

Planning Workshop

- Marine and Coastal Zone Studies in the Asia-Pacific Region

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Summary Report from
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1. Introduction

The following is a preliminary report of the Coastal Zone Management (CZM) and Climate Change (CC) Workshop held at the Marine Studies Program (MSP) facility, The University of the South Pacific (USP), Suva, Fiji, 5-9 October, 1998. The main sponsors of the workshop were START International Secretariat, Asia Pacific Network (APN) and USP.

The overall objective of the workshop was to identify global change issues of oceanic importance and to develop research 'work plans' with specific reference to coastal issues and climate change/variability impacts.

The CZM component of the workshop was coordinated by Dr. Nick Harvey of the University of Adelaide, Australia and the CC component by Dr. K. Koshy of the University of the South Pacific, Fiji.

A local organising committee which consisted of Professor Bill Aalbersberg, Associate Professor Mahendra Kumar, Dr. Richard Beyer, Dr. James Terry, Professor Paddy Nunn and myself was solely responsible for the day-to-day coordination of the workshop. Since no staff appointments were made to the START-Oceania secretariat as yet, this turned out to be the best organisational arrangement.

2. Participants

Australia (5), New Zealand (4), USA (3), Tonga (1), Samoa (1), Niue (3), Kiribati (1), Vanuatu (1), Solomon Islands (1), ORSTOM (1), SPREP (2), UNEP (1), and about 30 other delegates representing USP, SOPAC, UNDP, WWF, SPCHEE, DoE, Greenpeace, PWD, Agricultural research station etc (see Appendix 1) for the list of Participants).

3. Agenda

The workshop was planned according to the general agenda given in Appendix 2a. and the final program that was followed during the workshop is given in Appendix 2b.

4. Opening (Day 1)

The first item on the agenda was the official opening of the START-Oceania Regional Secretariat at USP. In his welcoming address, the Vice Chancellor of USP Mr. Esekia Solofa said that the University is committed to promoting the START-Oceania initiative in this region (see the coverage in the USP Bulletin – Appendix 3a & 3b). He added that he was delighted to see USP being selected as the base for the regional START Secretariat and urged the scientific community to strive to make their research findings comprehensible to the public and the policy makers and also to help build regional capacity in dealing with environmental issues that confront the island nations of Oceania.

Professor Roland Fuchs, Director of START International Secretariat, USA, in his address highlighted the global mission of the START initiative as (i) to conduct research on regional aspects of global change (ii) to assess the impacts of global change (iii) to provide regionally important integrated and evaluated information to policy makers and governments. He added that START conducts its activities through regional networks of existing institutions as well as individual scientists realising that such collaboration provides many efficiencies and accelerates output. This, he said, was the major driving force behind the decision to establish the START-Oceania Secretariat at USP, the regional University of the South Pacific.

Dr. Koshy, the Director of the Oceania Secretariat, during his speech, mentioned that the regional START Network hopes to work closely with other global change research groups such as SPREP, ORSTOM, universities in Australia and New Zealand, USP, University of Guam and other organisations such as SPC, UNDP and departments of environments in the region. START is the international scientific community's response to local and regional environmental needs of developing countries of the world.

In Oceania, ocean plays an important role in shaping the climate of the region, extreme events such as cyclones, tsunamis, floods and droughts are a common feature of our climate system, ENSO related interannual rainfall variability and sea level fluctuations are also a distinct climate feature together with customary ownership of land and resources that have an important bearing on the way Pacific Islanders perceive global change issues. In recognising these, he added, START-Oceania can play an important role in the region's global change research agendas.

The next speaker, Mr. James Robertson of the Asia Pacific Network highlighted the role APN is playing in the area of global change in the region. APN is an intergovernmental organisation created to support the promotion of global environmental research in the Asia and Pacific region. The APN consists of member countries, the secretariat, steering group and the scientific planning group. All the major APN policy decisions are made during the annual inter-governmental meeting.

Mr. Robertson made the observation that APN so far has been mostly an Asian network and added that with the introduction of START-Oceania into the scene, the P (for Pacific) in APN should take up a more meaningful role. He encouraged the workshop participants to cooperate as much as possible with APN activities in the region. Details of APN's funding assistance for research and the role of APN liaison

officers were also explained during Mr. Robertson's presentation.

In officially opening the Regional START-Oceania Secretariat and the workshop, Mr. Romulo Garcia, the UNDP resident representative for Fiji and the South Pacific said that he was very pleased to see START reaching out to the Pacific to enhance the capacity of the region to deal with environmental issues of vital importance. He mentioned that UNDP and START shared similar views on the concept of sustainable development. However, he was concerned that the implementation of this concept may be difficult as it depended on changing patterns of production and consumption in the region.

For START with its emphasis on research in various aspects of global change issues, the dissemination of the findings to the public the policy makers and the United Nations systems will be extremely important, Mr. Garcia said.

Although funding for environmental work has diminished worldwide. UNDP/GEF support has still been made available for a number of vital projects in the Pacific. Included among them are areas such as international matters, the South Pacific Biodiversity Conservation Program and the Pacific Islands Climate Change Projects.

Mr. Garcia urged the scientific community to carry out the best quality research and to share the findings with policy makers to achieve a development pattern that is sustainable and suitable for the communities of the Pacific.

The opening session was concluded by Dr. Suredra Prasad, Head of the School of Pure and Applied Sciences, USP, with a vote of thanks and an invitation to join in the morning tea.

Note: Some photographs and a video tape of the opening session are included.

5. Plenary Presentations (Session 2 and 3)

After the opening session, the activities for the remainder of the first day proceeded according to the detailed workshop program (see Appendix 2b).

Session 2 was dedicated to plenary Presentations on Climate Change (CC). Professor Paddy Nunn, Geography Department, USP chaired this session.

The first presentation was by Professor John Hay of the School of Environmental and Marine Sciences, University of Auckland, New Zealand, whose topic was *Global Climate Change: A Pacific Perspective*. He addressed the role of science in global change studies, capacity building issues, International/Regional cooperation, unresolved and emerging issues with specific reference to how these affect the regional understanding of the environmental problems.

In the second plenary by Professor Mike Hamnett, the concentration was on the *Pacific ENSO Applications Centre (PEAC) and the 1997-1998 El Nino*, while the third speaker, Mr. Epeli Nasome, Director, Department of Environment, Fiji, addressed the *Implications of Climate Change issues from the point of view of Fiji*.

A half an hour discussion session followed.

Session 3, after lunch, was on the Coastal Zone Management theme. Professor Peter Newell, Biology Department, USP chaired the session.

The first speaker in this session was Professor Roger McLean of the Australian Defence Force Academy, Australian National University, Australia. In his speech Professor McLean highlighted aspects of the global coastal zone management issues and said that an understanding of the bio-geochemical processes in the coastal system must be combined with the dynamics of the socio-economic factors that drive such changes in the coastal zone.

Dr. Chalapan Kaluwin, SPREP, Apia, was the second speaker. He emphasized the need for development of an integrated coastal zone management system for the Oceanic region, an idea SPREP has been trying to promote in the region for some time. Such an approach would involve attention to the following: coastal habitat surveying and monitoring, management of coastal threats, integrated coastal management and planning, adherence to international coral reef initiative and wetland and mangrove systems.

The third and final of the plenary speakers, Professor Paddy Nunn, USP, talked about the Recent and Future coastal changes in the Pacific Islands: Management implications. In Professor Nunn's view not all environmental changes observed in the Pacific are the result of human impact on settled environments, many of them in fact are the results of natural forces. A clear understanding of these changes, according to Professor Nunn, holds the key to unraveling the secrets of both the more recent past and also the future climate change and sea level rise impacts on island environments.

A thirty minute discussion followed the three presentations in this session.

6. Working Group (WG) Formation: Session 4

Professor Bill Aalbersberg, Chemistry Department, USP chaired this session. The main objective of the session was to divide the workshop participants into WGs based on their field of interest and expertise.

A preliminary list of participants, divided into 6 WGs, was distributed and it was found that only minor adjustments were necessary for this arrangement (see Appendix 4a). The working groups were briefed along the ideas presented in the *operational details* handouts given to them (see Appendix 4b). Six group leaders were also elected: John hay, Graham Sems, John Campbell, Robin South, Dick Warrick and Paddy Nunn.

There was a welcome cocktail on Monday evening (see Appendix 5)

7. Working Group Discussions and Plenaries (Day 2 and 3)

During most of day 2 and 3, (Tuesday and Wednesday), the participants were engaged in identifying global change projects of regional relevance and global significance which fell into the identified program areas of APN, START, IGBP, WCRP, IHDP, GEF and similar funding agencies.

During the first plenary after the WGs meetings on Tuesday chaired by Professor Fuchs, group leaders presented a summary of their working group discussions.

It was decided during this session that the number of WGs must be reduced to 4 based on the commonality of project ideas presented; four new group leaders were also selected: CZM, two groups: leaders – Paddy Nunn, Meg Keen/Gerry Ward. CC, two groups: leaders – K. Koshy/K. Chalapan, John Campbell. During the discussion on Tuesday and Wednesday the group ideas were consolidated into project proposals under four (4) major themes as follows:

- *Vulnerability and Adaptation Program for the Pacific Islands*, including specific projects on Regional Scenarios of Climate Change and Socio-economic Development, Community Vulnerability and Adaptation Assessment, Integrated Assessment Modeling and Upscaling Vulnerability Assessment Findings.
- *Climate Change and Variability, including projects on Atmospheric Composition* (USP and University of Wollongong), Greenhouse Gas Inventory (SPREP) and Climate Variability (ORSTOM).
- *Island Ocean Interactions in the Pacific*, including projects on Coastal System Fluxes and Atoll Environments.
- *Management Practices for Mangrove Ecosystems*, the role of government, coastal development and mangroves, customary knowledge/ownership and mangrove health, bio-geochemical variations, in mangrove ecosystems and the economic value of mangrove communities.

A deadline of December 15 was set for the WG leaders to submit the final version of the project proposals to the START-Oceania Secretariat.

There was a workshop dinner on Wednesday evening (see Invitation Appendix 6).

8. Poster Session

During the 2 hour lunch break on Thursday, there was a poster session at the MSP foyer; about 8 poster demonstrations were presented by various participants.

9. Final Proposals and Special Themes (Day 4)

During sessions 1 and 2 on Thursday morning the final proposals were again discussed in plenaries and refined.

Session 3, in the afternoon, took place in the ISAS Conference Room, chaired by Dr. K. Koshy.

The objective of this session was to introduce and discuss, briefly, project areas which were not covered under the workshop theme of CZM and CC.

Professor Randy Thaman, Department of Geography, USP in his paper on *Thinking*

Globally and Acting Locally touched upon various practical aspects of island terrestrial and marine biodiversity issues. Mr. Johnson Seeto, Lecturer in Marine Studies, USP concentrated on the value of preserving Marine Biodiversity and commented on the various threats to these communities.

Dr. Koshy discussed the implications of a number of USP research projects currently in progress in the general area of *Atmospheric Chemistry*: projects on ozone, the greenhouse gases, acidic precipitation, aerosol and atmospheric radio activity. He solicited international/regional participation in these and related projects as appropriate.

Professor Dave Griffith, University of Wollongong, Australia presented a paper on *High precision – FTIR atmospheric trace gas analysis* in which he discussed the methods used for the analyses, his team's work in Cape Grim and Charles point, flux measurements and low to high resolution isotope work. He mentioned that the FTIR technique that has been developed in his lab could be used for the measurement of several atmospheric gases such as CO₂, CO, CH₄, N₂O and H₂O.

10. START-Oceania Committee Meeting

The committee met first on Monday during lunch time and again on Thursday afternoon. The draft agenda (Appendix 7) was accepted.

The main decisions made during the meetings included: the election of Dr. K. Koshy to be the Chair of the START-Oceania Committee and the Director of the START-Oceania Secretariat for the next two years, a move to include the University of Papua New Guinea and SOPAC into the oceanic committee, the provision for appropriate appointments to the USP START Secretariat to start active operations from January 1999, and the decision to develop START-Oceania Research projects based on the proposals that emerged from the workshop.

11. Field Trip (Day 5)

About 30 workshop participants took part in the day-long field trip to Culanuku, Korotogo and the Sigatoka Sand dunes; the trip was both educational and enjoyable.

12. Conclusion

On behalf of the workshop and START-Oceania Regional Network, I would like to express my sincere appreciation for the generous funding support and other assistance provided by the staff of the International START Secretariat, the staff of APN and the administration and different other sections of USP, towards the running of the workshop. Thanks are also expressed, in no less a degree, to all others who have helped but remain anonymous.

The feedback from the workshop participants is that with four research proposals drafted with reasonable level of detail and several potential funders identified, the workshop had been successful in realizing its goals.