

**Report of the**

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**FAO/SPC REGIONAL EXPERT CONSULTATION  
ON SEA SAFETY IN SMALL FISHING VESSELS**

**Suva, Fiji, 9–13 February 2004**



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## PREPARATION OF THIS DOCUMENT

In early 2003, the Food and Agriculture Organization of the United Nations (FAO) undertook a survey on fisheries-related sea safety in the Pacific Islands region. The objective of that work was to consolidate the experience gained by selected countries in safety at sea with a view to improving ongoing and future activities in the region. A major conclusion of the survey was that the majority of loss of life in the Pacific Islands region is associated with small fishing boats which have received the least attention in terms of legislation, construction standards, enforcement strategies, regional discussions, training on proper use, and other schemes to improve safety. The report of the survey indicated that many of these issues have facets that involve law, naval architecture, search, rescue, community awareness, maritime administration, fisheries and other fields. FAO and the Secretariat of the Pacific Community (SPC) agreed that a meeting attended by motivated people having expertise in these disciplines could have a very positive effect on regional and national sea safety programmes. The FAO/SPC Regional Expert Consultation on Sea Safety in Small Fishing Vessels held in Suva, Fiji, from 9 to 13 February 2004 was intended to produce this outcome.

### **Distribution:**

Participants at the meeting  
Secretariat of the Pacific Community  
FIGIS Mailing List  
FAO Fisheries Department  
FAO Regional Fishery Officers

FAO.

Report of the FAO-SPC Regional Expert Consultation on Sea Safety in Small Fishing Vessels. Suva, Fiji, 9–13 February 2004.

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### **ABSTRACT**

Work in the Pacific Islands by the Food and Agriculture Organization of the United Nations (FAO) and Secretariat of the Pacific Community (SPC) had indicated that to effectively address most problem areas on sea safety requires a multidisciplinary approach. The key disciplines associated with sea safety include law, fisheries, naval architecture, search/rescue, community awareness and maritime administration. Discussions between FAO and SPC led to an agreement to bring together motivated people from several relevant disciplines to discuss sea safety, and specifically focus on challenging issues, related to small fishing vessels.

As a result, an FAO/SPC Regional Expert Consultation on Sea Safety in Small Fishing Vessels was convened firstly to address and progress the most important issues in fisheries sea safety from the perspectives of several relevant disciplines and, secondly, to formulate plans for future sea safety programmes.

The Consultation was held in Suva from 9 to 13 February 2004. Discussions focused in particular on the significance of good sea accident data, mandatory requirements for vessel registration, vessel inspection and crew certification, enforcement of regulations in remote locations and training requirements for improving safety in small fishing boats. This report lists a number of recommendations together with considerations relating to their implementation.

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## **BACKGROUND**

Work in the Pacific Islands by the Food and Agriculture Organization of the United Nations (FAO) and the Secretariat of the Pacific Community (SPC) on sea safety has indicated that to effectively address most problem areas requires a multidisciplinary approach. The key disciplines associated with sea safety include law, fisheries, naval architecture, search/rescue, community awareness and maritime administration. Discussions between FAO and SPC led to an agreement to bring together motivated people from several relevant disciplines to discuss sea safety, and specifically focus on challenging issues, related to small fishing vessels. As a result, an FAO/SPC Regional Expert Consultation on Sea Safety in Small Fishing Vessels was convened to:

- Address and progress four important issues in fisheries sea safety from the perspectives of several relevant disciplines. These issues are: (1) appropriate sea safety regulations for small fishing vessels; (2) improvements in sea safety awareness programmes; (3) improving the safety of fibreglass skiffs through construction standards; and (4) enhancing systems of sea accident data recording.
- Formulate plans for future sea safety programmes.

## **OPENING OF THE CONSULTATION**

The Consultation was held in Suva from 9 to 13 February 2004. The meeting was called to order by Mr Malakai Tuiloa, Deputy Director of the Fiji Fisheries Department. He extended a greeting to overseas participants and welcomed the participants to the Consultation. Mr Tuiloa thanked FAO and SPC for taking the initiative to sponsor the meeting and indicated that, due to the large loss of life, it was timely to have such a meeting focused on small fishing boats.

The Chairman of the consultation, Mr Ian Cartwright, was introduced. He explained that most individuals attending the meeting were doing so in their personal capacities. This was followed by a self-introduction of the participants. There was special acknowledgement of the representative of the International Maritime Organization. The 32 participants and their contact details are given in Appendix B.

Mr Jeremy Turner, Chief, Fishing Technology Service, FAO, addressed the meeting on behalf of the Director General of FAO. He welcomed participants and explained that the Fisheries Department of FAO has been working in the field of fishermen's safety for 50 years. During that period the Organization had acquired considerable global experience on the causes of sea safety accidents and the effectiveness of interventions to prevent such accidents. The current emphasis of the work at FAO related to safety is on raising global awareness of the problem, of its magnitude and of the causes, and is aimed primarily at administrations and policy makers. In the Pacific Islands area, FAO commissioned studies on sea safety in 1991 and in 2003. The more recent study identified four important issues which are crucial to improving sea safety. Mr Turner explained that, due to its breadth of participation, the Consultation has at its disposal the dimensions, experience and expertise to address these four important issues in a holistic manner and subsequently improve safety in the region. The present challenge to develop political will and commitment to deal effectively with sea safety issues was highlighted.



Mr Tim Adams, Director of SPC's Marine Resources Division, spoke to the meeting. He endorsed the sentiments expressed by Mr Turner and indicated that within the Pacific Islands region, the issue of sea safety on small fishing vessels suffered from lack of attention due to gaps in institutional mandates. SPC needed direction from the consultation on priorities in sea safety. Mr Adams indicated that there is potential for SPC to highlight the problem of sea safety at regional meetings, draw the attention of the international community and interest donors in contributing to solutions.

## **ADOPTION OF THE AGENDA**

A draft agenda was discussed. There was a comment that the training aspects of sea safety seemed to be lacking. After some discussion, the meeting agreed that training is a key issue and would be dealt with under each of the four theme areas rather than as a separate agenda item. The agenda as adopted is given in Appendix A.

## **PRESENTATION BY THE CHAIRMAN**

The Chairman gave a presentation dealing with two components: (1) an overview of sea safety work in the region, and (2) the proposed structure of the consultation.

The major regional initiatives in sea safety in the Pacific Islands in recent years were reviewed: the 1991 FAO/McCoy study, the SPC Coastal Fisheries Programme's safety awareness and statutory training, the SPC Regional Maritime Programme's shipping legislation and provision of maritime training, and the 2003 FAO/Gillett study. The FAO/Gillett study recommended several priority items for improving sea safety, including a regional sea safety workshop which evolved into the FAO/SPC Regional Expert Consultation on Sea Safety in Small Fishing Vessels.

The Chairman proposed a structure for the meeting. This consisted of Part One in which each of the 27 participants would be assigned to one of four discussion groups corresponding to the major themes of the consultation: (1) Appropriate sea safety regulations for small fishing vessels; (2) Improvements in sea safety awareness programmes; (3) Improving the safety of fibreglass skiffs through construction standards; and (4) Enhancing systems of sea accident data recording. It was suggested that each group carry out detailed discussions on their theme during the first three days and report the main conclusions related to improving sea safety to a plenary session where the conclusions would be further discussed, prioritized and modified into recommendations. The fourth and fifth days of the consultation (Part Two) would consider how best to implement these recommendations, who would do the work and with what resources. The meeting agreed to this format.

The Chairman provided some suggested definitions and focus areas for the consultation, which were subsequently adopted. He noted that the definitions were put forward to ensure common understanding between participants.

- “Sea safety” refers to the preparations and activities associated with safely returning to port at the conclusion of a fishing trip without outside assistance, or more simply “getting home”.
- The focus of the Consultation is the small fishing vessel. Although many of the topics discussed are applicable to larger fishing vessels and to small non-fishing vessels, the competence of the consultation and the thrust of the discussions are to be small fishing vessels.

- A “small fishing vessel” is any undecked, unpowered, or outboard-powered fishing vessel.
- The emphasis of the Consultation should be on prevention of sea accidents rather than a cure for accidents that have occurred.

## **PRESENTATION OF DISCUSSION PAPERS**

Short discussion papers covering the four themes of the conference were presented by the authors. These papers are given in Appendix C.

Each paper ended with a section entitled “Points to be Discussed and Possibly Resolved” which formed a basis for the deliberations in the four discussion groups. Following presentation of the four theme papers to the plenary session, the group offered suggestions for additional items to be discussed by individual groups.

## **DISCUSSION GROUPS AND PLENARY DISCUSSION**

On Monday afternoon the plenary session divided into the four discussion groups. The groups were instructed to run quickly through the list of discussion points to judge the magnitude of the task and to begin discussing some of the key issues.

The groups discussed the various topics and made brief progress reports to the plenary session on Tuesday. Following discussion of these reports in plenary, the Chairman instructed each group to identify about ten important conclusions, principles or “burning issues” for presentation to, and discussion at, the plenary session on Wednesday. The resulting plenary discussions were quite lively and from this emerged several issues that cut across many of the discussion groups.

The topic of **mandatory requirements** for vessel registration, vessel inspection and crew certification received considerable attention. On the one hand, some participants felt that while implementing such mandatory requirements presented considerable challenges, they represented a useful model for countries to strive towards. In this respect it was felt that it would be somewhat negligent if the group did not make such a statement on the issue. On the other hand, some individuals believed that mandatory requirements would be impractical in many locations, could affect the credibility of the outputs of the Consultation and that the target problems could be better addressed through other means. The consultation participants arrived at a compromise in which the group’s conclusion was that there should be an investigation of the feasibility and desirability of mandatory sea safety requirements.

It was acknowledged that **enforcement** of regulations in remote locations is extremely difficult and there is a large range of enforcement conditions across the countries of the Pacific Islands. There was general agreement in the consultation that “top down” solutions are rarely effective in the outer islands and that village-level institutions could offer an alternative to enforcement by urban-based agencies. It was also noted that full use should be made of the experiences gained from successes in outer islands enforcement of mandatory requirements in other sectors.

The importance of good **sea accident data** arose in the discussions of all four of the Consultation themes. The benefits from the availability of this data included: determining the real problems for which regulations should be formulated, the generation of political will, gauging effectiveness of accident reduction programmes, and identifying areas of concern in vessel construction.

**Training** required for improving safety in small fishing boats was discussed in each of the four groups. Some common areas of training needs that came out in the plenary discussions included “light” or informal training considerably below the standard of some of the more formal courses now available, portable courses that could be taken to remote locations and an increased focus on training for community members.

Many of the discussions of the four sets of conclusions included reference to automobile analogies: programmes to reduce road fatalities, use of seat belts, good data to target problems areas, increased use of regulations, and the use of visible reminders of accidents. The consultation believed that much is to be learned from successful road accident campaigns, but one participant cautioned that the education level for those targeted in sea safety campaigns is considerably lower than those individuals who drive cars.

As a result of the plenary debate and discussion, modifications were made to the conclusions of the four discussion groups to reflect the sentiments of the full group. The important conclusions for each group, as modified by the plenary discussions, are given in Appendix D.

## **FORMULATION OF RECOMMENDATIONS**

The Chairman instructed that the 41 conclusions of the four discussion groups be examined by a plenary subgroup. He requested that a small number of recommendations be formulated from the most important conclusions, bearing in mind the discussions that occurred, the relative importance of the various conclusions and any cross-cutting features. The resulting recommendations were subsequently presented to, and discussed in, a plenary session.

## **THE RECOMMENDATIONS OF THE CONSULTATION**

Nine recommendations were presented to the plenary session for consideration. Discussions took place that resulted in modifications to some of the recommendations and some additions. Because the importance of having a national sea safety strategy emerged strongly from the deliberations, all recommendations were placed in that context.

The resulting general recommendations of the Consultation are:

**The Expert Consultation recommended that improved small boat safety will best be achieved through the development and implementation of coordinated national strategies, which should include:**

- 1. Provision of support to a consultative national stakeholder framework (e.g. national sea safety coordinating group) and motivated people or “drivers”.**
- 2. The generation of commitment and political will at national level to address small vessel sea safety.**
- 3. Increasing the effectiveness of ongoing sea safety awareness programmes, with special emphasis on the development of channels for the efficient distribution of appropriate and updated materials, and evaluation of impact.**

4. **The development, enactment and implementation of appropriate and sensitive legislation for small fishing vessels, including the carriage of safety equipment, training/certification requirements and construction standards.**
5. **The determination of minimum mandatory requirements for each class of small fishing vessel, with due regard to operational circumstances.**
6. **The full use of existing institutions and community-based structures for increasing compliance, data collection, training and awareness, taking into account the time and resources required.**
7. **The development and phased implementation of appropriate enforcement procedures to ensure compliance.**
8. **The development and maintenance of national sea accident databases.**
9. **Support for the establishment of an SPC fishing vessel safety at sea special interest group<sup>1</sup> and associated newsletter and the development of additional sea safety awareness resource materials.**
10. **Investigation of the advantages and disadvantages of the establishment of small fishing vessel registration and inspection schemes.**
11. **Formal and informal training directed at fishers, fishing communities, government staff, NGOs, the private sector and other stakeholders.**
12. **Consideration of the inclusion of sea safety as an integral part of fisheries management and development initiatives.**

## **IMPLEMENTING THE RECOMMENDATIONS**

The above recommendations to improve sea safety in small fishing vessels were developed during the first three days of the consultation. Part 2 (days 4 and 5) of the consultation focused on implementation of the recommendations.

The group commenced Part 2 by going through the list of recommendations and, for each one, listing the considerations relating to implementation. These considerations were subsequently grouped under each recommendation into the categories of: (1) how to do it, (2) who should do it, and (3) what resources would be needed. The result was a non-exhaustive list of important factors for countries to consider when implementing the recommendations of the consultation. These are given in Appendix E.

The plenary discussions on implementing the recommendations were wide-ranging. Some of the points made were specific to one recommendation and these have been incorporated into the list given in Appendix E. Other comments were applicable to more than one recommendation and some general consensus became apparent from the discussion. These important points include:

- Two items were mentioned repeatedly in conjunction with implementing several recommendations: a national sea safety strategy and good information on vessels/accidents. This carries some suggestion that these are fundamental in national sea safety improvement.

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<sup>1</sup> SPC has established special interest groups (SIG) in several areas, including fisheries training, traditional marine resource management, trochus, and women in fisheries. Each SIG has an informational bulletin, editor, and members who contribute articles and exchange information.

- Ultimately, sea safety is a national responsibility and many efforts to improve safety need to be continuous. Such efforts must be formulated so that local resources, whether government, NGO or private sector, continue to be available after the completion of any initial regional or international assistance.
- Effective consultation, particularly with fishers and communities, is vitally important for the success of many of the initiatives cited in the recommendations. The effort and resources required for such consultation can, however, be very large.
- Improving sea safety is a relatively new undertaking for many Pacific Island countries. Progress could probably be accelerated by learning from national initiatives in other sectors, such as road safety and AIDS awareness.
- The private sector, including boatbuilders, outboard engine distributors, and fuel companies, could have a large role to play in efforts to improve national sea safety. This could include promotion of training, membership on coordinating committees, provision of funding, and assisting in awareness campaigns.
- It is inevitable that some efforts to improve safety will be more effective than others. To make optimum use of scarce safety resources, the various efforts should be evaluated periodically to determine effectiveness and any need to redirect resources.

## **THE WAY FORWARD**

After the discussion of implementing the recommendations, the participants considered the steps to be taken in the near future to take advantage of external assistance dealing with sea safety.

The group indicated that there should be a national focus to any assistance which may be available. As improving sea safety is a national responsibility, the priority should be to increase national capability and to complement national efforts rather than to act as a substitute for national efforts.

It was also acknowledged that there is considerable variability in assistance needs across the very diverse countries of the Pacific Islands region. This suggests that assistance must be tailored to individual countries and to do so may require substantial consultation to “get it right”.

Finally, development assistance should be formulated in recognition that sea safety conditions are not static. Conditions that affect small fishing boat safety will inevitably change. Some of the changes which are likely to occur are:

- increasing populations in Pacific Island countries, resulting in decreasing availability of near-shore fishery resources, encouraging fishers in small fishing boats to venture further offshore in pursuit of pelagic fish;
- fewer alternatives to fishing employment;
- greater use of fish aggregating devices, which has both positive and negative implications for safety;
- decreasing use of wood as a small boat construction material, increasing use of fibreglass;
- an increase in the size of outboard engines;
- a greater need to take risks in order to repay fishing equipment loans;
- less traditional fishing craft;
- erosion of traditional seamanship skills.

## **DETERMINING AND ADDRESSING COUNTRY NEEDS**

The Consultation discussed at length the ways in which FAO and SPC could assist in determining and assisting national needs. The FAO representative stated an interest in offering assistance, but to do so required full consultation with countries. The various possibilities for obtaining country views and inputs were distilled into three options:

1. FAO could assist through a Technical Cooperation Programme (TCP) in which all involved countries (i.e. those countries that request assistance) would be visited and a comprehensive needs analysis could be carried out for those countries. The end product of this process would be a detailed project document which would assist countries develop their national sea safety strategies and that a donor could subsequently use in conjunction with a substantial national or regional sea safety project.
2. The report of the Consultation could be presented for further input and endorsement at two relevant forthcoming SPC regional meetings. These are the SPC Heads of Fisheries (HoF) meeting, tentatively scheduled in July–August 2004 and the meeting of the Association of Pacific Island Maritime Training Institutions and Maritime Authorities (APIMTIMA) in May 2004. Participants to HoF could start identifying and prioritizing national needs and formulate a request to FAO for a TCP project. The outcomes of the Consultation would also be presented at the CRGA (SPC's governing body) meeting in November 2004.
3. A smaller number of countries (or countries individually) could formulate a request to FAO for a TCP project that would include identification of needs, assistance with the development of a national strategy and implementation of some activities. SPC could assist with the coordination of this TCP project.

There was a discussion of the merits of the above options. Although the importance of national consultation was recognized throughout the Consultation, there was some sentiment that considerable discussions on national needs had already occurred or would occur soon through regional meetings. There was an alternative view that such consultation would be largely limited to government agencies and may not take into consideration the views of other groups, such as fishermen's associations and NGOs. It was noted that the production of a detailed project document is no guarantee that major donor support would follow. A clear consensus for a preferred option did not emerge from the participants, partly because of funding uncertainties associated with the options. There appeared to be general support for Option Two, while there was little enthusiasm for Option One. There was support for the concept of formulating a request to IMO for some of the important foundation activities (e.g. accident database).

Discussion also focused on the other steps to be taken in the near future in support of sea safety initiatives. As noted above, it was generally agreed that the report of the Consultation should be presented to forthcoming SPC meetings. These regional meetings could serve several purposes, including raising the profile of sea safety in the region, serving as a mechanism for national consultation, attracting donor attention, and gauging the support/need for a regional small vessel safety programme.

Participants to HoF could start identifying and prioritizing national needs and formulate a request to FAO for a TCP project. It may also be possible that the HoF meeting could

recommend that an SPC-based regional small vessel safety programme be established. It was noted that these discussions would be enhanced if a session of the HoF was set aside to focus on sea safety issues. This possibility is to be explored. At the APIMTIMA meeting, country delegates would be asked to report on small boat safety as part of their country paper.

## **OTHER ISSUES**

Although the Consultation focused on four key issues, a number of useful suggestions on how to improve sea safety in other areas were raised by participants. In order that these interventions not be lost and to enable them to be considered (where appropriate) during the development of national sea safety strategies, they are listed below.

The issue of communications was raised as an issue of significance on a number of occasions. The Consultation recognized the problems in some countries with radio communications, including the situation in remote communities and high cost of maintaining a network. In other places, communications are considered an essential part of reducing casualties, and minimizing search and rescue efforts.

Problems with outboard engines are one of the major causes of accidents in small fishing vessels. In view of this, there was general agreement that administrations should strive towards a mandatory requirement that at least one person on every outboard-powered vessel should at least have some form of certification of training on emergency outboard troubleshooting and maintenance. However, the consultation did not underestimate the complexities in ensuring the provision of training, certification and ensuring compliance with such a requirement, particularly in remote islands.

The Consultation recognized the importance of including a knowledge of weather as a part of seamanship skills within training or awareness on basic vessel safety. It was also appreciated that there is scope for improvement in weather forecast broadcasting, with particular reference to remote islands, regularity and comprehension of broadcasts, and the possibility of including sea safety messages as part of broadcasts.

The Consultation noted that many of the sea safety accidents in small vessels occurred when these boats were being used for transport purposes (passengers, freight). Small vessel safety regulations should therefore be formulated in consideration of these activities.

The Australian Pacific Patrol Boat Programme (PPB) is active in most Pacific Island countries. Recognizing that a significant amount of sea time of the PPB vessels is used in search and rescue operations for small fishing vessels (about half of all operating hours in Fiji), the possibility that the PPB programme may be interested in supporting sea safety improvements in the region should be explored. The meeting agreed to this procedure.

## **ADOPTION OF THE REPORT**

The procedures for the adoption of the report were discussed. It was suggested that a draft report be submitted to the Chairman for modification, after which time it would be submitted to SPC and FAO for further modification. The resultant version would be sent to four of the Consultation participants who would have a week to provide comments to the Chairman. After formal FAO clearance, the report would be circulated by E-mail and subsequently hard copies would be distributed.

**CONCLUDING REMARKS**

Mr Jeremy Turner of FAO thanked the participants for their contribution to the meeting and indicated that the discussions were both focused and comprehensive. He stated that real progress had been made during the five days and he looked forward to assisting countries in the future. Mr Michel Blanc of SPC also thanked the participants and expressed his satisfaction with the FAO-SPC cooperation in hosting the meeting.



## AGENDA

**Monday, 9 February 2004****morning**

- Call to order
- Fiji welcome
- Opening prayer
- Introduction of Chairman
- Self-introduction from each participant
- Meeting administration matters: finances, hotel arrangements, hours of meeting, return flight confirmation, office facilities, cocktail party, barbeque
- Words from FAO
- Words from SPC
- Adoption of agenda
- A few words of self-introduction from each participant
- Presentation by chairman: (1) Overview of sea safety work in the region, and (2) Overview of consultation
- *Establishment of the four discussion groups*
- *Discussion of group recording and reporting*

**afternoon**

- Short presentation of the four discussion papers
  1. Appropriate Sea Safety Regulations for Small Fishing Vessels
  2. Improving Small Boat Sea Safety Awareness Programmes
  3. Construction Standards for Small Fibreglass Fishing Vessels
  4. Enhancing Systems for Sea Accident Data Recording
- Break into the four groups for discussion

**Tuesday, 10 February****morning**

- Discussions in the four groups
- Mid-morning progress reports of the discussion groups to the full group

**afternoon**

- Discussions in the four groups
- Full group discussion

**Wednesday, 11 February 2004**

**morning**

- Group discussions
- Reports of groups to full group
- General full group discussion

**afternoon**

- General full group discussion
- Other matters
- Summary of first part of the Consultation

**Thursday 12 and Friday 13 February 2004**

- How to do the follow up work
- Who does the work
- Funding for the work
- Concluding remarks

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**DISCUSSION PAPERS**

- Paper 1:     Appropriate Sea Safety Regulations for Small Fishing Vessels**
- Paper 2:     Improving Small Boat Sea Safety Awareness Programmes**
- Paper 3:     Construction Standards for Small Fibreglass Fishing Vessels**
- Paper 4:     Enhancing Systems for Sea Accident Data Recording**

## DISCUSSION PAPER 1

### APPROPRIATE SEA SAFETY REGULATIONS FOR SMALL FISHING VESSELS

#### **Introduction**

Small fishing vessels appear to be associated with most of the sea accidents in the Pacific Islands. Despite this situation, in most countries of the region these vessels are usually excluded from the safety requirements of both the shipping legislation and fisheries legislation.

FAO's recent sea safety survey showed that of the five countries covered, in only one country (Samoa) are small fishing vessels covered with appropriate safety regulations. In the other countries, such vessels are either excluded (Kiribati, Tuvalu) or covered by legislation so inappropriate as to be meaningless.

Country	Safety Aspects of Fisheries Legislation	Safety Aspects of Shipping Legislation
Tuvalu	Does not cover vessels under 7 m	Does not cover fishing vessels
Tonga	Does not cover fishing vessels under 6 m; requirements for fishing vessels over 6 m usually enforced for only company vessels <sup>2</sup>	Does not cover fishing vessels under 8 m
Samoa	Covers all commercial vessels; requires safety certificate under shipping legislation	The Shipping (Small Vessels) Regulations 1999 covers all vessels that are less than 15 m in length
Fiji	Does not cover sea safety	Fiji Small Craft Code covers all commercial vessels under 10 m, but is inappropriate for small fishing vessels
Kiribati	Does not apply to vessels under 7 m	Does not apply to fishing vessels

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<sup>2</sup> New legislation is pending.

### **Why are appropriate regulations important?**

Appropriate sea safety regulations for small fishing vessels are important for several reasons. These include:

- In countries where there has been a remarkable improvement in sea safety, this can often be attributed to new legislation and associated enforcement. In this region, Samoa serves as a prime example.
- Regulations establish a norm for small boat safety, against which the construction and/or operation of a vessel can be judged. The regulations themselves can be an important awareness tool.
- Although safety awareness certainly has a role, awareness can only go so far to improve safety as some individuals will resist such voluntary measures.
- To some degree, raising safety-awareness is dependent on the concept that safeguarding one's own life at sea is a powerful incentive. This does not apply, however, to the situation where a vessel owner is not the vessel operator, in which case there could be financial incentives against taking safety measures.

### **Constraints to making progress**

The major constraint to making progress in small fishing vessel legislation is the contention that regulations for such vessels cannot be enforced. This is shown in the 1991 McCoy survey report where it is stated: "After visits to the countries and territories and interviewing 169 fishermen and government officials, it was found that most countries do not provide for safety legislation to cover smaller boats or canoes, and officials generally believe that it would be impossible to enforce such regulations if they were introduced".

Another constraint is having vessel safety regulations that are so inappropriate that they encourage non-compliance and deter any interest in improving legislation. As an example, Fiji's Small Craft Code is applicable to all vessels under 10 m (33 ft) trading commercially, but the Code is so extensive (67 pages in length) and the requirements so unreasonable (a 7 m (23 ft) fibreglass fishing boat requires a gangway, liferaft, barometer and six hawsers) that they are universally ignored by the fishing fleets.

Other key constraints to effective small fishing vessel safety legislation include:

- national legal specialists often do not have the technical background or familiarity with small fishing vessels;
- regional assistance in sea safety legislation is oriented toward much larger fishing vessels;
- lack of access to appropriate small fishing vessel safety legislation that could serve as a model.

### **Associated issues**

The types of regulations for a small fishing vessel of 6 m (20 ft) in length would obviously be different from those for a 20 m (66 ft) longliner. Similarly, there are reasonable arguments for excluding small canoes from regulations. An important issue is how to define a small fishing vessel and determine applicability in such a way as to capture the target vessels – those



vessels that cause most of the sea safety incidents. Although some countries use length categories (i.e. between 6 m and 15 m (20 ft and 50 ft)) to determine applicability of regulations, some use the type of use (i.e. all vessels under 10 m (33 ft) involved in trade). There is also the possibility of design criteria – excluding non-motorized vessels (lower limit) and including only non-decked vessels (upper limit).

The difficulties of placing restrictions on a customary activity in the Pacific Islands such as the use of a small boat should not be underestimated. Some of the problems of enacting small vessel safety legislation have come from the concern over the central government placing new restrictions on a traditional activity.

Specific safety requirements for small fishing vessels in the present legislation of Pacific Island countries can be placed in several categories, not all of which are applicable to every country situation:

- vessel construction requirements – for example, certified vessel construction plans;
- crew certification requirements – captain having undergone a safety course;
- safety gear requirements – flares and life jackets be carried;
- operational requirements – limits of operation, radio reporting, maximum and/or minimum crew size.

About half of Pacific Island countries have fisheries legislation that specify the objectives of fisheries management. Internationally there is a movement to specifically articulate safety of fishers as an objective of fisheries management. Although there could be merit in considering this approach, at present no Pacific Island country has this feature in their fisheries legislation.

### **Lessons learned**

Pacific Island experience in small fishing vessel safety legislation suggest that any formulation of mandatory requirements:

- be done with substantial technical input from individuals with thorough knowledge of these vessels and the fisheries in which they participate;
- be formulated with input from relevant stakeholders;
- be sensitive to the practicalities of enforcement in remote locations;
- be conscious that many problems of sea safety cannot be addressed through legislation;
- aim to achieve an appropriate balance between legislation and awareness for improving sea safety;
- be sensitive of the difficulties in political acceptance of new controls on customary small-scale fishing activity;
- be aware of the difficulties concerning applicability of generic regional legislation.

### **Points to be discussed and possibly resolved**

The group is invited to discuss and hopefully come to conclusions (or at least provide considerations) on the following topics.

In situations where enforcement of small vessel safety requirements would be very difficult:

- Is it practical to enact legislation and attempt enforcement?
- Are there good examples of remote location enforcement of new legislation in other sectors? For example, in fisheries, public health, or construction?
- For the improvement of sea safety in remote locations, what are important considerations in attempting to balance between legislation and awareness efforts?

Where there are effective regulations applicable to small fishing vessels, what lessons have been learned?

With respect to applicability:

- Should small fishing vessels be singled out in the legislation from other small vessels, such as those used for transport?
- What are important considerations for establishing upper and lower limits of applicability of new legislation?

As a minimum, what should be the elements of small fishing vessel safety legislation?

- vessel construction requirements
- crew certification requirements
- safety gear requirements
- operational requirements
- have any elements proven to be inappropriate?

Other points to be discussed:

- Are basic/minimal requirements (which stand more chance of being understood and enforced) better than more comprehensive requirements?
- With respect to safety requirements, what should be the appropriate relationship between the fisheries legislation and the transport legislation?
- What are the important technical assistance needs in small fishing vessel legislation?

## DISCUSSION PAPER 2

### IMPROVING SMALL BOAT SEA SAFETY AWARENESS PROGRAMMES

#### **Introduction**

In considering improvements to small boat sea safety in Pacific Islands, the 1991 FAO regional survey (McCoy, 1991)<sup>3</sup> concluded:

- In planning even modest programmes it must be realized that safety at sea is something which must be taught and continually reinforced. It is recognized that heightened awareness of safety in industrial societies is due to constant reinforcement. In the island countries, it is the almost total lack of exposure to safety awareness on a recurring basis that results in it being ignored. Programmes should thus emphasize the necessity for their continued, long-term existence.
- Education through publicity campaigns, repeated and reinforced over a long period of time and backed up by a good supply of equipment and spare parts, and training seems to offer the best chance for improving safety at sea for artisanal fishers.

In response to the conclusions of the 1991 report, the Fisheries Training Section of the Secretariat for the Pacific Community commenced a regional programme to produce and distribute small boat safety awareness promotional material appropriate to the Pacific region.

The work undertaken by SPC and national governments and administrations in relation to sea safety awareness programmes has been more recently reviewed (Gillett, 2003)<sup>4</sup> as a part of a follow-up FAO review of small boat safety in the region.

#### **The importance of awareness programmes in improving small boat safety**

The 2003 review noted:

- Many of the government fisheries agencies are not especially active in sea safety work. In several countries, the main safety activity of the fisheries agency is distribution of the SPC safety materials.
- The FAO 1991 study stressed the value of safety awareness programmes. This assertion has had a major influence in the type of sea safety programmes during the following decade.

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<sup>3</sup> McCoy M.A. 1991. Survey of safety at sea issues in Pacific Island artisanal fisheries. Field Document 91/3. FAO/UNDP Regional Fishery Support Programme, Suva, Fiji, 86 pages.

<sup>4</sup> Gillett, R. 2003. Aspects of Sea Safety in the Fisheries of Selected Pacific Island Countries. Fisheries Circular 993, FIIT/C993, Food and Agriculture Organization of the United Nations, Rome, 72 pages.

Given this supposed reliance on the SPC promotional material, the assertions of the 1991 study and the summary findings of the 2003 report, consideration of possible improvements to sea safety promotional material and utilization of such is fundamental to the future planning of sea safety initiatives.

### **Constraints to improving awareness programmes**

#### ***Measuring Impact***

In the absence of detailed record-keeping, the success of promotional activities in improving the incidence of emergencies and accidents at sea is difficult to gauge. The presumption that fishers and small boat operators will act more safely once they are made more aware of safety issues is similarly difficult to test. There is not a simple “this works” formula or a standard means of measuring what does work to ensure better preparedness for emergencies at sea.

The SPC safety materials have been developed and distributed over the last ten years. While the materials have been well received by countries, there is no reliable means to gauge the effectiveness of the promotional material in actually raising safety awareness and contributing to improved safety records.

#### ***Accessing rural communities***

In general, safety awareness programmes have targeted urban and near-urban communities. The 2003 study reported a disproportionate amount of sea safety related accidents from more isolated rural areas and outer islands and noted that, in general, these areas had been least likely to be targeted in safety related awareness activities.

Owners and operators of small vessels in rural areas are also likely to be involved in non-fisheries related commercial activities such as the informal carriage of passengers and cargo. The implication is that small boat sea safety is not just a fisheries issue.

#### ***Continuity***

In promoting awareness programmes as the priority option for dealing with Pacific Island sea safety issues, the 1991 report stressed the importance of sustained-awareness promotion. This implies an ongoing programme of promoting safety practices on a regular and reinforced basis. With the exception of Samoa, there is little evidence to suggest that Pacific Island national small boat safety strategies have been anything other than ad hoc – more often in response to the provision of posters, videos, stickers, etc. from SPC.

### **Associated issues**

#### ***Sea safety and political will***

The 2003 study noted that several major initiatives in sea safety promotion had been primarily instigated in response to significant loss of life scenarios. Sustaining safety awareness programmes may require a “political will” whereby key bureaucrats or politicians provide a catalyst for prioritizing safety issues in the public arena.

### ***Regulatory environment***

The argument against imposing forms of regulatory control on small vessels has primarily been that national level capacity to enforce small vessel operational rules and regulations is not in place. Coordinating the introduction of appropriate regulations with a sustained awareness programme (promoting both the regulations and their implications) could possibly diminish the enforcement requirements.

### ***Safe vessel designs***

Effective safety awareness cannot be undertaken without reference to vessel types and related safety standards. Widespread use of vessels of inappropriate design for open ocean passages is a major safety issue. Promoting awareness of safety related vessel design factors is an important potential consideration.

### ***Sea safety and fisheries management***

The 2003 study shows limited consideration by fisheries authorities of sea safety as a fisheries management goal. Promoting awareness of safety of life at sea as a fisheries management goal may provide a more fertile environment within fisheries administrations for the promotion of safety related issues.

### ***Balancing awareness with formal training***

With the SPC resource material, the majority of the awareness activity undertaken in the Pacific region has been informal. Several national institutions offer more formal training programmes targeting small vessel operators and offering standard (or regulation) safety training programmes. There is a need to consider an appropriate and achievable balance between informal awareness and formal training as mechanisms to promote improved safety awareness.

### **Lessons learned – what has worked well**

With the diversity of Pacific physical, social and cultural contexts, it is not surprising that, in the case of the SPC sea safety promotional material, there is no single standout promotional activity. What might be judged as a successful activity in one country may have minimal impact on another.

Despite the difficulty in assessing the effectiveness of promotional material, the 2003 study noted observations and comments as follows:

In general, the survey findings in the five countries suggest that the following are generally successful:

- appropriate small-vessel legislation backed up by “big stick” enforcement for urban-based commercial vessels;
- radio programmes and extension visits for remote locations;
- video for those communities with access to video facilities;
- “no survey, no license” for areas/fleet strictly controlled by licensing;
- institutional safety courses for the semi-industrial fleet.

It is also apparent from the 2003 study that promotional materials (such as posters, check-lists, T-shirts, etc.) are more likely to be effective if they are made available in local language and not just in English and French.

A number of national fisheries training institutions (New Caledonia, Solomon Islands, Vanuatu, PNG) report successful initiatives in off-campus village and community-level delivery of sea safety workshops and short courses.

### **Main points for discussion and resolution**

The principle theme for discussion and resolution is “where do we go from here”, both in terms of regional initiatives and national strategies. Concurrent with this theme is a suggested strategy to build on known successes. General discussion themes include:

#### ***How can the SPC material be better utilized in safety awareness promotion?***

Items for discussion may include:

- mechanisms for distribution of promotional material to more isolated communities (i.e. extension activities, use of NGOs, schools, other government agencies);
- prioritizing the use of proven promotional mechanisms (i.e. radio as a medium to reach more isolated communities);
- the advantage of having material produced in local language;
- including safety awareness as a committed fisheries extension activity and undertaking planned village-level workshops and short courses;
- small boat safety “train the trainer” initiatives;
- resource requirements for awareness activities – human, material, financial;
- possible mechanisms to better measure the effectiveness of safety awareness activities.

#### ***Linking awareness programmes to regulatory initiatives***

In situations where small boat safety regulations are under development or proposed for introduction:

- Is it possible to plan promotional activities and awareness training in support of regulatory initiatives?
- Is there an achievable balance between informal awareness promotion and more formal institutional safety training?
- What capacity is in place to undertake more formal institutional safety training?
- What awareness mechanisms can be put in place to ensure regulatory controls are achievable?
- What is the role of Fisheries Departments? Is there a role for fisheries associations?

### ***Linking awareness programmes to targeting improved political and social will***

The Pacific socio-economic context suggests that a political imperative can be a significant benefit in galvanizing attention to particular activities. The main questions which might be considered in this context are:

- Are there specific activities (outside of publicizing or politicizing small vessel disasters) that can be undertaken to promote vessel safety issues at a community leader or political level?
- Are there specific activities that can be undertaken to promote safety awareness within government departments and agencies?

### ***Safety awareness strategies***

The 2003 study revealed that the majority of sea safety awareness activity in the region has historically been undertaken on an ad hoc basis.

- If sea safety issues are agreed as nationally important, is there benefit in considering the development of national strategies that outline a sustained series of awareness and safety-related promotional activities?
- What is the possible role of SPC in complementing and encouraging the development and implementation of national strategies?
- What are the likely costs of implementing such strategies and what funding options might be available?
- Is the development of safety awareness strategies a useful goal for the consultation meeting?

## DISCUSSION PAPER 3

### CONSTRUCTION STANDARDS FOR SMALL FIBREGLASS FISHING VESSELS

#### **Introduction**

In many fishery jurisdictions around the world the question of small boat construction standards, particularly for fibreglass, has effectively been ignored until fairly recently. However, some countries have had small fishing vessel construction standards for both wood and fibreglass fishing vessels for upwards of 30 years. It should therefore be possible to extract from these existing and proven standards sufficient data to design appropriate construction standards for fibreglass fishing boats in the Pacific Islands region.

A similar programme was recently carried out by FAO in the Caribbean region for seven island nations with the purpose of providing a set of harmonized construction standards for both wood and fibreglass fishing vessels (F/Vs) that could be used by all participating nations. Previously only one of the seven nations had an existing set of construction standards, and these were for wooden F/Vs. Other than that, boat builders were left to build boats or canoes in the traditional manner and any inspection was at the total discretion of Fishery Officers, most of whom had no experience or knowledge of vessel construction standards. The problems arising from this approach became serious in the last few years with elevated small vessel losses, the principal cause being economic pressures brought on by depletion of inshore fish stocks forcing smaller boats to venture farther offshore to try and keep the same level of income. Many of these vessels are inappropriate for operation outside near shore areas, either through light construction, low freeboard, not designed for use with outboard (O/B) motors, no safety equipment and, in many cases, insufficient floatation to keep the vessel afloat if swamped.

The purpose of this paper is to promote discussion on how best to address the problem of construction standards, principally for open fibreglass F/V for the Pacific Islands region. It is not intended to define or provide any specific set of standards at this time but rather to give a starting point for development of appropriate standards for the region acceptable to all parties involved.

#### **Why standards are important**

When fishing boats are being built and/or purchased from a variety of sources (i.e. local production or imports), the issue of quality and cost is of primary interest to the purchaser and unfortunately not always in that order. It is in human nature that everyone wants the most for the least expenditure. Unfortunately, in the case of fibreglass F/Vs this can lead to possibly disastrous consequences of structural failure.

One of the principal problems encountered in some countries where fibreglass is a fairly recent introduction is that both fishermen and local boat builders sometimes have only a rudimentary knowledge of what constitutes an appropriate laminate schedule for F/Vs of



various sizes. One fibreglass boat on the beach looks just the same as the next to the untrained eye, except that one costs much less! Without some knowledge of where the difference in cost is found, the unsuspecting buyer often purchases the cheaper boat.

Fibreglass construction is also famed for the ease with which copies or “flop mouldings” can be made of a favourite design, usually at a significantly lower cost than the original. Besides being a possible infringement of design copyright, the results can be downright dangerous, for example:

Copies of some popular and well-built Mexican skiffs were found in Central America that only had two skins of laminate in the hull and virtually no other reinforcements. These vessels had been purchased as part of an aid programme for replacement vessels after a tidal wave incident. The boats had been hastily ordered and purchased without a written specification or reference to a required standard. As a consequence, a large number of skiffs were either condemned, broke up in use, or in some cases were retrofitted with extra laminates and reinforced at the owner’s cost.

Flop moulded skiffs with similar problems have also been found in South East Asia, the Caribbean, and South American countries where fibreglass construction of F/Vs is commonplace but with little regulation by authorities.

In summary, some points regarding the importance of standards for F/V construction is as follows:

1. Safety.
2. Value for money, customer is assured of value for money and makes it possible for the customer to compare “apples to apples” when purchasing a boat.
3. Enables boat builders to compete on “level playing field” with others in region. If all are building to the same specification, only material costs, labour costs, efficiency and profit margin should be the only differences.
4. As the standards will also apply to all F/V imports, whether new or used, loopholes are closed for any poor quality imported boats (certificates of compliance required).
5. The work of inspectors/surveyors is easier, either the boat complies or it doesn’t with respect to construction standards.
6. In conjunction with an appropriate educational programme, advantages to the consumer of using such standards can be promoted (see also numbers 2 and 3).
7. If the standards are fairly comprehensive, the regular inspections required will pick up deficiencies during the construction phase and not after delivery when redress is sometimes difficult, especially if delivery is to a remote area.
8. The credibility associated with construction standards can provide a good selling point for the boatbuilder wishing to export his boats.

### **Constraints to regulation and construction standards**

Enforcement of construction regulations has typically been difficult in the beginning phases, though not as difficult if the industry is still relatively new. About 20 years ago one Eastern Canadian Province introduced construction regulations to address serious structural failure problems with open fibreglass skiffs between 5 m and 8 m (16 ft and 25 ft) LOA that were rapidly replacing traditional wooden skiffs. Builders were not well versed in fibreglass

construction techniques and were causing many problems. Over vigorous protests from builders that costs of compliance would be too high and drive buyers away, the government department responsible for F/V regulation imposed new fibreglass construction standards unilaterally. These new standards were based on existing rules (Lloyds) that were adapted for local conditions. In this case much heavier construction was mandated.

It is interesting that some years later the government department responsible for imposing those regulations was disbanded. This left the skiff builders to make their own decisions on construction standards. All builders without exception have voluntarily retained and are still using the original construction specifications as written. This we can assume to be an educated decision by both builders and the customer accepting that quality safety construction standards are beneficial to all.

As mentioned in FAO Fisheries Circular No. 993 FIIT/C993(En)<sup>5</sup>, inappropriate and overly complex standards will in all likelihood not be followed unless strictly enforced by a dedicated team of inspectors. This can be a costly and antagonistic approach. An alternative approach used in the Caribbean involved all stakeholders in designing a standard easily-used suite of construction standards suitable for the region and agreed to by all. This was a large and fairly complex programme running over a three-year period, including nine months of field work.

Elevated costs perceived to be associated with standards should be considered. Many fishermen will undoubtedly express concerns regarding cost of vessels built to construction standards. Educational programmes will be necessary to promote the benefits of such standards, particularly regarding safety issues. It is hard to convert the mindset of fishermen to consider safety until after an accident; this is a common trait worldwide.

Prior education/information seminars on the significance of safety construction standards for all stakeholders such as: boatbuilders, fishermen, financial organizations, banks, training institutes, insurance companies, fishery department personnel, coastguard/navy, search and rescue, and maritime legal specialists may all be involved depending on the jurisdiction. Getting consensus by all parties can be difficult.

### **Associated issues**

Introduction of safety construction standards may necessitate changes to existing laws or, alternatively, the less complex process of issuing regulations.

Inspection requirements for imports may or may not be required, depending on whether the imported vessels were built and certified to an Internationally recognized standards organization (i.e. Lloyds, SFI Auth, ABS, NKK, etc.). Whilst many of these organizations tend to concentrate on larger decked vessels, they can also be used as a guide for smaller open vessels of the type being considered here.

Environmental and health concerns regarding fibreglass construction are coming to the forefront in many jurisdictions, especially in medium to large operations. As most materials being used in fibreglass construction are recognized as toxic in various forms, these issues will have to be addressed at some point in the future.

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<sup>5</sup> Gillett, R. 2003. Aspects of Sea Safety in the Fisheries of Selected Pacific Island Countries. Fisheries Circular 993, FIIT/C993, Food and Agriculture Organization of the United Nations, Rome, 72 pages.

### **Lessons learned from other jurisdictions**

Poorly written tender specifications with no reference to any particular construction standards for small F/Vs have caused safety problems and considerable added costs for fishermen after vessel delivery. For example, in Central America a very large number of fibreglass skiffs of up to 8 m (25 ft) LOA were purchased with basically no more information to the builder than length, beam and depth. Some unscrupulous builders naturally took advantage of this and supplied inferior non-seaworthy boats.

Safety features such as floatation chamber dimensions are poorly understood by many boatbuilders. Recorded incidents in the Caribbean, Gulf of Aden, Africa and the Pacific involving swamping of skiffs are common. In many instances the boat with an O/B motor will float vertically only leaving the bow to hold on to.

In Sri Lanka, fibreglass boatbuilding has a long history. The first fibreglass fishing boats were built in the early 1960s mostly from adaptations of wooden craft that had been successful. These vessels were very heavily built in that, besides the fibreglass shell, they also included glassed-in hardwood frames and longitudinal members in the same numbers and dimensions as the wooden boats from which they were derived. This type of construction using wood is now considered superfluous or over-built.

Unless there is some effective way of enforcing construction standards when initially introduced, the chances of builders adopting them voluntarily are slim, only after some years of using the standards does it tend to become normal practice.

### **Points for discussion**

In this section a series of questions are asked that should make it possible to define a course of action that can result in a set of Construction Standards for Fibreglass Fishing Vessels commonly in use around the Pacific Islands region.

In the first place, is it necessary to have a uniform construction standard or specification for fibreglass skiffs and boats, or is the status quo completely adequate? The answers to this will determine the direction any future proposals may take in developing construction standards.

Training of inspectors may be required. Where and how can this training best be acquired?

There are several existing sets of internationally recognized construction standards for fibreglass boats of the type and size used in the region. Should the region adopt one of these or modify a selected model for regional conditions? The adaptation approach has been used in the Caribbean and appears to have a good chance of success. Why reinvent the wheel?

What boat size limits need to be applied to safety construction standards for fibreglass F/Vs, if any? In particular, the lower limit is important – many jurisdictions do not specify standards for vessels of under 4 m (13 ft) LOA, only load capacities.

Do factors within the region such as shortage of trained personnel, high raw material costs, high labour costs, lack of financing or inability of fishermen to pay prices demanded, make it difficult to produce well-built safe boats competitively? Do these foregoing factors virtually preclude competitive and safe local construction of fibreglass fishing boats and skiffs?

When instituting or considering introduction of construction standards, what are the perceived advantages/disadvantages of (a) construction standards mandated by law or (b) self-regulated by the industry and voluntarily applied?

Are there sufficient trained or willing personnel able to work in the fibreglass boatbuilding industry? If not, is there a suitable training institute(s) that could take this on or provide training services “in house” to the industry?

Should horsepower limits be instituted for O/B motors on fibreglass skiffs used for fishing? Overpowering and high speeds can cause hull and structural failures in many F/Vs, even when properly built to high standards. This approach is being tried in some jurisdictions but with mixed results.

The issues regional construction standards are likely to arise:

- Are regional construction standards desirable and/or practical?
- Is there the will in Pacific Island countries to address the issues of construction standards and all this would imply?
- Would it be possible to devise fibreglass construction standards suitable for the majority of nations and their obviously diverse fleets of fishing vessels?
- What would be the best way in which to obtain input from all stakeholders from around the region to obtain meaningful inputs and consensus from stakeholders for any proposed construction standards?
- How detailed should any regional construction standards be?

Other issues:

- How will construction standards be enforced and by whom?
- How should the importation of used F/Vs be handled with regard to compliance with any proposed construction standards and should all imports have to comply with new standards or get exemptions? Should age limits be imposed on used imported F/Vs? This will help in weeding out old worn out, unseaworthy and unsafe F/V's being sold off at “bargain prices”.
- Should any initial construction standards include materials other than fibreglass?
- Should modifications to existing vessels be permitted, such as increasing length and volume or adding more HP? In some well-documented cases this has resulted in structural failure and loss of vessel.

## DISCUSSION PAPER 4

### ENHANCING SYSTEMS FOR SEA ACCIDENT DATA RECORDING

#### **Introduction**

Effective administration of sea safety programmes for small fishing vessels depends on adequate data resources. Without reliable and statistically valid data, sea safety deficiencies are more difficult to identify. Accurate historical and current data on vessels, fishermen, professional qualifications, fishing methods, environmental conditions and safety performance of personnel and equipment are fundamental to both identifying sea safety problems and monitoring the results of sea safety programmes.

The recording of data on sea accidents involving fishing vessels was recently investigated in a survey conducted by FAO in five Pacific Island countries. The survey concluded “the readily available data on sea accidents falls short in its potential in promoting sea safety”. The data that is available is often not being used for systematic performance evaluation of sea safety programmes. As a result, most countries have difficulty in quantifying sea safety problems, determining causal relations, assessing sea safety improvement strategies and developing effective sea safety awareness programmes.

#### **Why is this topic important?**

The compilation and analysis of sea accident data can be a valuable tool for creating a greater awareness and political will within government administrations to address sea safety issues. Furthermore, without reliable data, sea safety shortcomings cannot be identified with clarity and sea safety strategies cannot be implemented effectively.

Reliable data can assist countries in identifying:

- the dollar/human costs associated with sea accidents and whether resources committed to sea safety are being used effectively and efficiently;
- whether sea safety problems vary due to season, area, vessel configuration or fishing gear type; and
- the importance of any particular cause or type of sea accident.

This information is vital for the formulation of effective legislation and development of sea safety enforcement strategies.

The costs associated with sea accidents and implementing strategies to improve sea safety are significant. Search and rescue operations, enforcement activities and sea safety awareness programmes require substantial resources. The cost of implementing and maintaining a sea accident data programme is relatively low compared to the benefits that can be derived from it. These include identifying sea safety problems, assessing sea safety strategies and measuring the effectiveness of sea safety awareness programmes.

## **Constraints**

The major constraints to the implementation and maintenance of effective sea accident data programmes for small fishing vessels include:

- Lack of awareness on the part of government officials of how useful accident data can be in improving safety. Most government officials do not realize that it is not difficult to start a sea accident programme. This lack of awareness results in minimal support in the allocation of resources for implementing and maintaining sea accident programmes.
- The agencies responsible for sea accident data collection are not clearly defined in most Pacific Island countries. Often there is a lack of coordination amongst agencies that are directly involved with information on sea accidents. This often results in crucial data not being collected and analysed and in conflicting data.
- Because the majority of sea accidents occur from vessels in isolated rural ports and outer islands, it is sometimes difficult to collect reliable data on a timely basis.
- A lack of even the modest human and financial resources required for collecting, recording, analyzing, and distributing data.
- In some countries where good accident data is collected, it is not consolidated and analysed at regular interval, but rather “filed away” and not used.

## **Associated Issues**

### ***Regulations and Enforcement***

The compilation and analysis of data recorded from sea accidents can help identify some specific sea safety deficiencies. The agencies responsible for sea safety should be made aware that this information is very useful in developing appropriate regulations to address sea safety problems. Also, where regulations have been established for specific sea safety problems, the accident data can be used to assess whether those regulations and associated enforcement strategies are effective or not.

Sea accidents are often the result of basic sea safety procedures not being followed. Small fishing vessels, in particular, often do not carry sea safety equipment that could assist in avoiding accidents. Also, the crew is often not properly trained to follow basic sea safety procedures when accidents occur.

### ***Fisheries Management***

If “fisheries management” is defined to be action in support of established fisheries objectives, then saving lives at sea could be considered as a possible objective of fisheries management. Sea accident data that includes the vessel type, fishing season, fishing activity and gear type can be instrumental in developing a safety objective suitable for incorporation into management strategies.

### ***Data Collection***

Collecting data concerning sea accidents in remote rural areas and outer islands can be quite difficult. As the agencies responsible for sea safety are often located in urban centers, often sea accidents are reported long after the event or not reported at all. To implement a comprehensive data collection programme, government agencies may need to involve communities.

### **Lessons learned**

The lessons learned in the collection, recording, analysis, and utilization of sea accident data for small fishing vessels include:

- An exchange and sharing of data with relevant stakeholders (i.e. marine surveillance, Police Department, insurance companies, fishing industry, communities, etc.) are often required to facilitate the improvement of sea safety. The establishment of an advisory group to address sea safety issues can provide a forum for sharing sea accident data. In Samoa, a Commercial Fisheries Management Advisory Committee (CF-MAC) comprised of members from the fishing industry and relevant government agencies made a significant contribution to the development of legislation and strategies to improve sea safety.
- A single government agency should be identified as the lead agency for implementing and maintaining sea accident data programmes. This could help eliminate some of the difficulty in coordinating the efforts of a number of agencies in collecting, recording and analyzing sea accident data.
- To maintain the database it must be monitored and corrected on a regular basis to ensure the validity of the data (i.e. correcting the list of people lost at sea who turn up months later). The individuals responsible for collecting, recording, analyzing and distributing sea accident data should be made aware of the importance of their work.
- Stakeholders should be made aware of the benefits from the analysis of the sea accident data. Their support is critical to the success of sea safety initiatives.

### **Points to be discussed and possibly resolved**

The group is invited to discuss and hopefully come to conclusions on the following topics:

#### ***Lack of awareness in government administrations***

- How can government organizations be made more aware of the importance of implementing sea accident data programmes?
- Would the development of a presentation detailing the requirements and benefits of sea accident data programmes for government administrators be useful? What promotional materials would be required?
- Should other stakeholders be included in awareness-raising initiatives to support sea accident data programmes?

***Problems/Issues to consider with data collection***

- Readily available data on sea accidents involving vessels including passenger, cargo and pleasure craft is limited in most Pacific Island countries. Is there merit in singling out fishing vessels when designing and implementing sea accident data programmes?
- What are the initial steps a country should take in starting a sea accident data programme?
- What types of data should be incorporated in a sea accident data programme?
- What types of analysis can be made with the data?
- What sea safety strategies can be developed from the data?
- What are the difficulties in establishing and maintaining a sea accident data programme?
- Is there merit in designing a generic sea accident data programme that could be used as a model for Pacific Island countries to follow?

***Problems/issues to consider with data management***

- What are the difficulties in creating the political will to act on sea accident problems identified through data analysis?
- What government agency should be responsible for promoting, implementing and maintaining a sea accident data programme? Should Fisheries Departments take a major lead in promoting sea accident data programmes?
- What are the costs involved in implementing and maintaining a sea accident data programme?
- What type of training is required for the individuals responsible for sea accident data programmes?



## IMPORTANT CONCLUSIONS FROM EACH DISCUSSION GROUP

- **Conclusions on Appropriate Sea Safety Regulations for Small Fishing Vessels**
- **Conclusions on Improving Small Boat Sea Safety Awareness Programmes**
- **Conclusions on Construction Standards for Small Fibreglass Fishing Vessels**
- **Conclusions on Enhancing Systems for Sea Accident Data Recording**

### Appropriate Sea Safety Regulations for Small Fishing Vessels

The conclusions of discussion groups on appropriate regulations (as modified by a plenary session) are:

- 1) Political will is essential to:
  - start the legislative/regulatory process;
  - enact the legislation; and
  - promote enforcement and compliance.

The generation of political will through awareness (e.g. publicizing the cost of search and rescue, lives lost) is therefore quite important.

- 2) There could be considerable benefits from using existing appropriate traditional/community institutions (e.g. island and provincial councils) for: (a) increasing acceptance of, and compliance with, sea safety regulations in the outer island situation; and (b) the adoption of recommended safety procedures in remote communities. Substantial time, effort and resources will be needed to create the conditions (e.g. local by-laws) leading to enforcement and compliance. The issue of placing traditional controls on non-traditional activity should be given due consideration.
- 3) Recognizing that in most cases the government agency responsible for transport/marine affairs is the entity responsible for sea safety legislation. Accordingly:
  - Full consultation with the fisheries sector especially the end users (fishermen) is essential to develop effective fishing vessel sea safety legislation. This may entail development of mechanisms for consultation where none exist.
  - For the legislation to function properly, this consultation must be appropriately reflected in the resulting legislation.

- 4) Priority should be given to efforts that encourage compliance with small fishing vessel sea safety requirements, rather than focusing on enforcement and penalties.
- 5) Legislation should be simple, easy to interpret, and drafted in plain words, with the recognition that there must be an appropriate balance between using understandable language and being legally rigorous.
- 6) Even where legislation is difficult to enforce, there is value in having appropriate and publicized legislation to act as:
  - a target to aim for – applicable to both individuals and governments;
  - a basis for local rules;
  - a useful standard which can be a requirement for a fishing licence, loan approval, etc.
- 7) It may not be desirable (or practical) to legislate for unrealistically high safety standards/requirements, particularly in the short term. Alternatives could be:
  - to specify an ideal standard (e.g. one type-approved lifejacket per person) and include an “exceptional circumstances” caveat (e.g. a competent authority-approved alternative such as a longline fishing float);
  - to allow the “equivalency” concept in which an alternative is acceptable, such as not requiring an EPIRB if two vessels remain together during a fishing trip.
- 8) Fishing vessel sea safety legislation should not be developed in isolation from the legislation covering other activities of small vessels (e.g. diving, resort fishing, charters). In the legislation, references should be made to appropriate complementary legislation (e.g. crew certification, vessel construction standards). Legislation should be readily accessible and come as a package, including appropriate extracts of related legislation.
- 9) The lower limit and classes of vessels to be regulated will be influenced by:
  - social sensitivity,
  - the need capture high-risk vessels,
  - the size of administrative burden,
  - risk,
  - the area of operation,
  - in certain circumstances, horsepower.

Simple, easy-to-use measures should be used for categorizing vessel size (e.g. length is easier to apply than tonnage).

- 10) Sea safety legislation will usually contain various legal requirements for equipment, personnel and operating procedures. Some aspects of sea safety legislation will need to be introduced immediately, and others phased in over time.

- 11) While cost-benefit issues do exist and there are other competing priorities, there would be value in registering small fishing vessels. These include:
  - easy identification of vessels involved in sea safety incidents;
  - enforcement of sea safety requirements (e.g. ability to check sea safety compliance at point of new or used sale);
  - estimation of fishing capacity (fisheries management implications).
- 12) Because outboard engine breakdown is likely to be responsible for a large portion of sea accidents, at least one person in an outboard powered boat should have some form of formal certification in outboard engine repair.

### **Conclusions on Improving Small Boat Sea Safety Awareness Programmes**

- 1) Improved small boat safety will best be undertaken through the development and implementation of coordinated national strategies.
- 2) The development of such national strategies will require the establishment of a consultative stakeholder framework.
- 3) Safety awareness programmes should comprise a combination of awareness initiatives and formal and informal training. These should be directed not just at fishers but also at communities and governments.
- 4) Successful sea safety awareness programmes require the identification of committed and motivated people (“movers and shakers”) within an organizational framework.
- 5) Safety awareness is a community extension task and not just a fisheries extension task.
- 6) Community extension activities should be a key component in raising awareness on sea safety.
- 7) There is a need to monitor the impact of safety awareness programmes through community consultation and data collection.
- 8) Improved safety awareness requires the development of additional awareness resources, which should include the following features:
  - focus on causes and on appropriate technology;
  - safety as a fisheries management objective;
  - importance of data collection;
  - promotion of regulations and standards;
  - promotion of safety as a community and political issue.
- 9) Where applicable, safety awareness resource material should be made available in local language.
- 10) An SPC Special Interest Group and associated information bulletin on small boat safety should be established as a mechanism to assist in safety promotion.

### **Conclusions on Construction Standards for Small Fibreglass Fishing Vessels**

- 1) The requirement for a regulation should be determined without regard to the difficulties associated with its enforcement. However, a process of consultation with all stakeholders should take place with a view to ensuring willing compliance.
- 2) A mandatory standard for the construction of small FRP fishing vessels is required to improve safety in the region. There are advantages of having a standard uniform across the region. The standard should address:
  - plan approval,
  - construction,
  - built-in buoyancy,
  - maximum loading (and a hull mark denoting the max loading),
  - engine size limit,
  - colour of hull and open areas inside the vessel,
  - handholds (both in upright and in capsized position),
  - storage of FRP materials and resins,
  - boatbuilding premises and environment,
  - building certificate and metal plate fixed to boat (builder, maximum horsepower and loading).
- 3) The standard should be based on an existing standard (e.g. Lloyds or White Fish Authority) and finalized through a facilitated process of national and regional consultations which include boatbuilders, marine and fisheries administrations, fishermen's representatives. The standard should be easy to understand, be illustrated and translated into local languages as appropriate.
- 4) All small FRP fishing vessels which are imported into the Pacific Islands region should be built to a standard (or comply with a standard) which is no less stringent than the Pacific Islands construction standards. Investigation might be required to determine whether this requirement would not be in contravention of international trade agreements.
- 5) There should exist a mandatory requirement concerning the carrying of safety equipment at sea. The equipment should reflect the level of exposure to risk, the availability of safety equipment and the purchasing power of the boat owner.
- 6) The difficulties of some fishermen to comply with mandatory requirements on safety equipment must be taken into account. The competent authority could in exceptional circumstances permit alternative safety equipment, provided it is approved by the Authority.
- 7) Countries should be encouraged to register all fishing vessels and carry out associated safety inspections.

- 8) All fishermen should have the opportunity to attend periodical training in basic sea safety, following which they would receive a certificate mentioning the scope of the training. The competent authorities should consider the feasibility of making such training a mandatory requirement. It might be feasible to have a mandatory requirement that at least one person on the boat is in possession of a valid certificate of attendance.
- 9) To ensure the ongoing feasibility of all of the above, an assessment of the human and financial resources required by the competent authority should be made in each of the Pacific Island states. It should also consider the required levels of skills and expertise, the extent of current and ongoing training needs and the existence of regional and national training institutions to provide this training. This latter point might also be considered in respect of training of boatbuilders and fishermen.
- 10) There is a need for more data on small fishing vessel problems in order to determine what items should be regulated.

### **Conclusions on Enhancing Systems for Sea Accident Data Recording and Analysis**

- 1) A multisectoral approach that includes all stakeholders must be used to obtain political will to move forward. One agency should not move ahead alone.
- 2) The coordinating agency in data collection should be the entity responsible for search and rescue.
- 3) A single agency should be identified to facilitate sea accident data programmes and assess existing programmes to identify gaps, deficiencies, or successes.
- 4) A data collection and analysis programme should be designed in such a way that:
  - it is applicable to all main types of seaborne activities;
  - it has the ability to extract statistical information to enhance the utilization of resources;
  - it contributes to the strengthening of sea safety strategies.
- 5) A separate data collection programme for sea safety information may not be required. Collection of data important for sea safety (e.g. vessel numbers), including that from isolated communities, can be included in normal governmental statistical collection programmes and/or through existing reporting pathways.
- 6) Because a history is needed to make the database a useful tool, a strong commitment by all parties is required to allow its growth.
- 7) A generic database programme should be formulated that can be applied throughout the region, and training provided to enable compilation of statistics and useful analysis of sea safety concerns/issues.
- 8) Sea accident data should be compiled on a regular, rather than ad hoc basis, and analysed at least annually for a report to be distributed to relevant stakeholders as well as regionally.

- 9) Sea accident data should be used in developing, implementing, and improving fisheries management and maritime-related initiatives.

## NOTES ON IMPLEMENTING THE RECOMMENDATIONS

The following is a non-exhaustive list of important factors for national governments to consider when implementing the recommendations of the consultation.

### 1) **Provision of support to a consultative national stakeholder framework (e.g. national sea safety coordinating group) and motivated people or “drivers”**

#### How to do it?

- Identify a lead agency, but encourage a wide range of stakeholders to actively participate in and drive the process. If results come, interest will be maintained if such a committee is ineffective the reverse will happen.
- Strive for recognition of the national coordinating body as a committee of substance (e.g. by getting Cabinet sanction and/or a high level mandate).
- Be aware of differing interests that could arise from setting up a large sea safety committee (e.g. large and small operators (longliners vs. skiffs)). It is important that safety issues for larger vessels do not over-shadow small fishing vessel safety.

#### Who should do it?

- Explore use of existing committees (e.g. give the Marine Board or equivalent the role of a coordinating committee in sea safety).
- A wide range of groups should be encouraged to act as drivers (e.g. fisheries agencies, marine authorities, the private sector).

#### What resources are needed?

- Ongoing resources for national sea safety programmes must be capable of being met from the recurrent budgets of government, the private sector, or other likely local contributors.
- Some costs will be associated with coordinating committees and structures. There is a need to be cautious about approaches to regional and other outside agencies as those contributions are not likely to be continuous. Furthermore, they may distort the process – there is some concern that an individual’s participation could be driven by the benefits from outside intervention, rather than a desire to improve sea safety (e.g. expectations of attendance money at committee meetings).

### 2) **The generation of commitment and political will at a national level to address small vessel sea safety**

#### How to do it?

- Use high profile, quality data focusing on loss of lives and wasted money (e.g. patrol boat time) to influence the opinions of high-level national politicians.

- Target key national politicians with an interest in sea safety and who would see benefits, especially to their electorate, in supporting the development and implementation of an effective sea safety strategy.
- Draw attention to all small vessel accidents, including those in other sectors.
- Emphasize the social effects of sea safety accidents (e.g. family of casualty left without breadwinner).
- Make full use of multimedia (press, television, etc.) to get message across. Educate national media to the real issues affecting sea safety and follow up the facts behind safety incidents. This may reduce the promotion of some survivors as “heros” rather than those who may have benefited from greater attention to sea safety.
- Build on and learn from other success stories in national awareness raising (e.g. AIDS programmes).
- Focus on simple and highly effective awareness-raising initiatives (e.g. “safety saves lives and money”) – easy messages to sell to politicians and the public.
- Use HoF and CRGA to publicize, raise profile, seek funds, and stimulate less willing countries in safety issues, noting that in many countries the fisheries agency may not be the lead agency on sea safety issues.

#### Who should do it?

- National drivers are required and these will vary by country. Efforts will also be needed by a range of pressure groups (e.g. Chair of safety committee; regional agencies, women’s groups).

#### What resources are needed?

- No resources are likely to be available or required for directed political activities.

### **3) Increasing the effectiveness of ongoing sea safety awareness programmes, with special emphasis on (a) the development of channels for the efficient distribution of appropriate and updated materials, and (b) evaluation of past and present impact**

#### How to do it?

- Efforts should be focused on identifying bottlenecks and establishing effective channels to get material out from government agencies and into the hands of end users (fishers, communities, etc.).
- A range of other agencies circulating and working in communities should be used to distribute and sell sea safety messages. The possibility of “piggybacking” on the distribution network of other agencies should be considered. Provision of materials to teachers could be especially effective.
- Consideration should be given to mounting national sea safety campaigns, including ads in newspapers and radio, possibly including professional advice on best way to use resources and achieve results.
- Translation of more regionally-available sea safety awareness material into local languages should be considered.
- Packages of sea safety materials should be prepared for distribution to the purchasers of new vessels or as a part of a licensing process.



Who should do it?

- Sea safety awareness is a national responsibility.
- SPC will continue to produce awareness material which should be complementary to in-country efforts under national sea safety awareness strategies.
- There is a danger that regional programmes have led fisheries and other agencies to believe that SPC “does fishing vessel sea safety” and that this is the only effort required.

What resources are needed?

- The current SPC budget for awareness materials is US\$15 000. It should be noted that these financial resources are constraining sea safety awareness activities at SPC.
- More resources should be channeled into the production of materials in local languages.
- The evaluation of the impact of the awareness materials is especially important considering the limited resource available for material production.
- Consideration should be given to using the media units of educational institutions to develop awareness materials.
- Other institutions may be willing to provide additional materials.

**4) The development, enactment and implementation of appropriate and sensitive legislation for small fishing vessels, including the carriage of safety equipment, training/certification requirements, and construction standards**

How to do it?

- A prerequisite is that the country wants and supports the use of legislation to increase fishing vessel safety, and that high-level political commitment exists. Good briefings will assist in creating these conditions.
- When external legal expertise is used to draft legislation, a partnership approach (counter-parting) should be used to increase ownership.
- An effective consultative process is essential. This will increase the chance of draft legislation being enacted and implemented.
- As the legislation conditions vary widely between countries, it is often best to provide model legislation which has considerable flexibility for modification to suit varying national conditions.
- Safety legislation should be developed in conjunction with, and be complementary to, other related legislation.
- It is necessary to follow up and support post-drafting activities to encourage the enactment and implementation of legislation.
- It is important to learn from past experience with small fishing vessel safety legislation, including successes (Samoa, Niue) as well as non-successes.
- Make use of appropriate existing model legislation, such as the Pacific Islands Maritime Legislation and Regulations (PIMLAR) prepared by SPC, which includes small fishing vessel safety.

- In some countries, the use of provincial/state law mechanisms may be more appropriate than that of the national government.
- The primary legislation should provide policy guidelines, with details in regulations.

Who should do it?

- Ultimately safety legislation is a national responsibility, but external assistance is often available.
- There is considerable value in using regional organizations (FFA, SPC) that have already provided fisheries and maritime legal advice to assist national legal departments with sea safety legislation.
- The FFA legal section should be alerted to the issues surrounding sea safety legislation, since in some countries, fisheries law may include sea safety.

What resources are needed?

- Bilateral financial assistance may be available for such activities.

**5) The determination of minimum mandatory requirements for each class of small fishing vessel with due regard to operational circumstances**

How to do it?

- The regulations should take full account of the difficulties associated with cost, remote communities, and availability of equipment.
- Whether or not to implement a requirement should not be determined solely by the difficulties associated with its enforcement.
- The safety problem must be identified and defined, making use of any safety database.
- The determination must include a consultative process.
- Regional successes in the introduction and implementation of mandatory sea safety requirements should be considered.

Who should do it ?

- The responsible government agency as determined by the legislation.
- Outside assistance could be used to complement local expertise.

What resources are needed?

- The resources required for extensive consultation should not be underestimated.

**6) The full use of existing institutions and community-based structures for increasing compliance, data collection, training and awareness, taking into account the time and resources required**

How to do it?

- Community responsibility for improving the safety of their fishermen and others who go to sea on small vessels should be encouraged.
- The ability/capacity of existing structures to facilitate sea safety outcomes should be determined. Gaps should be addressed through training and judicious use of assistance.
- Communities that are most likely to be successful in increasing sea safety standards should be targeted, based on past performance, need, and likelihood to accept and act on safety initiatives. Key individuals in these communities should receive special attention.
- Efforts should be made to publicize legal requirements and regulations to fishers in outer islands.
- Use should be made of good examples from other sectors where regulations have been enforced effectively at community level.
- Once community structure and leaders are identified, they should be involved in a national sea safety group to obtain “grass roots” input into safety strategies.

Who should do it?

- The use of incentives, possibly in kind, should be considered to encourage community groups to assist with sea safety initiatives, including the supply of accident data.

What resources are needed?

- Sufficient resources to ensure adequate follow up and support for communities in the long term.

**7) The development and phased implementation of appropriate enforcement procedures to ensure compliance**

How to do it?

- Enforcers should be made fully aware of what they are enforcing, how to enforce it, and applicable penalties.
- A lead enforcement agency should be identified, based on capability, resources, etc.
- Penalties and publicity of successful prosecutions may increase the level of compliance (e.g. major high-profile “busts”).
- A grace period should be considered for remote communities. If this is to be the case, this period should be used to mount an intensive publicity campaign.
- After any grace period, there must be firm follow-through when regulations and penalties are implemented. Political interference should be avoided in the application of regulations and penalties.

- Comprehensive vessel inspections are not likely to be an option for remote communities. In that case, enforcement based on spot checks at congregation points (e.g. fish landing sites) could be effective in improving compliance.
- In some circumstances, boat registration could assist with enforcement efforts (e.g. inspection of safety equipment or certificates of competency as a prerequisite for licensing).

#### Who should do it?

- Ultimately, communities must be involved in efforts to improve sea safety.
- Even with community involvement, some use of national agencies (where they exist) will be required.
- Dependence on non-existent or ineffective enforcement agents, particularly in remote communities, should be avoided.

#### What resources are needed?

- Effectively enforcing sea safety regulations will be a massive job requiring a large amount of resources.
- There is some possibility that the cost of enforcement could be reduced if effective consultation is carried out prior to formulating and enacting regulations.

### **8) The development and maintenance of a national sea accident database**

#### How to do it?

- Consider using a regional approach to coordinate and assist efforts.
- Small vessel accident reporting should be mandatory, taking account of existing systems.
- General information important for the accident database (e.g. numbers of vessels) can often be obtained using other information systems (e.g. census data, results of household income and expenditure surveys).
- The agency responsible for the database should be required to do periodic analysis and produce annual reports which should be publicized and made available to stakeholders.
- There are advantages of involvement of regional agencies in the coordination of national small vessel accident database and assistance with analysis.

#### Who should do it?

- National authorities, with some regional assistance.

#### What resources are needed?

- The resources required depend on the present national situation: some countries have no national database, some countries have a database but it is less than fully effective, and other countries have good systems.

**9) Support for the establishment of an SPC fishing vessel safety at sea special interest group<sup>6</sup> and associated newsletter and the development of additional sea safety awareness resource materials**

How to do it?

- Endorsement for a special interest group (SIG) should be obtained from the SPC Heads of Fisheries (HoF) Meeting.
- Lessons learned from establishing other SPC SIGs should be considered.

Who should do it?

- It is highly preferable to have a paid part-time editor to encourage and coordinate contributions from SIG members.

What resources are needed?

- A good idea of the required resources could be obtained by SPC Information Section which has established other SIGs.
- Some resources may at present be available at SPC.

**10) Investigation of the advantages and disadvantages of the establishment of national small fishing vessel registration schemes and inspection schemes**

How to do it?

- There is a need to carefully establish upper and lower limits of the vessels to be covered.
- Lessons learned should be studied, including registration schemes in other sectors, and vessel registration schemes in other regions.
- Consider benefits of having a similar vessel registration database and inspection regime.
- The results of the investigation should be publicized.
- The processes of registration and inspection should be complementary.

Who should do it?

- National authorities with assistance from regional organizations.

**11) Formal and informal training directed at fishers, fishing communities, government staff, NGOs, the private sector and other stakeholders**

How to do it?

- A needs assessment should be carried out for sea safety training at a variety of levels.

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<sup>6</sup> SPC has established special interest groups (SIG) in several areas, including fisheries training, traditional marine resource management, trochus, women. Each SIG has an informational bulletin, editor, and members who contribute articles and exchange information.

- Existing local capacity (human and institutional) should be used, and consideration should be given to reorienting the priorities of existing training institutions and fisheries agencies.
- The focus should be on training at the workplace and in the community, rather than on institutional training.
- Informal training should include NGOs, extension, short workshops, radio, and TV.
- There is the possibility that a regional sea safety programme could include training. This should be built on needs assessment and could be attractive to donors.

#### Who should do it?

- SPC has undertaken various fisheries-oriented training needs assessments.
- Ideally, training would be implemented by existing institutions and a network of national trainers, extension agents and training bodies.

#### What resources are needed?

- Resources for any SPC sea safety training needs assessment.
- Training resources (personnel and materials) could come from a wide range of sources, including the private sector.

### **12) Consideration of the inclusion of sea safety as an integral part of fisheries management and development initiatives**

#### How to do it?

- Highlight to fisheries managers of the region the justification of including safety in fisheries management/development initiatives.
- Highlight with FFA and others responsible for providing management advice the justification for promoting sea safety as a legitimate part of tuna management development initiatives.
- Use a meeting attached to, or part of HoF (like the coastal management workshop) to publicize the concept.
- Include safety in the FFA tuna management and development plans.
- Include safety in the SPC Coastal Fisheries Programme strategic plan.
- Check management and development measures against sea safety considerations (e.g. area closures, time closures, effort limitation, vessel size).

#### Who should do it?

- Initially, SPC and FFA staff.
- National fisheries managers.

#### What resources are needed?

- Attitude change is required, which may not depend on funding.
- Sponsorship, if any, to enable getting the subject on the HoF agenda.

## ACRONYMS USED IN THIS REPORT

APIMTIMA	Association of Pacific Islands Maritime Training Institutions and Marine Authorities
CFP	Coastal Fisheries Programme
CRGA	Committee of Governments and Administrations
EPIRB	Emergency Position Indicating Radio Beacon
FAD	Fish aggregating device
FAO	Food and Agriculture Organization of the United Nations
FFA	Forum Fisheries Agency
ForSec	Pacific Islands Forum Secretariat
FSM	Federated States of Micronesia
FRP	Fibreglass reinforced plastic
FV	Fishing vessel
HoF	SPC Heads of Fisheries Meeting
IMO	International Maritime Organization
LOA	Length overall
NGO	Non-governmental organization
OBM	Outboard motor
PIMLAR	Pacific Islands Maritime Legislation and Regulations
PNG	Papua New Guinea
PPB	Pacific Patrol Boat Programme
SAR	Search and Rescue
SPC	Secretariat of the Pacific Community
SIG	Special interest group
SPREP	South Pacific Regional Environment Programme
TCP	Technical Cooperation Programme
USP	University of the South Pacific

In early 2003, the Food and Agriculture Organization of the United Nations (FAO) undertook a survey on fisheries-related sea safety in the Pacific Islands region. The objective of that work was to consolidate the experience gained by selected countries in safety at sea with a view to improving ongoing and future activities in the region. A major conclusion of the survey was that the majority of loss of life in the Pacific Islands region is associated with small fishing boats which have received the least attention in terms of legislation, construction standards, enforcement strategies, regional discussions, training on proper use, and other schemes to improve safety. The report of the survey indicated that many of these issues have facets that involve law, naval architecture, search, rescue, community awareness, maritime administration, fisheries and other fields. FAO and the Secretariat of the Pacific Community (SPC) agreed that a meeting attended by motivated people having expertise in these disciplines could have a very positive effect on regional and national sea safety programmes. The FAO/SPC Regional Expert Consultation on Sea Safety in Small Fishing Vessels held in Suva, Fiji, from 9 to 13 February 2004 was intended to produce this outcome.

