and parts of the affected area. All remaining restrictions were lifted in September 1997.

Claims were presented by fishermen for loss of incomes as a result of the fishing bans, the majority from whelk and crustacean fishermen.

At the time of the Sea Empress incident the UK fisheries of whelks had an important market in Korea. In autumn of 1995 the whelk fishery was subjected to a considerable increase in fishing effort which was expected to continue into the 1996 season. A potential prosperous industry was becoming more active and many people were involved. Because of this, many fishermen planned to fish more than the previous year and new licences to fish were to be authorised. A number of orders had been placed with pot manufacturers and the more active fishermen had already procured extra gear in anticipation of the full start of the 1996 season. The expected fishery expansion was stopped when a fishing ban was imposed following the spill.

To assess losses during the business interruption because of the ban period, experts engaged by IOPC Fund designed a compensation model to apply to the whole fleet, taking into account records of individual fishermen, vessel activity and catch indexes for each claimant. Claimants with new licences were valued using a fixed formula which took into consideration, planned changes for the 1996 fishing season.

From fishermen information and using historic landings data during 1995 and purchases records it was possible to establish the current numbers of pots being fished at the time of the spill. Because of fishermen's plans to increase the amount of gear for fishing, it was necessary to undertake a pot counting and marking exercise to ensure confidence in the number of whelk pots on which the claims were based. In total 30,757 whelk pots were rapidly counted and marked to be able to know which could have been the maximum fishing effort.

From the whelk fishing activity outside the ban area it was possible to use the current price trends in the model as well as average amounts of crab and dogfish bait used in pots and their prices.

Operational costs were also incorporated into the model although insurances were not included to be paid even though vessels were not fishing.

Most fishermen have agreed with the loss of income assessment made by experts and claims from 132 fishermen were approved and paid.

ERIKA, FRANCE, 1999

In December 1999 the Erika incident occurred, in the Bay of Biscay, some 60 nautical miles off the coast of Brittany, France. About 400 km of coastline were affected by the spill where there are important coastline fisheries and aquaculture industry, mainly oysters and mussels.

As a result of the monitoring programme put in place by the French authorities and the guidelines issued by the Agence Française de Sécurité des Aliments (AFSSA) cultivated and natural stocks of shellfish in numerous small areas were found to have accumulated hydrocarbons exceeding accepted limits and the marketing of produce in these areas was banned. The fishing bans were gradually removed between March and September 2000 with the exception of a small area in Loire Atlantique – Le Petit Traict du Croisic where the ban was extended until September 2001. However, along the coastline affected by the spill, there were still numerous places not included in the ban.

Before the oil spill reached the shoreline, producers had already collected, based on fears, most of their crop of shellfish to sell for Christmas and New Year. Despite the oil spill, the shellfish marketing did not stop inside the affected area but market repercussions, such as falling prices and a reduction of sales resulted. To some extent these were aggravated by prolonged and widespread, sensationalised reporting in the press, which has been a feature of many previous incidents.

From the claims which were submitted and discussion with the claimants and professional fishery associations, it was possible to identify a range of different shellfish cultivation businesses:

- some only buy and sell oysters
- some breed oysters, producing only seed oysters to supply growers

- the majority of cultivators are engaged in both operations, breeding some seed and buying some in and then growing them on to commercial sizes.
- some businesses also relocate oysters from one growing area to another, where they can command higher prices. They are conditioned in the sea or in ponds for a short period and then, labelled and sold.

Because it would not be practical to check oyster stocks which remained unsold, as a result of bans, in order to achieve amicable settlements, a model was developed to calculate losses, based on accounting and sales information provided by the industry and claimants. Business interruption within the ban areas and loss of turnover for shellfish producers outside the ban areas was based on the loss of turnover during the claimed period in comparison with the same period over the three previous years. All accounting information provided by each claimant was reasonably certified by the accountants. In some cases for small companies a copy of the accounting documents or bank accounts were accepted.

At first, the reference applied, was the average of the three previous years sales and accounting information but at the claimants' request the method was modified to take into account any trends in annual turnover. For old-established companies with quite stable annual turnover, the average of the three previous years was used as reference. For companies, which had a clear increasing or decreasing trend, the previous year was used as reference. For companies, increasing considerably every year, a factorial increase on the previous years was calculated.

For claims, where some business change was detected or the available information was not enough to allow the Fund´s experts to understand particular situations, the claimant was required to provide all available sales accounts data for three years previous to the spill and during and after the spill to allow evaluation of actual losses

From losses of turnover, calculated following the above method, some costs were deducted not having been incurred, such as packaging, transport and saved purchases. Manpower and production costs were not included in the analysis because most of claimants alleged not to have reduced employees because of the need to look

after remaining stock and continue their businesses. The potential value of unsold stock was also not taken into account because it was agreed that the possibility of selling the remaining stock was remote.

In addition, the IOPC Fund also allow expenses incurred by claimants in the preparation of their claims to be taken into account. Around five hundred shellfish farmers presented claims on the basis of loss of income.

Although hydrocarbon were analysed in cultivated and natural stocks of shellfish in numerous areas, there were only two cases where destruction of stocks was justified.

The first was the total annual production of mussels, cultivated on long lines, which had been oiled and oil trapped between the shells. The mussels were strongly tainted and depuration was slow. The mussels failed to become clean in time for normal marketing and the stock was destroyed.

The second case was the destruction of a total stock of oysters in an area where the ban was extended until September 2001. Because of the ban oysters were not able to be sold for a long period. The claimant asked the IOPC Fund for a partial destruction of the largest oysters to make space for seed intakes.

For these two claims losses were assessed on the basis of total kilos destroyed, valued on the market price and saving variable costs no incurred.

In general, claimants have been quite optimistic on their claimed losses. However we can say that most of the shellfish producers have agreed with the loss of income assessments which have been made and many have been already partial or totally paid. In some cases where claims were not very well document additional information has been requested from the claimant to be able to better understand alleged losses and to be able to carry out an assessment. Although large numbers of claims have been assessed and agreed, there are still some which await further documentation or where claimants have refused to accept assessments or rejection of their claims.

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CONCLUSIONS:

We have reviewed three different cases of damages after an oil spill. The example of the Aegean Sea incident was an assessment of loss of income caused by a stock destruction. In that case it was not possible to achieve amicable settlements because of poor documentation and inflated claims and the end result has been litigation.

The example of the Sea Empress was an assessment of loss of income caused by a business interruption. Agreements were achieved regarding acceptable levels of compensation based on good documentation and without need for litigation.

The example of the Erika has been an assessment of loss of income caused by fishing bans and short-term decline a sector of the shellfish market, at least partly as a result of sensationalist reporting of the spill in the press and television. The net result was short term business interruption for claimants from those areas where a ban was imposed and losses due to reduced sales and prices. In this case, many claims have provided good documentary support with the claims and the levels of co-operation with many claimants has been good, which has facilitated amicable settlements.

In these three cases the natural development of events could have been faster if:

- the claimants had more rapidly substantiated their alleged losses with appropriate documents or other evidence which the experts and the compensators had been able to verify and accept
- previous analytical documentation about the real parameters on the local fishing and aquaculture resources had existed

The basis of all rapid and amiable settlement is good cooperation between claimants, the authorities and the compensators and especially adequate documentation which can verify alleged losses

The whole process is made difficult if claims are exaggerated or poorly supported by proof. The burden of proof does rest with the claimant

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BIOGRAPHY:

Dr. Alicia Sanmamed, biologist, independent consultant, has worked as technical adviser in Fisheries and Aquaculture in the following oil spills: the "Mare Princess" in Cuba, the "Sea Prince" in Korea, the "Sea Empress" in Wales, the San Jorge in Uruguay, the Aegean Sea in Spain and the Erika in France. She has worked on behalf of the P&I Clubs and/or the International Oil Pollution Compensation Funds (IOPC Funds) to assess and quantify losses in fisheries and aquaculture.

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