FIRST MEETING OF THE
TECHNICAL AND COMPLIANCE COMMITTEE OF
THE COMMISSION FOR THE CONSERVATION AND MANAGEMENT OF HIGHLY MIGRATORY FISH STOCKS IN THE WESTERN AND CENTRAL PACIFIC OCEAN
POHNPEI, FEDERATED STATES OF MICRONESIA
5-9 DECEMBER 2005

WCPFC/TCC1/18
November 14th 2005

CONSERVATION AND MANAGEMENT MEASURES

Prepared by the Secretariat

Background

1. The first session of the Commission adopted a detailed Resolution on Conservation and Management Measures, as Annex II of the record, and attached here as Appendix 1. The Resolution called for

- work to be undertaken, utilizing the interim arrangements for the provision of scientific advice and considering management options identified as feasible by the Scientific Coordinating Group (SCG), reviewed by the Scientific Committee, and made available as scientific advice to the Commission at its second session;
- directed the Technical and Compliance Committee to provide advice on issues that might require consideration for the effective implementation of possible measures
- signalled a commitment to adopt at WCPFC 2, conservation measures to address sustainability concerns, and
- drew attention to the fact that previous resolutions calling for reasonable restraint in the expansion of fishing effort and capacity shall continue to apply, implying that they needed to be given effect.

2. This paper addresses what conservation and management measures might be considered for adoption at WCPFC2 in the light of scientific advice provided, attempts to identify what ancillary advice the Technical and Compliance Committee might need to provide for the effective implementation of such measures, and considers what Resolutions might need to be developed should any measures be agreed by the Commission.

3. Appendix 2 provides, for reference, an annotated summary of relevant articles in the Convention which specify the respective powers of Commission, Members and flag State Members in respect of conservation and management measures, and their area of application, generally in terms of the Convention Area, areas under national jurisdiction, and high seas areas.

Advice from the Scientific Committee

4. The advice provided by the Scientific Committee in response to the Resolution will be presented in detail in a separate report to both the TCC and WCPFC2. This advice with respect to the target tuna species has been summarized, or extracted from the Scientific Committee's report, as follows:

5. With respect to the ***status of stocks***, the SC noted that overfishing of both bigeye and yellowfin was now likely occurring, but that neither stock was in an overfished state, whilst skipjack and South Pacific albacore were neither overfished nor in an overfished state.

6. Regarding ***estimates of sustainable catch levels for bigeye, yellowfin and South Pacific albacore,***

"5.2 *Sustainable catch and effort estimates relative to the period 2001-2003 for bigeye, yellowfin and South Pacific albacore are provided in Table 1.*

5.3 Sustainable catch levels are estimated under two assumptions concerning recruitment. First, the MSY estimates reflect recruitment at long-term average levels. Second, the maximum yield estimates are based on recent (1994-2003) average recruitment. F_{MSY} *was chosen as an indicator of sustainable effort, as implied by Article 5, paragraph (b) of the Convention.*

Table 1. Estimates of F_{MSY} relative to "current" average F, MSY based on long-term average recruitment (95% confidence intervals shown in parentheses), and maximum yield based on recent (1994−2003) average recruitment. MSY and maximum yield***** are also shown relative to the current catches. Current F and catch for bigeye and yellowfin tuna are represented by the 2001−2003 averages; for South Pacific albacore, average F and catch in 2000−2002 were used.

* Maximum yield' is conditional upon a particular recruitment level and is not necessarily 'sustainable', whereas MSY assumes a particular stock-recruitment relationship and is by definition sustainable.

Stock	F_{MSY} relative to "current" F	MSY with long-term average Recruitment	MSY relative to current catch	Maximum Yield Recent average (1994−2003) Recruitment	Maximum yield relative to current catch
Bigeye tuna (WCPO)	0.81	66,040 (62,222-69, 858)	0.67	93,300	0.95
Yellowfin tuna (WCPO)	0.82	262,400 (229,790-295, 010)	0.65	312,200	0.77
South Pacific albacore	19.10	183,000 (73,100−292, 300)	3.55	156,700	3.04

5.4 Effort reductions across all fisheries in which bigeye and yellowfin are caught to about 80% of 2001-2003 average levels are predicted to reduce fishing mortality to F_{MSY}

levels. The equivalent long-term average catch levels consistent with F_{MSY} are estimated to be 67% and 65% of 2001-2003 average bigeye and yellowfin catches, respectively. Over the short-term, assuming maintenance of recent above-average recruitment conditions, catches of 95% (bigeye) and 77% (yellowfin) of 2001-2003 average catches would be consistent with F_{MSY}.

5.5 The South Pacific albacore assessment shows that current levels of catch and effort are sustainable. While future increases in albacore catch are likely to be sustainable, estimates of MSY are highly uncertain because of the extrapolation of catch and effort well beyond any historical levels. Projections demonstrated that longline exploitable biomass, and hence CPUE, would fall sharply if catch and effort were increased to MSY levels. Therefore, the economic consequences of any such increases should be carefully assessed beforehand."

7. On the projections requested for bigeye and yellowfin relative to 2003 catch and effort levels, advice provided by the SC (paragraph 5.9 of the SC Report) was as follows:

Bigeye tuna

a) The 2003 catches (scenario 1) are not sustainable under the long-term average recruitment. The population in the western equatorial Pacific is rapidly depleted and quickly reaches a point where there are insufficient fish to enable the specified catches to be taken. Under the recent (1994-2003) average recruitment hypothesis, the 2003 catches are sustainable, with both total and adult biomass remaining above their MSY levels. However, catches are not sustainable in some regions, as the resource in the western equatorial Pacific declines drastically even under these favourable recruitment conditions.

b) The 2003 effort (scenario 2) produces total population biomass approaching the MSY level under long-term average recruitment and exceeding it under recent (1994-2003) average recruitment conditions. Results are slightly more optimistic for adult biomass.

c) Overall, reductions in catches or effort simultaneously in all fisheries (scenario 6) resulted in the strongest increases in total and adult biomass. All reduction scenarios resulted in adult biomass levels greater than their respective MSY levels under both recruitment hypotheses.

d) Restrictions on longline catch and effort (scenario 4) have a greater positive impact on adult biomass than reductions in other fishery types. This is because longliners target adult fish, and reductions in their catch or effort have an immediate impact on the adult population. It is also because the longline fishery is the largest component of the fishery, and as such, proportional reductions in longline catch or effort would be expected to have a greater impact on bigeye tuna biomass than the same proportional reductions in smaller fisheries.

e) Switching purse seine effort from log and FAD sets to unassociated school sets (scenario 7) was associated with the largest increase in biomass of the purse seine measures investigated. Under this scenario, total and adult biomass moved above their MSY levels under both recruitment hypotheses (the only purse seine measure to have this result). The simulated 50% reduction in log/FAD purse seine catchability (scenario 8) also showed positive results, but not to the extent of scenario 7.

f) Of the scenarios simulating some form of quarterly closure of purse seining in the western equatorial Pacific (scenarios 9 and 9A), the scenarios in which the closure pertained to log/FAD sets, with that effort being redirected to unassociated school sets in the same region (scenario 9), was more effective than a closure of all western equatorial Pacific purse seining with redirection of the effort to the eastern equatorial Pacific region (scenario 9A). In fact, scenario 9A resulted in 2014 biomass levels both less than the MSY levels and less than those obtained under the status quo (scenario 2). For the same set of measures in the eastern equatorial Pacific regions (scenarios 10 and 10A), there was little difference between set type versus regional redistribution of effort.

g) There was little difference in biomass outcomes with regards to which quarter of the year the purse seine seasonal closures were applied (scenarios 10 and 10A).

h) For the quarterly longline closures in the equatorial Pacific (scenarios 11 and 12), the eastern equatorial Pacific closures resulted in better biomass outcomes. In the eastern equatorial Pacific, a quarter 1 closure resulted in the greatest biomass gains, followed by closures in quarter 2, 3 and 4. There was little difference among the quarters for seasonal closures in the western equatorial Pacific.

Yellowfin tuna

a) The 2003 catches are not sustainable under any of the catch-based scenarios investigated (scenarios 1, 3-6a,b). In these projections, yellowfin in the western equatorial Pacific is drastically depleted. All of the effort-based scenarios investigated (scenarios 2, 3-6c,d, 7-12) were found to result in biomass levels above their MSY levels, including the 2003 effort.

b) Overall, 30% reductions in **catch[1] or** *effort simultaneously in all fisheries (*scenario **s *6b and*** *6d) resulted in the strongest increases in total and adult biomass.*

[1] Words in bold in (b) and (c) removed from original report as incorrect

c) Reductions in purse seine **catch or** *effort (scenario 3) and Indonesia and the Philippines (scenario 5) effort resulted in better biomass outcomes than reductions in longline effort (scenario 4).*

d) Perhaps surprisingly, reductions in effort in the Indonesia and the Philippine domestic fisheries (scenario 5) did not result in appreciably better biomass outcomes than the corresponding purse seine reductions. This is probably because much of the Indonesia and the Philippine catch consists of small fish for which natural mortality is assumed to be relatively high.

e) Switching purse seine effort from log/FAD sets to unassociated school sets (scenario 7) resulted in a slight improvement in biomass. However, the effect is not as strong as seen for bigeye because the effort re-directed into purse seine school sets continues to catch yellowfin but very little bigeye. The 50% reduction in log/FAD set catchability (scenario 8) resulted in better biomass outcomes for yellowfin compared to scenario 7.

f) Management measures simulating quarterly closures with various transfers of fishing effort (scenarios 9, 9A, 10, 10A, 11 and 12) were not found to improve biomass over the status quo outcome (scenario 2).

5.10 A feature of the catch-based projections for both bigeye and yellowfin was the continued drastic decline in abundance in the western equatorial Pacific. This was in part caused by the exceptionally high levels of purse seine catch and effort in the western equatorial Pacific in 2003, which were used as the basis of the projections.

5.11 The relative performance of the different management scenarios was robust to the two future recruitment assumptions investigated. Future recruitment is a major source of uncertainty in projection results.

8. Advice provided on ***measures to mitigate catch of juvenile bigeye and yellowfin*** was as follows:

5.12 Several of the projection scenarios simulated measures to mitigate the catch of juvenile bigeye and yellowfin. These included reductions in ***catch and***[2] *effort of the purse seine and Indonesian and Philippines fisheries (scenarios 3 and 5), transfer of purse seine effort from log and FAD sets to unassociated school sets (scenario 6) and various area-season closures of the purse seine fishery (scenarios 9, 9A, 10, and 10A).*

5.13 Transfer of effort from log and FAD sets to unassociated school sets resulted in gains in adult biomass as well as an increase in overall catch because of fishery interactions effects (i.e. the reduced catch of juveniles resulted in gains to both the population and the longline catch over the ten-year time horizon).

[2] Words in bold removed as not entirely correct in the report

Estimates of the mortality of non-target species with an initial focus on seabirds, turtles and sharks

9. The Scientific Committee noted that estimates of the mortality of non-target species were regarded as preliminary, because of low observer coverage, the non-representative nature of the coverage and inadequate identification, except for sharks, and that additional analyses of more accurate estimates of catches and mortalities would be required to assess the impact of fisheries on species of special interest.

10. Possible mitigation measures to address this mortality were not proposed by the Scientific Committee in its report to the Commission, but are discussed in several supplementary papers (WCPFC/TCC/18 Suppl. 2,3,4)

Possible conservation and management measures that might be considered

11. In responding to such advice, which primarily concerns bigeye and yellowfin tuna, the Commission intends to adopt, in accordance with Article 5 of the Convention, measures which may include:

(*a) Catch and/or effort limits*
(b) Capacity limits for large-scale tuna fishing vessels
(c) Measures to address impacts of large-scale tuna fishing vessels, so as to ensure compatibility between measures applied outside areas of national jurisdiction and measures being applied by coastal states to manage fishing by such vessels within their zones
(d) Time and area closures
(e) Mitigation measures to address the mortality of non-target species eg seabirds, turtles and sharks

12. Other measures may also be considered, some of which are listed under Art. 10(2) of the Convention e.g. size of fish of any species which may be taken, fishing gear and technology which may be used, measures (unspecified) relating to particular regions or sub-regions, limits on fishing capacity not restricted to large-scale tuna fishing vessels, but there are potentially others e.g. technical limitations on FAD use, requirements to retain all catch, etc.

13. Not all of the potential management options have been covered by the SC work, which was restricted to those options considered feasible by the Scientific Coordinating Group (SCG) to evaluate, given the prevailing situation with respect to data availability for the required analyses, in particular. The measures are also generally assumed not to apply in most cases to the pole-and-line fishery, which although accounting for around 15% of the catch in the WCP-CA (~300,000t), takes primarily skipjack (> 90% of the catch).

14. These possible conservation and management measures identified in the Resolution, and other relevant issues are given consideration below.

Management objectives

15. The first issue the Commission needs to consider is the establishment of management objectives, in the form of stock-specific reference points, and according to guidelines set out in Annex II of the Agreement. These suggest that *"the fishing mortality which generates maximum sustainable yield should be regarded as a minimum standard for limit reference points. For stocks which are overfished, fishery management strategies shall ensure that fishing mortality does not exceed that which corresponds to maximum sustainable yield and that the biomass does not fall below a predefined threshold. For overfished stocks, the biomass which will produce maximum sustainable yield can serve as a rebuilding target"*.

16. It is therefore suggested that the Commission consider the adoption of, as provisional limit reference points, $F_{current} = F_{MSY}$ (overfishing), and $B_{current} = B_{MSY}$ (overfished state) as an initial step in the enabling management measures to be applied against these reference points, and their performance subsequently evaluated.

Catch limits

17. Sustainable catch limits or levels, by species, are difficult to estimate with any confidence, being subject to assumptions relating to future recruitment, and may vary from year to year.

18. MSY estimates with long-term average recruitment are very much lower than present catches (67% of 2001-2003 average for bigeye, and yellowfin 65%). With the more optimistic recent average recruitment levels (1994-2003), catches of 95% (bigeye) and 77% (yellowfin) of current (2001-2003) catches would be sustainable (i.e. consistent with F_{MSY}) in the short term. It would be difficult at this time for Commission Members to recommend catch reduction targets because of the various estimates of sustainable total catch that might be adopted, and where catch is not even known with certainty in some large fisheries e.g. Indonesia, Philippines, Vietnam. Were it appropriate for the Commission to establish Convention Area TACs at this stage, they would, consistent with the precautionary approach, be MSYs at long-term average recruitment levels, which may not be helpful in the current situation, before the economic impacts of such measures, mostly through reduced skipjack catches, have been fully evaluated. There will also be a need to closely monitor recruitment levels, since if the current high recruitment levels decline, current (2003) catches are predicted to be not sustainable for both species in one region, the Western Equatorial Pacific (20^0N – 10^0S, west of 170^0E), from where much of the regional catch is drawn.

19. Although it seems likely that, in the long term, the Commission will opt for a Convention Area TAC or similar output control with national and high seas allocations, this will require considerable progress with difficult allocation issues. It may be appropriate at this stage for the Commission to reaffirm commitments to establishing

standards for catch, effort and associated data[3], according to global standards, and improving data coverage throughout the Convention Area, as well as beginning to consider how allocation issues might be addressed.

20. The Commission could however consider setting a Convention Area TAC for longline-caught bigeye, and given that much of this catch is taken in high seas areas, begin to consider allocation of high seas catches and ensuring compatibility of such measures with in-zone measures (see later). On the other hand, catch reductions would appear to have little impact for yellowfin, with the high 2003 catch levels not sustainable under any catch reduction scenarios investigated.

Effort limits

21. Sustainable effort levels, indicated by the ratio of F_{MSY} to $F_{current}$ (ie 2001-2003 average), represent about 80% of current effort levels for both bigeye and yellowfin, with the Scientific Committee therefore recommending that $F_{current}$ needs to be reduced, presumably by 20% if the objective was to keep effort at around F_{MSY} levels. Were the status quo effort levels (2003) to be maintained, under both recruitment scenarios, biomass (total and adult) of both species would be maintained above MSY levels into the future.

22. With both species overfished at present ($F_{curr} > F_{MSY}$), but biomass levels relatively high as a result of recent high recruitment, even modest gains in yield (catch) by reducing effort/F for yellowfin and bigeye would come at a high cost in terms of skipjack catch foregone in the purse seine fishery.

23. Although the Commission may not be in a position to develop overall effort limits for the Convention Area at this time, there is however a need to cap purse seine effort at recent levels immediately, particularly for yellowfin, and longline effort for both species. An overall effort limit (fishing days), possibly competitive, for large vessels may be worth considering in the short term. This could initially relate to the high seas, but as most purse seine catch is taken in EEZs of coastal States, this would have little benefit unless accompanied by compatible measures in-zone.

National catch/effort limits

24. With difficulties in implementing comprehensive catch and possibly effort limits for the Convention Area in the short term, it would seem appropriate, given the need to still impose such limits for bigeye and yellowfin, to encourage Members to take measures in waters under their jurisdiction, on the assumption that there will be progress at the Commission level to develop allocation mechanisms which would eventually ensure compatibility with Convention Area and high seas limits established in the future.

[3] accurate estimation of species composition of the purse seine catch, particularly the estimation of % bigeye in the "bigeye plus yellowfin" component of the catch, remains an ongoing issue for some fleets.

25. It is generally felt that catch limits might be particularly suited for longline fisheries, especially for the high seas, where the majority of bigeye catches are taken. Other RFMOs have successfully imposed overall catch limits for bigeye taken in longline fisheries (and mostly in high seas areas), with national/flag limits for large established producers, and limits related to earlier lower catch levels for smaller producers, with some accommodation of their development aspirations. Trade certification measures have typically been associated with such limits for bigeye, and the WCPFC is the only tuna RFMO not applying such measures. Catch limits seem less suitable for yellowfin taken in longline fisheries, particularly as the impact of longlining on the yellowfin stock is relatively small.

26. Effort limits applied at national level have been applied to purse seine fisheries, and are to be applied, in the form of the Vessel Days Scheme (VDS), to the waters of Parties to the Nauru Agreement (PNA) States, from where 80%[4] of the WCPO purse seine catch is assumed to come. Reportedly based on 2004 effort levels[5], if approved, the Scheme, to be fully implemented by the beginning of 2007, will offer the potential prospect of capping the majority of purse seine effort at that level, and providing a framework for reductions as required in the future. The Commission may seek further details of the VDS, as representing the most likely means of controlling purse seine effort in the short-medium term.

27. Effort limits could also be applied to Indonesian and Philippines fisheries, with projections suggesting both catch and biomass gains for yellowfin, and catch gains for bigeye. In practical terms, it is not entirely clear how such limits might be applied and any reductions achieved.

Capacity limits – large scale vessels

28. Although not able to be examined by the SC work, capacity limits have been widely used by RFMOs, in line with an internationally recognized need, embodied in the IPOA Management of Fishing Capacity, to limit fishing vessel capacity on global and regional scales, particularly for mobile tuna fishing fleets. Such limits might be based on agreed measures of capacity, such vessel numbers, vessel size (expressed as GRT), hold capacity (as m^3), or more sophisticated measures e.g. DEA[6]. There are currently few capacity data, other than vessel numbers (and even that may be incomplete), available for the WCPO fleets. In association with the development of its Record of Fishing Vessels, the Commission should develop (and verify) information on the capacity of vessels fishing in the Convention Area, and undertake work to develop suitable measures of capacity, as a precursor to establishing capacity limits for, initially, large scale vessels. This would require definition of vessel size limits for this category – 250 GT and fish hold capacity > 400 m^3 have been used elsewhere for purse seiners (although there are numerous purse seiners < 250 GT operating effectively in the WCPO), and 20m or 24m

[4] With catches in the Japan EEZ, Philippines and Indonesian domestic fisheries not included, this figure is likely to be considerably less, possibly below 70%.
[5] 2004 effort levels are slightly higher than the 2003 effort levels used in the SC projections
[6] Data Envelopment Analysis, to estimate the technical efficiency and potential catching capacity of a fleet.

LOA for longliners. Such capacity limits could be used to cap the fishery in the short term, with the inevitable effort creep to be addressed by the Commission in the longer term.

29. There will be various sub-regional issues to address with both capacity and longline catch limits for vessels fishing outside Areas 3 and 4, and principally targeting albacore, both North and South Pacific.

30. The Commission could also consider capacity limits for particular areas and gears – limiting the number of large longliners which could fish in equatorial areas e.g. 10^{o}N to 10^{0}S, targeting bigeye and yellowfin, may be worthy of consideration.

Impacts of large-scale vessels and compatibility of measures

Longline

31. This issue may more critically need to be addressed in the case of longline vessels, where much, if not a majority of the bigeye catch, is taken in high sea areas. As noted in para. 20, the Commission could however consider setting a Convention Area TAC for longline-caught bigeye, and given that much of this catch is taken in high seas areas, begin to consider allocation of high seas catches and ensuring compatibility of such measures with in-zone measures. The Commission would also need to consider compatibility of measures with those established in the EPO by the IATTC, where four parties (CPCs) have annual bigeye quota, and other CPCs are required to limit bigeye catches to 2001 levels. The zone of overlap between the WCPO Convention Area and the IATTC area (east of 150^{0}W, and south of 4^{0}S), where considerable bigeye longline catch (over 10,000t in 2003), is central to this need for compatibility.

Purse seine

32. With the possibility that less than 20% of the purse seine catch may currently be taken in high seas areas in the WCPO, mostly by large purse seine vessels, compatibility of measures may be less of an issue, should the Commission establish a Convention Area TAE for large purse seiners. The Commission would then need to ensure, through coordination, that the collective national TAEs, provided for under the forthcoming Vessel Days Scheme for the PNA area, and national effort limits for other coastal states eg Indonesia, Philippines and Japan, combined with limit for the high seas, did not exceed the regional TAE.

Time and area closures

33. There are potentially two types of time/area closures:

- total closures which apply to a gear or all gears throughout the Convention Area, for a given period (these have been applied by other RFMOs), to directly limit or reduce overall effort, and indirectly, catch.
- partial closures, where a smaller area associated with high catches of a species of interest might be closed seasonally. In practice, it has proved difficult to identify such areas of high bigeye catch, especially in the WCPO, without foregoing large

quantities of skipjack catch. Such closures have often been associated with FAD/log sets on other areas, but have generally not been persisted with. In the case of the longline fishery, quarterly closure of longline fishing in area 4, with effort transferred to region 3, provided good biomass gains.

Control of sets on floating objects

34. It is clear from the projections that there are significant gains in terms of both catch and biomass for bigeye and yellowfin (though less so for the latter) in transferring effort from sets on floating objects (anchored and drifting FADs and logs) in tropical areas to unassociated sets. This would most likely take the form of either limits on the number of FAD sets, or limits on the number of FADs that could be deployed (by vessel, fleet or area). Either option would require considerable MCS input, and might best be addressed at national level, since most anchored FADs are deployed in areas under national jurisdiction in area 3, whereas logs and drifting FADs are fished over a much wider area (areas 3 and 4). Time/area closures for FAD/log sets were discussed above, and have been applied in other RFMOs, but have largely been discontinued after initial trial periods.

35. The Commission could request that TCC look at measures which might provide some incentive for transferring effort away from associated sets to unassociated sets. These could include, for example, under the VDS, discounting days where no fishing (verified) on associated sets occurred, capping associated set numbers by flag for large purse seine vessels, and others.

Other measures

36. A range of technical options could be considered for particularly the purse seine fishery e.g. reducing catchability of bigeye and yellowfin in associated sets, which the projections have shown to yield gains in biomass for yellowfin, and gains in catch and biomass for bigeye, but such techniques have yet to be developed.

37. Compulsory retention of small fish (and by-catch) is currently being trialed by IATTC, and escape grids, mesh sorters and other means of reducing the catch of small yellowfin and bigeye have also been considered. Limits on other technical options such as the use of tender and support vessels have also been proposed. Most of the above measures are not expected to receive further consideration in the short to medium term.

38. Under Art. 29(5), the Commission, on the advice of the TCC, may wish to consider enforcing a ban on transhipment at sea by purse seine vessels operating anywhere within the Convention Area, subject to discussion with all parties, and to having the necessary monitoring arrangements in place (see WCPFC/TCC/18).

Other issues

39. With the introduction of a Resolution on Northern Albacore Tuna by IATTC earlier this year (Resolution C-05-02) proposing management measures for albacore throughout its range (including the EPO and the WCPO, north of the equator), cooperation with the WCPFC in the conservation and management is called for, with the need for compatibility of such measures. Around 80% of the North Pacific albacore catch is taken in the WCPO. This will become an issue for the consideration of the Northern Committee, which may meet for the first time during WCPFC 2.

40. Similar issues may arise with South Pacific albacore when conservation and management measures are proposed by either or both RFMOs, particularly in response to any transfer of longlining effort to temperate areas, the reduced exploitable biomass in some areas, and the development of SIDS on this area.

Allocation

41. A priority issue for the Commission, given the expectation that a Convention Area TAC with national and high seas allocations of catch is likely to be the most effective long-term option for the conservation and management of the large, multi-species, multi-gear, multiple landing point fisheries of the WCPO, is the development of mechanisms for the allocation of TAC (or TAE), in accordance with Art. 10(3), and adopting any such decisions by consensus (Art. 10(4). The Commission could usefully consider the most suitable approach to initiate this process.

42. The possible conservation and management measures that have been discussed in this paper and might be considered by WCPFC2 are summarized in Table 2, together with some preliminary comment on the feasibility of their implementation and possible fishery/biological and economic impacts. Some combination of these measures will presumably be adopted by WCPFC 2.

Action on previous Resolutions

43. Previous Resolutions of the MHLC and the Preparatory *Conference "calling for measures including reasonable restraint in the expansion of fishing effort and capacity in the Convention Area"* are carried over by the WCPFC Resolution, and are considered to continue to apply. There has been little compliance with these initiatives, and although certain States have voluntarily reduced some fleets, other have not and capacity has generally continued to increase in the WCPO, as documented by several sources, for both longliners and large purse seiners. New vessels are being constructed in some cases, and there is certainly capacity excess to that needed to harvest tuna stocks at sustainable levels. This has also been the experience in the EPO.

44. Once information on vessel capacity has been gathered for the WCPO, the Commission may be in a position to consider appropriate capacity limits, initially for large tuna fishing vessels operating in the WCPO. In the interim, the Commission may wish to consider imposing a binding moratorium on the construction of new vessels over specified sizes intending to operate in the WCPO, combined with controls on movement of vessels into and out of the area, and a policy on replacement of vessels, with special consideration given to the legitimate development aspirations of developing States, within overall agreed catch and effort allocations . Voluntary fleet reductions could also be encouraged. Such measures may temporarily slow the increase in capacity, before the inevitable capital stuffing occurs.

Advice that might be required from the Technical and Compliance Committee

45. The Resolution specifically sought TCC advice *"in advance of the second annual session on the issues that may require consideration for the effective implementation of possible conservation and management measures, including time/area closures or alternative measures to control sets on floating objects"*, and considering "*the regional observer programme as well as the VMS programme as a matter of priority at its 2005 meeting"*.

46. Issues in addition to these, arising from consideration of the scientific advice from the SC and measures considered in this paper, might include the following:

- fishing capacity limits (what information to be collected)
- annual compliance reporting
- statistical documentation programme for bigeye tuna (frozen and fresh)
- transshipment in the Convention Area, other than in designated ports; reporting on such transshipment
- port state measures and port inspections
- boarding and inspection procedures
- implementation of other conservation and management measures

Resolutions on conservation and management measures for consideration by WCPFC 2

47. It is anticipated that a series of Resolutions calling for the adoption of appropriate conservation and management measures may be developed during the TCC, and forwarded to WCPFC2 for the consideration of Members and CNMs, along with the advice from the Scientific Committee, and any other information provided by Members.

Table 2

Evaluation of possible conservation and management measures identified and their medium term (10 year) impacts

Measure	Rationale	Feasibility of implementation	Fishery/biological impacts	Economic impacts
GENERAL MEASURES				
Catch reductions across all fisheries (5% bigeye and 23% yellowfin, relative to 2001-2003 catches); much larger if related to long term recruitment (33% bigeye and 35% yellowfin)	Reduce catch to MSY levels, under various levels of recruitment	Difficult to achieve agreement on appropriate Conventional Area catch limit under varying recruitment levels; difficult to implement without complete catch data, especially for artisanal fisheries;	Generally few biomass gains, except for bigeye (longline and all fisheries reductions); Little or no impact for yellowfin relative to 2003 catch levels	Severe impacts, ameliorate by partial YF avoidance; Severe impacts on artisanal and developing fisheries Possible positive impacts on price with reduced supply
Effort reductions across all fisheries (20%)	Reduce current F to F_{MSY} levels (eventually); cap effort at 2003 levels in the interim	Difficult to fully implement across the board; focus on yellowfin in purse seine catches, longline for both species, and Indo/Phils	Reduction in yellowfin and bigeye catch, but even greater reduction in skipjack catch	Considerable impact on all fisheries; some exemption for smaller vessels and SIDS with developing fisheries. Possible positive impacts on price with reduced supply
Capacity limits for large purse seine vessels	Indirect way to reduce or maintain effort (and catch) at current levels, in the short term; need to apply to high seas and in-zone	Need to develop appropriate measure (and limits) for capacity	Initially limit effort but effort creep soon after; continuous readjustment needed; short term measure whilst other considered	Moderate; some exemption for smaller vessels and SIDS with developing fisheries
Capacity limits for large longline vessels	Indirect way to reduce effort (and catch) in the short term; apply to high seas initially	Need to develop appropriate measure (and limits) for capacity	Initially limit effort	Moderate; some exemption for smaller vessels and SIDS with developing fisheries
Total closure, or by gear, for certain period	Reduce total catch and annual effort,	Relatively easy for large purse seine, more difficult for longline and smaller vessels	Reduction in catch and effort, but will not be proportional	If period short, impact can be reduced by undertaking maintenance etc
Moratorium on vessel construction	Cap effort (and catch) at current numbers; control new entrants	Short-term, as effort creep inevitable; need to accommodate legitimate	Limit increase in effort and catch, but capital stuffing of existing vessels inevitable	Limit to growth, but accommodate legitimate development aspirations

		development aspirations		
SPECIFIC MEASURES				
Reduction in bigeye longline catch (and effort)	Longline catch of adults is largest component of bigeye catch, so largest impact on biomass	Set catch limits, and cap vessel numbers, initially for high seas equatorial areas; self-enforcing without high observer coverage; trade certification in association	Greater beneficial impact on bigeye biomass; some benefits will inevitably flow to yellowfin	Moderate for some fleets; positive impact on price with reduced supply?
Cap purse seine effort at current (2003) levels; possible reduction in long term	Maintain yellowfin and bigeye biomass at or above MSY levels in longer term	VDS system for PNA area (majority of p/s catch); compatible measures for high seas	Benefits for biomass if effort on yellowfin can be reduced	
Switch purse seine effort from log/FAD to unassociated sets, all areas	Increase in both bigeye and yellowfin biomass and catch (less for yellowfin)	Coastal states to implement in-zone, Commission for high seas	Increase bigeye catch and biomass in long term; less impact for yellowfin (taken in both set types)	Moderate; little impact on skipjack catch; possible shift in average size (and value); more impact for some fleets
Reduce catchability in log/FAD purse seine sets by 50%	Increase bigeye and yellowfin biomass (less impact for yellowfin)	Techniques not yet developed	Reduce bigeye and yellowfin catch whilst maintaining skipjack catch	Low if techniques can be worked out
Time/area closures of purse seining (log/FAD sets) in western equatorial Pacific: effort redirected to unassociated sets in same area	Increase in bigeye biomass and catch achieved, increase in biomass for yellowfin	Would require full MCS measures (close to full observer coverage); difficult in short term	Minimal change in juvenile bigeye catch, but similar yellowfin catch, possibly larger fish	Uncertain; may be negative impacts if catchability of school sets lower, and costs higher; possible increased value of larger fish
Control of sets on floating objects	Reduce catch of juvenile yellowfin and bigeye	Various measures to be considered (discounting, limits in set numbers etc)	Increase in bigeye biomass and catch achieved, increase in biomass for yellowfin	Some skipjack catch may be foregone; possible increase in unit value with larger fish
Quarterly longline closures in eastern equatorial Pacific areas	Increase in bigeye biomass, largest for first quarter closure	Possible, but need to be self-enforcing initially, until VMS operational; mostly high seas areas	Significant biomass gains for bigeye stock	Moderate - reduced longline catch by one component of the fishery
Reduce effort in Indonesia/Philippines fisheries	Biomass increases achieved for yellowfin; little impact on bigeye	Difficult with artisanal fisheries	Catch and biomass increase for yellowfin; some catch increase for bigeye	Considerable impact for p/s fishery, with skipjack catch foregone

APPENDIX 1

WCPFC/Comm.1/8.Annex 2

RESOLUTION ON CONSERVATION AND MANAGEMENT MEASURES

The Commission For The Conservation And Management Of Highly Migratory Fish Stocks In The Western And Central Pacific Ocean,

Resolves as follows:

WORK BY THE SCIENTIFIC AND TECHNICAL AND COMPLIANCE COMMITTEES

1. Utilising the transitional arrangements for the provision of the Commission's scientific advice and taking into consideration the management options identified as feasible by the Scientific Coordinating Group, the following advice shall be given to the Commission at its second annual session:

(a) Estimates of both sustainable catch and effort levels for bigeye, yellowfin and South Pacific albacore;

(b) Five and ten year projections of total biomass and spawning stock biomass for bigeye and yellowfin tuna under: 2003 catch and effort levels, and possible scenarios of changes in catch and effort (i.e. separate analysis of catch limits and effort limits) in the Convention Area for the purse seine, longline and other surface fisheries which have a major impact on bigeye tuna and yellowfin tuna (both separately and combined); including the effects on the stocks of possible time/area closures by fishing method for bigeye and yellowfin tuna;

(c) The effects on the stocks of measures to mitigate the catch of juvenile bigeye and yellowfin including controls on setting on floating objects; and

(d) Estimates of the mortality of non-target species with an initial focus on seabirds, turtles and sharks.

2. The preliminary analyses shall be completed, reviewed by the Scientific Committee, and made available to the Commission at least sixty (60) days in advance of its second session.

3. The Technical and Compliance Committee shall provide advice in advance of the second annual session of the Commission on the issues that may require consideration for the effective implementation of possible conservation and management measures including time/area closures or alternative measures to control sets on floating objects.

ADOPTION OF CONSERVATION AND MANAGEMENT MEASURES AT WCPFC 2

4. In responding to the advice of the Scientific Committee and the Technical and Compliance Committee and any information provided by members at least thirty (30) days in advance of the second annual session, the Commission shall adopt in accordance with article 5 of the Convention conservation and management measures necessary to address sustainability concerns. Such measures may include, *inter alia*,

(a) Catch and/or effort limits;

(b) Capacity limits for large-scale tuna fishing vessels;

(c) Measures to address impacts of large-scale tuna fishing vessels so as to ensure compatibility between measures applied outside areas of national jurisdiction and measures being applied by coastal states to manage fishing by such vessels within their zones;

(d) Time and area closures; and

(e) Mitigation measures to address the mortality of non-target species e.g. seabirds, turtles and sharks.

5. In accordance with article 6 of the Convention the precautionary approach will be applied and the absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.

MONITORING AND COMPLIANCE

6. The Technical and Compliance Committee shall consider the regional observer programme as well as the VMS programme as a matter of priority at its 2005 meeting.

CARRY OVER PROVISIONS OF PREVIOUS RESOLUTIONS

7. The Resolutions of the MHLC and the Preparatory Conference (adopted at the fourth and fifth sessions of the MHLC and Preparatory Conference resolutions WCPFC/PrepCon/22 and WCPFC/PrepCon/34) calling for measures including reasonable restraint in the expansion of fishing effort and capacity in the Convention Area continue to apply.

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APPENDIX 2

Respective roles in the development, implementation and monitoring of conservation and management measures, with respect to the Commission, individual Members, and flag state Members – a summary of relevant Convention articles, excluding the Preamble, and their area of application.

Procedures for cooperating non-members were adopted by the Commission, as prescribed in Annex II of WCPFC/PrepCon/46

Commission (as collective of members)	**Application**
Principles and measures for conservation and management (Art. 5)	
*In order to conserve and manage **highly migratory fish stocks in the Convention Area in their entirety**, **the members of the Commission** shall, in giving effect to their duty to cooperate in accordance with the 1982 Convention, the Agreement and this Convention:* (a) ***adopt measures** to ensure long-term sustainability of highly migratory fish stocks in the Convention Area and promote the objective of their optimum utilization;* *(b) ensure that such **measures** are based on the best scientific evidence available and are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States in the Convention Area, particularly small island developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;* *(c) apply the precautionary approach in accordance with this Convention and all relevant internationally agreed standards and recommended practices and procedures;* (d) *assess the impacts of fishing, other human activities and environmental factors on target stocks, non-target species, and species belonging to the same ecosystem or dependent upon or associated with the target stocks;* *(e) adopt measures to minimize waste, discards, catch by lost or abandoned gear, pollution originating from fishing vessels, catch of non-target species, both fish and non-fish species, (hereinafter referred to as non-target species) and impacts on associated or dependent species, in particular endangered species and promote the development and use of selective, environmentally safe and cost-effective fishing gear and techniques;* *(f) protect biodiversity in the marine environment*; (g) *take measures to prevent or eliminate over-fishing and excess fishing capacity and to ensure that levels of fishing effort do not exceed those commensurate with the **sustainable use** of fishery resources* (h) *take into account the interests of artisanal and subsistence fishers;* *(i) collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort, as well as information from national and international research programmes; and*	Convention area (highly migratory fish stocks in the Convention area in their entirety)

*(j) implement and enforce **conservation and management measures** through effective monitoring, control and surveillance.*	
Application of the Precautionary approach (Art. 6)	
1. In applying the precautionary approach, the members of the Commission shall: *(a) apply the guidelines set out in Annex II of the Agreement, which shall form an integral part of this Convention, and determine, on the basis of the best scientific information available, stock-specific reference points and the action to be taken if they are exceeded;* *(b) take into account, inter alia, uncertainties relating to the size and productivity of the stocks, reference points, stock condition in relation to such reference points, levels and distributions of fishing mortality and the impact of fishing activities on non-target and associated or dependent species, as well as existing and predicted oceanic, environmental and socio-economic conditions; and* *(c) develop data collection and research programmes to assess the impact of fishing on non-target and associated or dependent species and their environment, and adopt plans where necessary to ensure the conservation of such species and to protect habitats of special concern.* *2. Members of the Commission shall be more cautious when information is uncertain, unreliable or inadequate. **The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.*** *3. Members of the Commission shall take measures to ensure that, when reference points are approached, they will not be exceeded. In the event they are exceeded, members of the Commission shall, without delay, take the action determined under paragraph 1(a) to restore the stocks.*	Convention area
Implementation of principles in areas under national jurisdiction (Art. 7)	
*2. The members of the Commission shall give due consideration to the respective capacities **of developing coastal States**, in particular small island developing States, in the Convention Area to apply the provisions of articles 5 and 6 within areas under national jurisdiction and their **need for assistance** as provided for in this Convention.*	Areas under national jurisdiction
Compatibility of conservation and management measures (Art. 8)	
1. *Conservation and management measures established for the high seas and those adopted for areas under national jurisdiction shall be compatible in order to ensure conservation and management of highly migratory fish stocks in their entirety. To this end, **the members of the Commission have a duty to cooperate** for the purpose of achieving compatible measures in respect of such stocks.*	High seas and national jurisdiction
2. In establishing compatible conservation and management measures for highly migratory fish stocks in the Convention Area, the Commission shall: *(a) take into account the biological unity and other biological characteristics of the stocks and the relationships between the distribution of the stocks, the fisheries and the geographical particularities of the region concerned, **including the extent to which the stocks occur and are fished in areas under national jurisdiction**;* (b) *take into account:*	Convention area and national jurisdiction

(i) the conservation and management measures adopted and applied in accordance with article 61 of the 1982 Convention in respect of the same stocks by coastal States within areas under national jurisdiction and ***ensure that measures established in respect of such stocks for the Convention Area as a whole do not undermine the effectiveness of such measures****;*	“
(ii) previously agreed measures established and ***applied in respect of the same stocks for the high seas which form part of the Convention Area by relevant coastal States and States fishing on the high seas*** *in accordance with the 1982 Convention and the Agreement;*	High seas and CA
(c) take into account previously agreed measures established and applied in accordance with the 1982 Convention and the Agreement in respect of the same stocks by a subregional or regional fisheries management organization or arrangement;	Convention area
(d) ***take into account the respective dependence of the coastal States and the States fishing on the high seas on the stocks concerned****; and*	High seas and national jurisdiction
(e) *ensure that such measures do not result in harmful impact on the living marine resources as a whole.* *4. Where there are areas of high seas in the Convention Area entirely surrounded by the exclusive economic zones of members of the Commission, the Commission shall, in giving effect to this article, pay special attention to ensuring compatibility between conservation and management measures established for such high seas areas and those established in respect of the same stocks in accordance with article 61 of the 1982 Convention by the surrounding coastal States in areas under national jurisdiction.*	High seas and surrounding national jurisdictions
Functions of the Commission (Art. 10)	
1. ***Without prejudice to the sovereign rights of coastal States*** *for the purpose of exploring and exploiting, conserving and managing highly migratory fish stocks within areas under national jurisdiction, the functions of the Commission shall be to:*	
(a) determine the total allowable catch or total level of fishing effort ***within the Convention Area*** *for such highly migratory fish stocks as the Commission may decide and adopt such other conservation and management measures and recommendations as may be necessary to ensure the long-term sustainability of such stocks;*	Convention area
(b) promote cooperation and coordination between members of the Commission to ensure ***that conservation and management measures for highly migratory fish stocks in areas under national jurisdiction and measures for the same stocks on the high seas are compatible;***	National jurisdiction/ high seas
(c) adopt, where necessary, conservation and management measures and recommendations for non-target species and species dependent on or associated with the target stocks, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened;	Convention area
2. *In giving effect to paragraph 1, the Commission may adopt measures relating to, <u>inter alia</u>:*	Convention area
(a) the quantity of any species or stocks which may be caught;	
(b) the level of fishing effort;	

(c) limitations of fishing capacity, including measures relating to fishing vessel numbers, types and sizes; *(d) the areas and periods in which fishing may occur;* *(e) the size of fish of any species which may be taken;* *(f) the fishing gear and technology which may be used; and* *(g) particular subregions or regions.*	
Allocation (Art. 10)	
10(1)g) *develop, where necessary, criteria for the allocation of the total allowable catch or the total level of fishing effort for highly migratory fish stocks in the Convention Area;* 10(3). *In developing criteria for allocation of the total allowable catch or the total level of fishing effort the Commission shall take into account, inter alia:* *(a) the status of the stocks and the existing level of fishing effort in the fishery;* *(b) the respective interests, past and present fishing patterns and fishing practices of participants in the fishery and the extent of the catch being utilized for domestic consumption;* *(c) the historic catch in an area;* *(d) the needs of small island developing States, and territories and possessions, in the Convention Area whose economies, food supplies and livelihoods are overwhelmingly dependent on the exploitation of marine living resources;* *(e) the respective contributions of participants to conservation and management of the stocks, including the provision by them of accurate data and their contribution to the conduct of scientific research in the Convention Area;* *(f) the record of compliance by the participants with conservation and management measures;* *(g) the needs of coastal communities which are dependent mainly on fishing for the stocks;* *(h) the special circumstances of a State which is surrounded by the exclusive economic zones of other States and has a limited exclusive economic zone of its own;* *(i) the geographical situation of a small island developing State which is made up of non-contiguous groups of islands having a distinct economic and cultural identity of their own but which are separated by areas of high seas;* *(j) the fishing interests and aspirations of coastal States, particularly small island developing States, and territories and possessions, in whose areas of national jurisdiction the stocks also occur.*	Convention area
Cooperation with other organizations (Art. 22)	
*3. Where the Convention Area **overlaps with an area under regulation** by another fisheries management organization, the Commission shall cooperate with such other organization in order to avoid the duplication of measures in respect of species in that area which are regulated by both organizations.*	Convention area and overlap with other RFMOs
Boarding and inspection (Art. 26)	

1. *For the purposes of **ensuring compliance with conservation and management measures**, the Commission shall establish procedures for boarding and inspection of fishing vessels on the high seas in the Convention Area.*	High seas
Measures taken by a port state (Art. 27)	
3. *Members of the Commission may adopt regulations empowering the relevant national authorities to prohibit landings and transhipments where it has been established that the catch has been taken in a manner which **undermines the effectiveness of conservation and management measures** adopted by the Commission.*	National jurisdiction
Regional observer programme (Art. 28)	
*1. The Commission shall develop a regional observer programme to collect verified catch data, other scientific data and additional information related to the fishery from the Convention Area and to monitor the implementation of the **conservation and management measures** adopted by the Commission.*	High seas, compatible with programmes in national jurisdiction
Transhipment (Art. 29)	
3. The Commission shall develop procedures to obtain and verify data on the quantity and species transhipped both in port and at sea in the Convention Area and procedures to determine when transhipment covered by this Convention has been completed.	Convention area
4. *Transhipment at sea in the Convention Area beyond areas under national jurisdiction shall take place only in accordance with the terms and conditions set out in article 4 of Annex III to this Convention, and any procedures established by the Commission pursuant to paragraph 3 of this article. Such procedures shall take into account the characteristics of the fishery concerned.*	CA, high seas
5. Notwithstanding paragraph 4 above, and subject to specific exemptions which the Commission adopts in order to reflect existing operations, transhipment at sea by purse-seine vessels operating within the Convention Area shall be prohibited.	Convention area

Members/coastal states	Application
Implementation of principles in areas under national jurisdiction (Art. 7)	
1. *The principles and measures for conservation and management enumerated in article 5 shall be **applied by coastal States** within areas under national jurisdiction in the Convention Area in the exercise of their sovereign rights for the purpose of exploring and exploiting, conserving and managing highly migratory fish stocks.*	Areas under national jurisdiction
Compatibility of conservation and management measures (Art.8)	
3. *The **coastal State** shall ensure that the measures adopted and applied by it to highly migratory fish stocks within areas under its national jurisdiction do not undermine the effectiveness of measures adopted by the Commission under this Convention in respect of the same stocks.*	Areas under national jurisdiction, relative to Convention area
Obligations of members of the Commission (Art. 23)	
1. ***Each member** of the Commission shall promptly implement the provisions of this Convention and any conservation, management and other measures or matters which may be agreed pursuant to this Convention from time to time and shall cooperate in furthering the objective of this Convention.* *2. **Each member** of the Commission shall:* *(a) provide annually to the Commission statistical, biological and other data and information in accordance with Annex I of the Agreement and, in addition, such data and information as the Commission may require;* *(b) provide to the Commission in the manner and at such intervals as may be required by the Commission, information concerning its fishing activities in the Convention Area, including fishing areas and fishing vessels in order to facilitate the compilation of reliable catch and effort statistics; and* *(c) provide to the Commission at such intervals as may be required information on steps taken **to implement the conservation and management measures adopted by the Commission.*** *3. The members of the Commission shall keep the Commission informed of the **measures they have adopted for the conservation and management** of highly migratory fish stocks in areas within the Convention Area under their national jurisdiction. The Commission shall circulate periodically such information to all members.*	Convention area National jurisdiction
Flag state duties (Art. 24)	
1. ***Each member** of the Commission shall take such measures as may be necessary to ensure that:* *(a) fishing vessels flying its flag **comply with** the provisions of this Convention and **the conservation and management measures adopted** pursuant hereto and that such vessels do not engage in any activity which undermine the effectiveness of such measures; and*	CA
Compliance and enforcement (Art. 25)	
1. ***Each member** of the Commission shall enforce the provisions of this Convention and any **conservation and management measures** issued by the Commission.*	CA
Boarding and inspection (Art. 26)	

3. Each member of the Commission shall ensure that fishing vessels flying its flag accept boarding by duly authorized inspectors in accordance with such procedures. Such duly authorized inspectors shall comply with the procedures for boarding and inspection.	CA
Measures taken by a port state (Art. 27)	
1. *A port State has the right and the duty to take measures, in accordance with international law, to promote the effectiveness of subregional, regional and global* ***conservation and management measures****.*	CA
Regional observer programme (Art. 28)	
4. Each member of the Commission shall ensure that fishing vessels flying its flag in the Convention Area, except for vessels that operate exclusively within waters under the national jurisdiction of the flag State, are prepared to accept an observer from the regional observer programme, if required by the Commission. *5. The provisions of paragraph 4 shall apply to vessels fishing exclusively on the high seas in the Convention Area, vessels fishing on the high seas and in waters under the jurisdiction of one or more coastal States, and vessels fishing in waters under the jurisdiction of two or more coastal States. When a vessel is operating on the same fishing trip both in waters under the national jurisdiction of its flag State and in the adjacent high seas, an observer placed under the regional observer programme shall not undertake any of the activities specified in paragraph 6 (e) when the vessel is in waters under the national jurisdiction of its flag State, unless the flag State of the vessel agrees otherwise.*	Convention area High seas, high seas and ≥ one coastal state, two or more c.states
Transhipment (Art. 29)	
1. In order to support efforts to ensure accurate reporting of catches, the members of the Commission shall encourage their fishing vessels, to the extent practicable, to conduct transhipment in port. A member may designate one or more of its ports as transhipment ports for the purposes of this Convention, and the Commission shall circulate periodically to all members a list of such designated ports. *2. Transhipment at a port or in an area within waters under the national jurisdiction of a member of the Commission shall take place in accordance with applicable national laws.*	Convention area, national jurisdiction National jurisdiction