

**Cost estimates for a monitoring, control and surveillance scheme of possible whaling operations  
and how costs might be apportioned**

(Prepared by the Secretariat)

**1. INTRODUCTION**

At the meeting of the Small Working Group (SWG) on the Future of the Organisation held in Florida in March 2010, the importance of developing cost estimates for the monitoring, control and surveillance (MCS) regime proposed in the draft Consensus Decision to Improve the Conservation of Whales discussed at that meeting (i.e. Document IWC/M10/SWG4) and how these costs might be apportioned among Contracting Governments was stressed. The Secretariat undertook to develop cost estimates together with a recap on the status of discussions to date on how costs might be apportioned for review by the Commission at IWC/62.

This document includes the following:

Cost estimates

Section 2:	International Observer Scheme
Section 3:	Vessel Monitoring Scheme
Section 4:	DNA Register and market sampling: international audit
Section 5:	Summary of costs

Apportioning of costs

Section 6:	Recap on the status of discussions to date on how MCS costs might be apportioned
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The MCS provisions proposed in the Chairs' Proposed Consensus Decision to Improve the Conservation of Whales made available on 22 April 2010 (i.e. Document IWC/62/7rev) are essentially the same as those in the document discussed by the SWG in Florida.

**2. INTERNATIONAL OBSERVER SCHEME (IOS)**

Cost estimates are provided for the situation where the IWC Secretariat would run the IOS. An indication of costs if the scheme was to be out-sourced, are also included.

The estimates build on those developed in the past during work on the Revised Management Procedure (Documents IWC/54/RMS 3 and IWC/55/COMMS 4) and discussions during the work of the Support Group – particularly the meeting held in Seattle in December 2009.

**2.1 Description of possible whaling operations and placement of observers**

Table 1 summarises the possible whaling operations of Japan, Norway and Iceland during the 10-year interim 'arrangement' of the proposed Consensus Decision (IWC/62/7rev) and includes a description of how international observers would be deployed to observe such operations according to the International Observer Scheme given in that document (Appendix A, Annex {IOS}). It has been necessary to make a number of assumptions regarding the deployment of observers and these are indicated in Table 1. Worse-case assumptions have been used, particularly in terms of the length of time for which observers will be needed. This will almost certainly lead to an over-estimate of costs, but in the absence of more precise details of whaling operations, this would seem to be the best approach. Table 2 summarises the international observer requirements based on the activities and assumptions described in Table 1. Note that the Annex from Document IWC/54/RMS 3 that provides further description of Japanese and Norwegian whaling is also provided for information (see Annex A<sup>1</sup>).

**2.2 Cost estimates in the case where the IWC Secretariat runs the IOS**

Development of an observer training programme

At the outset, it will be necessary to develop an observer training programme. The Secretariat believes that to do so, it will need to consult with outside experts experienced in running observer programmes. Indications for the cost of such programme development have been provided as £43,000. Clearly once a training programme has been developed, savings would be made after the first year although some work would be needed to ensure the programme remained up to date.

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<sup>1</sup> Iceland is not included in this Table as it was not a member of IWC at the time.

Annual observer salary, travel (fare and insurance) and subsistence costs

The following costs have been used:

	Cost per observer	Rationale
Observer salaries:	£160 per day	This rate is between the current daily grant paid for cruise leaders and senior scientists taking part in SOWER cruises
Travel (air fare):	£1,800 per return ticket	An upper figure for a 'typical' flexible economy ticket
Travel insurance	£120 per observer	This is the rate used for scientists participating in SOWER cruises
Subsistence: on shore	£130 per day	To cover hotel accommodation and meals
Subsistence: on board	£15 per day	It is assumed that there will be a charge for observers during their time on board vessels. £15 per day was the approx rate in 2003 for scientists taking part in SOWER cruises

Annual training, administration and other costs

The following costs have been assumed:

	Cost	Comment/rationale
Instruction:	£15,000	Figure derived from previous personal communication with organisations involved in such training activities.
Salary of observers during training	£53,600	Based on 5 days (at £160/day) for the total number of observers used required (i.e. 67)
Administration of the observer scheme:	£25,000	Based on estimate of 6 months full-time for an experienced staff member of the Secretariat (figure includes overheads)

Nothing has been included to cover any equipment costs.

It is possible that if the same observers are used year-on-year, annual training costs could decrease, possibly by 50% or more. It is also possible that some observers could be re-deployed to other operations in the same year thus reducing the overall number of observers needed.

Estimated costs

Estimated costs are given in Table 3. The estimated total annual cost is around £1.23 million (but note comments above regarding potential savings after the first year of operation). In addition, in the first year, there would be the cost of developing an observer training programme (approx. £43,000).

**2.2 Cost estimates if running the IOS was outsourced**

The Secretariat has been in touch with a consultancy company experienced in running observer programmes for regional fishery organisations to enquire about possible costs of the IOS if it were to be outsourced. The company was asked to provide some indication of costs of them running the IOS based on the descriptions of potential whaling operations given in Tables 1 and 2. Its estimation to provide a complete service is approximately £1.44 million in the first year. This covers:

- observer training programme - mainly a one-off cost but some costs in subsequent years to keep the programme up-to-date);
- training programme delivery – annual cost;
- observer deployment – annual cost; and
- deployment support – annual cost.

The consultancy company would also be available to provide advise to the IWC on how to set up and run its own observer scheme.

**Table 1. Description of possible whaling operations and deployment of international observers (updated version of Table 1 in IWC/54/RMS 3)**

		Japan		Norway (within Norway's EEZ)	Iceland
		coastal whaling	factory ship whaling		
Number of vessels participating		6	1 factory ship + 5 catcher vessels	33	5 small type + 3 catcher vessels
Number of points of landing		5 (in Japan)	1 (i.e. the factory ship)	10 (in Norway)	4
Placement of observers	on board vessels	No vessels will have an observer on board	factory ship: 2 observers catcher vessels: <i>assume 1 observer per vessel</i>	An observer will be present on each vessel <sup>2</sup>	An observer will be present on each vessel
	at points of landing	an observer will be present at each point of landing  <i>Assume need 5 observers</i>	(the factory ship is considered to be the point of landing)	an observer will be present at each point of landing  <i>If assume that length of a season is 7 weeks (see below), this means that the 10 observers will have to be present for 7 weeks – but see highlighted note below.</i>	an observer will be present at each point of landing  <i>If assume length of season is 7 weeks (see below), this means that 4 observers will need to be present for 7 weeks.</i>
Typical number of days at sea per trip		1 day (generally boats return to home port/point of landing each evening).	<i>Assume 4 months (120 days)</i>	No such thing as a typical trip. Whereas one boat may succeed in catching its quota within 5 days, others may stay at sea for up to two months.  <i>Average number of days at sea per boat between 1995 &amp; 2001 is 40 days.</i>	Small type: trips are of 1-2 days duration  Catcher vessels: these are the vessels involved in taking fin whales. Trips can be up to 36 hours.
Number of trips expected per season		<i>Assume 100 trips in total with 20 trips per boat</i>	1 trip per season	Difficult to estimate	?
Length of a typical season		4-6 months  <i>Assume 4 months</i>		6-7 weeks  <i>Assume 7 weeks (49 days)</i>  <i>Secretariat note: at IWC/54, Norway suggested that the length of its whaling season may be more in the region of 4.5 months (see IWC/54/7 – RMS report to plenary).</i>	<i>Assume 7 weeks (49 days)</i>
Job remit of observers		see Appendix A, Annex {IOS} for duties			
Travel		<i>Assume £1,800 per observer</i>			

<sup>2</sup> Secretariat note: at IWC/54, Norway noted that cost estimates had been based on the assumption that an int. Observer would be present on board all of its vessels. It noted that most Norwegian vessels are not large enough to accommodate an observer in addition to a national inspector. The Secretariat commented that it had assumed that the national inspector would be asked to also fulfil the role of the observer as foreseen in EDG discussions (see para 1.(b) of Annex [IOS]). This document assumes that the costs of the national inspector acting as the international observer are included in this estimates.

Table 2. Summary of international observer requirements based on assumptions above

Japan coastal whaling (STW)	Japan factory ship operation	Norway	Iceland
<b>Observers on boats:</b> ➤ none	<b>Observers on catcher vessels</b> <ul style="list-style-type: none"> <li>5 observers needed, i.e. <i>assuming maximum requirement of one observer for each catcher boat</i></li> <li>observers will be on board for the duration of the trip, i.e. 4 months (120 days)</li> </ul>	<b>Observers on boats</b> <ul style="list-style-type: none"> <li>33 observers needed, i.e. 1 per vessel</li> <li>each observer will be on board for 40 days - but as the season is 7 weeks, each observer will need to be on-site for 7 weeks (49 days). Thus 9 days will be spent on shore.</li> </ul>	<b>Observers on boats</b> <ul style="list-style-type: none"> <li>8 observers needed, i.e. 1 per vessel</li> <li>each observer will be on board for 40 days – but as season is 7 weeks, each observer will need to be on-site for 7 weeks (49 days). Thus 9 days will be spent on shore.</li> </ul>
<b>Observers at points of landing</b> <ul style="list-style-type: none"> <li>there will need to be 5 observers appointed - one for each point of landing - and they will need to be present for 4 months (120 days). Subsistence costs will therefore be needed for the full 120 days.</li> </ul>	<b>Observers on factory ships</b> <ul style="list-style-type: none"> <li>2 observers needed to cover 24-hour operation</li> <li>they will be on board for the duration of the trip, i.e. 4 months (120 days)</li> </ul>	<b>Observers at points of landing</b> <ul style="list-style-type: none"> <li>need 10 observers</li> <li>assume the observers will need to be there for 42 days.</li> </ul>	<b>Observers at points of landing</b> <ul style="list-style-type: none"> <li>need 4 observers</li> <li>assume observers will need to be there for 49 days.</li> </ul>
<b>Total number observers:</b> ➤ 5	<b>Total number observers:</b> ➤ 7	<b>Total number observers:</b> ➤ 43	<b>Total number observers:</b> ➤ 12

**Table 3. Cost estimates for the Secretariat to run the IOS**

Component	Country		No.	Max Obs	Season	Travel days per observer	Total days worked	Cost (£)
Salaries	Japan	ST	6	0	120	2	0	0
		Factory	1	2	180	2	364	58240
		Catchers	5	5	180	2	910	145600
		Landing sites	5	5	120	2	610	97600
		Total					<b>1884</b>	<b>301440</b>
	Norway	ST	33	33	49	2	1683	269280
		Landing sites	10	10	42	2	440	70400
		Total					<b>2123</b>	<b>339680</b>
	Iceland	ST	5	5	49	2	255	40800
		Land station/sites	4	4	49	2	204	32640
		Catcher vessels	3	3	49	2	153	24480
		Total					<b>612</b>	<b>97920</b>
Travel (fare)	Japan			12				21600
	Norway			43				77400
	Iceland			12				21600
		Total						<b>120600</b>
Travel (insurance)	Japan			12				1440
	Norway			43				5160
	Iceland			12				1440
		Total						<b>8040</b>
Subsistence	Japan	Landing site		6	120			93600
		Sea		7	180			18900
		Port		0	0			0
		Total						<b>112500</b>
	Norway	Landing site		10	42			54600
		Sea		33	49			24255
		Port		33	9			38610
		Total						<b>117465</b>
	Iceland	Land station/sites		4	49			25480
		Sea		8	40			4800
		Port		8	9			9360
		Total						<b>39640</b>
Training	Salaries			67			5	53600
	Instruction							15000
	Total							<b>68600</b>
Recruitment	see admin							
Admin								<b>25,000</b>
<b>GRAND TOTAL</b>								<b>1,230,885</b>

### 3. VESSEL MONITORING SCHEME

The development of cost estimates for the VMS contained in the proposed Consensus Decision has been informed through consultations with a number of Regional Fisheries Management Organisations including NEAFC, NAFO and CCAMLR.

#### 3.1 Issues for consideration

There are a number of matters to take into consideration when deciding how to proceed with establishing a VMS system for the IWC as described below, some of which have effects on potential costs.

##### Purpose of the VMS and duties of the Contracting Governments and Secretariat as described in Annex {VMS}

Annex {VMS} requires Contracting Governments under whose auspices whaling is conducted to implement a VMS for its whaling vessels (paragraph 1) and *inter alia* to monitor (via land-based monitoring centres - MC) the whaling activities of whaling vessels flying their flags. They should be autonomous systems that are able to simultaneously and in real-time, transmit a message to the MC, the Secretariat and the international observer as described under Annex {IOS} paragraph 1.(a).

While it is required that the Secretariat receive position data in real-time, Annex {VMS} suggests that the main responsibility of the Secretariat is not to monitor in real time the positions of the vessels, but rather to: (a) alert the relevant Contracting Government, as soon as possible, when it has not received data transmissions for 12 hours (paragraph 10); and (b) to maintain a searchable database for audit purposes (paragraph 11).

##### VMS database

Given that the cost of a VMS database is very significant (possibly as high as £130,000), there are a number of options that could be considered including:

- whether IWC buys its own database;
- contracts another organisation or perhaps Contracting Government to host the IWC VMS data
  - and take on the Secretariat's duties;
  - provide access to the Secretariat (e.g. via web access) so that it can perform its duties as described above.

##### Secretariat staff

Given the Secretariat's understanding of its duties with respect to VMS and the assumption that an automated system could be set up to provide an alert when a messages have not been received from a vessel for 12 hours, the workload for the Secretariat should be minimal. It will, however, be necessary to have several Secretariat members trained in the required duties so that someone will always be available to perform these duties as required during the whaling seasons.

#### 3.2 Cost estimates

Based on information from the RFMOs consulted, possible approximate costs involved if the IWC was to have its own VMS database and run its own scheme are shown below. It is assumed that the costs involved in VMS equipment on vessels and associated with Monitoring Centres will be borne by Contracting Governments under whose auspices whaling is conducted (who may recover costs from the whaling companies).

		<b>Approx cost (£)</b>
Set-up cost (one-off or periodic)	VMS database	130,000
Annual running costs	Licensing and software	20,000
	Staff	Probably no additional costs assuming: (1) additional member of staff is available to run the IOS; (2) that other existing staff members can be trained to provide cover; (3) that weekend work is not required.

Information is not yet available on what costs might be involved if another organisation or a Contracting Government was to host the IWC's VMS data.

#### 4. DNA REGISTER/MARKET SAMPLING – INTERNATIONAL AUDIT

The rough cost estimates below have been divided into audit of the DNA registries and the audit of market sampling but in practice it will be possible to combine these (e.g. wrt to site visits and sample analyses). In addition, the nature of the audits (and costs) will probably change with time and experience.

##### 4.1 DNA register/analyses

A conservative guess about the time required to set up the system for international audit (e.g. optimizing protocols for the chosen laboratory; extracting and profiling each sample twice to make sure the data are tight and consistent (which is the protocol of e.g., the Norwegian DNA register) is about 1 month. It would be important to put an experienced person in charge. Conceivably it could take less time and it may be cheaper and better to pay for actual time than a fixed time. The same laboratory should be used to check all DNA registers – that would (again) reduce optimization time and overall become cheaper.

For the purposes of this estimating process, approximate cost estimates have been obtained from a laboratory experienced in such work. Estimates allow for 50 samples, with a comment on additional samples, but final sample sizes will need to be determined by the expert group.

In addition, a site visit to the host laboratories of the national registers would be appropriate. This could occur at the same time as the market sampling site visit.

1 month salary (incl. social benefits)	£5000
50 samples 2x [DNA extraction, mtDNA sequencing, sexing and typing 10 loci]	£2000
Overheads (estimated at 50%)	£3500
Total	£10500
Additional samples would be of the order of £75 per sample and up to 100 could be undertaken within 1 month	

*If it is assumed that the overall sample size required for audit amongst the three national registers is 100, then the costs would be of the order of £16-20,000.*

##### 4.2 Market sampling

The details of this are not yet finalised, of course. The previous expert group had noted that determining a ‘best’ approach will be iterative and involves both aspects of ‘detection’ and ‘deterrence’. The sample sizes required are not yet agreed so what is given below represents a best guess. In terms of international audit, then there are two aspects: (1) making sure that the agreed ‘sampling procedure’ protocol within the market is followed correctly - this would require visits to the relevant countries; (2) undertaking parallel analysis of the collected samples at an independent laboratory with those of the national register laboratory.

The costs for the analyses of the samples themselves are as above in 1.1. The costs of the visiting expert are more difficult to quantify (e.g. will they require salary as well as travel/subsistence) but a guesstimate is given below:

Travel and subsistence for 3 two-week expert visits, two experts per trip	£9000
Analyses of 100 samples	£16-20000

*If it assumed that the above is sufficient then an annual cost would be about £25-30,000*

## 5. SUMMARY OF POSSIBLE COSTS

		Annual approximate costs (£)				One-off cost (£)
		Japan	Norway	Iceland	TOTAL	
<b>International Observer Scheme</b> (assuming IWC runs)	Observer salaries	301,440	339,680	97,920	739,040	
	Travel (fare)	21,600	77,400	21,600	120,600	
	Travel (insurance)	1,440	5,160	1,440	8,040	
	Observer subsistence	112,500	117,465	39,640	269,605	
	Develop training programme					43,000 <sup>3</sup>
	Training				68,600	
	Recruitment & administration				25,000	
				<b>TOTAL</b>	<b>1,230,885</b>	
<b>VMS</b> (assuming IWC runs)	Database					130,000
	Running costs				20,000	
	staff				0	
				<b>TOTAL</b>	<b>20,000</b>	
<b>DNA</b>	<b>Audit of register</b>					
	Salary				5,000	
	Samples				2,000	
	Overheads				3,500	
				<b>TOTAL</b>	<b>10,500</b>	
	<b>Market sampling</b>					
	Travel & subsistence				9,000	
	Sample analysis				20,000 <sup>4</sup>	
				<b>TOTAL</b>	<b>29,000</b>	
	<b>GRAND TOTAL APPROX. ANNUAL COSTS</b>				<b>1,290,385</b>	

## 6. STATUS OF DISCUSSIONS ON HOW MCS COSTS MIGHT BE APPORTIONED

The Proposed Consensus Decision to Improve the Conservation of Whales currently includes (on page 6) the following paragraph:

‘The Commission recognises that there will be increased expenses and increased work for the Secretariat as a result of this arrangement. The preferred method of financing these measures is through the financial contributions scheme. The Commission will make a detailed assessment of how to apportion these costs amongst Contracting Governments. Proposed budgets will be drafted prior to the 2010 annual meeting.’

Approximate costs for an MCS are provided in sections 2-5 above.

With respect to how these costs might be apportioned, the last time this was discussed in any depth was by the Small Drafting Group (a sub-group of the Revised Management Scheme Working Group) at its meetings in Borgholm, Sweden, December 2004 and in Copenhagen, Denmark, April 2005. The SDG’s report to the RMS Working Group is document IWC/57/RMS 4. Annex 10 of that report dealt with apportioning costs and presents a number of options that had been put forward during RMS discussions (i.e. four options). The Commission may wish to use these as the basis for its discussions at IWC/62.

<sup>3</sup> Although there would be some small annual cost to ensure programme kept up to date

<sup>4</sup> Using the higher number of the range of £16 – 20,00



A description of how financial contributions are currently calculated under the Interim Measure and the financial contributions for individual Contracting Governments (for 2009/2010) is included as Annex B to inform discussions on apportioning of costs.

#### ANNEX 10 of IWC/57/RMS 4

##### **Incorporation into the Schedule of text apportioning RMS costs among Contracting Governments**

The RMS Working Group requested the SDG to develop draft text for the following options:

- (1) The Chair's proposal as outlined in IWC/56/26;
- (2) Three further proposals introduced at the RMS Working Group meeting in London as reported in IWC/53/9. The SDG was asked to take into account any recommendations from the Working Group on Costs that met in Antigua in May 2003 (see IWC/55/COMMS 4).

##### **Outcome of SDG discussions:**

At its first meeting, and before discussing draft Schedule text, the SDG first drew attention to the somewhat *ad hoc* way in which the Commission deals with rules and regulations relating to its finances. It noted that some aspects are addressed in the Commission's Financial Regulations, while others – such as the description of the financial contribution scheme itself, is simply described in the Chair's Report of an Annual Meeting. There was some discussion as to whether the text relating to apportioning RMS costs should be included in the Schedule or in the Financial Regulations as the Chair's proposal had not been clear on this matter. Some members were strongly of the opinion that this text should be part of the Schedule. As some draft Schedule text had previously developed regarding apportioning RMS costs, it was agreed to use this and to augment as necessary to address the RMS Working Group's instructions. The proposed text, reflecting different options is shown on the next page. It should be noted that:

- on reviewing the report of the Working Group on Costs, it was apparent that while the Working Group put forward options on how costs could be dealt with, it did not make any recommendations;
- additional draft text may be needed depending on the outcome of the discussions and recommendations of the technical specialist group on DNA;
- it was suggested that the Secretariat should ask its auditors to review text for the last option in paragraph 29 introduced at IWC/53 in London referring to Generally Accepted Accountancy Practice (GAAP) and to comment on whether it is appropriate in this context. This was done. The auditor advised that the Commission's accounts specifically state that they do not necessarily comply with GAAP in all areas and particularly so in relation to depreciation/amortisation. As a consequence, this option has been revised by the SDG at its second meeting.

Although the RMS Working Group's attention was drawn to the need for further policy guidance regarding placement of text referring to apportioning RMS costs (i.e. whether it should be in the Schedule or in the Financial Regulations) when the Working Group met in Copenhagen from 30 March to 1 April 2005, no further guidance was given.

At its meeting in Copenhagen, the RMS Working Group had agreed that detailed discussion of this item should be postponed until more details of the final RMS elements were available.

Proposed text:

<b>National Inspection Schemes</b>	
25.	National inspectors shall be appointed and paid by the Contracting Government having jurisdiction over the commercial whaling operations to be inspected and shall receive their instructions from their national authorities.
<b>International Observer Scheme</b>	
29.	<p>[All costs of the International Observer Scheme shall [initially] be paid by the Commission.]</p> <p><u>Chair's proposal<sup>5</sup>:</u></p> <p>[The Commission shall recover these costs resulting from the International Observer Scheme through the membership contributions assessed from Contracting Governments under the financial contributions scheme.</p> <p>Costs and other expenditure resulting from the Vessel Monitoring System shall be borne by the Contracting Governments having jurisdiction over the [commercial whaling operations] [vessels] that require a Vessel Monitoring System in accordance with paragraph A.</p> <p>Costs and other expenditure resulting from DNA registers/market sampling schemes as required in accordance with paragraph B shall be borne in the following manner –</p> <ul style="list-style-type: none"> <li>(a) the establishment and operation of these schemes shall be borne by the Contracting Governments that are required to operate them in accordance with paragraph B;</li> <li>(b) costs and expenditure resulting from the review of national DNA registers/market sampling schemes in accordance with paragraph C shall be borne by the Commission, and the Commission shall recover these costs and expenditure through the membership contributions assessed from Contracting Governments under the financial contributions scheme.</li> <li>(c) costs of checking samples against the DNA registers in accordance with paragraph D shall be borne by the Contracting Government requesting the checking.]</li> </ul> <p><b>or – the following alternatives from earlier discussions:</b></p> <p>[These costs shall be recovered exclusively from the Contracting Government under whose jurisdiction whaling operations are carried out. Such costs shall be considered part of their annual IWC membership contribution.]</p> <p><b>or</b></p> <p>[The Commission shall recover these costs resulting from the supervision and control scheme through a factor in the membership contributions assessed from Contracting Governments [under whose jurisdiction whaling operations are carried out].</p> <p><b>or</b></p> <p>[These costs and expenditure resulting from this supervision and control scheme shall be recovered in the following manner –</p> <ul style="list-style-type: none"> <li>(a) core administrative expenditure (including, but not limited to, core Secretariat salaries and expenses) associated with this supervision and control scheme shall be paid by the Commission;</li> <li>(b) operating expenditure for this supervision and control scheme (including, but not limited to, recruitment costs, observers' salaries and expenses, other travel and accommodation expenses, third party contract costs and an appropriate annual share of capital expenditure as set out in subparagraph (c) of this paragraph) shall be recovered exclusively from the Contracting Governments under whose jurisdiction whaling operations are carried out. Such costs shall be considered part of their annual IWC membership contribution; and</li> <li>(c) capital expenditure (including but not limited to expenditure on computer equipment, software costs and vessel monitoring systems) shall be recovered over time in accordance with the Commission's accepted accounting practice, as part of operating expenditure, as set out in subparagraph (b) of this paragraph.]</li> </ul>

<sup>5</sup> Note this refers to the proposal of Henrik Fischer in IWC/56/26.

## Annex A

### Information from Japan and Norway on current (i.e. 2002) and potential commercial whaling operations (from IWC/54/RMS 3)

Table A. Vessel information

	JAPAN		NORWAY
	STCW operation	Factory ship operation	
(a) Number of vessels operating/likely to operate;	<b>Current:</b> 5 (operation for non IWC species) <b>Future:</b> depends on quotas.	<b>Current:</b> 5 vessels (1 factory ship, 4 catcher boats) operating for research purpose under Article VIII of the Convention. Not subject to RMP/RMS. <b>Future:</b> depends on quotas and areas.	The number of vessels this year (2001) was 33 (thirty-three). It should, however, be noted that this number is not a fixed or permanent figure. The actual number in any given year may be subject to considerable variation from one year to the next, depending on a range of factors. Thus, there is no way of predicting, with a reasonable degree of accuracy, the number of vessels likely to operate during one given season in the future.
(b) Length/GRT distribution of vessels;	15.10m~25.53m	Factory Ship (130 m, 7,440 GRT) Catcher Boat (60m, 720 GRT)	The vessels range from 13.9 meters to 33,4 meters, divided in three groups with length distribution as follows: <ul style="list-style-type: none"> <li>• 13.9 to 18.8 meters: 11 vessels</li> <li>• 18.9 to 25,3 meters: 19 vessels</li> <li>• &gt; 25,3 meters: 5 vessels</li> </ul>
(c) No. of persons the vessels can accommodate (give crew and 'others' separately);	Crew: 6~9 Others: 0~2	Factory Ship (183 crew and 17 others including scientists + few inspectors) Catcher Boat ( 19 crew and 1 others )	There is no available survey that would yield such detailed information as would enable us to give a sufficiently precise answer to this question. It should, however, be noted that most of the vessels are very small and have barely enough sleeping accommodations for the crew and the national inspector. Some of the larger vessels have more space and a few extra beds, but these vessels often have scientists (from "Fiskeriforskning") on board.
(d) Typical equipment on vessels (e.g. SatNav system; communications – fax, e-mail, radio etc)	Telephone, facsimile, radio.	Sat Nav. System, telephone, facsimile, e-mail, radio equipment	Every vessel has radio communication systems of some kind, as required by national regulations. Only a few vessels are equipped with satellite telephone, telex/fax or e-mail/Internet connection. Most vessels have satellite navigation system.  Norwegian national regulations require all vessels larger than 24 meters length – i.e. including 7 whaling vessels - to have satellite-tracking equipment on board.

Table B. Operation information

	JAPAN		NORWAY (see also Table C)
	STCW operation	Factory ship operation	
(a) Are quotas allocated/likely to be allocated by vessel?	Yes.	<b>Future:</b> Depending on the size of quotas, quota will be allocated to a fleet of vessels.	To provide for flexibility of operations, there is a combined system of maximum and minimum quotas. Each vessel is allocated individual maximum quotas, the size of which depend on the size of the vessel. In addition, each vessel is allocated a minimum quota at a flat rate. Please note, however, that the structure or composition of the quota allocation system is, as appropriate, subject to annual regulations.
(b) Is whaling the only function of the vessels during the season?	Yes.	Whaling is the only function of the vessels.	Yes
(c) How many days at sea is a typical trip?	One day.	<b>Future:</b> Depends on quotas given.	There is no such thing as a typical trip. The number of days at sea depends on a range of circumstances such as the weather conditions, size of vessel, catch etc. Whereas one boat may succeed in catching its allocated quota in the course of five days, others may stay at sea for up to two months.
(d) How many trips expected per season?	Depends on weather, quotas etc.	<b>Future:</b> Antarctic - One trip only. other - depends on quotas.	It is difficult – or impossible – to estimate the number of expected trips per season, as this will also depend on factors such as weather conditions, size of vessel, catch etc.
(e) What is the length of a typical season for a vessel?	Current: 4~6 months. Future: depends on quotas. Mainly summer.	<b>Future:</b> Depends on quotas.	6-7 weeks on the average. This, however, is due to the scarcity (restricted availability) of inspectors, caused by economic considerations in order to reduce government expenditures. If we were to introduce an inspection system based on a combination of the use of personnel and computerized catch surveillance, this might change in the direction of prolonging the seasons – something which would also bring the added management advantage of a better gender distribution of catches.

**Table C: The Norwegian hunt of minke whale 1995 – 2001, some aspects of the duration of the hunting season**

<b>Year</b>	<b>Number of days<sup>1</sup></b>	<b>Number of vessels</b>	<b>Number of animals</b>	<b>Number of days pr boat</b>	<b>Number of days pr animal</b>
1995	1 084	33	218	32,8	5,0
1996	1 242	31	388	40,1	3,2
1997	1 186	31	502	38,3	2,4
1998	1 223	34	625	36,0	2,0
1999	1 569	34	589	46,1	2,7
2000	1 290	32	487	40,3	2,6
2001	1 421	33	552	43,1	2,6

<sup>1</sup> i.e. the total number of days which inspectors (veterinarian officers) have stayed on board the huntings vessels. This number is a good proximate for the length of the hunting season, because it is obligatory for hunting vessels to have an inspector on board during the hunt

## **Annex B**

### **The Interim Measure for Financial Contributions**

#### **Introduction**

At its 54<sup>th</sup> Annual Meeting the Commission adopted the Interim Measure proposed by Argentina and Antigua and Barbuda for calculating the financial contributions from Contracting Governments beginning with the financial year which commenced 1 September 2002. This appendix provides information on the Interim Measure and the processes used in the calculation of contributions.

The Interim Measure employs a two-stage process. It takes the 'old' pre-September 2002 formula for calculating contributions as its starting point and then modifies the resulting amounts for each Contracting Government by a factor relating to 'capacity to pay' and a further factor for involvement in whaling.

The following pages contain:

- a description of the 'old' pre-September 2002 formula;
- the amounts that it generates for each Contracting Government (Table 4);
- the description of the Interim Measure;
- the economic data used to categorise member countries into four economic groupings (Table 5);
- the contributions which result for the year commencing 1 September 2009 under the Interim Measure after applying the 'capacity to pay' and additional 'whaling' factors (Table 6).

**‘Old’ (Pre-September 2002) Procedure For Calculating Financial Contributions**

This procedure is constructed on the allocation of shares to Contracting Governments as follows:

Membership		2 shares	
Whaling	Land station/small-type	3 shares	(ST)
	Aboriginal subsistence	2 shares	(AS)
	Factory ship (per ship)	2 shares	(FS)
Meeting attendance	1-3 delegates	1 share	
	4-7 delegates	2 shares	
	8-13 delegates	3 shares	
	14-22 delegates	4 shares	
	23+ delegates	5 shares	

Whaling shares are allocated on the basis of a catch in the season immediately preceding the financial year for which contributions are to be calculated.

Meeting attendance is based on the number of delegates attending the Annual Meeting immediately preceding the financial year for which contributions are to be calculated. Interpreters are not included in delegations for the purposes of calculating contributions.

(*Rep. int. Whal. Commn 42:50*)

**Notes:**

1. Whaling shares for land station/small-type whaling and for aboriginal subsistence whaling are allocated for any number of those operations conducted by a Contracting Government. For factory ship operations the shares are allocated per vessel. This was not specifically recorded in 1992 when the current procedure was introduced as a modification of the previous procedure which did explicitly allocate shares in this manner. (See *Rep. int whal Commn.32: 37; 41:43 and 42:42*)

2. At the 54<sup>th</sup> Annual Meeting in 2002, the Commission agreed that, for the purposes of calculating financial contributions:

- the size of the delegation of a host country should be assessed using an average of their delegation size over the previous three years;
- the IWC Chair should not be included in his/her delegation.

3. At the 59<sup>th</sup> Annual Meeting in 2007, the Commission agreed that, for the purposes of calculating financial contributions, the rule regarding the size of the delegation of a host country agreed at IWC54 should be replaced by the following procedure:

- for the purposes of calculating financial contributions, a host government is allowed to have up to six delegates for the cost of 1 share at: (a) the meeting before the one it hosts; and (b) at the meeting that it hosts. This applies to all host governments, regardless of the ‘capacity to pay’ group in which a host government is placed. The number of ‘shares’ for a host government is calculated as follows:

Size of delegation of host country (1) the year before it hosts an Annual Meeting and (2) the year it hosts an Annual Meeting	Number of shares assigned
1-6 delegates	1 share
7-10 delegates	2 shares
11-16 delegates	3 shares
17-25 delegates	4 shares
26+ delegates	5 shares

**Table 4**  
*Contribution Values under the 'Old' (pre-September 2002) Scheme*  
(Please note figures in this table are rounded to the nearest whole number)

		Membership Shares	Whaling		Meeting attendance		Total Shares	1st Stage Totals £
			Type	Share	Delegates	Shares		
1	Antigua and Barbuda	2	0	0	1	1	3	15,859
2	Argentina	2	0	0	2	1	3	15,859
3	Australia	2	0	0	9	3	5	26,431
4	Austria	2	0	0	3	1	3	15,859
5	Belgium	2	0	0	3	1	3	15,859
6	Belize	2	0	0	0	0	2	10,572
7	Benin	2	0	0	2	1	3	15,859
8	Brazil	2	0	0	3	1	3	15,859
9	Bulgaria	2	0	0	0	0	2	10,572
10	Cambodia	2	0	0	2	1	3	15,859
11	Cameroon	2	0	0	2	1	3	15,859
12	Chile	2	0	0	5	2	4	21,145
13	China, P.R of	2	0	0	0	0	2	10,572
14	Congo, Rep	2	0	0	1	1	3	15,859
15	Costa Rica	2	0	0	2	1	3	15,859
16	Cote d'Ivoire	2	0	0	1	1	3	15,859
17	Croatia	2	0	0	2	1	3	15,859
18	Cyprus	2	0	0	1	1	3	15,859
19	Czech Republic	2	0	0	6	2	4	21,145
20	Denmark	2	AS	2	7	2	6	31,717
21	Dominica	2	0	0	0	0	2	10,572
22	Dominican Republic	2	0	0	0	0	2	10,572
23	Ecuador	2	0	0	1	1	3	15,859
24	Eritrea	2	0	0	0	0	2	10,572
25	Estonia	2	0	0	1	1	3	15,859
26	Finland	2	0	0	2	1	3	15,859
27	France	2	0	0	3	1	3	15,859
28	Gabon	2	0	0	1	1	3	15,859
29	Gambia, The	2	0	0	2	1	3	15,859
30	Germany	2	0	0	6	2	4	21,145
31	Ghana	2	0	0	0	0	2	10,572
32	Greece	2	0	0	0	0	2	10,572
33	Grenada	2	0	0	1	1	3	15,859
34	Guatemala	2	0	0	0	0	2	10,572
35	Guinea	2	0	0	4	2	4	21,145
36	Guinea-Bissau	2	0	0	1	1	3	15,859
37	Hungary	2	0	0	1	1	3	15,859
38	Iceland	2	ST	3	3	1	6	31,717
39	India	2	0	0	2	1	3	15,859
40	Ireland	2	0	0	1	1	3	15,859
41	Israel	2	0	0	1	1	3	15,859
42	Italy	2	0	0	6	2	4	21,145
43	Japan	2	FS&ST	7	24	5	14	74,007
44	Kenya	2	0	0	0	0	2	10,572
45	Kiribati	2	0	0	1	1	3	15,859
46	Korea, Rep of	2	0	0	11	3	5	26,431
47	Lao PDR	2	0	0	1	1	3	15,859
48	Lithuania	2	0	0	0	0	2	10,572
49	Luxembourg	2	0	0	2	1	3	15,859



		Membership Shares	Whaling		Meeting attendance		Total Shares	1st Stage Totals £
			Type	Share	Delegates	Shares		
50	Mali	2	0	0	1	1	3	15,859
51	Marshall Islands	2	0	0	0	0	2	10,572
52	Mauritania	2	0	0	1	1	3	15,859
53	Mexico	2	0	0	3	1	3	15,859
54	Monaco	2	0	0	1	1	3	15,859
55	Mongolia	2	0	0	1	1	3	15,859
56	Morocco	2	0	0	2	1	3	15,859
57	Nauru	2	0	0	1	1	3	15,859
58	Netherlands	2	0	0	7	2	4	21,145
59	New Zealand	2	0	0	5	2	4	21,145
60	Nicaragua	2	0	0	0	0	2	10,572
61	Norway	2	ST	3	6	2	7	37,003
62	Oman	2	0	0	0	0	2	10,572
63	Palau	2	0	0	2	1	3	15,859
64	Panama	2	0	0	2	1	3	15,859
65	Peru	2	0	0	1	1	3	15,859
66	Poland	2	0	0	1	1	3	15,859
67	Portugal	2	0	0	6 (#1)	1	3	15,859
68	Romania	2	0	0	0	0	2	10,572
69	Russian Federation	2	AS	2	3	1	5	26,431
70	San Marino	2	0	0	1	1	3	15,859
71	Senegal	2	0	0	1	1	3	15,859
72	Slovak Republic	2	0	0	0	0	2	10,572
73	Slovenia	2	0	0	1	1	3	15,859
74	Solomon Islands	2	0	0	0	0	2	10,572
75	South Africa	2	0	0	1	1	3	15,859
76	Spain	2	0	0	2	1	3	15,859
77	St Kitts and Nevis	2	0	0	2	1	3	15,859
78	St Vincent & The G.	2	AS	2	2	1	5	26,431
79	St. Lucia	2	0	0	1	1	3	15,859
80	Suriname	2	0	0	2	1	3	15,859
81	Sweden	2	0	0	4	2	4	21,145
82	Switzerland	2	0	0	2	1	3	15,859
83	Tanzania	2	0	0	1	1	3	15,859
84	Togo	2	0	0	1	1	3	15,859
85	Tuvalu	2	0	0	2	1	3	15,859
86	United Kingdom	2	0	0	10	3	5	26,431
87	Uruguay	2	0	0	1	1	3	15,859
88	USA	2	AS	2	13 (#2)	3	7	37,003
		176		21	217	93	290	1,533,000

- These totals are carried forward to the second stage - see Table 6

#1 Portugal had 6 delegates attending IWC61. Under the procedure approved at IWC59, for the purposes of calculating financial contributions, a host government is allowed to have up to 6 delegates for the cost of 1 share at the meeting before the one it hosts and at the meeting it hosts.

#2 USA had 13 delegates. Under the procedure approved at IWC54, for the purposes of calculating financial contributions, the IWC Chair should not be included in his/her delegation.

**Interim Measure for Financial Contributions - Stages**

**Stage 1** - The Interim Measure takes as its starting point the contributions calculated under the “old” (pre-September 2002) scheme (see Table 4).

**Stage 2** - Each Contracting Government is placed into one of four Groups according to a scale based upon a combination of GNI and GNI/*per capita* (see note 6 below). Independent World Bank data (Table 5) are used to allocate groups as follows:

<b>GROUP 1</b>	<b>GROUP 2</b>	<b>Group 3</b>	<b>Group 4</b>
GNI Less than US\$ 12,650 millions <b>and</b> GNI/capita less than US\$ 12,650	GNI greater than US\$ 12,650 millions <b>and</b> GNI/capita less than US\$ 12,650	GNI less than US\$ 1,265,000,000,000 <b>and</b> GNI/capita greater than US\$ 12,650	GNI greater than US\$ 1,265,000,000,000 <b>and</b> GNI/capita greater than US\$ 12,650
Antigua and Barbuda Belize Benin Cambodia Congo, Rep Dominica Eritrea Gabon Gambia, The Grenada Guinea Guinea-Bissau Kiribati Lao PDR Mali Marshall Islands Mauritania Mongolia Nauru Nicaragua Palau Senegal Solomon Islands St Kitts and Nevis St Vincent & The G. St. Lucia Suriname Togo Tuvalu	Argentina Brazil Bulgaria Cameroon Chile China, P.R of Costa Rica Cote d'Ivoire Croatia Dominican Republic Ecuador Ghana Guatemala Hungary India Kenya Lithuania Mexico Monaco (*) Morocco Oman Panama Peru Poland Romania Russian Federation San Marino (*) Slovak Republic South Africa Tanzania Uruguay	Australia Austria Belgium Cyprus Czech Republic Denmark Estonia Finland Greece Iceland Ireland Israel Korea, Rep of Luxembourg Netherlands New Zealand Norway Portugal Slovenia Sweden Switzerland	France Germany Italy Japan Spain United Kingdom USA
29	31	21	7

\* see 5. below

2. During the first two years of the Interim Measure (i.e. 2002/03 and 2003/04), Group 1 and 2 countries' contributions were reduced by 50% and 25% respectively. For the third (2004/05) and following years, the Interim Measure provided for a further reduction of 25% and 10% respectively, with the “old” formula being adjusted as follows:

- The Group 1 reduction for the years 2002/03 and 2003/04 was: (“old” formula x 50%) = A. The reduction for 2004/05 and subsequent years will therefore be: A + ((“old” formula – A) x 25%).
- The Group 2 reduction for the years 2002/03 and 2003/04 was: (“old” formula x 25%) = B. The reduction for 2004/05 and subsequent years will therefore be: B + ((“old” formula – B) x 10%).

3. This procedure results in a shortfall which is redistributed among the whaling countries and countries in Groups 3 and 4 as follows:

Whaling countries	10%	Group 3 countries	30%	Group 4 countries	60%
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4. For Group 3 and 4 countries the cash values calculated in (3) are added to the contribution already calculated under the “old” formula to produce the adjusted contribution under the Interim Measure.

5. At IWC56 in 2004, the Commission agreed to take into account the special position of Very Small Countries in calculating Financial Contributions (Resolution 2004-4). At IWC57 in 2005 the Commission agreed that the

criteria shown below were appropriate to define a “very small country” and that they be applied in the calculation of Financial Contributions for the financial year 2005-06 onwards. At IWC60 the Commission agreed to update the cut-off points defining the capacity to pay groups on an annual basis.

A “very small country will have the following characteristics and as a “very small country” will be placed in capacity-to-pay Group 2.

(2005-06 to 2007-08)

(a) a population of less than 100,000, AND	<i>The use of economic and population data from Lonely Planet Travel Guides was accepted by the Commission as an interim solution if these data were unavailable from the World Bank or Governments themselves.</i>
(b) a GNI of less than USD 5 billion, AND	
(c) a GNIPC of more than USD 10,000	

(2008-09)

(a) a population of less than 100,000, AND	<i>The use of economic and population data from Lonely Planet Travel Guides was accepted by the Commission as an interim solution if these data were unavailable from the World Bank or Governments themselves.</i>
(b) a GNI of less than USD 5.925 billion, AND	
(c) a GNIPC of more than USD 11,850	

(2009-10)

(a) a population of less than 100,000, AND	<i>The use of economic and population data from Lonely Planet Travel Guides was accepted by the Commission as an interim solution if these data were unavailable from the World Bank or Governments themselves.</i>
(b) a GNI of less than USD 6.325 billion, AND	
(c) a GNIPC of more than USD 12,650	

The result of these decisions was that Monaco and San Marino were re-classified as Group 2 countries.

6. At IWC59 the Commission noted that the cut-off points defining the capacity to pay groups had not been reviewed or revised since their introduction in 2002. In order to provide adequate notice to Contracting Governments of any changes in the capacity to pay group to which they are allocated, the Commission agreed that when assessing financial contributions, Contracting Governments would be allocated into the capacity to pay groups using the World Bank data on GNI and GNI per capita available on 31 December of the previous year. This decision was to take effect for the calculation of financial contributions for 2007-2008 onwards. At IWC59 the Commission also agreed that the Secretariat should undertake a review of the then current cut-off points and develop a proposal to review them periodically in future years. At IWC60 the Secretariat presented the results of the review to the Commission, with the proposal that the cut-off points be updated by an appropriate index to be consistent with the World Bank data on GNI and GNI per capita used to calculate Financial Contributions in a specific year and be updated annually thereafter.

The Secretariat reported that the World Bank uses an index for world inflation to adjust its GNI per capita data. The Bank advised that this index would also be suitable for the adjustment of its GNI data. The World Bank data re: GNI and GNI per capita available in December 2007 (to be used in the calculation of Financial Contributions for 2008/09) were published in April 2007 and refer to 2005. For the cut off points be consistent with the published World Bank data (i.e. to 2005) then they should be adjusted from 2002 to 2005 levels. The Secretariat noted that this could be done annually thereafter which would be the fairest procedure for Contracting Governments.

At IWC60 the Commission agreed to the use of the index provided by the World Bank to adjust the “cut-off points” which originated in 2002, to 2005 levels and for such an adjustment to be made annually thereafter.

The World Bank data for GNI and GNI per capita available in December 2008 (used in the calculation of Financial Contributions for 2009-2010) were published in September 2008 and refer to 2007. The 08/09 cut off points have been adjusted from 2005 to 2007 levels to be consistent with the published World Bank data (i.e. to 2007).

The application of the inflation adjusted “cut-off points”, together with World Bank data published in September 2008 (and available for use in December 2008) result in some revised allocations to capacity to pay groups. Estonia and the Czech Republic move from Group 2 to Group 3 and Spain from Group 3 to Group 4.

**The results are given in Tables 3 and 6**

Table 5

Economic data and 'Capacity to Pay' Groups (2002-03 to 2007-08)							Countries in group		
GROUP 1	GNI	less than 10,000,000,000	and	GNI/capita	less than 10,000				
Group 2	GNI	greater than 10,000,000,000	and	GNI/capita	less than 10,000				
Group 3	GNI	less than 1,000,000,000,000	and	GNI/capita	greater than 10,000				
Group 4	GNI	greater than 1,000,000,000,000	and	GNI/capita	greater than 10,000				
Economic data and 'Capacity to Pay' Groups (2008-09)									
GROUP 1	GNI	less than 11,850,000,000	and	GNI/capita	less than 11,850				
Group 2	GNI	greater than 11,850,000,000	and	GNI/capita	less than 11,850				
Group 3	GNI	less than 1,185,000,000,000	and	GNI/capita	greater than 11,850				
Group 4	GNI	greater than 1,185,000,000,000	and	GNI/capita	greater than 11,850				
Economic data and 'Capacity to Pay' Groups (2009-10)									
Group 1	GNI	less than 12,650,000,000	and	GNI/capita	less than 12,650	29			
Group 2	GNI	greater than 12,650,000,000	and	GNI/capita	less than 12,650	31			
Group 3	GNI	less than 1,265,000,000,000	and	GNI/capita	greater than 12,650	21			
Group 4	GNI	greater than 1,265,000,000,000	and	GNI/capita	greater than 12,650	7			
					Total	88			
		World Bank data		Capacity to	World Bank data		Capacity to		
		GNI	GNI/capita	Pay Group			Pay Group		
		US\$ billion	US\$			US\$ billion	US\$		
1	Antigua and Barbuda	0.98	11,520	1	45	Kiribati	0.12	1,170	1
2	Argentina	238.85	6,050	2	46	Korea, Rep of	955.8	19690	3
3	Australia	755.79	35,960	3	47	Lao PDR	3.41	580	1
4	Austria	355.09	42,700	3	48	Lithuania	33.47	9920	2
5	Belgium	432.54	40,710	3	49	Luxembourg	36.42	75,880	3
6	Belize	1.16	3,800	1	50	Mali	6.14	500	1
7	Benin	5.12	570	1	51	Marshall Islands	0.2	3,070	1
8	Brazil	1133.03	5,910	2	52	Mauritania	2.64	840	1
9	Bulgaria	35.06	4590	2	53	Mexico	878.02	8340	2
10	Cambodia	7.86	540	1	54	Monaco #1*	12.66	12,649	2
11	Cameroon	19.45	1,050	2	55	Mongolia	3.36	1,290	1
12	Chile	138.63	8,350	2	56	Morocco	69.35	2,250	2
13	China, P.R of	3120.89	2360	2	57	Nauru *	0.1	7,270	1
14	Congo, Rep	5.8	1,540	1	58	Netherlands	750.53	45820	3
15	Costa Rica	24.83	5560	2	59	New Zealand	121.71	28,780	3
16	Cote d'Ivoire	17.54	910	2	60	Nicaragua	5.52	980	1
17	Croatia	46.43	10,460	2	61	Norway	360.04	76,450	3
18	Cyprus	19.62	24,940	3	62	Oman	23	9,070	2
19	Czech Republic	149.38	14,450	3	63	Palau	0.17	8,210	1
20	Denmark	299.8	54,910	3	64	Panama	18.42	5,510	2
21	Dominica	0.31	4,250	1	65	Peru	96.24	3,450	2
22	Dominican Republic	34.61	3,550	2	66	Poland	374.63	9,840	2
23	Ecuador	41.15	3,080	2	67	Portugal	201.08	18,950	3
24	Eritrea	1.11	230	1	68	Romania	132.5	6150	2
25	Estonia	17.71	13200	3	69	Russian Federation	1071	7,560	2
26	Finland	234.83	44,400	3	70	San Marino #2*	12.66	12,649	2
27	France	2447.09	38,500	4	71	Senegal	10.17	820	1
28	Gabon	8.88	6,670	1	72	Slovak Republic	63.32	11,730	2
29	Gambia, The	0.54	320	1	73	Slovenia	42.31	20,960	3
30	Germany	3197.03	38860	4	74	Solomon Islands	0.36	730	1
31	Ghana	13.91	590	2	75	South Africa	274.01	5,760	2
32	Greece	331.66	29,630	3	76	Spain	1321.76	29,450	4
33	Grenada	0.51	4,670	1	77	St Kitts and Nevis	0.47	9,630	1
34	Guatemala	32.58	2440	2	78	St Vincent & The G.	0.51	4,210	1
35	Guinea	3.72	400	1	79	St. Lucia	0.93	5,530	1
36	Guinea-Bissau	0.33	200	1	80	Suriname	2.17	4730	1
37	Hungary	116.3	11,570	2	81	Sweden	421.34	46060	3
38	Iceland	16.83	54,100	3	82	Switzerland	452.12	59880	3
39	India	1069.43	950	2	83	Tanzania	16.29	400	2
40	Ireland	210.17	48140	3	84	Togo	2.38	360	1
41	Israel	157.06	21900	3	85	Tuvalu *	0.003	825	1
42	Italy	1991.28	33540	4	86	United Kingdom	2608.51	42740	4
43	Japan	4813.34	37670	4	87	Uruguay	21.19	6380	2
44	Kenya	25.56	680	2	88	USA	13886.47	46,040	4
# = Very Small Country Status (#1 population: (July 2006 est.): 32,543 #2 population (September 2006): 30,002) - Data from US State Dept									
* = No World Bank data. Data (if any) provided by Lonely Planet Travel Guides									
Source: World Development Indicators database, September 2008.									

Table 6

## Contributions for the Year Commencing 1 September 2009

		Old'' formula	Capacity To pay Group	Red'n Stage 1	Red'n Stage 2	Red'n £	Add-on Whaling '	Add-on Group 3 £	Add-on Group 4 £	Total £
1	Antigua and Barbuda	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
2	Argentina	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
3	Australia	26,431	3	0	0	0	0	6,075	0	32,506
4	Austria	15,859	3	0	0	0	0	6,075	0	21,934
5	Belgium	15,859	3	0	0	0	0	6,075	0	21,934
6	Belize	10,572	1	-5,286	-1,322	-6,608	0	0	0	3,965
7	Benin	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
8	Brazil	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
9	Bulgaria	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
10	Cambodia	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
11	Cameroon	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
12	Chile	21,145	2	-5,286	-1,586	-6,872	0	0	0	14,273
13	China, P.R of	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
14	Congo, Rep	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
15	Costa Rica	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
16	Cote d'Ivoire	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
17	Croatia	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
18	Cyprus	15,859	3	0	0	0	0	6,075	0	21,934
19	Czech Republic	21,145	3	0	0	0	0	6,075	0	27,220
20	Denmark	31,717	3	0	0	0	6,075	6,075	0	43,868
21	Dominica	10,572	1	-5,286	-1,322	-6,608	0	0	0	3,965
22	Dominican Republic	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
23	Ecuador	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
24	Eritrea	10,572	1	-5,286	-1,322	-6,608	0	0	0	3,965
25	Estonia	15,859	3	0	0	0	0	6,075	0	21,934
26	Finland	15,859	3	0	0	0	0	6,075	0	21,934
27	France	15,859	4	0	0	0	0	0	36,452	52,311
28	Gabon	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
29	Gambia, The	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
30	Germany	21,145	4	0	0	0	0	0	36,452	57,597
31	Ghana	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
32	Greece	10,572	3	0	0	0	0	6,075	0	16,648
33	Grenada	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
34	Guatemala	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
35	Guinea	21,145	1	-10,572	-2,643	-13,216	0	0	0	7,929
36	Guinea-Bissau	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
37	Hungary	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
38	Iceland	31,717	3	0	0	0	6,075	6,075	0	43,868
39	India	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
40	Ireland	15,859	3	0	0	0	0	6,075	0	21,934
41	Israel	15,859	3	0	0	0	0	6,075	0	21,934
42	Italy	21,145	4	0	0	0	0	0	36,452	57,597
43	Japan	74,007	4	0	0	0	6,075	0	36,452	116,534
44	Kenya	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
45	Kiribati	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947

**IWC/62/10**  
**Agenda item 3**

		Old" formula	Capacity To pay Group	Red'n Stage 1	Red'n Stage 2	Red'n £	Add-on Whaling '	Add-on Group 3 £	Add-on Group 4 £	TOTAL £
46	Korea, Rep of	26,431	3	0	0	0	0	6,075	0	32,506
47	Lao PDR	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
48	Lithuania	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
49	Luxembourg	15,859	3	0	0	0	0	6,075	0	21,934
50	Mali	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
51	Marshall Islands	10,572	1	-5,286	-1,322	-6,608	0	0	0	3,965
52	Mauritania	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
53	Mexico	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
54	Monaco	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
55	Mongolia	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
56	Morocco	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
57	Nauru	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
58	Netherlands	21,145	3	0	0	0	0	6,075	0	27,220
59	New Zealand	21,145	3	0	0	0	0	6,075	0	27,220
60	Nicaragua	10,572	1	-5,286	-1,322	-6,608	0	0	0	3,965
61	Norway	37,003	3	0	0	0	6,075	6,075	0	49,154
62	Oman	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
63	Palau	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
64	Panama	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
65	Peru	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
66	Poland	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
67	Portugal	15,859	3	0	0	0	0	6,075	0	21,934
68	Romania	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
69	Russian Federation	26,431	2	-6,608	-1,982	-8,590	6,075	0	0	23,916
70	San Marino	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
71	Senegal	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
72	Slovak Republic	10,572	2	-2,643	-793	-3,436	0	0	0	7,136
73	Slovenia	15,859	3	0	0	0	0	6,075	0	21,934
74	Solomon Islands	10,572	1	-5,286	-1,322	-6,608	0	0	0	3,965
75	South Africa	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
76	Spain	15,859	4	0	0	0	0	0	36,452	52,311
77	St Kitts and Nevis	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
78	St Vincent & The G.	26,431	1	-13,216	-3,304	-16,519	6,075	0	0	15,987
79	St. Lucia	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
80	Suriname	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
81	Sweden	21,145	3	0	0	0	0	6,075	0	27,220
82	Switzerland	15,859	3	0	0	0	0	6,075	0	21,934
83	Tanzania	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
84	Togo	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
85	Tuvalu	15,859	1	-7,929	-1,982	-9,912	0	0	0	5,947
86	United Kingdom	26,431	4	0	0	0	0	0	36,452	62,883
87	Uruguay	15,859	2	-3,965	-1,189	-5,154	0	0	0	10,705
88	USA	37,003	4	0	0	0	6,075	0	36,452	79,531

1,533,000	-335,674	-89,601	-425,275	42,528	127,583	255,165	1,533,000
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Shortfall for re-distribution      -425,275

Group 1	29	Whaling	10%	42,528
Group 2	31	Group 3	30%	127,583
Group 3	21	Group 4	60%	255,165
Group 4	7			425,275
	88			

(Please note figures in this table are rounded to the nearest whole number)