

APPENDIX 5

STAR CHAIR'S REPORT TO COUNCIL 2004

Chair of SOPAC, Excellencies, Distinguished National representatives and Delegation members, representatives of Institutions and Organisations, Ladies and Gentlemen.

I. Introduction

Thank you for this opportunity to formally report on STAR's activities. But before I do so, may I take the opportunity on behalf of STAR to extend our congratulations and best wishes to Cristelle as the new director of SOPAC. I am sure that our working relationship will be as productive as that with her predecessor, Alf Simpson.

As people here for the first time may not be familiar with STAR, I will briefly outline its role.

STAR is SOPAC's Science, Technology and Resources Network and it acts as an interface between the SOPAC Secretariat and its member nations and the international scientific community. It does this in several ways. Every few years, an international scientific workshop or meeting is either convened by STAR, or held under its auspices, on a broad theme relevant to the SOPAC region. STAR members also correspond and tender advice during the intervening periods.

Each year, a meeting at which scientific papers are presented and discussed, and thematic Working Groups meet, is held prior to this Annual Session of the SOPAC Governing Council. This year, the 21st meeting of STAR was held on September 18th and 19th at this hotel. As STAR is celebrating its 21st birthday, I would here like to acknowledge Dr Kazuhiro Kitazawa who is present at this meeting and who was instrumental in setting up STAR originally. That this unique symbiosis of scientists, managers and policymakers still thrives is a tribute to the foresight of Kazu and the others who were involved at the start.

II. STAR Presentations

As the Chair of SOPAC outlined this morning, the themes of this year's STAR meeting were:

- Mineral policy, plate tectonics and offshore mining,
- Hazard assessment and risk management, and
- Water, sanitation and human settlement.

These themes were well developed and, as is customary with STAR, there were a range of other papers on topics relevant to the region. During the meeting, 54 scientific papers and two longer general talks were presented orally and 26 others by the posters displaying research results you see displayed at the back of this room. Abstracts of these are published in SOPAC Miscellaneous Report 576. As is always the case for STAR meetings, the information presented covered a broad range and participants included representatives from disciplines other than earth science. I recommend the volume of abstracts as a guide to the range of material covered and as a source of much useful information.

Let me briefly outline the scope of the presentations for you, to indicate the variety. During the Geology & Geophysics session, papers covered aspects of the geology of tectonic plate boundaries and of other onshore and offshore structural features. Oceans & Coastal papers looked at data collection and application from several viewpoints, coastal and lagoonal change, and policy issues. Hazards & Risk Management presentations covered a wide range of topics, including case studies in Australia, New Zealand and Fiji, and the conclusions to be drawn from them. Three presentations devoted to the effects of tropical cyclone Heta were of particular interest as last year's STAR/Annual Session meetings were held on that island.

Tsunami papers partly inspired by the South Pacific Tsunami Awareness Workshop in July filled three sessions, and covered many aspects of this hazard. Papers associated with community lifelines covered issues related to water, sanitation and capacity building, as well as discussions on societal development in the Solomon Islands and cost-benefit analyses of black pearl farming.

The final session looked at several renewable

energy options together with petroleum and deep ocean mining.

On Sunday evening, the meeting featured two guest lectures on more general issues relevant to the region. These were entitled “*What is meant by sustainable development*” by Andrew Matthews of NIWA and “*Oceans and their economic significance and opportunities for the Pacific*” by Alex Malahoff of IGNS.

III. Working Groups

In addition to the scientific presentations, 5 working groups also met. These working groups offer an important opportunity for STAR delegates to bring to the attention of Council items of particular scientific and technical importance to the region.

This year the Energy, Observations & Monitoring, Risks, Tsunami and Water, Sanitation & Hygiene working groups met. I will report briefly on their main recommendations here but the full reports with supporting arguments for the conclusions are appended and I recommend these for your perusal.

The *Energy Working Group* made the following recommendations: Energy Working Group (EWG) noted that a number of the recommendations from 2003 still remain relevant and where necessary have been combined or updated and included in this report. The key issues were as follows:

The WG noted the need to encourage the transfer of information on renewable energy technologies and projects that have been utilised within the region. The EWG acknowledged and accepted Papua New Guinea’s offer to work jointly with SOPAC to report on progress with geothermal energy development in particular the Lihir Geothermal Project which could be used as a model for other geothermal project development.

The Working Group further:

- endorsed the proactive approach that SOPAC has taken in respect to the ongoing resource assessment in wind, wave, ocean thermal, geothermal, bio-fuels and biomass, and encouraging the publication of this information;
- reinforced the urgent need to establish an arrangement between Power Utilities, the Pacific Power Association (PPA) and SOPAC so as to allow the open and unrestricted sharing of power utility information and data;

- reinforced its support for the earlier proposal to convene a central workshop to bring technicians from PICs together to provide training and support to PICs in GIS and Remote Sensing and encourage a particular emphasis for the utilities;
- noted the proposal for a Regional Energy Meeting (REM2004 to be convened in December in Madang, Papua New Guinea;

Finally, the EWG noted the encouraging increased interest in Energy within STAR and the upcoming events such as CSD14 and CSD15 (2006/2007) which include energy and could provide a focus within future STAR Sessions.

The *Observations & Monitoring Working Group* working group met to discuss the Pacific Island GOOS coordinator’s work plan. The coordinator position was established recently at SOPAC through combined funding of the IOC Perth Office, Bureau of Meteorology Australia and NOAA and Ms. Sarah Grimes was appointed to that position.

The working group concluded that an important action for Ms. Grimes should be reconstituting the PI-GOOS Steering Committee, establishing national focal points for PI-GOOS countries and National Coordinating Committees for PI-GOOS.

Key immediate tasks are to establish a network, a website for PI-GOOS, travel to countries to assess needs and identify applications, surveys of the user community, interactions with service providers overseas - with close collaboration with the IOC Perth Office.

A work plan will be drafted and reviewed by SOPAC and GOOS to ensure oversight and enhance donor support.

Ms. Grimes will seek to improve interactions with foreign research vessel activities, including advance knowledge of ship schedules, greater participation in research activities, receipt of research results and improved communications with researchers through guest lectures and seminars.

The *Risks Working Group* defined several objectives and recommendations to Council.

The first objective is a greater focus on how partnerships actually build capacity between SOPAC members and the respective national organisations

Recommendation; that Governing Council:

- initiate a medium-term study to determine how regional action plans are translated

into increased capacity for national programs, among both public and private sector institutions; and

- review the appropriateness of risk management models and their implementation among different communities and sector groups.

The second objective is collaboration in geological, geochemical, meteorological and climatological hazard monitoring, to achieve effective minimum surveillance of SW Pacific hazards.

Recommendation; that Governing Council:

- note that, without the ability to detect hazards and evaluate trends, the risk management process has no adequate basis;
- note that timely pre- and post-disaster data collection is an effective means of establishing the cost-benefits for long-term mitigation planning;
- agree to create a framework for pre- and post-disaster assessment, with open sharing of information and appropriate use of regional capabilities in association with development of a Spatial Data Infrastructure (SDI); and
- agree to commission a feasibility study to determine the prerequisite capabilities (infrastructural, organisational, financial and political) for minimum, effective hazard detection, alerts and warnings.

The *Tsunami Working Group* considered the recommendations of the South Pacific Tsunami Awareness Workshop July 1 – 3, 2004 and several other meetings, as well as the presentations of the STAR. They presented the following recommendations for Council endorsement:

1. Support for the South Pacific Tsunami Awareness Workshop's proposed work programme for 2 years as agreed in July 2004 and specifically to:
 - Finalise the Terms of Reference and establish a SOPAC Tsunami Working Group, which is to produce a work schedule within two months;
 - Coordinate the investigation and development of a Regional Tsunami Information and Warning System within the SOPAC region;
 - Finalise the Terms of Reference for the recommended Feasibility Study;
 - Seek resources to conduct the Feasibility Study for the Regional Tsunami Information and Warning System.

2. Consider the inclusion of the South Pacific Tsunami Awareness Workshop's proposed work programme in the Draft Pacific Regional Position Paper for the 2nd World Conference on Disaster Reduction.

The members of the *Water, Sanitation & Hygiene Working Group* (WASH WG) present the following recommendations:

1. They recommend that the Community Lifelines Programme continues to build its Water Sector programme upon the Regional Action Plan on Sustainable Water Management (Pacific RAP).
2. They recommend the CLP continues to host the Coordination Unit and facilitate the Pacific Partnership on Sustainable Water Management as a modality for the implementation of the Pacific RAP.
3. The WASH WG recommends SOPAC Member Countries use the Pacific RAP to develop and implement National Water Action Plans for Sustainable Water Management.
4. The WASH WG recommends CLP assist in improving the availability and access to information on water and sanitation on national and regional levels through the development of databases and GIS/GPS.

With reference to the six thematic areas of the Pacific RAP the WASH WG specifically recommends CLP to provide contributions specifically to the following programmes:

- I. Water Resources Management,
- II. Island Vulnerability,
- III. Awareness,
- IV. Technology,
- V. Institutional Arrangements, and
- VI. Financing.

IV. General Comments from Chair of STAR

At this point, I would appreciate the opportunity to convey some personal impressions of this STAR meeting. The first is that the clearly applied direction to much of the research that has always been a particular feature of STAR continues and is increasingly directed towards the provision of quality technical advice to member governments. As just two examples of practical studies, we heard details of the processes of deep ocean mining and of the use of copra oil as a transport fuel. A second point that impressed me is that large volumes of quantitative data are coming available rapidly now from

a range of monitoring and remote sensing systems, and incorporating up-to-the-minute information into research and policy will be a continuing challenge for us all. Finally, this year about half of the STAR presentations were from scientists based within the SOPAC region and a goodly proportion of those dealt with Papua New Guinea, giving us a glimpse of the fascinating geology of that country which the Chair of SOPAC alluded to in his greeting to us this morning. Combined with the other presentations, we are seeing genuinely global research but with a strong Pacific base.

As usual, STAR is indebted to staff of the SOPAC Secretariat for their cheerful and untiring efforts that make the meeting possible. The STAR

meetings are organised over a much shorter time frame, and with fewer staff, than any other conferences with which I have been associated. That is only possible thanks to the efforts of the Secretariat who, of course, also have this meeting to prepare. And finally, Mr Chairman, may I take this opportunity as Chair of STAR speaking on behalf of all the scientists to thank our hosts, the Government and people of Papua New Guinea. And personally I'd like to say thank you for your support during the meeting.

That concludes my address. Thank you.

John Collen

Chair, Science Technology and Resources Network (STAR)

Fiji, 21 September 2004

ATTACHMENT TO STAR CHAIR'S REPORT MINUTES OF STAR WORKING GROUPS

I. Energy Working Group

Working Group Members: Bernard Pawih (PNG) [Chair], Joe Buleka (PNG), Nathan Mosusu (PNG); Donn Tolia (Solomon Islands), Isaac Lekelalu (Solomon Islands) Chris Ioan (Vanuatu), Ian Fry (Tuvalu), Taputoa Titimaea (Samoa – Water Utility), Andrews Matthews (NIWA-NZ), Paul Fairbairn (SOPAC), Gerhard Zieroth (SOPAC), Anare Matakiviti (SOPAC), Yogita Bhikabhai (SOPAC), Jan Cloin (SOPAC – apology).

Facilitator/Rapporteur: Donn Tolia (Solomon Islands), Paul Fairbairn (SOPAC). Edits provided by Andrews Matthews (NIWA-NZ) and Ian Fry (Tuvalu).

Working Group Report & Recommendations:

The members of the Energy Working Group (EWG) agreed the following recommendations should be submitted to Governing Council for the benefit of the Community Lifelines Programme (CLP) and individual Member Countries. In making this report it should be noted that a number of the recommendations from 2003 still remain relevant and where necessary have been combined or updated and included in this report. The key issues were as follows:

- i) Noted the progress in the region with the development of renewable energy technologies and the need for PICs to continue to plan for the design, development, integration and use of these alternate sources of energy.
- ii) Noted the interest and need to encourage the transfer of information on renewable energy technologies and projects that have been utilised within the region. The EWG acknowledged and accepted Papua New Guinea's offer to work jointly with SOPAC to report on progress with geothermal energy development in particular the recent Lihir Geothermal Project in PNG where this could be used as a model for other geothermal project development.
- iii) Noting the technical publications already prepared and published by SOPAC and those in final draft, requested that SOPAC continue to update these as relevant taking into account pilot projects such as the Lihir Geothermal, and further take a lead role in the identification and dissemination of information on new and developing technologies including information where research is being carried out on relevant alternate energy sources and development that are relevant for adoption within the region.
- iv) Endorsed the proactive approach that

SOPAC has taken in respect to the ongoing resource assessment in wind, wave, ocean thermal, geothermal, bio-fuels and biomass, encouraged the publication of this information including the monitoring and reporting on the use of other potential energy sources and fuels such as ethanol.

- v) Acknowledged the work of NIWA in resource assessment (in wind, wave and tidal) and in particular highlighted recent work in modelling complex terrain.
- vi) Recommended that SOPAC continue to monitor the progress with other potential developing energy technologies.
- vii) Noted and supported the current exchange of energy information through the Pacific Energy Newsletter (PEN) and the Pacific Power Association (PPA) Magazine.
- viii) Reinforced the urgent need to establish an arrangement between Power Utilities, the Pacific Power Association (PPA) and SOPAC so as to allow the open and unrestricted sharing of power utility information and data without condition or constraint.
- ix) Reinforced its supported for the earlier proposal to convene a central workshop to bring technicians from PICs together to provide training and support to PICs in GIS and Remote Sensing and encourage a particular emphasis for the utilities (power / water / telecom / PWD). Furthermore the EWG encourages SOPAC to seek funding to support this initiative.
- x) Noted the need to continue in parallel with identifying alternate energy sources the implementation of demand and supply side management and sustainable energy developments to reduce wastage and improve efficiency.
- xi) Noted and thanked SOPAC for the update on the current review of the Pacific Islands Energy Policy and Plan (PIEPP), the Pacific Islands Energy Policy and Strategic Action Planning (PIEPSAP) Project, the GEF Regional Energy Efficiency Project (Transport Sector), and the Pacific Islands Renewable Energy Project (PIREP – Phase I) and proposed PIREP – Phase II.
- xii) Noted the proposal for a Regional Energy Meeting (REM2004) to be convened in December in Madang, Papua New Guinea.
- xiii) Concern was noted regarding the split in regional renewable energy activities between CROP Organisations and urged greater collaboration between CROP Organisations to ensure more effective, effi-

cient and coordinated delivery of regional renewable energy programmes.

- xiv) The EWG noted the future proposed strengthening of the regional energy programme at SOPAC to provide assistance to member countries through the Pacific Islands Energy Policy and Strategic Action Planning (PIEPSAP) Project in policy and planning matters.
- xv) The proposal of SPREP to develop a set of Guidelines for the development of CDM projects was noted. The EWG highlighted that as there were significant inter-linkages between CDM and energy, noted that CDM was also a component within the PIEPSAP menu of options, and hoped that there would be collaboration between SPREP and SOPAC in the development of the guidelines and energy focused CDM projects.
- xvi) Finally the EWG noted the encouraging increased interest in the Energy within STAR and that the upcoming events, in particular the CSD14 and CSD15 (2006/2007) which includes energy and could provide a focal area for future STAR Sessions.

II. Observations and Monitoring Working Group

Chair: Bill Erb

The working group met to discuss the progress of Pacific Island GOOS and to suggest activities to be undertaken by the new PI-GOOS Coordinator Ms. Sarah Grimes. The coordinator position was established recently through combined funding of the IOC Perth Office, Bureau of Meteorology Australia and NOAA. Ms. Grimes will be located at SOPAC who will provide her local support.

In the past year PI-GOOS has made significant progress with continued capacity building related to activities in SEREAD, remote sensing and regional organizational development. A workshop was held in Brisbane on remote sensing, SOPAC hosted the first meeting of the GOOS Regional Alliances in Suva and SEREAD completed the resource manuals for primary and secondary schools and conducted three workshops in the region to train teachers.

The working group concluded that an important action for Ms. Grimes should be reconstituting the PI-GOOS Steering Committee, establishing national focal points for PI-GOOS coun-

tries and National Coordinating Committees for PI-GOOS. These organizational entities will guide and assist the future development of the program and are critical elements.

Key immediate tasks for Ms. Grimes are to establish a network and improve communication. Steps to be taken include a website for PI-GOOS with proper linkages. Travel to countries is required to assess needs and to identify applications and services that are available to the countries. Assessment of needs will be enhanced by surveys of the user community throughout the region. Interactions with service providers overseas will be necessary to achieve an understanding of the applications available and to negotiate with the service providers delivery of the services to the South Pacific. The IOC Perth Office will work closely with Ms. Grimes to achieve this result and will provide continued funding support.

Reflecting the result of the PAAOP Workshop Ms. Grimes will also devote some time to improving interactions with foreign research vessel activities in the region. This should include advance knowledge of ship research schedules, greater participation by locals in research activities and research cruise results and information, and improved communications with researchers through guest lectures and seminars while transiting through the region.

The PI-GOOS initiative is one requiring governmental cooperation, commitment and a great deal of personal support, volunteerism and a community spirit. We are hoping that that the South Pacific will share this commitment for the benefit of all the people in its region.

The key elements associated with PI-GOOS are PRODUCTS, COMMUNICATIONS, ORGANIZATION, OBSERVATIONS, COMMITMENT, PEOPLE and FUNDING.

III. RISK Working Group

Present: Amo Mark (PNG) (Vice Chair), Anciet Beauvais (IRD, New Caledonia), Andrew Matthews (NIWA, NZ), Bernard Pelletier (IRD, New Caledonia), David Heron (GNS, NZ), Doug Ramsay (NIWA, NZ), Emily McKenzie (SOPAC), Hugh Cowan (GNS, NZ) (Chair), Michael Bonte (SOPAC), Noud Leenders (SOPAC), Peter Newsome (Landcare, NZ), Roger Jones (SOPAC), Sandra Melzer (Uni. Bonn, Germany), Tariq Rahiman (Uni. Cant. NZ)

Apologies: Laura Kong (ITSU, Hawaii), Wally

Johnson (GA, Australia), Stan Goosby (PDC, Hawaii)

Introduction

“RISK” encompasses all of the environmental, technological, social and economic factors that affect the well-being of SOPAC member communities.

This broad scope is reflected in the range of affiliations and discipline expertise offered by the members of this ad-hoc working group.

The following objectives and recommendations reflect awareness or perception of growing needs arising from work in progress among member organisations and States. We submit these views for consideration by the SOPAC Governing Council.

Objectives and Recommendations

Objective: A greater focus on how partnerships actually build capacity between SOPAC members and the respective national organisations.

Recommendation: That the Governing Council:

Initiate a medium-term study to determine how regional action plans are translated into increased capacity for national programs, among both public and private sector institutions¹

Review the appropriateness of risk management models and their implementation among different communities and sector groups

Objective: Collaboration in geological, geochemical, meteorological and climatological hazard monitoring, to achieve effective minimum surveillance of SW Pacific hazards.

Recommendation: That the Governing Council:

Note, that without the ability to detect hazards and evaluate trends, the risk management process has no adequate basis²

Note, that timely pre-and post-disaster data collection is an effective means of establishing the cost-benefits for long-term mitigation planning

Agree, to create a framework for pre- and post-disaster assessment, with open sharing of in-

¹ An example could be the regional action plan for sustainable water use

² This applies to all hazards. Illustrative examples include detection of tsunami or volcanic ash plumes, resource depletion, water or soil contamination and coastal erosion

formation and appropriate use of regional capabilities in association with development of a Spatial Data Infrastructure (SDI)

Agree, to commission a feasibility study to determine the prerequisite capabilities (infrastructural, organisational, financial and political) for minimum, effective hazard detection, alerts and warnings

IV. Tsunami Working Group

Members of Group: Lawrence Anton [Chair], Atu Kaloumaira, Michael Bonte-Graptin, Noud Leenders, Job Esau, Laura Kong, Loren Kroenke, Wally Johnson, Dave Tappin, Doug Ramsay, Chalapan Kaluwin, Chip McCreery, Bernard Pelletier, Kazuhara Kitazawa, and Kata Duaibe

Recommendation to Council: Upon considering the recommendations of the South Pacific Tsunami Awareness Workshop July 1 – 3, 2004, the presentations of the STAR session and the discussions of the STAR Tsunami Working Group; and

Recognizing the long experiences of the UNESCO/IOC International Coordination Group for the Tsunami Warning System in the Pacific (ITSU) and its efforts to promote the development of regional tsunami warning systems in the Pacific for more effective tsunami mitigation; and

Noting the Draft Pacific Regional Position Paper for the 2nd World Conference on Disaster Reduction;

We present the following **recommendations** for Council endorsement:

1. Support the South Pacific Tsunami Awareness Workshop's proposed work programme for 2 years as agreed in July 2004 and specifically to:

- Finalise the Terms of Reference and establish a SOPAC Tsunami Working Group, which is to produce a work schedule within two months;
- Coordinate the investigation and development of a Regional Tsunami Information and Warning System within the SOPAC region;
- Finalise the Terms of Reference for the recommended Feasibility Study;

Seek resources to conduct the Feasibility Study for the Regional Tsunami Information and Warning System.

2. Consider the inclusion of the South Pacific Tsunami Awareness Workshop's proposed work programme in the Draft Pacific Regional Position Paper for the 2nd World Conference on Disaster Reduction.

V. Water, Sanitation And Hygiene Working Group

Working Group Members: Tevita Fatai, (Tonga); Isaac Lekelalu, (Sol.Is); Andrew Matthews, (NIWA); Alex Malahoff, (GNS, NZ); Paula Wilisoni (Fiji); Andre Siohane (Niue); Ben Parakoti (Cook Is); Tamara Tait, (GNS, NZ); Petero Lafaele (ASPA, Am. Samoa); Esmond Moses (PUC, Pohnpei); David Dengokl (BPW, Palau); Anthony Chargualaf (Guam Waterworks Authority); George Laman, (Yap Water Authority); Lameko Talia, (Met. Samoa); Malakai Finau, (MRD, Fiji); Amataga Penaia, (SWA, Samoa); Moefaauro Taputoa Titimaea, (SWA, Samoa); Amo Mark, (PNG Waterboard); Taboia Metutera, (PUB, Kiribati); Lucio Haller, (CPUC, Chuuk); Eita Metai, (PUB, Kiribati); Ian Fry, Env. Division, Tuvalu). Alena Lawedrau-Moroqa, (SOPAC); Rhonda Bower, (SOPAC); Marc Overmars, (SOPAC); Sarabjeet Singh, (SOPAC); Sarah Davies, (SOPAC); Stephen Booth, (SOPAC).

Facilitator/Rapporteur: Mike Dworksy (PWA)

Working Group Report & Recommendations:

The members of the Water, Sanitation & Hygiene Working Group (WASH WG) agreed the following recommendations should be submitted to Governing Council for the benefit of the Community Lifelines Programme (CLP) and individual Member Countries:

The WASH WG recommends the CLP continues to build its Water Sector programme upon the Regional Action Plan on Sustainable Water Management (Pacific RAP).

The WASH WG recommends the CLP continues to host the Coordination Unit and facilitate the Pacific Partnership on Sustainable Water Management as a modality for the implementation of the Pacific RAP.

The WASH WG recommends SOPAC Member Countries to use the Pacific RAP to develop and implement National Water Action Plans for Sustainable Water Management.

The WASH WG recommends CLP to assist in improving the availability and access to information on water and sanitation on national an

regional levels through the development of databases and GIS/GPS.

With reference to the six thematic areas of the Pacific RAP the WASH WG specifically recommends CLP to provide contributions specifically to the following programmes and actions:

I. Water Resources Management – A hydrology support programme for National Hydrological Services to augment the regional hydrological training programme.

II. Island Vulnerability – Improve access to climate information and assistance in drought mitigation and disaster preparedness for water managers.

III. Awareness – Improve communication and

coordination between all stakeholders in water, sanitation and hygiene

IV. Technology – A comprehensive regional water demand management and leak detection programme to reduce unaccounted-for water.

V. Institutional Arrangements – Develop National instruments (including national visions, policies, plans and legislation) for good water governance appropriate to each island country and adopt a Integrated Water Resources Management approach.

VI. Financing – Reduces costs through improved operational efficiencies using benchmarking, asset management, development of water-loss reduction programmes and improved work practices.