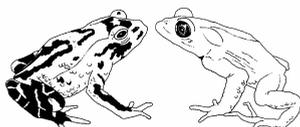


CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES  
OF WILD FAUNA AND FLORA



Eighteenth meeting of the Animals Committee  
San José (Costa Rica), 8-12 April 2002

Implementation of Decision 11.94 regarding the biological and trade status of sharks

REPORT ON IMPLEMENTATION OF THE INTERNATIONAL PLAN OF ACTION  
FOR SHARKS (IPOA-SHARKS)

This document has been prepared by the IUCN Species Survival Commission's Shark Specialist Group (SSG) and TRAFFIC.

Introduction

1. Decision 11.94 'Regarding the biological and trade status of sharks', directed to the Animals Committee, states: *The Chairman of the Animals Committee shall maintain liaison with the Secretary of the Committee on Fisheries of the United Nations Food and Agriculture Organization to monitor the implementation of the International Plan of Action for the Conservation and Management of Sharks, and report at the 12th meeting of the Conference of the Parties on progress made with this.*
2. In 1999, the Committee on Fisheries (COFI) of the United Nations Food and Agriculture Organisation adopted a voluntary International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks). This arose from the requests in Resolution Conf. 9.17 in 1994 that FAO gather necessary biological and trade data on sharks<sup>1</sup>, further implemented by Decision 10.93 (directed to FAO), Decision 10.74 (directed to the Chairman of the Animals Committee), and Decision 10.126 (directed to the Secretariat) regarding the development and proposal of guidelines leading to a plan of action for the conservation and effective management of sharks. (Note that throughout this document, the term 'shark' refers to all chondrichthyan fishes – the sharks, rays and

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<sup>1</sup> Resolution Conf. 9.17 REQUESTS:

- a) *FAO and other international fisheries management organizations to establish programmes to further collect and assemble the necessary biological and trade data on shark species, and that such additional information be provided no later than six months prior to the 11<sup>th</sup> meeting of the Conference of Parties;*
- b) *all nations utilizing and trading specimens of shark species to co-operate with FAO and other international fisheries management organizations, and to assist developing States in the collection of species-specific data; and*
- c) *FAO and other international fisheries management organizations to fully inform the CITES Secretariat of progress on collection, elaboration and analyses of data.*

chimaeras). Sharks are recognised as being particularly vulnerable to fishing pressure, and management is urgently required. The IPOA highlighted the action required for sharks within the context of the Code of Conduct for Responsible Fisheries. It called upon all States to produce a Shark Assessment Report (SAR) and, if they have shark fisheries, to develop and implement National Plans of Action (NPOA) by early 2001. The latter should identify research, monitoring and management needs for all chondrichthyan fishes that occur in their waters. In implementing the IPOA, States are also urged to ensure effective conservation and management of sharks that are transboundary, straddling, highly migratory and high seas stocks. FAO published technical guidelines to support the implementation of the IPOA for States to use to develop and implement NPOAs.

3. The IUCN Species Survival Commission Shark Specialist Group (SSG) and TRAFFIC have prepared this report on progress to date, three years after the adoption of the IPOA-Sharks and one year after the date by which shark fishing States were required to produce their SARs and develop and implement their NPOAs.

#### Timescale for implementation of the IPOA-Sharks

4. 1998: IPOA-Sharks drafted.
5. 1999: IPOA-Sharks adopted.
6. 2001 (February): SAR and, if necessary, NPOA-Sharks should be in place no later than 24th meeting of COFI.
7. 2003 and every 2 years thereafter: States should report progress as part of their biennial reporting to FAO on the Code of Conduct for Responsible Fisheries.
8. 2005 and every 4 years thereafter: assessments of NPOA implementation to be carried out.

#### Progress

9. At the 24th session of COFI (hereafter referred to as the COFI meeting) held in February 2001 it became apparent that very few States had initiated the actions required for implementation of the IPOA-Sharks. FAO COFI paper 2001/3, prepared for the COFI meeting, indicated that 15 States (Argentina, Australia, Brazil, Canada, Costa Rica, Cuba, Democratic Republic of Congo, Ecuador, Gambia, Indonesia, Japan, Peru, Philippines, Seychelles, United States of America) had conducted SARs and that a few States (EU and Thailand were named) indicated that NPOAs would be completed before COFI.
10. A separate summary document entitled 'Summary on Shark IPOAs' circulated prior to COFI on 20 February, stated that nine States had undertaken some kind of assessment on the status of shark stocks, eight were in the process of doing so, 52 (or 53 including Germany which reported separately from the EC) had not undertaken any assessment and four States had provided no information. Sixteen (or 17 including Germany) States were preparing NPOAs and 47 had stated that they would not be doing so (although 15 of these would be doing so in the near future). Ten States provided no information on whether their NPOA is or will be prepared (see Table 1).
11. Drawing upon the information in these documents, the FAO Secretariat announced verbally during the COFI meeting that 17 countries were preparing NPOAs prior to COFI, about 15 were considering doing so, and 47 had stated that they would not be doing so. Some delegations provided additional information on progress during their interventions: Mexico was preparing the final draft of their NPOA, while Namibia and Brazil had NPOAs in preparation. Some indicated that their

preparation of an NPOA would be contingent upon the availability of resources or external assistance.

12. The United States of America NPOA, the Preliminary Draft European Community Plan and the Australian draft SAR were available for viewing at the COFI meeting. A Japanese document was also submitted to FAO at this time. There is no requirement for SARs or NPOAs to be presented to FAO and it is our understanding that no other documents have been seen by the FAO Secretariat.
13. During the year since the 24th meeting of COFI, the Shark Specialist Group and TRAFFIC have attempted, through their international networks, to monitor progress with IPOA implementation. Although it has not been possible to obtain information from all States, Table 1 summarizes current (January 2002) knowledge of progress with IPOA implementation, which seems to have been negligible – indeed it appears less advanced than described at COFI. Even in those very few cases where States have initiated moves towards implementation, most have not met the required minimum level outlined by the IPOA-Sharks.

### Analysis

14. At least 86 (Clarke and Mosqueira 2002) and up to 125 (Parry-Jones 1996) nations are known to import shark fin into Hong Kong, and 113 States report shark landings to FAO. However, only 29 States (not including Italy) have reported any progress with IPOA implementation (Table 1). Only one of the 18 major shark fishing nations (defined as States reporting landings exceeding 10,000 t/yr) has a SAR (draft) and only two of the 18 have completed NPOAs (plus one draft NPOA). Twenty four of those 29 which have reported some progress (Table 1) apparently do not have their SARs or NPOAs available for public consultation; it was not possible, therefore, for the SSG and TRAFFIC to assess whether these meet the requirements set out by the IPOA-sharks. It should be noted that, although not SARs or NPOAs as such, Canada has some species-specific management plans available, and the West Africa Subregion has a plan of action (Table 1). For those five States (six if Italy is included) that do have SARs and NPOAs available for review, Table 2 demonstrates that most of these fall far short of the level of implementation of the IPOA-Sharks. The Seychelles refers to a Case Study commissioned by FAO in 1998 (before the IPOA-Sharks was drafted) as its SAR.
15. Table 3 summarizes the potential for a selection of Regional Fisheries Management Organisations (RFMOs) to cover sharks species and hence to implement the IPOA-Sharks. The main activities that have been undertaken by those organisations in relation to sharks are also listed. Most RFMOs covering fisheries where significant impacts on or catches of sharks could be expected have a mandate that would enable conservation and management measures to be implemented for sharks and other bycatch species. Only a few, however, have actually implemented specific measures for sharks beyond basic catch reporting requirements.

### Conclusions

16. The SSG and TRAFFIC are concerned by the significant lack of progress made on implementation of the IPOA since its adoption in 1999. Very few countries have produced effective NPOAs and these are largely those States that already had effective shark management in place. The large majority of those States that lacked shark management plans prior to the development and adoption of the IPOA-Sharks appear not to have improved their capacity to manage these vulnerable species. Since the IPOA-Sharks is wholly voluntary, States are not obliged to undertake any of the actions urged by FAO in the IPOA, and it appears that few consider it to be a priority. It is clearly not possible for FAO to ensure that shark fisheries and stocks are managed sustainably under these circumstances.

17. This lack of implementation is of particular cause for concern with respect to Decision 11.94 regarding the biological and trade status of sharks, which requires the Chairman of the Animals Committee to monitor the implementation of the IPOA-Sharks and to report to CoP12. Since 1994, when shark conservation and trade first appeared on the CITES agenda, many delegations at CITES CoPs and Animals Committee meetings have argued that shark management is the role of fisheries management organisations, not CITES. Indeed, although the IPOA-Sharks is voluntary, its existence and imminent implementation was argued by many delegations to the last Conference of the Parties to preclude the need for including individual species of shark in the CITES appendices because fisheries management organisations would be delivering the necessary management for these species. In reality, progress towards implementation during the three years since the IPOA was adopted has been minimal. The IPOA has certainly not addressed the major issues of concern to CITES Parties: the unregulated fisheries which supply the large and predominantly unmonitored and unregulated international trade in shark products.
18. The majority of National and Regional Fisheries Management Organisations (Table 3) are not implementing the IPOA-Sharks effectively, if at all, which means that there is very little improvement in the collection and management of catch and trade data.
19. IUCN SSG and TRAFFIC believe it is important for the future sustainability of shark fisheries and the conservation of threatened species that CITES take a more active role than its current 'watching brief' as far as FAO progress is concerned in the conservation and management of shark species. In particular CITES should:
  - a) Raise with FAO concerns over the significant lack of progress in implementing the IPOA-Sharks and urge FAO to take steps to encourage the implementation of the IPOA by States and RFMOs.
  - b) Include an agenda point at CoP12 for Parties to discuss the potential role for CITES in monitoring the trade in sharks and their products that may assist not only in the provision of trade data for shark and shark products but assists the FAO in the implementation of the IPOA-Sharks.
  - c) Instruct the Chair of the Animals Committee to continue activities specified under Decision 11.94 beyond CoP12.
  - d) Encourage Parties' CITES authorities to obtain information on IPOA implementation from their fisheries departments and report directly on progress to future meetings of the Animals Committee.
20. Recognizing that activities under CITES may assist with the implementation of the IPOA-Sharks by facilitating 'reporting of species-specific biological and trade data' and providing 'special attention to vulnerable or threatened shark stocks'<sup>2</sup>, the following issues are also of relevance:
21. The Great white shark (*Carcharodon carcharias*) and Basking shark (*Cetorhinus maximus*) are listed in Appendix III, by Australia and the UK respectively.
22. Parties are urged to assist Australia and the UK in their shark conservation efforts by reporting on certificates of origin or export as appropriate.
23. Decision 11.151 directed the CITES Secretariat to continue to liaise with the World Customs Organization to promote the establishment and use of specific headings within the standard tariff

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<sup>2</sup> Text taken from paragraph 22 of the IPOA-Sharks outlining aims of Shark Plans

classifications of the Harmonized System to discriminate between shark meat, fins, leather, cartilage and other products.

24. It would be helpful for the Secretariat to report to the Animals Committee on the progress made in regard to this decision.

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**Table 1. Summary Table of IPOA-Sharks implementation**

The table lists the 18 major elasmobranch fishing States (names in bold) whose annual landings reported to FAO exceed 10,000t, and all the States reporting on progress at COFI in February 2001. The first four columns are only completed for the major elasmobranch fishing States. Landings data are for 1999, taken from FAO Capture Production database for sharks, rays & chimaeras. Fin imports are for the year 2000.

| Country    | Importance of Shark Fisheries<br>(Target and Bycatch) |                                |  |  | Situation reported to COFI<br>(February 2001) |   | Situation now (January 2002)                 |   |
|------------|---|--------------------------------|--|--|---|---|--|---|
|            | Annual landings<br>(tonnes)                           | National<br>Shark<br>Fisheries | Distant<br>Water<br>Shark<br>Fisheries | Hong Kong<br>Fin Imports<br>(kg dry wt). | SAR   | NPOA                                      | SAR  | NPOA  |
| Angola     |   |                                |  |  | No  | Intention to<br>prepare in near<br>future | No information                               | No information  |
| Argentina  | 27,517  | Yes                            | No                                     | 41,118                                   | Yes   | No information                            | No <sup>3</sup>                              | No (workshop in 2000<br>and meeting in 2001) <sup>3</sup> |
| Australia  | 10,236  | Yes                            | Yes<br>(bycatch)                       | 52,963                                   | Final draft<br>available                      | No information                            | Final version<br>available Jan 2002          | No, but in the process of<br>being developed              |
| Bangladesh |   |                                |  |  | No  | No  | No information                               | No information  |
| Barbados   |   |                                |  |  | No  | In preparation                            | No information                               | No information  |
| Benin      |   |                                |  |  | No  | Intention to<br>prepare in near<br>future | No information                               | No information  |
| Brazil     | 17,820  | Yes                            | Yes                                    | 185,654                                  | Yes   | In preparation                            | In preparation, due<br>end 2002 <sup>4</sup> | In preparation: due end<br>2002 <sup>4</sup>              |
| Cambodia   |   |                                |  |  | No  | No  | No information                               | No information  |
| Cameroon   |   |                                |  |  | No  | No information                            | No information                               | No information  |
| Cap Vert   |   |                                |  |  | No  | In preparation                            | No information                               | No***   |
| Canada     | 11,122  | Yes                            |  | 56,079                                   | In preparation                                | In preparation                            | For some target<br>species <sup>5</sup>      | For some target species <sup>5</sup>                      |
| China      |   |                                |  |  | No  | No  | No information                               | No information  |

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3 Gustavo Chiamonte, Museo Argentino de Ciencias Naturales, Argentina

4 Ricardo Rosa, Univ Federal da Paraiba, Brazil

5 Canada's approach to the implementation of the IPOA -Sharks has been to first focus on the development of plans for directed shark fisheries, such as the Canadian Atlantic Pelagic Sharks Management Plan

\*\*\* Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania and Senegal have formulated a Subregional Plan of Action, adopted in September 2001 (Amadou Saine, pers.comm.)

| Country       | Importance of Shark Fisheries<br>(Target and Bycatch) |                          |                               |                                    | Situation reported to COFI<br>(February 2001)            |   | Situation now (January 2002)                  |  |
|---------------|---|--------------------------|-------------------------------|------------------------------------|--|---|---|--|
|               | Annual landings (tonnes)                              | National Shark Fisheries | Distant Water Shark Fisheries | Hong Kong Fin Imports (kg dry wt). | SAR  | NPOA  | SAR   | NPOA   |
| Columbia      |   |                          |                               |                                    | No   | Intention to prepare in near future         | No information                                | No information   |
| Costa Rica    |   |                          |                               |                                    | Yes (COFI 2001/3), but 'no info' stated in summary paper | Intention to prepare in near future         | Basic information only <sup>6</sup>           | No information   |
| Cote d'Ivoire |   |                          |                               |                                    | In preparation   | No  | No information                                | No information   |
| Cuba          |   |                          |                               |                                    | Yes  | No information                              | No information                                | No information   |
| Cyprus        |   |                          |                               |                                    | No   | No  | No information                                | No information   |
| DR Congo      |   |                          |                               |                                    | In preparation   | No information                              | No information                                | No information   |
| Dominica      |   |                          |                               |                                    | No   | No information                              | No information                                | No information   |
| Ecuador       |   |                          |                               |                                    | Yes (COFI 2001/3), but 'no info' stated in summary paper | In preparation                              | No information                                | No information   |
| EC            | Es 65,786<br>Fr 23,323<br>UK 17,558                   | Yes                      | Yes                           | Es 970,412<br>Fr 3,467<br>UK –     | No   | In preparation. Preliminary draft available | No – though briefly dealt with in draft NPOA. | Preliminary draft (EC). Italy has a draft in progress <sup>7</sup> |
| Egypt         |   |                          |                               |                                    | No   | No  | No information                                | No information   |
| Eritrea       |   |                          |                               |                                    | No   | No  | No information                                | No information   |
| Fiji          |   |                          |                               |                                    | No   | Intention to prepare in near future         | No information                                | No information   |
| Gambia        |   |                          |                               |                                    | In preparation   | No  | No <sup>8</sup>                               | No <sup>***8</sup>   |
| Ghana         |   |                          |                               |                                    | No   | No  | No information                                | No information   |
| Grenada       |   |                          |                               |                                    | No   | No  | No information                                | No information   |
| Guinea        |   |                          |                               |                                    | No   | No information                              | No information                                | No <sup>***</sup>  |
| Guinea        |   |                          |                               |                                    | No   | In preparation                              | No information                                | No <sup>***</sup>  |

<sup>6</sup> Rodrigo Rojas, Costa Rica

<sup>7</sup> In addition to the EC draft plan, Italy had a meeting re: Regional Plan of Action (for the Mediterranean) in May 2001 and has a draft plan in progress. Marino Vacchi, ICRAM, Italy

<sup>\*\*\*8</sup> Amadou Saine, Department of Fisheries, Gambia

<sup>\*\*\*</sup>The Gambia, together with Cape Verde, Guinea, Guinea Bissau, Mauritania and Senegal have formulated a Subregional Plan of Action, adopted in September 2001 (Amadou Saine, pers.comm.)

<sup>\*\*\*</sup> Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania and Senegal have formulated a Subregional Plan of Action, adopted in September 2001 (Amadou Saine, pers.comm.)

| Country          | Importance of Shark Fisheries<br>(Target and Bycatch) |                          |                               |                                       | Situation reported to COFI<br>(February 2001) |   | Situation now (January 2002) |                |
|------------------|---|--------------------------|-------------------------------|---------------------------------------|---|---|------------------------------|----------------|
|                  | Annual landings<br>(tonnes)                           | National Shark Fisheries | Distant Water Shark Fisheries | Hong Kong Fin Imports<br>(kg dry wt). | SAR   | NPOA  | SAR                          | NPOA           |
| Bissau           |   |                          |                               |                                       |   |   |                              |                |
| Haiti            |   |                          |                               |                                       | No  | No  | No information               | No information |
| Honduras         |   |                          |                               |                                       | No  | No  | No information               | No information |
| Iceland          |   |                          |                               |                                       | No  | No  | No information               | No information |
| India            | 72,966  | Yes                      |                               | 315,591                               | No  | Intention to prepare in near future               | No information               | No information |
| Indonesia        | 116,190   | Yes                      |                               | 597,012                               | Yes   | Intention to prepare in near future               | No information               | No information |
| Iran             |   |                          |                               |                                       | No  | No  | No information               | No information |
| Jamaica          |   |                          |                               |                                       | No  | No  | No information               | No information |
| Japan            | 35,948  | Yes                      | Yes                           | 254,207                               | Yes   | In preparation (before COFI). Completed (at COFI) | No information               | Yes            |
| Kenya            |   |                          |                               |                                       | No  | No  | No information               | No information |
| Kuwait           |   |                          |                               |                                       | No  | No  | No information               | No information |
| Latvia           |   |                          |                               |                                       | No  | No information                                    | No information               | No information |
| Lithuania        |   |                          |                               |                                       | No  | No  | No information               | No information |
| Madagascar       |   |                          |                               |                                       | No  | No  | No information               | No information |
| Malaysia         | 25,125  | Yes                      |                               | 11,895                                | Yes   | No  | No information               | No information |
| Maroc            |   |                          |                               |                                       | No  | In preparation                                    | No information               | No information |
| Marshall Islands |   |                          |                               |                                       | No  | In preparation                                    | No information               | No information |
| Mauritius        |   |                          |                               |                                       | No  | No  | No information               | No information |
| Mexico           | 35,239  | Yes                      |                               | 269,765                               | Yes   | In preparation                                    | No information               | No information |
| Myanmar          |   |                          |                               |                                       | No  | No  | No information               | No information |

| Country           | Importance of Shark Fisheries<br>(Target and Bycatch) |                          |                               |                                    | Situation reported to COFI<br>(February 2001) |   | Situation now (January 2002)                |  |
|-------------------|---|--------------------------|-------------------------------|------------------------------------|---|---|---|--|
|                   | Annual landings (tonnes)                              | National Shark Fisheries | Distant Water Shark Fisheries | Hong Kong Fin Imports (kg dry wt). | SAR   | NPOA  | SAR   | NPOA   |
| Namibia           |   |                          |                               |                                    | No  | Intention to prepare in near future.<br>(Verbally stated preparation underway). | No <sup>9</sup>                             | Being drafted. Due February 2002 <sup>9</sup>          |
| New Zealand       | 19,810  | Yes                      | No                            | 13,387                             | No  | Intention to prepare in near future   | In progress but no draft seen <sup>10</sup> | In progress but no draft seen <sup>10</sup>            |
| Nigeria           | 15,373  | Yes                      |                               | 5,291                              |   |   | No information                              | No information   |
| Niue              |   |                          |                               |                                    | No  | No  | No information                              | No information   |
| Norway            |   |                          |                               |                                    | No  | Intention to prepare in near future   | No information                              | No information   |
| Pakistan          | 54,958  | Yes                      |                               | 55,298                             | No  | Intention to prepare in near future   | No information                              | No information   |
| Palau             |   |                          |                               |                                    | No  | No  | No information                              | No information   |
| Panama            |   |                          |                               |                                    | No  | No information  | No information                              | No information   |
| Peru              |   |                          |                               |                                    | Yes   | In preparation  | No information                              | No information   |
| Philippines       |   |                          |                               |                                    | In preparation                                | In preparation  | No <sup>11</sup>                            | NPOA Planning workshop envisaged in 2002 <sup>11</sup> |
| Republic of Korea | 16,397  | Yes                      | Yes                           | 16,260                             | No  | No  | No information                              | No information   |
| Romania           |   |                          |                               |                                    | No  | No  | No information                              | No information   |
| Senegal           |   |                          |                               |                                    | In preparation                                | No  | No information                              | No***  |

<sup>9</sup> J.A. Holtzhausen, Ministry of Fisheries & Marine Resources, Namibia

<sup>10</sup> Malcolm Francis, National Institute of Water and Atmospheric Research, New Zealand

<sup>11</sup> Moonyeen Alava, WWF Philippines and Andy Oliver, United States of America

\*\*\* Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania and Senegal have formulated a Subregional Plan of Action, adopted in September 2001 (Amadou Saine, pers.comm.)

| Country                  | Importance of Shark Fisheries<br>(Target and Bycatch) |                          |                               |                                    | Situation reported to COFI<br>(February 2001) |   | Situation now (January 2002)               |  |
|--------------------------|---|--------------------------|-------------------------------|------------------------------------|---|---|--|--|
|                          | Annual landings (tonnes)                              | National Shark Fisheries | Distant Water Shark Fisheries | Hong Kong Fin Imports (kg dry wt). | SAR   | NPOA  | SAR  | NPOA                                       |
| Seychelles               |   |                          |                               |                                    | In preparation                                | In preparation                                    | Available in Lestang 1999 <sup>12</sup>    | No information                             |
| Sierra Leone             |   |                          |                               |                                    | No  | Intention to prepare in near future               | No information                             | No information                             |
| South Africa             |   |                          |                               |                                    | No  | No  | Will be available April 2002 <sup>13</sup> | Will be available April 2002 <sup>13</sup> |
| Sri Lanka                | 29,360  | Yes                      |                               | 54,535                             | No  | No  | No information                             | No information                             |
| Sudan                    |   |                          |                               |                                    | No  | No  | No information                             | No information                             |
| Suriname                 |   |                          |                               |                                    | No information                                | No information                                    | No information                             | No information                             |
| Taiwan                   | 42,933  | Yes                      | Yes                           | 639,869                            |   |   | No information                             | No information                             |
| Thailand                 | 19,000  | Yes                      |                               | 34,235                             | No  | In preparation                                    | No information                             | No information                             |
| Tonga                    |   |                          |                               |                                    | No  | Intention to prepare in near future               | No information                             | No information                             |
| Tunisia                  |   |                          |                               |                                    | No  | No  | No information                             | No information                             |
| Turkey                   |   |                          |                               |                                    | No  | No  | No information                             | No information                             |
| Uruguay                  |   |                          |                               |                                    | No information                                | Intention to prepare in near future               | No information                             | No information                             |
| United States of America | 37,559  | Yes                      |                               | 298,821                            | Yes   | In preparation (before COFI). Completed (at COFI) | Regular shark assessments carried out      | Yes  |
| Vietnam                  |   |                          |                               |                                    | No  | Intention to prepare in near future               | No information                             | No information                             |

<sup>12</sup> Seychelles Fishing Authority

<sup>13</sup> Malcolm Smale, Port Elizabeth Museum, South Africa

**Table 2a. The extent to which SARs fulfil the requirements outlined in the IPOA-Sharks and FAO Guidelines.**

| Country                 | Effort <sup>1</sup>       | Yield <sup>2</sup>   | Stocks <sup>3</sup>  | Access <sup>4</sup>   | Technical Measures <sup>5</sup>                                  | Monitoring <sup>6</sup>  | Management effectiveness <sup>7</sup>                | Possible Modification of Management <sup>8</sup>  |
|-------------------------|---------------------------|--|--|---|--|--|--|---|
| Australia*              | Yes where it is available | Yes, landed & reported info, but no assessment of discards. No economic info | For the small number of target spp. only, no info on the large number of non target spp. | Yes   | Yes  | Yes  | For target shark spp. only                           | No, but list of issues identified for action under the NPOA   |
| Seychelles <sup>+</sup> | Yes where it is available | Yes, information only up to 1996   | No. Surveys have not been carried out on shark stocks                                    | No restrictions other than access to Marine Parks and Protected Areas | Ban on fishing for sharks with nets is the only measure in place | Inadequate: Artisanal: all species recorded as 'sharks'. Industrial: all species recorded as 'other' | Too early to decide whether ban on nets is effective | Indicates that it may be necessary to direct more management resources into monitoring of the shark fishery |

Codes used in Table 2a (as specified in IPOA-Sharks Appendix III: Suggested contents of a shark assessment report)

|   |  |
|---|--|
| 1 | Effort: directed and non-directed fisheries  |
| 2 | Yield: physical and economic   |
| 3 | Status of stocks   |
| 4 | Control of access to fishing grounds   |
| 5 | Technical measures (including bycatch reduction measures, the existence of sanctuaries and closed seasons) |
| 6 | Monitoring, control and surveillance   |
| 7 | Effectiveness of management measures   |
| 8 | Possible modifications of management measures  |

\* Draft. (Final version to be available end of January 2002)

<sup>+</sup> The Seychelles refers to a Case Study commissioned by FAO in 1998 (before the IPOA-Sharks was drafted) as its SAR (Lestang, 1999)

**Table 2b. The extent to which NPOAs fulfil the requirements outlined in the IPOA-Sharks and FAO Guidelines.**

| Country                  | Sustainable Fisheries <sup>1</sup>  | Assess Threats <sup>2</sup>     | Protect Stocks <sup>3</sup> | Consultation Initiatives <sup>4</sup> | Minimize Incidental Catch <sup>5</sup> | Protect Biodiversity <sup>6</sup>   | Minimize Waste <sup>7</sup>                       | Encourage Full Use <sup>8</sup> | Improve Data Collection <sup>9</sup>  | Species-specific Biological & Trade data <sup>10</sup>                                    | General Comments   |
|--------------------------|---|---------------------------------|-----------------------------|---------------------------------------|--|---|---|---------------------------------|---|---|--|
| EU (prelim. draft)       | Briefly discussed. Ways to achieve this are noted. Precautionary approach mentioned | Harvesting strategies mentioned | Not addressed               | Yes, within EU                        | Mentioned                              | Mentions EU biodiversity strategy & importance of relationships between fisheries management & conservation | Mentioned   | Mentioned                       | Will rely on existing projects. Does not recognise need for additional research and resources | Biological data mentioned under <sup>9</sup> . Trade data not mentioned                   | Preliminary, only 15 pages. Needs much more detail. Discusses a range of ideas but no firm plan or actions |
| Italy (incomplete draft) | Acknowledged and discussed  | Threats to species assessed     | Some e.g. basking shark     | Yes: other Med. countries             | Not addressed                          | Mentioned, e.g. nursery grounds   | Not addressed                                     | Not addressed                   | Yes   | Yes   | Draft. A comprehensive list of action points for 2001-2003   |
| Japan                    | Mentioned as an aim, but no details   | Not addressed                   | Not addressed               | Yes                                   | Briefly discussed                      | Not addressed   | Briefly discussed                                 | Briefly discussed               | Not addressed   | Briefly discusses data collection. No discussion of improvement at species-specific level | Very brief, only 6 pages. Falls far short of a comprehensive NPOA  |
| United States of America | Yes, but no detail on how   | To some extent                  | Yes                         | Yes, but fails to specify how         | Yes                                    | Mentioned   | Yes, but not reducing bycatch & bycatch mortality | Yes                             | Yes   | Yes   | Very detailed review, but fails to commit to particular actions  |

**Codes used in Table 2b (from Aims of a Shark Plan as defined in IPOA-Sharks Appendix I)**

|    |  |
|----|--|
| 1  | Ensure that shark catches from directed and non-directed fisheries are sustainable   |
| 2  | Assess threats to shark populations, determine and protect critical habitats and implement harvesting strategies consistent with the principles of biological sustainability and rational long-term economic use |
| 3  | Identify and provide special attention, in particular to vulnerable or threatened shark stocks   |
| 4  | Improve and develop frameworks for establishing and coordinating effective consultation involving all stakeholders in research, management and educational initiatives within and between States                 |
| 5  | Minimize unutilised incidental catches of sharks   |
| 6  | Contribute to the protection of biodiversity and ecosystem structure and function  |
| 7  | Minimize waste and discards from shark catches   |
| 8  | Encourage full use of dead sharks  |
| 9  | Facilitate improved species-specific catch and landings data and monitoring of shark catches   |
| 10 | Facilitate the identification and reporting of species-specific biological and trade data  |

**Table 3: Potential coverage of shark species by a selection of regional fisheries organisations**

This table provides information on the potential coverage of shark species by a selection of regional fisheries organisations. The main activities that have been undertaken by those organisations in relation to sharks are also listed<sup>1</sup>. Most RFMOs covering fisheries where significant impacts on or catches of sharks could be expected have a mandate that would enable conservation and management measures to be implemented for shark and other bycatch species. Only a few, however, have actually implemented specific measures for shark beyond basic catch reporting requirements.

| <b>RFMO</b>   | <b>Mandate under Convention</b>   | <b>Measures implemented for Sharks</b>   |
|---|---|--|
| Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) | All living marine resources   | No conservation measures adopted that are specific to sharks<br>Individual countries scientific observers may record shark bycatch   |
| Commission for the Conservation of Southern Bluefin Tuna (CCSBT)              | Ecologically-related species (ERS) associated with SBT, including predators & prey<br>Collect scientific information<br>Report on status of ERS<br>ERS Working Group established  | ERS Working Group has flagged shark catches as an issue for consideration <ul style="list-style-type: none"> <li>no specific actions yet taken</li> </ul>  |
| Inter-American Tropical Tuna Commission (IATTC)                               | Can investigate fish taken by vessels fishing for tuna<br>Collect statistical information<br>Can recommend management measures designed to keep population at levels that permit maximum sustained catch<br>Established a bycatch working group | Various resolutions relating to the need to investigate measures to assess and reduce bycatch<br>Estimating catches and incidental fishing mortality of sharks and rays and assessing the impacts on these species<br>Require fishers on purse seiners to promptly release unharmed, to the extent practicable, all sharks, billfishes, rays |

<sup>1</sup> This information is intended as an overview only and is not exhaustive of the types of measures that an RFO may be able to apply or of measures that an individual RFO may have adopted that could potentially impact on sharks.

| RFMO   | Mandate under Convention   | Measures implemented for Sharks   |
|--|--|---|
|  |  | Any further agreed bycatch measures to be implemented from 1 January 2003   |
| International Convention for the Conservation of Atlantic Tuna (ICCAT)     | Focus on tuna & tuna-like species, but includes activities relating to such other species of fishes exploited in tuna fishing  | Requires submission of shark data – catch by quarter and 5x5 area, gear, species and year<br>Held a workshop on sharks in September 2001 to 'review in detail the available statistics for Atlantic and Mediterranean pelagic sharks, with emphasis on Atlantic blue ( <i>Prionace glauca</i> ), porbeagle ( <i>Lamna nasus</i> ), and shortfin mako ( <i>Isurus oxyrinchus</i> ), with a view towards planning an assessment in the future'<br><ul style="list-style-type: none"> <li>recommended that members develop and conduct observer programs to collect accurate data on shark catches by species, including discards</li> </ul> |
| Indian Ocean Tuna Commission (IOTC)  | Covers tuna and tuna-like species<br>No explicit coverage of other species in any context  | In 1999, agreed to 5 year research plan on predation by marine mammals & sharks in the context of an ecosystem-based approach<br>Nominal catch & discards of non-target species are recorded  |
| Northeast Atlantic Fisheries Organisation (NAFO)                           | Applies to all marine resources except marine mammals, highly migratory, anadromous & sedentary species  | Members to provide reports on progress on developing NPOA for sharks to NAFO for circulation among members<br>Require reporting of catch of shark species<br>No assessment of shark resources   |
| South East Atlantic Fisheries Organisation (SEAFO)<br>Not yet in force     | All living marine resources except sedentary organisms under a coastal State's jurisdiction and highly migratory species in Law of the Sea Convention (LOSC) Annex I<br>Take account of the impact of fishing on ERS<br>implement measures for these if necessary                          | Convention requires reporting by vessels of shark (Order Selachomorpha) catches (shot by shot), transshipments and on-board product   |
| Western & Central Pacific Fisheries Convention (WCPFC)<br>Not yet in force | Applies to all highly migratory fish stocks in LOSC Annex I<br>Assess impacts of fishing on non-target, dependent & associated species & adopt measures to minimise catch / impacts if necessary<br>Collect information on target & non-target species<br>Apply the precautionary approach | No specific measures under the Convention for sharks<br>While highly migratory sharks are a primary species under the Convention, more likely to be dealt with under the provisions for non-target species  |