SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMME

REPORT OF THE FIRST MEETING AND WORKSHOP OF THE REGIONAL MARINE TURTLE CONSERVATION PROGRAMME (RMTCP)

(Noumea, New Caledonia, 13-15 August 1990)

South Pacific Regional Environment Programme
Noumea, New Caledonia
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SESSION I

1. INTRODUCTION

1.1 Welcome by Secretary-General, South Pacific Commission

The meeting was opened by the Secretary-General of the South Pacific Commission (SPC), Mr Atanraoi Baiteke who welcomed the participants. The Secretary-General referred to the fact that except for the work of a few organisations, little had been done to foster and encourage a regional approach to marine turtle conservation since the joint South Pacific Commission/US National Marine Fisheries Workshop, held at SPC Headquarters in 1979. He complimented SPREP on the development of the RMTCP and expressed concern that unless concerted action was undertaken under the RMTCP, the South Pacific would find itself in a similar situation to many other regions of the world where marine turtle populations have been decimated. He expressed gratitude on behalf of the SPC and SPREP for the interest in and support shown by the Canadian and Australian Governments for the RMTCP.

1.2 Welcome by the SPREP Co-ordinator

The Co-ordinator of SPREP, Dr Vili Fuavao, added his welcome to that of the Secretary-General and emphasised the importance SPREP was placing on the successful implementation of the RMTCP as a means of fostering and encouraging the conservation of marine turtles in the region.

1.3 Election of Chairman and adoption of agenda

Mr Moses Nelson, Federated States of Micronesia, was nominated and elected Chairman of the meeting unopposed. The agenda was adopted with minor additions (see Appendix I).

1.4 Review of the RMTCP and meeting objectives

Mr Peter Thomas, Protected Areas Management Officer, SPREP, reviewed the development of the RMTCP over the past two years, since a recommendation calling for such a programme was passed at the Intergovernmental Meeting on the SPREP Action Plan held in Noumea, July 1988. He noted the valuable assistance SPREP had received from the Australian National Parks and Wildlife Service (ANWPS) in the development of a draft RMTCP in 1989, which was subsequently reviewed and revised by the Marine Turtle Expert Working Group at the Fourth South Pacific Conference on Nature Conservation and Protected Areas held in Port Vila, Vanuatu, September 1989. This group had been funded by the Secretariat of the Convention on International Trade in Endangered Species (CITES) and its work was instrumental in ensuring the subsequent adoption of the RMTCP by the Conference plenary (see Appendix III).

Following adoption by the Fourth South Pacific Conference on Nature Conservation and Protected Areas, support for the implementation of the RMTCP had been sought. Generous funding support by the Canadian Government for three years under the Canadian South Pacific Ocean Development Programme (CSPOD) to enable key elements of the programme to be implemented had been forthcoming. Additional support from the Australian Government to assist with some aspects of the first phase of the RMTCP implementation was also welcomed.

The continuing support and interest in the programme by the ANWPS was noted, as was the support of the Queensland Department of Environment and Heritage (QDEH) and the US National Marine Fisheries Services (NMFS). These organisations had made the attendance of marine turtle experts on their staff possible and were meeting the costs of their time as a contribution towards the RMTCP.

The overall objectives of the meeting were outlined as being:

(i) to provide an opportunity to brief appropriate personnel from the Fisheries and Conservation Divisions of the countries likely to be involved in the implementation of the RMTCP and from interested government and non-government organisations on progress with its development;

(ii) to provide a forum for the co-operative development and co-ordination of national level sub-programmes based on a number of standard activities to be identified by the meeting;

(iii) to obtain a consensus on the approach to be developed for regional aspects of the RMTP such as the development of the regional data base and educational activities;

(iv) to discuss and obtain agreement on the standardisation of methodology and techniques for turtle census and tagging activities.

It was anticipated that the meeting would provide the operational "blueprint" for the implementation of the RMTCP over the next three years.

1.5 Funding and support considerations

With regard to funding and other support for the RMTCP, the meeting noted that this had been forthcoming from several sources:

(i) Canadian Government Support

The meeting was informed that SPREP has an agreement with the **Canadian Government**, through the Canadian South Pacific Ocean Development Project of the International Centre for Ocean Development, to undertake a joint project for the implementation of the RMTCP over a period of three years (1990-1992 inclusive). The total funding available was $CAN 343,000. Approximately $CAN 100,000 is available for RMTCP related activities in each of three years. A breakdown of annual budget components revealed the following expenditure levels:

1.	Steering Committee and Project Co-ordination	$CAN	45,000
2.	Data Base Development	$CAN	57,000
3.	Population Survey and Monitoring Activities	$CAN	180,000
4.	Education Activities	$CAN	30,000
5.	Contingencies	$CAN	31,000
		$CAN	343,000

The meeting further noted that the Canadian Government had indicated its strong desire to see maximum funding allocated to the South Pacific national sub-programme (census, tagging, education) elements and support for South Pacific country participation at the Steering Committee Meeting. Several participants expressed the view that the amount allocated for educational activities was insufficient and would need to be increased, possibly through a reallocation between the various budget lines.

(ii) Australian Government

As part of its annual extra-budgetary contribution to SPREP the Australian Government had committed $A 50,000 towards the RMTCP (for 1990 only). Following discussion with both major supporting governments, it was agreed the Australian Government contribution will be principally aimed at meeting the data base and information funding requirements of the project and support for project co-ordination.

(iii) Research

The Greenpeace organisation had pledged modest financial support for the programme. In addition, a generous offer of the use of Greenpeace research vessels to assist with the implementation of population census and tagging programmes in some countries had also been made, subject to the availability of the vessels.

(iv) In-kind assistance

Several organisations interested in the conservation of marine turtles in the South Pacific have volunteered in-kind support for the project in the form of meeting salary costs of participants at the Steering Committee Meeting and for other project activities. These include the Australian National Parks and Wildlife Service, Queensland Department for the Environment and Heritage and the US NOAA, National Marine Fisheries Service.

The workshop also noted that there was considerable scope for additional support to be generated for the overall RMTCP and that in time, the level of additional interest and support for marine turtle conservation in the South Pacific from other agencies and organisations would be one measure of the success of the programme.

1.6 Review of marine turtle conservation and management activities underway in the South Pacific

Participants provided a brief summary on his or her government or agency's marine turtle conservation activities in the South Pacific.

1.6.1 Federated States of Micronesia (FSM)

There are approximately ten nesting grounds in the whole FSM, most of which are quite isolated and far from the centres. Transportation to these areas becomes a problem, as it can be hazardous and costly. Ferrying field workers and supplying them is costly due to the great distances involved and dangerous because of the duration of prescribed work plans and the relative isolation of the locations involved.

In the early 1970's Dr M. McCoy pioneered some conservation, tagging and head-starting work in the Yap outer islands' nesting areas. The results of this work were widely circulated amongst international organisations. However, little publicity was effectuated among the principal users of the resources. Details of McCoy's work can be found in *Biology and Conservation of Sea Turtles*, edited by Bjorndal and published by the Smithsonian Institution, Washington DC.

Other efforts to do tagging and monitoring were carried out in Pohnpei (Oroluk) during the mid 1980's for several years but work had to be suspended eventually because of lack of funding support although the contribution of a private individual made the extension of the work possible on Oroluk for an additional year. Although few turtles were tagged one recovery was reported from the Nan-way bay area in Taiwan. This underlines the importance of documenting international migrations which are necessary in the formulation of sound management strategies.

Some turtle tagging and monitoring work has already started in Yap outer islands this past summer and similar work is expected this winter on Oroluk.

The thrust of this work will be in the following areas:

a) Conservation and Monitoring

- tagging, keeping eggs safe from predators, etc.
- head starting on a limited scale (5% of random clutches).

b) Public Education

- appropriate pamphlets in vernacular language
- use of videos, to be circulated in the public schools, libraries and used at public forums.

c) Data Gathering

- data to be incorporated into regional database
- emphasis to be given to integration with the RMTCP.

1.6.2 Fiji

Four species of marine turtle are found in Fiji. The green is the most common, with hawksbills and loggerheads less common. Leatherback turtles are rarely seen (the last three sightings were on Kadavu and N.W. Vanua Levu).

No work has been carried out on turtles this decade, nor is any currently going on, apart from planning new legislation to ban export of raw shell (justified in relation to research done in other countries). However, some research could be incorporated regularly into the Fisheries Division work programme, particularly at Makogai Field Station. A full-scale project would require resources beyond the scope of SPREP funding and would particularly need to meet project staff costs.

Existing legislation

In Fiji existing legislation covers:

- a ban on export of turtle meat
- a closed season for taking turtles November-February
- no eggs to be molested or taken any time by anybody
- a minimum size of 18" length
- a minimum size for a barb on a spear.

Planned legislation (in order of likely action)

Legislation is planned for:

- a ban on the export of unworked shell
- an extended closed season for sale of turtle meat
- a requirement for a permit to keep turtles in captivity
- a replacement of the minimum with a maximum size limit
- a ban on all commercial trade in turtles and turtle products.

There are a number of positive factors which support the need for affirmative action for marine turtle conservation. These include:

- worries in outer islands that turtles are declining below levels needed to maintain traditional obligations (chiefly weddings, etc.);
- the need to co-operate in the international management of these highly migratory species, and to improve foreign relations;
- growing public interest and concern about turtles, as as a result of a general 'green' movement in education;
- turtles are seen as a tourist attraction, especially by resorts with nesting beaches. There is a rapid growth in tourist diving;
- a protected marine area/park/reserve is likely to be legislated very soon at Makogai, with several full-time staff and whole island under Ministry control. Other areas are likely once this precedent is set.

However, there are a number of negative factors which need to be dealt with if a successful turtle conservation programme is to be mounted. These include:

- a lack of staff/resources in Fisheries Division to dedicate full-time to a turtle project, in the face of several other resource over-exploitation crises with a higher economic profile;
- a strong lobby in tourism (turtle dishes in hotels are part of 'Fiji experience') and Government drives to increase exports (turtle shell has high value and is a readily available natural resource);
- traditional fishing rights which hamper setting up protected areas and any future limitations on catches.

Despite a general problem with a lack of human and financial resources, there are a number of options available which include:

- Fisheries Division - has a seagoing research vessel and core funding for five or so major field trips per year, 25 research staff, 40 extension staff, permanent staff on site near a nesting beach with some lab facilities (including dormitory for up to six visitors/students). Possibly, Fisheries Division will be allowed to recruit a Marine Conservation Officer;
- Ministry of Lands setting up Environmental Co-ordination Unit (condition of Asian Development Bank loan) and resources may be available under this project;
- USP, Institute of Marine Resources (IMR) and SPACHEE have expressed willingness to help. IMR has research facilities and field station on Dravuni (close to Astrolabe/Kadavu nesting beaches). SPACHEE co-ordinates environmental awareness;
- local dive groups and clubs are very keen on getting involved in small marine-based scientific projects and regularly visit certain places.

A possible Fiji Marine Turtle Action Plan

A possible action plan for marine turtle conservation in Fiji would have as its long term aims:

- justification for legislative prohibition of commercial trade
- a formal 'Recovery Plan' for Cabinet endorsement and co-operative action
- greater public awareness of the turtle conservation problem.

Initial aims for the Fisheries Division in relation to such a programme would be:

- to identify nesting beaches and peak nesting season for Green and Hawksbill;
- to monitor two or three sites over next three seasons, and set up permanent monitoring of at least one site;
- to co-ordinate activity with others in Fiji.

Specific actions would include:

- designation of a part-time responsible officer (one of the clam project staff on Makogai), to monitor Makogai nesting sites in first instance. Training in December 1991. Reinforcement of the role of Makogai as marine reserve;
- counting of nests on Makogai and liaison with interested resort owners (Namena, Turtle Island, Wakaya, Naitauba, etc.) for nest counting. Also USP Dravuni field station;
- distribution of tagging kits to the above and tagging of nesting turtles. Tagging also on routine trips on Fisheries research vessel (Vatoa, Ono, Kadavu, maybe Rotuma before end 1990);
- trying to get flights over turtle nesting beaches in December using military forces training helicopter, liaison with Medivac or ministerial trips to outer islands. Aerial photography (also check Lands Department photogrammetry archives);
- liaison with clubs, dive-shops association, SPACHEE with 'Project Packs' for turtle nesting site visits;
- publicity in Fiji Times and radio on turtle conservation, focused on regional scope and migration. This would highlight tag returns involving Fiji;
- reinforcement of reports that leatherbacks are poisonous. Persuade industrial fishing vessels to set standard by releasing any turtles caught, as by catch, or by crew. Publicity reinforcing the view that commercial trade is eroding traditional usage could be another focus;
- questionnaire survey. Liaison with Fisheries Extension Officers, District Officers, Fish-wardens and Turaga in Koros to interview island villages (turtle nesting, numbers and traditional knowledge). Integrating questions on turtles into forthcoming agricultural census of Fiji;
- analysis of existing local market and export data in depth including checking for 'tumourous' turtles in markets;
- looking at the viability of headstarting, possibly using mariculture facilities on Makogai;
- encouragement of USP student projects on turtles.

A number of the requirements of such an action plan could possibly be supplied through RMTCP. These would include:

- tagging kits: each 50 tags (stamped with SPC return address), applicator and instructions;
- project packages, for schools, clubs, etc., with return forms for nesting survey and background information;
- T-shirts for those taking part in projects and tagging;
- information: results from other surveys in the rest of world, etc; access to SPREP database;

- plane charter cost;
- visit by turtle scientist to advise Makogai staff on practicalities of survey and improving recruitment;
- visit to Queensland National Parks and Wildlife Service by one person for training in December 1991;
- salary to recruit one dedicated staff member for a year towards end of project or a volunteer.

Finally, there are a number of questions relating marine turtle conservations which should be answered either through the meeting or as part of the RMTCP. These include:

- Whether it is useful to know the area of turtle grass coverage as potential forage for Green Turtles.
- What makes a good nesting beach? Can potential areas be identified before actually visiting a site?
- Can nests be differentiated by species?
- What is the peak nesting season for green and hawksbill turtles in other countries?
- Is headstarting useful (keeping juveniles till old enough to fend for themselves - what size? feeding?).

1.6.3 New Caledonia

The 'Association pour la sauvegarde de la nature néo-calédonienne' (ASNNC) has been concerned since 1976 by problems relating to the protection of marine turtles. At that time a member of the ASNNC Board prepared a report to the local authorities calling for the protection of marine turtles. On the 3 August 1977 the Deliberation No 220 was promulgated as the first Regulation in New Caledonia for this purpose. The ASNNC printed this and distributed it throughout the country, together with a poster and a sticker.

At the end of 1980 the ASNNC had another poster printed on 16 species in danger in New Caledonia which included the Hawksbill Turtle. In 1985 (16 July) a new law (Deliberation No 17) reinforced and replaced the previous one. As a result, the catching of turtles is forbidden from 1 November to 31 March and the destruction of nests, taking or selling eggs, importing or exporting and selling turtles: is forbidden throughout the year.

In order to publicise the new regulations in New Caledonia, the ASNNC decided to organise a special campaign to inform and make people aware of the necessity of protecting the marine turtles. This was held from 1 April to 31 October 1986. The campaign included:

- articles in the newspapers;
- distribution of technical leaflets about the turtles to schools and a note telling the teachers about the campaign;
- several competitions, with prizes including:
  - a story, poem and essay competition;
  - a competition for the manufacture of turtles in all types of materials people could think of (over 300 different turtles were made);

- a competition involving wish cards sold with artificial rag turtles and sent back to the Association with the name given to the turtle (cards were drawn each fortnight for prizes);

- distribution of new posters and stickers.

The campaign was a big success and did much to publicise turtle protection in the Territory.

At the end of 1988 the ASNNC mounted a project to assess how many turtles were nesting in New Caledonia. Inquiry forms were distributed and printed in the newspapers, but few answers were received. From 9 to 17 January 1989, with the assistance of the Navy, an expedition to Surprise and Huon islands, north of New Caledonia was mounted, and some useful information on turtles nesting on the islands was gathered. Some limited tagging was also undertaken. The expedition results are covered in a special report.

1.6.4 Palau

The following notes relate to the status of marine turtle management in the Republic of Palau:

Hawksbill

This species is found throughout Palau and nests mainly on the beaches within the Rock Islands south of Koror, the capital. Hawksbill meat is eaten although they are hunted mainly for their shells. The four largest plates are made into ornamental dishes and used during traditional occasions, which are quite frequent. The rest of the shell is discarded or is made into various types of jewellery. Stuffed hawksbill turtles are also observed at shops which cater for tourists. Whole shells are also polished and sold. Eggs are collected to eat but are not sold.

Green Turtle

This species is also found throughout Palau but nests only at the Southwest Islands, about 250 miles south of the main islands of Palau near the Indonesian border. Green turtles are hunted exclusively for their meat which is highly valued.

Others

Only one Olive ridley has been observed in Palau. Few loggerheads are seen. Although Palauans have a name for leatherback (bekuu) these are very rare.

Policies

Laws which were enacted during the Trust Territory period still apply in Palau. These provide for the following restrictions on harvesting:

	Closed Season (both species)		Size limits
Green	December-January	-	not less than 34 inches carapace length
Hawksbill	June-August	-	not less than 27 inches carapace length

Turtles are not to be collected while on shore and eggs are not to be collected.

Present Conservation Programme

A Turtle headstarting project at the Micronesian Mariculture Demonstration Centre (MMDC) has been operating since 1985. 2,000 animals have been released so far. No tags have been reported locally although tags have been recovered from Guam and the Philippines.

Two reviews have been made on the project, and recommendations are being considered.

Assistance required

Palau would like to take a more active role in marine turtle conservation and would look to the RMTCP to provide assistance to:

- draw up an operational plan to implement recommendation upon approval by Palau;
- survey populations of both hawksbill and green turtles;
- strengthen local government so that it has a better ability to deal with all issues relating to turtle conservation.

1.6.5 Papua New Guinea

Introduction

Marine turtle species no doubt form part of the diet of the coastal and island communities of Papua New Guinea. In some communities on the islands, turtle and turtle fishing is an important part of their traditional ceremonies and also a way of testing young men into manhood.

In respect to turtles as a food, for most communities harvesting has been restricted to traditional fishing methods.

In some areas the use of gill nets has increased, and the effectiveness of the traditional gear and fishing methods have also improved. This therefore, suggests an increase in the number of turtles being caught per year (PNG combined). This intuitive view is based on increased catches by fishermen and less sightings on nesting beaches which gives cause for concern.

In the 1970's the Environment and Conservation department addressed concerns particularly for Dugong and leatherback turtle, and carried out some work in Western Province that led to the first step towards sounding a concern for the conservation of the leatherback turtle.

In the mid-1970's (1977) the functional responsibility of the scientific work on turtles was settled in a letter to the Fisheries division from the Department of Environment and Conservation which calls for joint cooperation in many activities which required the co-operation of both departments.

From this direction the first joint work on the Marine Turtle Conservation and Management Programme by Fisheries and Wildlife was undertaken by a consultant, Dr Peter Pritchard, in 1978. Since this work, other research work on turtles has been done by Universities, and the Department of Environment and Conservation.

Research work

More recently, the Fisheries Research branch of the Fisheries and Marine Resources Department undertook a preliminary study of turtles in Daru (Western province of PNG). This work was done by Mr J. Prescott and some of these results were presented at the 1988 Inshore Fisheries Workshop in Noumea. This work was also continued by Ms D. Kwan until she left in 1989 to study at James Cook University. Due to funding problems, the project was to be shelved. However, in October this year (1990), Greenpeace will be funding a one-month trip for Ms D. Kwan to Daru to collect fisheries statistics and biological data to determine the feasibility of continued monitoring of the fishery on a seasonal basis. This will be a Greenpeace contribution to the RMTCP. The department has also agreed to assist another turtle researcher from James Cook University to conduct some research in Daru and Port Moresby also in October. The worker will use genetic markers to determine distinct turtle populations and the impact of commercial harvesting of green turtles.

Priority

Although PNG shares a common concern with the Pacific Island countries on the conservation of turtle resources, this does not have the same funding priority as some of the other important marine resources. However, PNG supports the Regional Marine Turtle Conservation Programme through SPREP and will continue with its in-country work, particularly in Daru.

Unfortunately, the Department of Fisheries and Marine Resources will not be able to offer as much support as it would wish, due to funding constraints. Nevertheless, in conjunction with the Department of Environment and Conservation, it intends to continue monitoring the fishery and assist with the Regional Marine Turtle Conservation and Management Programme where possible.

Turtle Conservation in Papua New Guinea

While research is a joint activity with Fisheries, the conservation of Turtles in Papua New Guinea remains the responsibility of the Department of Environment and Conservation. The Nature Conservation Division of the Department is responsible for the protection of general wildlife of importance to the country. The Division is also responsible for the protection of national animals and species of significance in the country.

As mentioned above, turtle conservation work started in the late seventies in the department but due to budget cuts the programme was abandoned in 1982. From 1976 to 1982 some turtle conservation work was done resulting in the declaration of wildlife management areas for the conservation of turtles and some degree of protection was given to all turtles. Six species are found in Papua New Guinea and of these, five are listed as restricted while the leatherback is listed as protected. Exploitation of restricted species is limited to local and traditional uses only while protected species are considered nationally important animals and are protected by law from any uses other than traditional.

The identification and establishment of the Ramba WMA, Long island in Madana Province, Maza WMA, Western Province and the Nwdrolowa WMA for the conservation of turtles was done during the 1976-1982 period. However these areas in Manus Province have yet to be revisited to assess their effectiveness in conserving marine turtles as follow up programmes did not occur after the abandonment of the turtle project. However, new initiatives from educational institutions, especially the University of Technology in Lae, Morobe Province have created two leatherback conservation areas in Labu Tale and Maus Buang in the Morobe Province.

There now exist in total, five conservation areas (Ramba, Maza, Nwdrolowa, Labu Tale and Maus Buang) for the conservation of turtles in Papua New Guinea. However, the department has very little control over their management as the management responsibilities are left with local management committees. These areas need to be re-visited so that people are encouraged to continue managing the areas for turtle conservation. This, however, has been lacking due to financial constraints and low priority of turtle conservation in national conservation programmes.

The SPREP initiative will obviously encourage the review of national country programmes so that the turtles conservation programmes may be reviewed in Papua New Guinea. Papua New Guinea must remain to be one of the most important conservation areas for Marine Turtles because of the fact that out of the seven species of marine turtles, six are found in Papua New Guinea. The potential for declaring more marine conservation areas exists in Papua New Guinea and the SPREP initiative through the Regional Turtle Management and Conservation Programme for the South Pacific can help in this regard.

1.6.6 Solomon Islands

The responsibility for the management of Solomon Islands fauna falls under three Divisions within two Ministries of the Central Government (Fisheries Division and Environment and Conservation Division and the Ministry of Agriculture and Lands, Dodo Creek Research Station). Marine fauna falls under the jurisdiction of the Fisheries Division. The Fisheries Regulation 1972 (as amended) sets minimum size limits for turtles (75 cm carapace). It also prohibits the taking of, or commerce in, luth or leatherback turtles (Dermochelys coriacea).

Four species of marine turtle are known to nest in the Solomons these being: Hawksbill (*Eretmochelys imbricata*), Green (*Chelonia mydas*), Olive ridley (*Lepidochelys olivacea*) and the Leatherback (*Dermochelys coriacea*). The Loggerhead (*Caretta caretta*) occurs but is not known to nest.

From 1973 studies on the turtle have been conducted with the following titles:

(a) Marine Turtles of the Solomon Islands by A. McKeown - 1977;
(b) Marine Turtle Resources of the Solomon Islands Region by McCoy and D. Alexander.

In recognition of the importance of the marine turtles for subsistence and ceremonial use by the people, the Ministry of Natural Resources undertook an extensive turtle research/survey throughout the Solomons in 1981. This eventually concentrated mainly on the Arnavon group in the Isabel Province which was the island group which was the first turtle sanctuary to be established in Solomon Islands. Unfortunately this was subsequently abandoned due to a bitter land dispute.

The last extensive survey was done in 1981 by Vaughan and in 1989 the Environment and Conservation Division assigned T. Leary to undertake a survey of the nesting beaches in Isabel Province. Leatherback turtle nesting was found to have doubled since 1980 (Vaughan) however, the estimated number for hawksbill and green turtle had declined (521 - 741) in 1980 (379 - 638 in 1989). This trend may be influenced by many factors and its verification will require more data.

A clearer picture of Solomon Islands nesting population is needed as is a survey of the remaining important rookeries, to establish what the population trends are.

The major problem regarding the population of the hawksbill turtle is the increase in turtle shell trade. In 1989 3,397 kilos of shell was exported which indicates that Solomons was the second largest exporter in the world. This means that there is great urgency needed in developing specific projects on the marine turtles in order to establish their population status. The Ministry of Natural Resources is determined to implement a turtle management project so that some of the major nesting rookeries can be designated as wildlife sanctuaries and will be looking to the RMTCP for assistance and support in its endeavour.

1.6.7 Vanuatu

Under the existing Fisheries Act of 1983 all Marine Turtles are protected. This includes the commercial exploitation of meat, eggs and shell. However, such an Act does not prevent or protect the subsistence/traditional uses and exploitation of such resources. These traditional uses have put a lot of pressure on the turtle populations in most islands in the country which was a general trend identified by the Turtle Postal Survey in early 1989.

In early 1989, the Environment Section of the Department of Physical Planning and Environment carried out a questionnaire survey (postal) throughout the group. The aim of the survey was to find out what state these resources were in and whether or not the numbers are increasing or decreasing. The questionnaires also sought information on what types of turtles are present, what localities they are being found in, their important nesting beaches and whether or not the local people sell the meat, eggs and turtle shell to the tourists or at the local markets. The survey also asked the people to give local names of the four types of turtles in each village/island and any other traditional myths or customs relating to such animals in their area.

The survey has been very much targetted to the people in the islands whom we knew had knowledge of the animals and who would respond to the questionnaire. The people who were targetted were, Fisheries extension officers throughout Vanuatu, Agriculture Field workers, Cultural Centre field workers, Local Government Council Secretaries, Area Council Secretaries, Village Chiefs, Primary School teachers and some other important people in the region. By doing this the survey has been very successful in eliciting responses from these people.

From the general results of the survey we know at least that four species of marine turtles exist in Vanuatu's waters. These are the Leatherback, Loggerhead, Green and Hawksbill. However, we have yet to undertake a further assessment of Loggerhead and Green turtles which could have easily been confused in local identification.

The survey has also enabled us to sample important nesting sites/beaches on most of the islands in Vanuatu as well as providing information on which islands place greater pressure on these resources. The killing of turtles for consumption does not occur on all islands in Vanuatu. The survey showed that on some of the islands the killing of such animals is a taboo and on others, only the chief is allowed to kill or can permit such a killing. On other islands marine turtles are only hunted during the yam season.

Vanuatu is also a member of the CITES convention and illegal trade of turtle products is forbidden protected under this convention. Vanuatu has not done any tagging in the past and hopefully the RMTCP will be of assistance in efforts to tag in the near future.

Prior to and during the survey (about three months) the Environment Section launched a weekly radio awareness programme based on the life and biology of these animals, which had a lot of impact on the general public. We are hoping to increase this awareness activity through educational programmes in the future, should funds be available.

The Survey last year has helped raise public understanding of the general status of Vanuatu's populations of turtles today, and no doubt will help the RMTCP project. Such surveys are a cheap and effective means of tapping public knowledge about such resources.

1.6.8 Greenpeace

Greenpeace has been working worldwide to increase protection for sea turtles since the early 1980s. In the last few years, as part of our Pacific Campaign, Greenpeace has extended its sea turtle project to the South Pacific and South East Asia area. This work is being co-ordinated from Sydney by Trevor Daly. As well as encouraging conservation efforts in individual countries, Greenpeace has focused its attention on some of the major threats to turtles in this region. In particular, we are very concerned over the threat posed by commercial trade in sea turtle products. Greenpeace opposes this trade as we don't believe it is possible to sustainably exploit turtles on a commercial basis. We have therefore been lobbying the Solomon Islands and Fiji to ban the export of turtle shell which is threatening the hawksbill turtle in the South Pacific. We are also campaigning to have Indonesia reduce or stop its large commercial harvest of green turtles.

Specific activities Greenpeace has undertaken on turtles in the South Pacific in recent years include:

- Attendance at the 4th South Pacific Parks Conference in Vanuatu last year and close involvement in the development of the SPREP regional turtle programme;
- supply of materials on turtles such as information leaflets, videos, T-shirts, stickers to Government and NGO contacts in countries throughout the region;
- support for turtle survey work in the Solomon Islands by supplying T-shirts for distribution to local communities;
- funding for a 1 month monitoring study of the green turtle market at Daru, PNG;
- investigation of the turtle shell trade in the Solomon Islands;
- funding of the production of an Environmental Alert booklet on turtles for the University of the South Pacific.

Future activities include:

- using a Greenpeace vessel to conduct a survey of hawksbill turtle nesting sites in northern Australia and Torres Strait in conjunction with the Queensland National Parks and Wildlife Service;
- Providing logistic support for turtle research and conservation activities in remote locations in the South Pacific (e.g. Solomon Islands and possibly other areas) using Greenpeace vessels such as the Rainbow Warrior;
- Providing direct funding for specific projects under the SPREP regional turtle programme.

1.6.9 Traffic Oceania

TRAFFIC is an international network responsible for monitoring world trends in wildlife. There are currently ten TRAFFIC offices around the world all sponsored by World Wide Fund for Nature. Since its inception in 1976, TRAFFIC has mainly been involved in monitoring trade in species such as marine turtles, which are listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), but more recently has been diversifying into monitoring trade in tropical timbers and some of the commercial inshore fisheries species.

Over the years, TRAFFIC (particularly TRAFFIC Japan) has undertaken considerable research on tortoiseshell trade but no specific work is currently being performed on marine turtles. However, TRAFFIC continues to monitor CITES trade statistics and customs statistics for sea turtle trade. TRAFFIC Oceania, which is responsible for most of the countries in the SPREP region obtains the Japanese Customs import statistics for bekko on a regular basis, and these data are passed on to the relevant government organisations in Fiji and the Solomon Islands.

Work for the coming year which is planned by TRAFFIC Oceania, subject to availability of funds, which is likely to be of interest and relevance to the RMTCP is limited to two projects both of an educational nature. The first is a joint project with SPREP to produce two wildlife trade posters for the region. It is envisaged that one of these posters would address turtle trade and the conservation and wise use of that resource. The other poster would probably cover fruit bats, birds and corals/other marine resources. The second project is the production of national 'Buyer Beware' leaflets (similar to that produced by TRAFFIC Oceania for an Australian prohibited imports exhibition). As turtleshell souvenirs are one of the major wildlife trade problems for several countries in the region, it would be appropriate to focus on that aspect. The leaflets would be aimed at the tourist informing him/her of the country's laws and controls on protected species. Several countries had already expressed interest in having such leaflets for the regional wildlife trade workshop held in Canberra earlier in the year.

1.6.10 National Marine Fisheries Service

Sea turtles of the Hawaiian Islands include breeding populations of the green turtle (*Chelonia mydas*) and the hawksbill, (*Eretmochelys imbricata*). Leatherbacks, (*Dermochelys coriacea*), and Olive ridleys, (*Lepidochelys olivacea*), also occur in surrounding waters, but nest at unknown locations elsewhere in the Pacific. Hawaiian sea turtles have a history of under-protection, over-exploitation and deterioration of their essential habitats. However, the conservation outlook has improved considerably since 1978 when full legal protection to sea turtles was provided under the US Endangered Species Act. There is presently a high level of interest among government and private sectors in Hawaii to restore sea turtles to former levels of abundance. A government sponsored Recovery Team of specialists has prepared an official Recovery Plan designed to conserve and restore Hawaiian sea turtles. The recommendations of the plan must now be implemented to achieve results.

Green turtles throughout the Hawaiian Islands migrate to nest at the remote site of French Frigate Shoals. At the breeding grounds both the female and male turtles bask ashore and share the beaches with the Hawaiian monk seal. Long-term tagging studies have shown that there are only about 750 adult female green turtles in the population.

Hawaiian green turtles grow at a slow rate. An average of 25 years is needed to reach sexual maturity. Recovery of the population will therefore require many years of protection. The hawksbill is a critically endangered species in the Hawaiian Islands and is in immediate danger of becoming extinct. There are only 10-15 turtles known to nest each year. Important factors germane to the recovery of Hawaiian sea turtle include law enforcement, habitat protection, public education, incidental capture in fishing gear, an epidemic of fibropapilloma (tumor) disease, and tiger shark predation.

In co-operation with the Hawaii Institute of Marine Biology, the National Marine Fisheries Service in Honolulu has provided tags and other technical assistance in sea turtle research to qualified persons throughout the Pacific Islands.

SESSION II

2. INFORMATION AND DATA BASE

This session was aimed at reviewing the information and data base requirements of the RMTCP and assessing whether to proceed with the development of a new regional data base or to utilise an existing data base, possibly that operated by NMFS or the QDEH. The consensus of the meeting was that it would be desirable to establish a new data base **focusing on the South Pacific region only** but with provision for the co-operative exchange of data with the existing data bases mentioned above. The regional data base would be located at SPREP and would utilise the computer hardware to be shortly installed for the SPREP/GRID GIS system.

It was agreed the RMTP data-base would consist of three elements:

(i) A general information base

This would incorporate:

- a bibliography of marine turtle literature and research pertaining to the South Pacific only
- legislation and policy in the region
- information on the species found in the region
- list of government agencies and non government personnel active in marine turtle conservation and addresses
- trade figures and prices
- other general information.

(ii) Census data base

This would incorporate the following specialised census data for each country sub-programme:

- nesting year
- locality (beach, and other geographical information including latitude and longitude)
- date of census
- type of census - track counts/individual night counts
- duration of census (1 night, week, month)
- census counts.

(iii) Tagging information data base

This would include inter-related files such as:

(a) Individual tag data - tag number and date of application;

(b) Capture file
- date of tagging
- locality, beach, lat./long.
- basic measurements (size, etc.)
- maturity
- special measurements (clutch size emergence)
- activity.

It was noted with appreciation that both Mr George Balazs (NMFS) and Dr Colin Limpus (QDEH) offered their specially adapted marine turtle data base software for review and use by the RMTCP and it was agreed that one of these would be utilised. It was noted that subject to the agreement of the ANWPS, Ms Sylvia Spring would be undertaking the information gathering and data base development phase of the project during the first half of 1991.

The meeting also discussed the form the census and tagging data base outputs should take and it was agreed that summary data for each participating country would be the most useful form of output. It was further agreed that as a basic principle, governments and organisations participating in the RMTCP would have first call on the data and that because the programme is regional in nature and dealing with highly migratory species, the data should be openly shared within the region.

Analysis of census and tagging data to produce the summary reports would require the services of an expert and SPREP would approach the SPC for assistance from the Tuna and Billfish Programme in this task.

SESSION III

3. RESEARCH

3.1 Presentations by Dr Limpus (QDEH) and Mr George Balazs (NMFS)

During the Course of the meeting both of the above provided illustrated presentations on aspects of turtle management and conservation. Key points to emerge from these highly informative presentations were:

(i) little is known of the pelagic stage of the life cycle of marine turtles but it is known they take between approximately 25 years (Hawaii) and 30 years (Australia) to reach sexual maturity. This has dire implications for marine turtle conservation in that the worst impacts of the over-exploitation of turtles occurring will now manifest themselves for some time to come. Similarly, the effect of conservation efforts will not be evident for a long time;

(ii) it is estimated that it may take as many as 5,000 hatchings to provide for the survival of one adult green turtle which, when related to the long period to maturity, results in a very low population recruitment rate;

(iii) turtles are highly migratory and the gross overharvesting now occurring in Indonesia and SE Asia generally (estimated 30,000 turtles to the Bali market, 20,000 caught in Irian Jaya/PNG) will critically affect the turtles' breeding and nesting grounds in Northern Australia and the Western Pacific;

(iv) this gross overharvesting in SE Asia has led to the complete loss of some turtle rookeries in that region and a dramatic decline in nesting numbers since WWII (estimated 70-80% in Philippines, 70-90% in Indonesia);

(v) the migratory behaviour of marine turtle dictates that there must be inter-regional co-operation on conservation between the South Pacific and SE Asia;

(vi) dramatic increases in the amount of hawksbill tortoise shell (bekko) being exported from the South Pacific countries of Solomon Islands and Fiji indicate that these nations are overharvesting this species. In the Solomons it is estimated that 1,500 hawksbills nest each year, yet 3,000 kgs of bekko was exported in 1989 which represents a harvest of approximately 3000 turtles. In Fiji only 2-3,000 hawksbills are estimated to be nesting yet some 2,000 kgs of bekko was exported;

(vii) there is a pressing need to address the issue of traditional harvest and use of marine turtles in the region. Modern technology (outboard powered boats, scuba, spearguns, etc.) and the cash economy, coupled with increasing human populations, has undermined the old traditional safeguards against over-exploitation. Greater efforts must be made to keep the 'traditional' harvest small;

(viii) the Hawaii sea turtle recovery programme illustrates that education and community involvement are essential ingredients if any turtle conservation programme is to have a lasting and positive impact;

(ix) such a conservation programme also shows that if a reasonable measure of protection is afforded green turtles, their numbers will slowly increase;

(x) in such a programme, maximum use must be made of traditional/cultural marine turtle information and methodology;

(xi) a disease resulting in debilitating tumors is now affecting a significantly high proportion (30-50%) of the Hawaii green turtle population but does not seem to have affected Western Pacific population as yet;

(xii) that conservation activities and in particular the limiting of the traditional harvest, will be easier for many South Pacific countries to achieve if it is done within the umbrella of some form of regional agreement;

(xiii) there is a growing trend towards the over-exploitation of a wide range of marine species throughout the region (trochus, beche de mer, turtles) and it is important to try to attack the problem at the source of import. In this regard it was noted that Japan had reduced its importation of bekko from 40,000 to 30,000 kgs in 1989 and that there was a need to pressure for further reductions.

3.2 Population census and tagging activities

This session was aimed at developing the population census and tagging elements of the RMTCP national sub-programmes. Proposals for three year, on-going programmes for census and tagging were developed for the following countries:

3.2.1 Solomon Islands

It was recognised that the Solomon Islands were a key location for hawksbill turtle breeding. Because of this and the fact that this species is heavily exploited in that country, the emphasis should be on developing a hawksbill census and tagging programme.

It was noted however, that the peak hawksbill nesting season occurred in July and that the opportunity to begin the programme this year was lost. It was agreed that the Solomon Islands representatives would instead follow up with the implementation of the detailed plan to survey a number of possible green turtle nesting beaches in October/December this year. Next year (1991) census and tagging activities would be focused on the Arnarvon hawksbill nesting beaches and perhaps two other important sites, time permitting. At least two weeks would be spent at Arnarvon site. If possible, advantage would be taken of the offer of the Greenpeace research vessel Rainbow Warrior II to support the 1991 survey. The Solomon Islands representative agreed to prepare and submit a revised RMTCP project.

3.2.2 Federated States of Micronesia

The participant from FSM outlined his country's proposed turtle conservation programme and a project for Oroluk Atoll which had been the subject of a previous census programme. The programme called for a continuous presence on the atoll over the breeding season and full monitoring of breeding activities.

The presence of permanent inhabitants on Oroluk was seen as a major problem affecting turtle conservation as these people were known to take and eat nesting turtles as did other visitors to the atoll. In addition, a number of pig pens were located in such a way as to impede nesting activity.

With regard to the 'take' of turtles from Oroluk, it was noted that a sustainable limit would constitute perhaps 1-2% of the nesting population i.e. 1-2 turtles out of a 100. The traditional take on Oroluk far exceeded this number and would have to be dramatically reduced if the population was to survive. It was noted that efforts were being made to resolve these problems locally and to provide Oroluk Atoll with some form of conservation status.

It was also noted that the FSM project included a head-starting element aimed at involving the local people in the conservation effort. This would involve the trapping and headstarting of a very low percentage of turtle hatchings. It was strongly recommended by the meeting that as an alternative, the local people be encouraged to become involved in enhancing and maximising hatching success through nest relocation, predator control and the removal of the pig pens, and that the headstarting element be eliminated or reduced to a minimum. Further, it was agreed the FSM national sub-programme should focus heavily on public education activities.

3.2.3 Papua New Guinea

It was recognised that the implementation of the programme in Papua New Guinea would be difficult because of its size and the distances involved. However, a tentative programme for census and tagging was developed which would involve:

(i) census and tagging at Long Island green turtle nesting area which is also a Wildlife Management Area established for turtle protection but which is poorly enforced;

(ii) census and tagging work with green turtles at Hermit Island;

(iii) census and tagging work at the leatherback turtle rookery in Morobe Province, near Lae, possibly involving a preliminary survey of sites along the northern coast;

(iv) market surveys in Daru and Port Moresby. Continuation of the harvest monitoring which has been undertaken in previous years and in 1990 with Greenpeace assistance.

It was also emphasised that there was a lack of personnel in PNG's Environment Division to oversee this project and that if possible, the RMTCP should fund a position for this purpose. Another possible alternative would be to provide a volunteer to work with the Department of Environment and Conservation to guide the programme. The participants from PNG undertook to develop the proposal further for submission to the SPREP IGM in September 1990 and implementation in 1991.

3.2.4 Vanuatu

The participant from Vanuatu indicated his country's willingness to participate in the programme. He referred to the results of the postal survey undertaken in 1989 which identified the most important nesting and breeding areas. He agreed to prepare a census and tagging programme for the three most important sites and requested expert assistance with the field work. It was suggested a suitable person from Vanuatu should be attached to the Solomon Islands survey scheduled for November 1991.

3.2.5 Fiji

The participant from Fiji reported that he was keen to get a national programme underway and although he was handicapped by a lack of resources he would designate one staff member to work on this. Nevertheless he would be aiming to identify some existing nesting sites, perhaps through an aerial survey. He was also hopeful of having scientific personnel available to monitor the beaches at Makogai Island the site of a proposed giant clam hatching. Education activities would be co-ordinated with SPACHEE and schools. He was also interested in undertaking a questionnaire survey on nesting, etc.

3.2.6 Palau

The participant from Palau indicated his country's willingness to be involved in the RMTCP and was particularly concerned to gather information on the green turtle nesting population at Helen Reef south of Palau, for which there is no data. Survey activities will be undertaken for hawksbill nesting sites near Koror during the June-July-August peak nesting season. Palau was also keen to participate in the education component of the project. A proposal would be forwarded to SPREP for implementation in the 1991 breeding season.

3.2.7 New Caledonia

The participant from New Caledonia also expressed interest in becoming involved in the RMTCP and in particular, in obtaining support for further census and tagging field work on Surprise and Huon Islands. Support for turtle conservation education and awareness materials would also be welcome.

3.2.8 Other participants

The SPREP representative indicated that there was rapidly growing interest in participation in the RMTCP by other countries in the region including the Marshall Islands, Tokelau and Tuvalu. In each case the countries had indicated that although marine turtle conservation was not a high priority for government, deep interest and growing concern over the status of turtle populations meant that they were keen to be involved in the Regional Programme. SPREP would be following up these expressions of interest and whenever possible, assistance would be provided within the framework of the RMTCP.

SESSION IV

4. STANDARDISATION OF METHODOLOGY, TAGGING AND TAG RECOVERY ANALYSIS

4.1 Census and tagging programmes

This session was aimed at ensuring standardisation in the methodology and field practices to be applied for the census and tagging programmes. It was agreed that this could best be achieved by the production of a basic census and tagging kit to be prepared and distributed by SPREP to those involved in the RMTCP. The kit would consist of:

- a set of field identification guides and instructions for census counting
- census field sheets
- tagging data sheets
- 50 tags and applicator
- tape measure.

SPREP will also arrange for the production of a supply of high quality metal tags with the SPREP address as the tag return point. Messrs Limpus and Balazs agreed to develop a draft of the census and tag sheets and the development of the kit would be followed up by Ms Spring in Australia.

4.2 Genetic sampling

Dr Limpus informed the meeting that a global genetic typing programme to identify discrete populations of sea turtles had been started by the University of Georgia, USA. Both he and George Balazs were involved in this programme, and they were keen to see it extended to the South Pacific and co-ordinated through the RMTCP. This would involve the acquisition and rapid freezing in liquid nitrogen of liver samples from freshly killed turtles and their dispatch to either Australia (Brisbane) or the US.

Several countries including Fiji, Palau, Solomons, and FSM indicated a willingness to assist. The supply of liquid nitrogen and its dispatch to one of the centres for analysis were seen as the biggest problems to be overcome. It was agreed that these could best be resolved through direct liaison between Dr Limpus and the countries involved, although SPREP and the RMTCP could assist with transport costs and possibly co-ordination.

SESSION V

5. PERSONNEL REQUIREMENTS

Throughout the meeting it was clear that the lack of trained personnel in the participating countries would pose problems for the implementation of the national sub-programmes in some countries. The session was aimed identifying alternative sources of expertise and training to assist with the implementation of the programme. Some of the organisations present were able to outline how they could help.

5.1 Queensland Department of Environment and Heritage

Dr Limpus informed the meeting that he worked with a team of several highly experienced turtle biologists, some of whom, he believed, would be interested in becoming involved in the programme for minimal cost (travel/per diem) in a private capacity. They would be keen to assist with training in the census and tagging techniques. It was agreed that if possible arrangements would be made to involve these people in the Solomon Islands survey for November 1990.

Dr Limpus also indicated that the Queensland Department of Environment and Heritage could provide training for one or two people in sea turtle census and tagging methods for 3-4 weeks during December-January. No tuition fees would be required but the RMTCP would need to meet travel and subsistence costs.

The QDEH could also provide access to its data base software and to a limited number of tags. He would also be pleased to provide expert advice and guidance to the programme.

5.2 National Marine Fisheries Service, NOAA, US

Dr Balazs offered to provide a limited number of tags if required, and access to his data base and software. He indicated that he may be available to assist with short term assignments depending on his commitments and would be pleased to continue to provide expert guidance to the programme.

5.3 Volunteers

It was suggested that the AVA programme of the Overseas Service Bureau, Australia or other volunteer organisations should be approached to ascertain the availability of suitable volunteers to take up a possible position in PNG primarily to implement the RMTCP.

5.4 ANWPS

The participant from the ANWPS, Ms Sylvia Spring indicated that the ANWPS was keen to maintain its already close involvement in the RMTCP, and had indicated that she would be available to work on the data base and information gathering elements of the programme part time for the remainder of this year. The ANWPS was also looking into the possibility of a longer term secondment of an officer to SPREP to work on marine species conservation issues which would also include involvement with RMTCP.

5.5 Greenpeace International

The participant from Greenpeace International, Mr Trevor Daly, reiterated Greenpeace's support from the project through the provision of modest funding to assist the continuation of the PNG market surveys and the production of education materials. Most importantly, he reiterated his offer to provide the Greenpeace research ship, Rainbow Warrior II for use on the RMTCP activities centred on the Solomon Islands, subject to its availability.

These generous offers of assistance and support were noted by the meeting and are to be followed up by SPREP. The SPREP representative expressed his hope that a staff position could be established in SPREP to help oversee the administration of the project which was growing rapidly. Preferably the position would be filled from within the region.

SESSION VI

6. EDUCATION

This session reviewed the public education requirements of the RMTCP with a view to identifying appropriate projects for both the regional and national level. The meeting was assisted in its deliberations by the SPREP Environmental Education Officer, Ms Neva Wendt, and the SPC Fisheries Training Officer, Capt. Alistair Robertson who both attended this session. They advised that as there was generally very little education material in schools throughout the region, any such material produced by the RMTCP would be welcomed and used. There was also ample scope for the development of school competitions such as a poster or essay competitions. It was emphasised that wherever possible, public education materials should be produced in the local language and if possible, important people of good local standing should be encouraged to visit schools and talk about the need for turtle conservation. Also, there was a need to draw on the traditional knowledge of a community to provide materials for education activities. This could be done through video taped interviews with elderly or knowledgeable people, providing the information was treated sensitively.

The importance of getting the conservation message to the fishermen was emphasised. T-shirts were also seen as a good medium for raising public awareness of the need for the conservation of sea turtles.

A wide range of innovative education and publicity ideas were subsequently discussed by the participants. It was agreed that for 1990, education activities under the RMTCP would focus on the production of general regional turtle conservation poster and T-shirts for distribution during the census and tagging projects and as prizes in competitions. A further, basic poster would be designed for use at the national level and printed in local languages. The development of a marine turtle fact sheet for regional distribution would also be undertaken.

Finally, the participant from New Caledonia requested that if possible, originals be provided for translation into French.

SESSION VII

7. CONSERVATION MEASURES

The session briefly reviewed possible measures to further the institutional basis for marine turtle conservation. The concept of the Wildlife Management Area developed for species conservation in PNG was discussed and it was agreed that this provided a useful model for other countries to implement or adapt for important turtle nesting sites.

It was also considered desirable to begin the compilation of a list of key nesting and breeding sites in the region and to identify those suitable for priority conservation action. The list would be maintained in the General Data base.

Similarly, it was suggested that a compendium of legislation and regulations pertaining to marine turtles and their management in the region, be compiled for distribution to SPREP member countries. It was agreed that more emphasis would be given to the development of appropriate conservation measures at the RMTCP proceeded and the data base developed.

SESSION VIII

8. TRADITIONAL KNOWLEDGE

Several participants noted that the RMTCP specifically provided for the development of national programmes for the recording of traditional and local knowledge on marine turtle and their use. It was agreed that each national sub-programme should aim to gather as much information as possible on this aspect. It was suggested that this could be done in two ways; one, through a postal survey and two, by interviews carried out during the census and tagging project in each country.

To facilitate this aspect of the RMTCP, it was agreed that SPREP would prepare a standardised questionnaire for distribution to all participating countries. This could either be translated to a local language and reprinted by SPREP, or used in English. The results level could be summarised by the country concerned and sent to SPREP for incorporation in the General Data Base and for other reports prepared under the Programme.

SESSION IX

9. REPORTS AND RECORDS

Although time did not permit a detailed discussion of this aspect it was however agreed, that SPREP should produce a RMTCP newsletter or if this was not possible, include a section on the RMTCP in the SPREP Environment Newsletter.

It was agreed that the annual results of all the national level sub-projects including the data from census and tagging operations to be submitted to SPREP. This will be a requirement of funding support under the RMTCP. SPREP will prepare country summaries of the data from the census and tagging projects and an annual report on the RMTCP for both participating countries and supporting agencies.

SESSION X

10. RESOLUTIONS

During the course of the meeting a number of issues were identified which were considered of sufficient importance to warrant the adoption of resolutions by the Committee. These were:

RESOLUTION ON JAPANESE BEKKO TRADE

Recognising that the hawksbill turtle (*Eretmochelys imbricata*) is traditionally valuable for the countries of the South Pacific region,

noting that there has been a significant decline in populations of the hawksbill turtle in many places as a result of trade in scales of the hawksbill (known as bekko),

further noting that Japan is the largest importer of bekko in the world and that Japan has increased its imports of bekko from the South Pacific in recent years,

we urge the Government of Japan to assist the conservation of hawksbill turtles in the South Pacific region by considering a significant reduction in its imports of bekko from the South Pacific.

RESOLUTION ON BEKKO TERMINOLOGY

Noting that Japan is the major importer of the raw scales of the hawksbill turtle *Eretmochelys imbricata* and that import consignments of these raw scales are identified as 'bekko' in Japanese trade statistics,

further noting that national trade statistics currently use a variety of different and confusing terminology for bekko or do not have a distinct category for this material,

in order to better understand the trade factor adversely affecting the conservation of turtles, there is a need for a standardised nomenclature for export consignments of the raw scales of the hawksbill turtle,

we urge governments of the South Pacific Region to adopt as a standard the word "bekko" when referring to export consignments of the raw scales of the hawksbill turtle and to adopt a unique category for this material in their trade statistics.

RESOLUTION ON TURTLE EXPLOITATION IN INDONESIA

Recognising that green turtles are a highly migratory species and that available tag recapture data indicates movement of green turtles between the South Pacific Region and the South East Asian Region,

noting that there are very heavy levels of turtle harvesting and exploitation occurring in the waters surrounding Indonesia and that the Bali Turtle Market is one of the largest in South-East Asia,

we urge the Government of the Republic of Indonesia to:

(i) note our concern at the level of commercial trade in green turtles centred around Bali;

(ii) enter into discussions at the regional level to develop co-operative arrangements for the management and conservation of green turtles in the South East Asian Region; and

(iii) co-operate with the countries of the South Pacific region on inter-regional initiatives for marine turtle conservation and management.

RESOLUTION ON REGIONAL CO-OPERATION ON TURTLE CONSERVATION

Noting the resolution of the Fourth South Pacific Conference on National Parks and Protected Areas calling for the endorsement of the South Pacific Regional Marine Turtle Conservation and Management Programme by the SPREP IGM Meeting,

further noting the recent progress made with the development of a regional co-operative approach to the conservation and management of marine turtles in the South Pacific region through the South Pacific Regional Marine Turtle Conservation and Management Programme,

again recognising the highly migratory behaviour of marine turtles and the cultural and subsistence importance of these animals to the people of the countries of the South Pacific,

recognising also that the conservation and management of marine turtles require both national initiatives and international and regional co-operation,

recommends that consideration be given to the negotiation of a regional agreement for the conservation of threatened migratory marine species, particularly marine turtles, in the form of a protocol to Convention for the Protection of Environment and Natural Resources of the South Pacific (the SPREP Convention) by the Parties to that Convention.

RESOLUTION RECOGNISING DR ARCHIE CARR'S WORK

Recalling that the late Dr Archie Carr travelled to New Caledonia in 1979 to participate in and offer encouragement to an SPC sponsored workshop on marine turtles in the Pacific region,

recognising that Dr Carr's life-long work on the conservation and research of marine turtles in the Caribbean constitutes the foundation for many similar efforts worldwide,

realising that Dr Carr provided valuable assistance and inspiration to the initiation of certain marine turtle conservation activities in the Pacific,

therefore be it resolved by the Steering Committee that Dr Carr's significant contributions to marine turtle conservation be gratefully acknowledged, and that a copy of this resolution be transmitted to Mrs Carr and the Archie Carr Center for Sea Turtle Research in Gainesville, Florida USA.

It was agreed that if possible endorsement of these resolutions by the Intergovernmental Meeting on the SPREP Work Programme to be held 24-28 September 1990 should be sought.

11. FUTURE MEETINGS

The meeting had proved an invaluable forum for the further development of the RMTCP and had provided extremely valuable guidance to SPREP and the countries involved on the implementation of the programme. As such, it was agreed that a further meeting would be held at the same time immediately following the Regional Technical Fisheries Meeting in 1991. All reports relating to 1990 activities would be finalised and available for that meeting.

The meeting closed at 4.20 pm Wednesday 15 August 1990.

ANNEX I

AGENDA

Monday 13 August - **INTRODUCTION AND INFORMATION REQUIREMENTS**

8:30 - 10:00 A. INTRODUCTORY SESSIONS

- Introductions
- Review of Regional Marine Turtle Conservation and Management Programme (RMTP); meeting objectives/agenda

10:00 - 10:20 Tea

10:20 - 12:00

- Review of marine turtle conservation activities underway in the South Pacific:
  - . Federated States of Micronesia
  - . Fiji
  - . New Caledonia
  - . Palau
  - . Papua New Guinea
  - . Solomon Islands
  - . Vanuatu
  - . Queensland Department of Environment and Heritage
  - . National Marine Fisheries Service, Hawaii
  - . Greenpeace International

12:00 - 1:30 Lunch

1:30 - 3:15 B. INFORMATION AND DATA BASES

This session aims at reviewing the information and data base requirements of the RMTP and developing an appropriate project to either establish a new data base or co-ordinate South Pacific input and access to existing data bases. The Project will also identify and review existing information and legislation in the region.

3:15 - 3:30 Tea

3:30 - 5:00 Above session continued

Tuesday 14 August - RESEARCH

8:30 - 10:00 C. POPULATION CENSUS AND TAGGING ACTIVITIES

This session is aimed at developing the marine turtle population census and tagging elements of RMTP country sub-programmes. Proposals for a three-year ongoing programme of census and tagging at key baseline sites will be developed at the meeting.

10:00 - 10:20 Tea

10:20 - 12:00 Above session continued

12:00 - 1:30 Lunch

1:30 - 3:15 Above session continued

3:15 - 3:30 Tea

3:30 - 5:00 D. STANDARDISATION OF METHODOLOGY, TAGGING AND TAG RECOVERY ANALYSIS

This session is aimed at ensuring standardisation in the methodology to be applied to a national population and census sub-programmes. Elements to be discussed include:

- counting techniques
- tagging methods
- field data sheets
- data recording and analysis

5:00 - 5:30 E. EXPERT PERSONNEL REQUIREMENTS

This session will identify sources of expertise to assist with the RMTP generally and in particular with national census and tagging sub-programmes.

N.B. An extra evening session may be required to finalise agenda items D and E.

Wednesday 15 August - EDUCATION AND CONSERVATION

8:30 - 10:00 F. EDUCATION

This session will review the education requirements of the RMTP and will develop education projects for both the regional and national level, the latter to be integrated with national census and tagging sub-programmes. Discussion on:

- Education materials
- Posters
- Fact sheets
- Leaflets
- T-shirts, etc.

10:00 - 10:20 Tea

10:20 - 12:00 Above session continued

12:00 - 1:30 Lunch

1:30 - 3:15 G. CONSERVATION MEASURES

This session will look at specific ways to further the conservation of marine turtles under the RMTP and will include discussion on:

- Head starting programmes
- Appropriate forms of conservation area agreements
- Legislation and institutional building

3:15 - 3:30 Tea

3:30 - 5:00 Above session continued

5:00 - 5:30 Closing session: Review of achievements

ANNEX II

LIST OF PARTICIPANTS

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ANNEX III

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Working Paper 1	A regional marine turtle conservation and management programme for the South Pacific region

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