PACIFIC REGIONAL VECTOR BORNE DISEASES PROJECT

Quarterly Report
Period April to June 1997

Project Name: Pacific Regional Vector Borne Diseases Project.

Implementing Agency: South Pacific Commission

Project Commencement Date: MOU signed between AusAID and SPC on 30/5/1996.

Project Duration: 4 years

Period Covered by this report: 01/04/97 to 30/06/97.

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INTRODUCTION

The goal of the project is to reduce morbidity and mortality from vector-borne diseases, particularly malaria, dengue and filariasis, in the South Pacific region through a comprehensive range of activities focusing on regional cooperation and in-country capacity building. There are inputs to policy, staff training and development, medical and laboratory services, environmental health services and vector control. There is a strong emphasis on participation by communities.

The main activities during this period include:

- progress on dengue surveillance and response plans in the Pacific
- review of national malaria plans in Vanuatu and Solomon Islands
- initial field visit to Fiji
- ad hoc PCC meeting in Noumea
- progress on planning of field activities for second half of 1997.

ACHIEVEMENT BY COMPONENT

COMPONENT 1. Planning, Management, Evaluation.

Output 1.1 VBD program planning

Activity 1.1.1 Review/evaluate current plans

The review and evaluation of national vector control plans is continuing. The project team visited Fiji for the first time (18th - 28th June 1997), to discuss dengue and filariasis activities, and the plans to co-locate the national vector control unit and the filariasis control unit in a new building along with the Wellcome Virus Laboratory. We have outlined a plan to provide support for the upgrading of the capacity of the virus lab to act as a regional reference centre for dengue.

During the Fiji meeting, we brought in 3 staff from each of Solomon Islands and Vanuatu for a review of Fiji's national dengue control program. This included a review of field activities in the urban and peri-urban areas of Suva, as well as a review of activities in the town of Labasa and some rural sub-divisions in Vanua Levu. Following this we discussed in detail the components of a comprehensive national plan, and began work on plans for Solomon Islands and Vanuatu. The trip report has been sent out separately. This will be followed up over the next quarter, with project staff assisting national staff to finalise national plans.

We also revisited Vanuatu (16th and 17th June 1997), to make progress on the plans for procurement, training and renovation of facilities. The trip report (with recommendations) is included as attachment 1.

The review of these plans is continuing.

1.1.2 Develop/strengthen strategic and annual plans

The project supported dengue control staff from Fiji, Vanuatu, Solomon Islands, Cook Islands, Western Samoa and Federated States of Micronesia to attend the 4th International Dengue Symposium in French Polynesia (14th - 17th April 1997). See attachment for a list of participants we supported (attachment 2). There we convened a meeting to begin the process of developing/strengthening national dengue plans. The meeting was attended by representatives of each of the above countries, WHO, CDC and several regional laboratories. The background paper we used for discussion, a list of conclusions and dengue vector control strategies are attached (attachments 3, 4 & 5).

Plans to further strengthen dengue early warning systems in the Pacific Island Countries were discussed at a meeting with scientists at the Pasteur Institute in Noumea on 13 June 1997. This institution is already involved in assisting Vanuatu with serological diagnosis of suspected dengue cases and it was proposed to conduct an operational research study to evaluate the sensitivity and specificity of rapid diagnosis methods for dengue (attachment 6).

This was followed up by a dengue planning workshop in Fiji (23rd - 27th June 1997), for staff from Solomon Islands and Vanuatu. The purposes of this workshop were:

- to become acquainted with the Fiji national dengue plan,
- to continue the process of developing national dengue plans for Vanuatu and Solomon Islands.

1.1.3 Training in management/planning

We have commenced development of suitable curricula for management training. There is also a possibility to work in with courses run by ACITHN in Brisbane. This will be finalised over the next two quarters. Training will be scheduled for late 1997 or early 1998.

1.2 Health information systems

1.2.1 Review current situation

The short term consultancy in HIS is scheduled for August and September. The consultant will conduct a review of the malaria and dengue components of the HIS both regionally and in each focal country, and develop a detailed action plan for the next 12 months. A GIS specialist who is familiar with the focal countries is scheduled to come to SPC for a week in September to discuss and plan the GIS aspects of the project. This overlaps with the HIS STC. Their terms of reference are attached (attachment 7).

1.2.2 Develop/strengthen HIS/GIS

A plan for these activities will be one of the outputs of the activities under 1.2.1

1.3 Regional surveillance/epidemic alert/quarantine

1.3.1 Training of key national staff

No activity this quarter. This is pending the report of the HIS consultant.

1.3.2 Regular dissemination of information

We have held discussions at SPC regarding support for dissemination of surveillance and epidemic information. There is a need to create a position to collate and distribute information on vector borne and other diseases. This could be covered at least in part under the budget for this activity. Discussions are continuing.

1.3.3 Annual forum on HIS/VBD

The idea that annual forums should be co-ordinated with meetings of the Pacific Public Health Surveillance Network (1998, 2000) and the South West Pacific Malaria meetings (1997, 1999) will be raised at the appropriate meetings in July and September.

1.3.4 Strengthen/develop protocols/strategies (e.g. dengue EWS)

Development of guidelines for dengue surveillance is continuing with each country. We will be represented at the WHO bi-regional meeting on this topic, in July 1997.

1.4 Regional surveillance co-ordination unit

(Note that this Section will be renamed 'Project Management' in the change frame in this year's Annual Plan).

1.4.1 SPC project co-ordination unit

The project co-ordination unit at SPC is fully established. The position of Project Assistant was filled in April by Mrs. Gilda Manuel de Condinguy.

We held a planning meeting in Noumea (28th - 30th April 1997). All PCC members and project staff, plus Mr Gyan Prakash (Fiji), Mr George Taleo (Vanuatu), Dr Karl Rieckmann (AMI) and Dr Mike Toole (MBC) attended. The outcomes of the discussions have been incorporated into the development of the annual plan (previously circulated).

The Project Co-ordinating Committee (PCC) held an ad hoc meeting in Noumea on 2nd May1997. A report of this meeting is included as attachment 8.

Vanuatu has requested plans and quotations for renovation of the vector control unit (to be funded from their lumpsum grant). These are not yet available. We will follow up on the next visit to Vanuatu.

1.4.2 NGO/CBO co-ordination

Mr Hilson Toaliu is progressing on the development of guidelines to facilitate co-operation with NGOs and community organisations. This will be further developed during country visits.

1.4.3 Regional Co-operation/twinning

At the PCC in March 1997, we discussed the submissions from 4 Australian institutions interested in collaborating with SPC on this project. The PCC directed that further information needed to be obtained from each of these groups. After reviewing this information at the ad hoc PCC meeting in May, it has been decided to abandon the consortium approach and instead to prepare period contracts with individual institutions, or simple contracts with individuals. This is discussed in the minutes of the May PCC.

2. Strengthen laboratory and clinical capacity

2.1 Laboratories (entomology, parasitology, virology/serology)

2.1.1 Review current situation + needs assessment

We discussed basic public health laboratory functions during the country visits to Fiji. This will be developed further next quarter. We plan to bring in laboratory specialists in September to assist in the process.

2.1.2 Develop procedures

These will be developed following the laboratory situation review.

2.1.3 Training

We discussed training needs in some detail during the country visits to Fiji. See the attached trip report.

2.2 Clinical

2.2.1 Hospital/HC medical and nursing staff

No activity this quarter in regard to medical and nursing staff. We plan to conduct a health worker training needs assessment over the next 2 quarters. The project is supporting two staff from Vanuatu and one from Fiji to attend a WHO course on the management of severe and complicated malaria, in Honiara in August.

2.2.2 Rural Clinic/Aid post/village health worker

We have had further discussions about the training of Village Health Volunteers with department of health staff and Save the Children Fund staff in Vanuatu. It seems likely that we will proceed with the idea of "piggy-backing" training in malaria and dengue onto the existing VHW training.

2.3 Filariasis

2.3.1 Situation review/needs assessment

There is agreement that activities this year in Vanuatu and Solomon Islands will be restricted to baseline surveys, subject to approval by national authorities. A study design for a baseline survey in Solomon Islands has been circulated. (See attachment 9). We will liaise closely with Dr Ichimori (WHO Vanuatu) who has a lot of experience in filariasis.

Support to Fiji's filariasis program for 1998 was discussed during our visit to Fiji.

2.3.2 Implement national programs

No activity during this quarter.

3. Control Activities

3.1 Dengue surveillance and control

3.1.1 Vector surveys

Baseline mosquito larval surveys were conducted in the Port Vila urban area in April (see next section).

Comprehensive plans for vector surveillance will be developed as an essential part of national dengue strategies over the next quarter.

3.1.2 Control activities

As reported in the previous quarterly report, during our initial field visit to Vanuatu we discussed the current dengue situation in the Pacific. There is a high risk that the outbreak will spread to Vanuatu. As a result, Malaria Program staff conducted a cleanup program aimed at reducing the risk of a dengue epidemic becoming established. The Department of Health staff worked together with the Port Vila Municipal Council to conduct this cleanup campaign. Communities were organised (through media announcements, and direct contact) to place all non-essential containers at collection points on the roadside. This includes discarded cans, utensils, car tyres, coconut shells etc. The Council and the Department of Health staff collected and disposed of the accumulated rubbish.

Hilson Toaliu's trip report for April gives an interim situation (see attachment 10). Further larval surveys are planned for July. A complete report will be included in the next quarterly report.

See also section 1.3.4

3.1.3 Training

No activity this quarter.

3.2 Malaria control

3.2.1 Historical review

Work is continuing on this component.

3.2.2 Bed-net program

Bednet programs will be discussed in July at the Southwest Pacific malaria meeting in Brisbane. Vanuatu and Solomon Islands have planned to accelerate their bednet programs to achieve 100% coverage of their at-risk population, with the aid of the project.

3.2.3 Community involvement

The NGO co-ordinator has met with several NGOs and church groups in Fiji. This aspect will be developed further when the Health Promotion short term consultant joins the project in August. The person appointed is Sandra Angus from Australia. A plan for these activities will be the major component of her report. Terms of reference attached (attachment 7).

3.2.4 Training materials development/training

Preliminary discussions were held on training needs in Fiji. We will develop this further over the next 2 quarters.

Further progress has been made with Wan Smol Bag theatre group on the production of malaria and dengue videos and resource materials for primary and secondary schools in the region. See Hilson Toaliu's trip report.

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A short term advisor in health impact assessment has been appointed to work with the project team in August and September 1997. He is Simione Bikai from Fiji. A plan for these activities will be the major component of his report. Terms of reference attached (attachment 7).

3.4 Social/economic studies

The project's entomologist has commenced a literature review on subjects such as sand flies in Pacific islands. This will be developed further over the next quarter.

3.5 Small PIC activities

3.5.1 Project identification

Guidelines for support to small PICs are being developed.

3.5.2 Project implementation

No activity this quarter.

3.6 CBO/NGO programs

See section 3.2.3

ISSUES

No new specific issues have arisen in this quarter. The issue of the disbursement schedule from AusAID to SPC was discussed in May with Andrew Rowell from AusAID, during his visit to SPC Noumea. We are awaiting a response from AusAID.

PROPOSED VARIATIONS TO PROJECT DESIGN.

The Annual Plan for 1997/98 contains a change frame detailing proposed variations to project design. The main change is the proposal to move the duty station of the NGO coordinator to Vanuatu (while retaining regional responsibilities), and to appoint in-country coordinators for both Solomon Islands and Fiji. This is needed because of the level of day-to-day support required by each country, especially in the NGO sector.

Signed

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Pacific Regional Vector Borne Diseases Project
30/7/97

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3.6 CBO/NGO programs

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Pacific Regional Vector Borne Diseases Project
30/7/97

ATTACHMENT 1

Trip Report - Port Vila, Vanuatu - 16-17 June 1997
Tony Stewart/Team Leader PRVBD, SPC - Noumea/New Caledonia

Attachment 1

Trip report - Tony Stewart Vanuatu, 16th & 17th June 1997

I travelled with Tony Sweeney, Hilson Toaliu and Carina Barnett.

1. On the morning of 16th June, we met with Myriam Abel (Community Health) and Georges Taleo (Malaria Program) and proceeded to a meeting with Dr Ichimori (WHO Malarialogist & acting CLO). Dr Ichimori explained that she had just returned from Western Samoa, where she has responsibilities to the Filariasis program.

Points of interests:

- The Malaria Unit will change its name to the Vector Borne Diseases Unit, to reflect the focus on diseases other than Malaria.
- WHO has just completed a country review of activities in Vanuatu. Dr Morita (WHO Communicable Diseases WPRO) was on the team. Of interest to us is that dengue surveillance and training of health workers is a priority.(Need to co-ordinate PRVBD & WHO activities).
- We are invited to attend the national Malaria meeting (August 111th - 15th).
- We informed Dr Ichimori that we are supporting three staff from Vanuatu to attend the dengue workshop in Fiji (23 - 27 June). After some discussion, there as agreement that we should visit Vanuatu again prior to their annual meeting (say 28th July) to assist the Department of Health to prepare a national dengue strategy, for presentation at the national malaria meeting.
- WHO has arranged for two consultants to come to Vanuatu in September, 1st to 12th, to focus on clinical aspects of dengue, and laboratory diagnosis. There is substantial overlap with activities that we are proposing, especially for laboratory diagnosis and surveillance activities. We therefore agreed to liase closely to ensure maximum benefit from all these activities. Dr Ichimori will let us know the names and terms of reference of the consultants.
- Tony Sweeney mentioned surveys for *Aedes albopictus*. There was general agreement that we should proceed to organise these, in liaison with Director of Health. The annual Meeting would be a good opportunity to discuss this with provincial and national staff.
- Dr Ichimori will be attending the South West Pacific Malaria Meeting (Brisbane, 14th - 17th July) and then the Filariasis Conference (Townsville, 18th - 20th July). We informed them that we will be attending both of those meetings, and that we are supporting Myriam Abel, Georges Taleo and James Yaviong to go to Brisbane for the Malaria meeting. James will also join us in Townsville. Clement Malau, Head of Health Department will be representing SPC at an earlier Filaria policy meeting in Townsville.
- No one from Vanuatu will be attending WHO's dengue meeting in Manila, as the dates conflict with the South West Pacific Malaria meeting. Tony Stewart will attend this meeting, representing SPC. Dr Ichimori will pass on further information regarding this meeting.
- Procurement. Dr Ichimori recommended that we contact Manila directly to ask if we can use the UN purchasing system for procuring items for Vanuatu. Usually requests must come from governments, however it may be possible for SPC to make an arrangement with WHO for this purpose. This is in keeping with the WHO/SPC Memorandum Of Understanding.
- Filariasis. Dr Ichimori has a lot of experience with Filariasis programs in the Pacific, especially in Western Samoa. As she will be in Townsville for the Filariasis meeting, we agreed to develop plans for a survey at that time. Filariasis is a lower priority than dengue and malaria in Vanuatu, so it is likely that field activities will be planned for next year.

2. Meeting with Steve Hogg and Victoria Hillman (AusAID Vanuatu)

We all met with these AusAID people at the Australian High Commission. As they are both already familiar with the project, we discussed some broader issues, focusing particularly on how a regional project such as

PRVBDP can achieve maximum effect at the country level. Steve's observations where that regional projects needed firstly to identify and address the needs of individual countries. This needs a period at the beginning of the project for thorough situations reviews and needs assessments. This is a feature we have striven for in this project. Secondly, there must be a clear strategy for the Health sector, so that project activities can be prioritised within this framework. Steve informed us that AusAID will be providing assistance to Director of Health to review preventive and curative services, and to develop on "interim strategic document" for the Health sector. A later activity will develop a five year strategic plan. The last plan expired in 1996.
The third point raised was regarding bilateral aid. Specifically, this project is well placed to assist and identifying and preparing future projects for bilateral funding. We agreed to do this. Steve reminded us of their commodities assistance grants, which can be used for additional procurement (e.g. diagnostics, insecticides) should this be needed.
Steve and Victoria have been receiving copies of reports that we have distributed.

3. Meeting with Johnson Wabait (new Director of Health)

This was a productive meeting. Mr Wabait was previously Director of Public Service and has worked for AusAID and NPSO. He has a strong administrative background. Furthermore he is familiar with his project, representing AusAID at our first PCC meeting in Port Vila.
We outlined the philosophy of the project, and some of the key activities coming up, such as the activities for preparation of a national dengue plan.

We also discussed our proposal to transfer Hilson's duty station from Noumea to Port Vila. After reassurances about source of funding for salaries and support functions, he agreed in principle to the idea. We need to follow up with a formal letter to him, and Foreign Affairs. He foresees no delays with approval. We need to include clear terms of reference.

The Public Service Board has reinstated all Malaria control staff who where laid off after the public service strike. There are now at least 2 full time staff in each province.

The project has provided a vehicle for Vector control activities in Santo. Our travel schedule doesn't allow any of us to go to Santo for at least another month, so it was agreed to approach AusAID to hand over the vehicle to the Director of Health, on behalf of the project.

4. Email

The Director of Health has approved this project to install email for the National Health Office, and for the Vector Borne Diseases Unit. We have approved the two Internet Service providers. Pactok provides on appropriate service. It is restricted to email only, but provides unlimited email for an annual fee of VT 25,000. Their staff will assist with installation and training.
The other service (TVL - Telecom Vanuatu Limited) provides full Internet access (including WWW), but the cost is much higher. Registration is VT 8,000, and the annual fee is VT 24,000. On top of this, one needs to pay a usage charge of VT 30 a minute, which would work out to a minimum of VT 10,000 a year, and much higher if people spend a lot of time on the Web.
I spoke to Bill Spurlock at the Vanuatu National Planning Office. He is going to establish an email service for all government departments within the next two months. Access will be free for 12 months. It is up to each department to purchase modems. The software is identical to Pactok. I suggest that we connect to Pactok now and switch over to the government Service when it comes on line.
We have also agreed to connect the NGO "Wan Smol Bag" to Pactok and to cover the cost of a modem and one year of unlimited email usage.

5. Renovations of Vector control unit

These renovations will be paid for from the A$ 200,000 grant to Vanuatu. The original plans to renovate the old storage rooms into office space have had to be abandoned, because the reinforced concrete ceiling is structurally unsound. Director of Health is now proposing to renovate the old pharmacy and laboratory area below the Ministry of Health, and to move all vector control staff to that site. Unfortunately, this has led to

delays in drafting a plan and budget. Myriam Abel will get back to us with this information and other options as soon as possible. There has been a request from the Director to consider renovating the old generator building (currently without a roof) for use by the provincial health and vector control staff. We need to discuss this further. He also suggested an alternative that Hilson could use this small building, but this seems excessive for a one man office. The only advantage is that this would promote the idea that Hilson 's position is not a government position. On balance, we feel it is better for him to be closer tot the vector unit. They have agreed to provide an office in the renovated area for his use. It can also be a base for other project staff coming through Vila. We will need to install a phone modem and fax, docking station and printer plus office furniture.

6. Finance

Carina and I met with Jack Obed of the Health Finance office. They have on-line access to the government finance office, so their records are always up to date. Carina and Jack discussed project reporting requirements. See Carina's trip report for further details.

7. Courtesy visit.

We paid a courtesy visit to Mr Harry Taga, the new first Secretary in the Ministry of Health. Unfortunately, the new Minister, Charley Nako, was not available. The meeting was cordial. There appears to be considerable interest in this project.

8. Field inspection.

Tony Sweeney, Hilson Toaliu and I went with Malaria staff to 3 squatter settlements near Vila (Man Ples, Numbatri and Seaside). The participation of the community in the clean-up campaign is obvious. In each of these areas, rubbish had been collected and placed on the side of roads ready for collection. There had been delays in removing these piles to the rubbish dump, because the municipal council does not routinely provide services to these areas. Department of Health staff have organised an alternative, using dengue control staff and a contracted truck to complete the task. Villages reported very few mosquitoes and no unusual fevers. However, Tony Sweeney did find a 200 litre container with abundant larvae in Seaside, indicating a need for more supervised larviciding in that area.
Overall, the clean-up has been very successful. A larval survey is scheduled for the next 2 weeks, which will give quantitative information about the effect of these activities. See Tony Sweeney's trip report for further details.

9. Save the Children Fund.

I met with Rod Meneve, Director of SCF in Vanuatu. They conduct village health worker (VHW) training on behalf of the government, funded by AusAID. It seems likely at this stage that this training will be extended. We discussed the idea of adding some additional funds from PRVBD to include extra time for some training on Malaria and Dengue in the curriculum. An interesting possibility will be to train VHWs to conduct bednet program. SCF estimates the cost of this additional training at A$ 11,000 a year, for 3 years, for a total of courses of approximately 16 participants (170 - 180 Village Health Workers trained).

10. Wan Smol Bag

- Hilson Toaliu and I met with Jo Darras at the Wan Smol Bag office in Tagabe. We are interested in contracting their theatre group to do a number of activities.
- Production of two videos for use in schools. There would be one on Malaria, focusing on the bednet program, and another on dengue, with an emphasis on clearing up rubbish/breeding sites around the home. This will be distributed in schools with a resource guide on primary and secondary levels. The videos can be produced in Bislama, and also in English, so they can be distributed in other countries. We agreed to make this a priority activity. We need to provide key messages to them in 2 weeks, and they will begin developing a script. When we return in August, we will review the script along with the Director of Health staff. Filming can happen in October/November. Estimated cost is VT 500,000 (~US$ 5,000). Some core costs are covered by ODA. Cost of replication of video and resource guide would be

Director of Health staff. Filming can happen in October/November. Estimated cost is VT 500,000 (~US$ 5,000). Some core costs are covered by ODA. Cost of replication of video and resource guide would be extra. We should plan on around 1,000 copies of the English version of the Dengue video for distribution around the Pacific, in keeping with the regional focus of the project. The Malaria video is relevant only in Vanuatu, Solomon Islands and PNG. We will include an evaluation of the impact of the video.

- Live play. This will be developed out of the scripts of the video; both of these activities will include some audience research to ensure appropriate messages.
- Touring/Training other theatre groups. Live plays can be performed around the country; groups already exist in Pentecost and Ambrym. Wan Smol Bag also has links to Fiji and Solomon Islands. We will discuss these possibilities further in August.
- Radio spots. These are good for specific messages, such as dengue clean-up, or bednet retreatment. To be developed later.
- Email. We agreed to get Wan Smol Bag established on Pactok for better communications.

II Miscellaneous

- The project should consider arranging a basic care and maintenance of 4WD vehicles for health staff.
- We Should discuss placing suitable messages about dengue at ports of entry.
- Georges Taleo (Head, Malaria Section) will be joining us in Brisbane for the South West Pacific Malaria meeting (14th - 17th July) then going on annual leave until 4 August. He will be in Japan for 3 months (September - November). James Yaviong will be acting Head during these periods.
- Director of Health has proposed Amos Morris for formal entomology training in Malaysia. The course runs from April to October 1998. This is in keeping with the Annual Plan. We will book a place through WHO.

THE GOVERNMENT OF THE REPUBLIC OF VANUATU
GOUVERNEMENT DE LA REPUBLIQUE DE VANUATU

HEALTH DEPARTMENT
Private Mail Bag 009
Port-Vila
Republic of Vanuatu

SERVICE DE LA SANTE
Sac Postal Privé 009
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Tel : (678) 223 12
Fax : (678) 262 04

Ref :HD 07/4-MA/mhd

le 13 June 1997

Dr. Tony Stewart
Team Leader VBD
SPC
Boite Postale D5
Noumea Cedex
Nouvelle Caledonie

Dear Tony,

RE: VISIT OF THE VBDP TEAM TO VANUATU 16 - 17 JUNE 1997

The itinerary of your two-day visit is as follows:

Monday 16 June 1997

08:00 am	- Dr. K. Ichimori, OIC WHO Office
09:00 am	- Hon. Minister of Health, Mr Charly Nako - First Secretary, Mr Henry Taga
10:00 am	- AUSAID
14:00 pm	- Director of Health, Mr Johnson Wabaiat
15:00 pm	- Assistant Senior Accountant

Tuesday 17 June 1997

08:00 am	- Director General of Finance Dept., Mr Jeffrey Wilfred - Ms Julian Rovo, Deputy Director

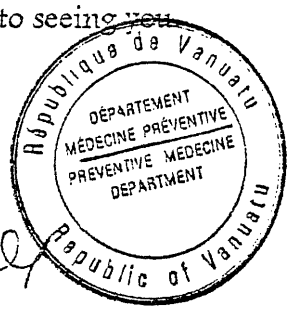
9 am SCFA

Note: Rest of the day to spent with Malaria section and George / Myriam.

Finally James Yaviong will be meeting you and the team upon your arrival.

We look forward to seeing you.

Yours Sincerely,



Myriam Abel (Ms)
Principal Community Health

cc.: - Director of Health

ATTACHMENT 2

List of participants attending The Fourth International Symposium on Dengue Fever Papeete, Tahiti - 14-17 April 1997

Attachment 2

LIST OF PARTICIPANTS ATTENDING THE FOURTH INTERNATIONAL SYMPOSIUM ON DENGUE FEVER

Cook Islands	Mr Oirua Tini Joseph Senior Health Inspector Ministry of Health PO Box 109 Avarua, Rarotonga Cook Islands Fax: (682) 23 109 Tel: (682) 29 664
Federated States of Micronesia	Mr Laurence Yug Environmentalist Environmental health and vector control activities Department of Health Colonia State of Yap Fax: (691) 350 3444 Tel: (691) 350 4274
Fiji	Dr Joe Koroivueta Chief Medical Officer Wellcome Virus Laboratory Ministry of Health Tamavua Private Mail Bag Suva Fax: (679) 320 344 Tel: (679) 321 066 email: chiefmedofficer@is.com.fj
	Dr Mataika Wellcome Virus Laboratory Ministry of Health Tamavua Private Mail Bag Suva Fax: (679) 320 344 Tel: (679) 321 066
	Mr Gyan Prakash Senior Health Inspector Ministry of Health and Social Welfare PO Box 2223 Suva Fax: (679) 306163 Tel ((679) 306177

Solomon Islands	Thornley Nagata Talasia Dengue Programme Ministry of Health and Medical Services PO Box G349 Honiara Fax (677) 20085 Tel (677) 23402 Andrew Waleluma Darcy Dengue Programme Ministry of Health and Medical Services PO Box G349 Honiara Fax (677) 20085 Tel (677) 23402
Vanuatu	Mr Esau Kalfabun Laboratory Technical Officer in charge of biochemitry Vila Central Hospital Port Vila Mr George Taleo National Malaria Supervisor Malaria Programme Department of Health Private Mail Bag 009 Port Vila Fax: (678) 26204 Tel: (678) 22 545
Western Samoa	Mr Tua Tipi Senior Health Inspector Health Department Private Bag Apia Fax: (685) 21440 Tel: (685) 21212

ATTACHMENT 3

DENGUE IN THE PACIFIC

A discussion paper about strengthening dengue early warning and rapid response systems

PRVBD - Dr T. Stewart, Dr T. Sweeney, Mr H. Toaliu
PPHSNFP - Dr Y. Souares, Dr T. Kiedrzynski

Attachment 3

DENGUE IN THE PACIFIC.

A discussion paper about strengthening dengue early warning and rapid response systems.

Dr. Tony Stewart, Dr. Tony Sweeney, Mr. Hilson Toaliu
Pacific Regional Vector Borne Diseases Project.
South Pacific Commission.

Dr. Yvan Souares, Dr. Tom Kiedrzynski
Pacific Public Health Surveillance Network Focal Point
South Pacific Commission.

BACKGROUND.

The South Pacific Commission (SPC) in Noumea, New Caledonia is managing a 4 year Pacific Regional Vector Borne Diseases Project (PRVBD) in the Pacific region that will focus on reducing morbidity and mortality from vector borne diseases, especially malaria, dengue and filariasis. The project, funded by AusAID, runs from 1996-2000 and will work collaboratively with other agencies and projects in the region, such as WHO and UNICEF. It will concentrate initially in the Solomon Islands, Vanuatu and Fiji, and will expand to some other Pacific Island countries over time. The project's aims include: strengthening of national and regional planning, surveillance and management capabilities; strengthening of laboratory support and clinical services; support to intersectoral activities through NGOs and community groups. This will be achieved through a combination of technical assistance, training and provision of equipment and supplies.

One of the components provides support for the development of country level dengue early warning systems, within the structure of the Pacific Public Health Surveillance Network. This component will include assistance for monitoring and evaluation of these activities.

The purpose of this informal meeting is to openly discuss and make progress on plans to strengthen dengue surveillance and response systems in the Pacific.

THE PACIFIC PUBLIC HEALTH SURVEILLANCE NETWORK.

The Pacific Public Health Surveillance Network is a network formally established in December 1996, with a broad membership of key people from Pacific Island Countries, SPC, WHO, UNICEF, regional training institutions and other existing public health surveillance networks around the world. (See Attachment for further details of the PPHSN).

Among the 5 development strategies of the Network is the dissemination of timely and accurate information of disease outbreaks. Dengue fever is one of the 4 target diseases identified at a regional Public Health Surveillance Meeting in December 1996 as priorities in the region. (The others are influenza, measles and cholera). With the exception of cholera, these diseases could broadly be linked through a fever surveillance system.

DENGUE EARLY WARNING AND RESPONSE SYSTEMS.

Under the guidance of the PPHSN, the PRVBD project is proposing to strengthen national dengue early warning systems (EWS). The aim is to work with Pacific Island countries to develop national plans, including effective laboratory/clinical surveillance that would detect an emerging epidemic of dengue. Coupled with this would be a program of in-country capacity building to strengthen each country's public health response to reduce the spread of the epidemic. Information & resources will be shared with other countries through the PPHSN.

The surveillance activity would be based around the in-country use of newly available technologies such as dengue ELISA and 'dipstick' diagnostics. When an excess of fever cases is detected, these diagnostics would be used to screen for dengue antibodies. Sera for confirmatory testing and sero-typing would still be sent to sub-regional reference laboratories. However, countries would not need to wait for results before initiating control activities.

Using the links developed by PPHSN, the PRVBD could work with individual countries to develop detailed plans of action on a country-by-country basis. This may include the provision of rapid diagnostics for surveillance, and distribution of equipment and supplies for rapid epidemic response.

Wherever possible, this activity should support the other development strategies of the PPHSN, e.g. harmonisation of surveillance data through the use of standard case definitions; development of appropriate computer systems; support for appropriate training programs.

PLAN OF ACTION - CONSIDERATIONS

The following points are proposed as an initial starting point for consideration by countries. They are not put forward as a final plan or blueprint that should be followed. It is realised that individual components will need to be adjusted to reflect the needs and priorities of the different countries in the Pacific Region.

A. PREPARATORY ACTIVITIES

1. Ensure that steps are taken to report cases of dengue as an important notifiable disease within and between countries of region. This will be coordinated by PPHSN.

2. Foster national communicable disease or dengue committees to develop detailed country plans and to coordinate dengue response at national level. It is important that such committees have the authority to directly access appropriate decision making officials and bodies. Coordinated by PPHSN.

3. Develop plan of surveillance activities to forewarn of likelihood of outbreaks and emergency procedures which should be implemented when outbreak occurs. Coordinated by PPHSN.

4. Ensure that adequate equipment and supplies to support clinical diagnosis; hospital case management of possible DHF cases; and vector control available.

5. Establish and train vector control unit at national level.

6. Heighten public knowledge of dengue & awareness of what communities can do to prevent it.

B. ONGOING ACTIVITIES

Activities to be conducted on a regular basis. Some activities could be stepped up in proactive response to emerging dengue epidemics in neighbouring countries.

SURVEILLANCE

1. **Clinical/laboratory**: weekly reporting of fever cases (with negative blood slides in malarious countries). Increase above an agreed threshold should trigger use of rapid diagnostic tests in a proportion of cases. Serum of those found positive (as well as some of those scored negative) should be sent to serological reference laboratories to confirm dengue and determine serotype.

2. **Entomological**: consider ongoing larval sampling/monitoring of urban premises at times of year considered to be at risk of dengue outbreaks, where human resources permit.

3. **Feedback:** of surveillance data to medical, vector control, public health workers, and communities within countries. Feedback to be coordinated by national dengue committee. Such data should be disseminated between countries as part of Pacific Public Health Surveillance Network.

COMMUNITY MEASURES

1. Produce and disseminate IEC materials on dengue and its control at appropriate timely period (i.e. at the beginning of the wet season)

2. Enhance community awareness at the beginning of the wet season through other avenues such as poster design contest for schools and community-based clean up campaigns.

3. Identify community-based groups and other interest groups to be used as bases for promoting community awareness for dengue and its control.

C. EMERGENCY MEASURES DURING OUTBREAKS

1. Notification of dengue alert by appropriate authorities at national and provincial levels and regional dissemination through PPHSN when dengue epidemic is confirmed.

2. Community awareness and supportive action, via radio, newspapers, other means. It is important to solicit active community support for, and involvement in, elimination of vector breeding sites. Awareness messages disseminated to the public should include:

   - Symptoms of DF and the importance of prompt medical attention
   - Control of epidemics will require community participation in the elimination of the *Aedes* breeding sites.
   - Basic information about day time biting *Aedes* mosquitoes and the major sites of breeding, i.e. tyres, drums and other artificial containers.
   - Geographical distribution of cases.
   - Any Government plans for spraying to control adult mosquitoes.

3. Clinical diagnosis and appropriate management of cases. Availability of stocks such as plasma expanders.

4. Vector control activities: control measures based on data generated from surveillance activities. Use vehicle mounted and backpack ULV machines as appropriate. Source reduction; larviciding in priority risk localities. Continuous evaluation of results is crucial element of control response. Need to give special attention to high risk areas such as squatter settlements in peri-urban areas.

OTHER ISSUES

Introduction and spread of *Ae albopictus* in the Pacific is a matter of continuing concern. Unlike *Ae. Aegypti* this mosquito can breed in natural water collections as well as in artificial containers and so is potentially more difficult to control by source reduction activities. It may be worthwhile to consider a large scale survey throughout major urban areas of the Pacific Island countries to map the distribution of this species. Quarantine measures to limit further spread of the species might also be reviewed.

CONTACTS

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Hilson Toaliu NGO Coordinator
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Pacific Public Health Surveillance Network - FOCAL POINT

Yvan Souares Epidemiologist
Email yvans@spc.org.nc

Tom Kiedrzynski Notifiable Diseases Specialist
Email tomk@spc.org.nc

ATTACHMENT 4

Dengue meeting - Papeete, Tahiti - 15 April 1997
Tony Stewart /Team Leader PRVBD, SPC - Noumea/New Caledonia

Attachment 4

Tony Stewart

Subject: Dengue Meeting Tahiti - 15th April 1997.

Dengue Meeting Tahiti - 15th April 1997.

Present

John Aaskov - Queensland University of Technology
Philippe Biarez - Public Health Dept - Tahiti
Eliane Chungue - Institut Malarde - Tahiti
Andrew Darcy - MOH - Solomon Islands
Xavier Deparis - Institut Malarde - Tahiti
Peter Devine - PanBio - Australia
Bernard Gentile - Institut Pasteur - New Caledonia
Duane Gubler - CDC Fort Collins - USA
Oirua Joseph - MOH - Cook Islands
Esaau Kalfabun - MOH - Vanuatu
Joe Koroivueta - Wellcome Virus Laboratory - Fiji
Manola Laille - Institut Pasteur - New Caledonia
Jona Mataika - Wellcome Virus Laboratory - Fiji
Kouichi Morita - WHO - Manila
Bernadette Murgue - Institut Malarde - Tahiti
Debbie Phillips - WHO Collaborating Centre for Arbovirus Reference & Research - Brisbane
Gyan Prakash - MOH - Fiji
Tony Stewart - SPC Pacific Regional Vector Borne Diseases Project
Tony Sweeney - SPC Pacific Regional Vector Borne Diseases Project
Thornley Talasaia - SIMTRI - Solomon Islands
George Taleo - MOH - Vanuatu
Tua Tipi - MOH - Western Samoa
Hilson Toaliu - SPC Pacific Regional Vector Borne Diseases Project
Laurence Yug - MOH - Federated States of Micronesia

The meeting was held to discuss strengthening dengue surveillance and response systems in Pacific Island countries. A discussion paper on strengthening dengue surveillance (developed by SPC) had been circulated prior to the meeting. The main points of the paper were reviewed (overview of PRVBD project, overview of PPHS Network, process for development of plans of action).

The group acknowledged that countries are at different stages and will need to develop individual plans of action. The outline below should therefore be considered as a general framework.

1. A national committee or task force is needed to coordinate activities. In smaller countries, this might be an Infectious Diseases Control committee rather than a committee specifically for dengue. This body needs to have sufficient authority/status to effectively implement its activities.

2. There needs to be a national plan, backed by legislation, to implement surveillance and control measures. The plan could be modified or adapted from existing plans such as the Fijian plan or one from another region (Thailand, Puerto Rico were mentioned as examples).

3. Surveillance protocols should be developed. These could include passive surveillance, i.e. notification of cases dengue, based on a standard case definition. However, this should definitely be augmented by some form of active, lab-based surveillance, which could include fever surveillance, and monitoring of sentinal sites. The fever surveillance should be integrated (if possible) with surveillance for other diseases such as measles, malaria and influenza. Another possibility is the routine testing of specimens from specific categories of patients, eg any haemorrhagic symptoms; any viral encephalitis/aspetic meningitis; all deaths with a viral/febrile prodrome.

Where possible, the national (and regional) laboratories should be equipped/trained to screen for dengue, according to surveillance protocols, using rapid diagnostics such as ELISA and immunochromatographic based tests.

Reporting between countries should be integrated with the reporting system of the PPHSN.

4. Existing links with reference laboratories (Australia, French Polynesia, New Caledonia) should continue to be supported. In addition, the role and capabilities of the Wellcome Virus Laboratory in Suva, Fiji, should be developed, through training and transfer of technology, with the assistance of other labs in the region.

5. Vector surveillance and control measures (source reduction) should be ongoing and integrated with other environmental health activities. The source reduction activities should be community based (although the question was raised, how to stimulate this when there is no epidemic activity?) These ongoing activities should be emphasized instead of relying on outbreak response.

6. There is a need to identify restraints blocking the implementation of the above activities (staffing, training, finance). There is also a need to identify sustainable means of implementation.

7. Coordinated support for specific activities could be provided through the SPC/AusAID regional vector borne diseases project, WHO, and other agencies. Examples are: baseline vector surveys; assistance with development of national plans of action; development of training and IEC materials; conducting training; provision of supplies and materials.

Country representatives were asked to discuss the above on return to their home countries. SPC and WHO will follow through with each country if assistance is requested.

Notes prepared by Tony Stewart, Team Leader/Medical Epidemiologist
Pacific Regional Vector Borne Diseases Project

South Pacific Commission
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ATTACHMENT 5

Dengue Vector Control Strategies and Entomology

Attachment 5

DENGUE VECTOR CONTROL STRATEGIES AND ENTOMOLOGY

Current trends and advances in Dengue Control

Summaries of the latest research on the biology of dengue vectors as well as the most appropriate anti-vector methods to control dengue epidemics were highlighted at the 4th International Symposium on Dengue Fever in Tahiti 14-17 April 1997. Important relevant presentations included the keynote address of Dr D. Gubler, of CDC Atlanta as well as papers presented by Dr P. Reiter, of CDC, Puerto Rico, and Dr Rodhain, of Institute Pasteur, France during the session devoted to Control Stragies and Entomology. Important data on adult mosquito biology and the results of vector control programs in various countries were presented. These have implications for the activities which might be supported by PRVBD.

Vector Biology

Vector efficiency is directly related to behaviour of the female during the gonotrophic cycle of blood feeding and oviposition. The major dengue vector on a global basis, including the Pacific region, is *Aedes aegypti* because of:-

1. Its feeding behaviour - This species feeds almost exclusively on man and often takes several interrupted blood meals from the same or different hosts during one gonotrophic cycle.

2. Its predominently endophilic behaviour - females tend to spend most of the gonotrophic cycle inside houses.

3. Its oviposition habits - Eggs are only laid in artificial containers in and around houses. Females may fly up to 500m in search of breeding sites but may remain in one house throughout the gonotrophic cycle if breeding sites are present. This can explain "clusters" of cases which are often features of dengue epidemics. If suitable containers are plentiful females will often deposit a few eggs in a number of sites rather than lay the whole egg batch in one site.

Aedes albopictus is the second most important proven vector of dengue. Its distribution was originally restricted to the Asian region but in the last 10 years it has been introduced into some other countries in different parts of the world including the USA in 1985 and Fiji in 1988. It oviposits predominantly in artificial containers but will also lay eggs in natural containers such as tree holes. This species is not as endophilic as *Ae aegypti* and it feeds on a range of vertebrate hosts other than man. For this reason it is considered to be a less efficient vector than *Ae aegypti* and there is good epidemiological evidence that this is so. In some localities where it has been introduced (eg Florida in the Southern United States) it has tended to displace Ae aegypti from peri urban breeding sites such as in used car tyres.

There are a number of other *Aedes (Stegomyia)* mosquitoes which may be secondary vectors or potential vectors in some areas. In the Pacific region these include:-

Aedes polynesiensis (Fiji)
Aedes pseudoscutellaris (Fiji)
Aedes hebrideus (Vanuatu)
Aedes cooki (Cook Islands)

Control Strategies

Dr Reiter presented a brief overview of history of adulticiding as a means of dengue control. There is no convincing evidence that adulticiding has ever been successful in preventing or reducing epidemics. A detailed account of studies in Puerto Rico and 3 other countries to evaluate ULV application against *Ae aegypti* was then presented. Comprehensive observations showed that this method is not effective against field mosquito populations. As indicated in the preceeding section this species is highly endophilic. Experiments have demonstrated that ULV insecticide does not penetrate into houses and so is ineffective against females resting indoors. Analysis of airflows in and around buildings provided an explanation of this phenomenon. It was pointed out that elevated houses, such as those in Thailand, may permit better penetration of insecticide. However, even if high mortality of indoor resting mosquitoes is achieved, computer modelling simulations have demonstrated that the adult population would rapidly increase to pre - spraying levels as the larval population is not affected by ULV or fogging application of insecticides. Thus, the impact on virus transmission would be minimal. Dr Reiter's comments were supported by Drs Gubler and Rodhain. This convincing data of the ineffectivess of ULV applications during epidemics highlights the need to focus on community involvement in source reduction of breeding sites before epidemics occur.

Dengue Meeting Tahiti 17th April 1997

It is therefore relevant to consider these implications for the practical implementation of strengthened dengue surveillance and response systems in the Pacific as part of the Pacific Vector Borne Disease Control Project. A brief meeting of country participants supported by PRVBD was convened after the closing session on 17 April.

The following points were raised for discussion as an expansion of the minutes of the meeting held on 15th April 1997 under paragraph 5 (Vector Surveillance and Control Measures).

POSSIBLE VECTOR SURVEILLANCE AND CONTROL ACTIVITIES

1. A first step in vector surveillance in the Pacific Countries may be to undertake vector surveys in major urban centres to identify the species of *Aedes (Stegomyia)* mosquitoes breeding in and around houses and to determine the relative importance of various kinds of breeding sites in which they are found. At the same time this would permit training of national vector control staff in vector identification and survey methods.

2. This information provided by such surveys could provide important baseline data and form the foundation for community based source reduction as an ongoing priority. In particular, it would enable the community activities to accurately target breeding sites for elimination.

3. Vector surveillance could then be continued by the trained vector control staff to provide feedback on the degree of success achieved by community source reduction activities. This would permit validation of the community based activities with the ultimate goal of long term sustainability.

4. A parallel consideration may be the examination of current urban waste management practices to investigate whether they can be coordinated with community source reduction efforts.

5. Special attention may be required in squatter settlements, where sub standard housing, overcrowding, and lack of basic urban services could increase the difficulties of sustainable source reduction.

The above points were offered for discussion to the country delegates to see whether they may be a useful starting point for detailed consideration of particular needs on a country by country basis.

In the discussion which followed the following suggestions were put forward:-

1. It was proposed by the Solomon Island delegates that a survey of resources which were available for dengue surveillance and control might be undertaken within the different countries.

2. Dr Jo Koravaitu, Fiji, flagged the need for quality assurance in mosquito identification.

3. Dr John Mataika, Fiji, thought that it would be a good idea for countries to prepare a diary of activities and he indicated that this would be done for Fiji.

ATTACHMENT 6

Meeting with Institut Pasteur - Noumea, New Caledonia
13 June 1997

Attachment 6

Meeting with Institut Pasteur - 13 June 1997

Present:	Bernard Gertile	Pasteur
	Manola Laille	Pasteur
	Yvan Souares	PPHSN
	Tom Kiedrzynski	PPHSN
	Tony Stewart	PRVBD
	Tony Sweeney	PRVBD
	Hilson Toaliu	PRVBD

We met to follow up on our discussions in Tahiti regarding strengthening of dengue early warning systems in the Pacific. We quickly established that our interests are in close accordance with the Institut Pasteur, and in principle, we can work together on operational research relevant to dengue surveillance in the Pacific.

For example:
* The PanBio kits detect lgG & lgM antibodies. It is possible that samples collected early in the disease will be falsely negative. Pasteur and SPC could work together to conduct a study looking at time of seroconversion of PanBio kits.
* The sensitivity (ability to detect dengue) and specificity (ability to exclude false positives from other conditions) has not been performed in the Pacific. We could perform these studies in New Caledonia and Tahiti.
* The issues that need to be resolved are those that apply to any well designed study namely rational study design and protocol development; financing studies; involvement of appropriate " Stake holders"; ethics; reporting and publishing results; ensuring public health focus of operational research.

The next step will be to meet and develop a plan for operational research topics that need to be addressed, then follow up with protocol development for priority topics. We have agreed to meet at CHP.SPC on 3 July at 14:00.

We will also explore possibilities for collaborative operational research on other arboviral illnesses, such as Ross River virus and Japanese encephalitis.

ATTACHMENT 7

Consultants - Terms of reference

Attachment 7

Consultants terms of reference

BRAD OTTO (HIS Specialist)

1. To review national malaria and dengue surveillance, (and general HIS as it relates to surveillance of malaria and dengue) in Vanuatu, Solomon Islands and Fiji.

2. To meet and liaise with focal point staff of the Pacific Public Health Surveillance Network (PPHSN) regarding the regional aspects of surveillance of and response to malaria and dengue.

3. To produce, in collaboration with PPHSN, PRVBDP and national staff, a plan for further HIS related activities, including training needs, equipment needs etc. This plan will need to integrate with the work of the GIS consultant who will be at SPC in September. There will be an overall plan which covers 3 years, including a detailed plan for the first 12 months of implementation, and a review process to guide activities for subsequent years.

4. To explore mechanisms for strenghtening e-mail or other communications links between the countries and with SPC.

5. To provide a written report which covers the scope of issues listed above.

ROBERT FENWICK (GIS Specialist)

1. Provide an overview of available digital GIS data in Vanuatu, Solomon Islands, and Fiji and provide advice on what components of this data (eg coastlines; elevation; drainage; vegetation; village, towns and hospital localities) might be which might be linked to vector borne disease data.

2. Indicate the scope of VANRIS and explain how it may be used to explore relationships between varous categories of land information data.

3. Consider how vector borne disease data may be linked to locality coordinates; and incorporated into a suitable spatial database.

4. After the completion, provide a report which covers the scope of issues considered by your consultancy.

SANDRA ANGUS (Health Promotion Specialist)

1. To conduct a situation analysis of NGO activities in the three target countries in relation to vector borne diseases and their control. This will require travelling to each of these countries and meeting with various NGOs and Community groups as well as government representatives. The exercise will also include analysis of individual country capacities in the development and implementation of curricula for community-based training and the development of information, education and communication materials (IEC);

2. To develop a plan for NGO and government participation in health promotion and health education activities. The plan will address the need for in country co-ordinators or committees to co-ordinate NGOs activities in line with government activities as well as addressing strategies for the sustainability of these activities beyond the life of the project; and

3. To develop an evaluation strategy of for health education and health promotion activities to be implemented by NGOs and governments implemented during the project period.

SCOTT RITCHIE (Dengue Epidemiologist)

1. Advise on the methods for dengue surveillance and control which are both practical and appropriate for urban community based programs in Vanuatu

2. Assist the Vanuatu Vector Borne Disease Programme and Pacific Regional Vector Borne Disease Project staff to develop a needs assessment for dengue in Vanuatu.

3. Provide input into the development of a dengue early warning and response plan for Vanuatu.

4. Contribute to discussions with national malaria program stuff at the national malaria conference in Tanna on the coordination between dengue and malaria control activities.

5. After the completion, provide a report which covers the scope of issues considered by your consultancy.

SIMIONE BIKAI (Environmental Health Specialist)

1. To review current HIA and Environmental Health and policy practice and legislation in the three target countries in relation to vector borne diseases. This will require travelling to each of these countries and meeting with government representatives and various NGOs and Community groups.

2. To produce a plan for future Environmental Health activities in the three countries addressing the development of:

- appropriate proposals for legislation requiring health impacts,
- guidelines for identifying and addressing areas of health impacts in relation to vector borne diseases,
- formalised procedures for community input and health expertise at all stages of the Health Impact Assessment process.

3. To report on the current situation regarding urban solid waste management.

4. To develop a strategy for the evaluation of all environmental health and HIA activities that will be implemented by the project.

ATTACHMENT 8

PCC - Ad hoc meeting - Noumea, New Caledonia
2 May 1997

Attachment 8

PCC - Ad hoc meeting - Noumea, 2 May, 1997

Present:	Clement Malau	Manheal
	Myriam Abel	Vanuatu
	Joe Koroivueta	Fiji
	Bernard Bakote'e	Solomon Islands
	Tony Stewart	Prvbd
	Tony Sweeney	Prvbd
	Hilson Toaliu	Prvbd

A project planning meeting was held in Noumea from the 28th - 30th April 1997. The outputs of this meeting form the basis of the Annual Plan (1997 - 1998) submitted to AusAID. As all members of the PCC, except the AusAID representative were present at the planning meeting, we elected to have an ad hoc PCC meeting on 2nd May 1997 to discuss and reach consensus on the following:

1. Outputs from planning meeting. The recommendations of the group discussion (28th - 30th May) were accepted by the PCC as the basis for the project 's Annual Plan, budget and change frame in AusAID format. Once comments are in, we will make final changes and submit to AusAID.

2. In-country co-ordinators. Myriam Abel from Vanuatu asked if we could consider employing an in-country co-ordinator for each country, to assist primarily with NGO activities. She predicts that these extra activities in the NGO sector will need a full time person, and the Director of Health can't provide this at current levels of staffing. There was unanimous agreement for this suggestion. We will follow through with SPC Executive and Management, AusAID, and Foreign Affairs in each country. Two possibilities were discussed. The co-ordinator could be employed by SPC directly, or via an NGO.

Note 1. On balance it seems it will be better to employ through SPC, to ensure uniform conditions, and clean lines of authority.

Note 2. After discussion, we propose to relocate Hilson Toaliu (NGO Co-ordinator) to Port Vila, to continue his regional co-ordination duties, and to take on co-ordination of in-country activities as well. There is general agreement for this idea. Hilson is in favour of the proposal.

3. Procurement. Countries have submitted requests for a variety of equipment. The PCC agreed to fund a limited range of equipment initially, until a thorough needs assessment is complete. The approval items wee bednets, insecticides, vehicles (4x4 and boats and outboard motors). We will approach WHO to ask if SPC can use the UN purchasing system to get discounted prices.

4. Next meeting. The next meeting is planned for late September or early October. Dates are yet to be fixed.

ATTACHMENT 9

Solomon Islands Filariasis Survey

Attachment 9

SOLOMON ISLANDS FILARIASIS SURVEY.

1. Preamble

A widely held view is that the intensive vector control programs directed against malaria during the 1960s and 1970s eradicated filariasis from most of the Solomon Islands but data to support this assertion is lacking as it appears that very few baseline or post-control surveys were done. Those that were done relied on the demonstration of microfilaria in night bloods. This method has been shown in other parts of the world, to under estimate the prevalence of filariasis by as much as 30%.

Since the 1980s the prevalence of malaria has increased and although no surveys have been done, it is expected that filariasis prevalence has also increased. This is supported by anecdotal evidence that microfilaraemic patients and patients with the clinical sign and symptoms of filariasis are now commonly seen in Solomon Islands hospitals and health centres.

It is expected that the prevalence of filariasis will vary considerably from area to area:

1. Areas where filariasis has not been present in the past and is not present now.

2. Areas unaffected by the vector control programs of the past with varying levels of infection.

3. Areas where filariasis was controlled in the past but has now re-emerged.

2. Population to be surveyed

A balance has to be struck between the number of people that need to be tested in order to obtain valid data and the cost of the project. It will also be vitally important to obtain samples from remote islands groups which could contain high-prevalence foci.

It is our recommendation that we should survey around 4% of the total population. Preference should be given to those aged between 14 and 40 years. In islands with a small population that may mean surveying up to 50% of the population and including people of other ages in order to obtain an adequate sample. The following plan has been drawn up based on the population figures available to us at present but is expected to be revised following the planning meeting in the Solomon Islands.

Justification of Budget

The test kits are essential to the project. External and internal airfares are essential to allow the project coordinator to conduct the planning meeting, the area workshops and coordinate field operations in the Solomon Islands. The project officer will be committed full time to the project for 40 days and the renumeration and field subsistence requested are those set down by the university.

The workshops are an essential part of the process. Funding for miscellaneous expenses and university overheads is required by the university.

Measurable outcomes

1. Comprehensive data on the prevalence and distribution of filariasis in the Solomon Islands will be obtained using state of the art methodology.

2. If blood films for malaria are included data will also obtained on the prevalence and distribution of malaria.

3. Health care workers will be educated about filariasis.

4. The basis for a control program will be formulated.

5. A comprehensive report will be prepared and circulated to all stake holders.

WHO representative & other stake holders well ahead of the survey starting date and is crucial to the success of the project. It is absolutely essential that all stake-holders are adequately informed about the survey, have a chance to provide input, and give the project their blessing. Otherwise cooperation will be compromised and the project will not reach its objective. Melanesian and Polynesian cultural ethics demand that such discussions should be "face to face" Telephone and fax alone would not be acceptable. This meeting will plan the broad-scale operational aspect of the survey, identify area coordinators and set up the regional workshops.

Regional workshops. The regional hospital will provide the focus for the survey in the areas which they serve. Each hospital will be asked to nominate someone to be the area coordinator. Regional workshops will be held (number and location will be determined at the planning meeting). These meetings will:

1. Educate about filariasis.
2. Formulate a plan to survey the local area.
3. Discuss control methods and lay the basis for a future control program.

The area coordinators will in turn, organise workshops for people in their area who will be carrying out the survey.

3. Organisation of the survey

The appropriate number of kits will be sent to the area coordinator who will in turn, distribute them to the health centres and aid posts in their area. The project will explained to the community leaders and their consent obtained. Verbal consent will also be obtained from those willing to participate. The tests will be done on site by local health workers or if no health workers are available, by a community leader.

Name, age, sex and test result will be recorded on a tally sheet which will be sent to the area coordinator. Recording of names is essential as there may be isolated cases in communities where the prevalence does not warrant mass treatment. Recording of names will allow these cases to be followed up.

Budget

Test kits	$20000
Airfares Townsville - Honiara return X 2	$ 2400
Airfares internal	$ 582
Salary: Project officer 40 days @ $215 day	$ 8600
Field subsistence allowance 40 days @ $187.20 day.	$ 7488
Workshop expenses	$ 500
Miscellaneous expenses: mileage, fax, phone, stores, secretarial expenses etc	$ 3500
University overheads 15%	$ 6460
Total	**$49530**

NGATOKE ISLAND	50	5%
VANGUNI ISLAND	200	5%
TETAPARE ISLAND	20	40%
NEW GEORGIA ISLAND	1000	5%
KOLOMBANGARA ISLAND	250	5%
KOHINGGO ISLAND	50	5%
VONVONA ISLAND	100	5%
SIMBO ISLAND	100	5%
RANONGGA ISLAND	150	5%
VELLA LAVELLA ISLAND	350	5%
CHOISEL ISLAND	700	5%
SHORTLAND ISLANDS	200	5%
TREASURY ISLANDS	100	7%
TOTAL NUMBER OF TESTS	15780	
% OF TOTAL POPULATION TESTED		4.1%

3. Survey method

We propose to use the "rapid sampling kits" produced by ICT diagnostics. This kit is built around the ICT immuno-chromatographic technique for filarial antigen. These tests have recently been modified for use with capillary blood and are suitable for use by "non health care personnel" such as village pastors, school teachers and other community leaders.

Each kit contains all that is necessary to carry out 50 tests: cotton wool & alcohol swabs, lancets, sharps disposal container, test cards, pencils and record sheets.

No refrigeration or laboratory facilities are required.

Thick and thin blood films could be taken at the same time to pass on to the malaria group. This could result in overall cost saving because it would mean that a separate malaria survey need not be done (we could adjust our age limit downwards to include younger children if required).

4. Planning of the survey

A planning and information meeting will be held in Honiara with the Solomon Islands Health Department, the Solomon Islands Medical Training & Research Institute, Solomon Islands

PROVINCE & ISLAND	No. TO BE TESTED	ESTIMATED % OF POP
TEMOTU PROVINCE		
DUFF ISLAND	50	10%
NENDO ISLAND	400	5%
REEF ISLANDS	200	6%
UTUPUA ISLAND	50	5%
VANIKOLA ISLAND	50	10%
TINAKULA Is (if AVAILABLE)	10	50%
CENTRAL PROVINCE		
RENNELL ISLAND	100	5%
BELLONA ISLAND	100	5%
RUSSELL ISLANDS	250	5%
FLORIDA ISLANDS	400	5%
SAVO ISLAND	150	4%
GUADACANAL PROVINCE		
URBAN HONIARA	1600	4%
REST OF ISLAND	2300	5%
MALAITA PROVINCE		
OTONG JAVA ISLANDS	100	6%
NDAI ISLAND	50	50%
STEWART ISLAND	50	10%
MAILAITA ISLAND	3500	4%
MARAMASIKI	350	5%
MAKIRA PROVINCE		
MAKIRA ISLAND	1000	5%
SANTA ANA ISLAND	100	5%
UGI ISLAND	500	5%
THREE SISTERS ISLANDS	50	50%
ULAWA	100	5%
ISABEL PROVINCE		
SAN JORGE ISLAND	50	10%
SANTA ISOBEL	900	5%
WESTERN PROVINCE		

ATTACHMENT 10

Trip Report - Port Vila, Vanuatu - 23-26 April 1997
Hilson Toaliu/NGO Co-ordinator PRVBD, SPC - Noumea/New Caledonia

Attachment 10

TRIP REPORT
Vanuatu

Trip made by Hilson Toaliu, NGO Coordinator from 23 to 26 April 1997

Trip itinerary

Wednesday 23 April: Depart Noumea and arrived Vila in the afternoon

Thursday 24 April
Morning : Meet with Meriam Abel, Principal Officer, Preventive Health Section and George Taleo , National Malaria Supervisor
Meet with National Malaria staff

Afternoon :Meet with the Principal Administrative Officer, Mr. Morrison Bule

Meet with the Mr. Henry Starkys, Amos and Arjun of the Environmental Health Section
Meet with members of the Rotary Club of PortVila
Meet with the Acting town Clerk of Port Vila Municipality

Friday 25April

Morning: Meet with Wansmol Bag Theatre
Meet with Project Manager of SCFA

Afternoon: Conducted field visit with the malaria team in their awareness campaign
Final meeting with National malaria team

Saturday 26: Depart Vila for Noumea at 7.00 am

Purpose of visit: To discus further the Dengue control activities of the Vanuatu Malaria Control Programme

In response to dengue epidemic in the neighbouring Vanuatu Malaria control programme which is also responsible for the control of other vector diseases including dengue fever, initiated a control programme to reduce the risk of the epidemic being introduced into the country from its neighbouring countries.

This field trip to Vanuatu was to dicuse further the dengue control activities planned and currently implemented by the malaria control team. This proposal was to continue until the end of May 1997. The following is the summary of the discussions with the Malaria Control Team, the Principal Officer, Preventive Health Section, Mrs Meriam Abel, the Port Vila Municipal Acting town Clerk, Mr. Tony Aurther and the Rotary Club members of Port Vila. Discussions was also held with Jo Daras, of Smol Bag Theatre in Vila.

Mosquito Surveillance.

Laval survey was conducted in Vila in 10 selected areas covering all parts of the town. This operation was conducted between 2 and 22 April 1997. The results of the survey indicated a house hold index between 54.0% and 90.0 % while the breteau index was between 72% and 100% . This far exceeds the WHO level of 5% Household index and 20% Breteau Index and presents a potential for the dengue outbreak at any time in Vila.
Aedes agypti was identified as the main potential vector in and around Port Vila where the survey was conducted. The main breeding site for the aedes agypti vector identified is the 200 litre drums utilised for

the collections and the
storage of water. These water containers are abundant in squatter settlements areas where the town water supply does not adequately service the community.

ULV Space Spraying and larvaciding

The malaria team has conducted ULV spraying covering the whole town of Vila and the squatters settlements. The truck mounted LECO machine which spays 95% malathion was used on the main roads of Port Vila while the team utilises 4 ULV solo machines (knapsack sprayers) to penetrate into areas where the vehicle mounted LECO machine could not reach utilising aqua resigen chemical. The first round of the spraying operation ended on 22 April. The second round of the spraying circle would not commenced as planned as the LECO machine needed repair and the aqua resigen chemical ran out during the first circle.

The team has conducted and completed the first round of laviciding in all the squatters settlements and other identified areas . Abate 1% SG was used by dropping a specified quantity into water containers.

Meeting with the Rotary Club of port Vila.

A meeting was held with members of the Rotary club of Port Vila to discus possible inputs for the Port Vila LECO machine by the PRVBD. The meeting was attended by :

Rotary Club- *Mr. John Herbert Secretary*
Mr. Philip W. Rundle
Dr. Jean Luc Bador.

Health Department : *Mr. George Taleo, National malaria Supervisor*
Mr. James Yaviong, Entomology Technician

SPC PRVBDP: *Mr. Hilson Toaliu*

The LECO machine based in Vila, was purchased in 1989 by the Rotary Club of Port Vila and was since then maintained and stored by the Rotary Club. The malaria team only has access to the machine during operation days when they bring the malaria vehicle to the site and the LECO machine is then lifted and placed on the back of the vehicle with an aid of a fork lift machine.

The machine is now old and presently has a broken down control unit. This means then that as soon as the generator is turned on, the insecticide is simultaneously blown out of the discharged nozzle. Operators need to take extra care when starting the generator to avoid being flooded with 95% malathion.

The Rotary Club of Port Vila have indicated that they would fund a new LECO machine for Vila if the Department of Health submitted a request to them. The earlier the request, the better as they would look for funds from their sister clubs in Australia which would take time. They purchased the present machine from USA and brought it to Vanuatu as air freight with assistance from the Rotary networks in New Zealand. They are also keen to fund the spare parts for the repair this machine.

The Port Vila Rotary Club has no responsibility over the Santo based LECO machine and would not take this as their activity. It was suggested during the meeting that the Rotary Club of Santo would be contacted to find their views on this. PRVBDP may pick the Santo machine for funding.

Although there were reports at the Tahiti International Symposium on Dengue fever that ULV space spraying has little effect on the adult population and on the prevalence of dengue, this does not literally mean that ULV spraying will now be stopped altogether in the region.

Port Vila Municipal involvement in the Dengue Control.

A meeting was convened with the Port Vila Municipality's Acting town clerk who was also the Municipal Town Senior Health Inspector. Those attended the meeting were:

Port Vila Municipality: *Mr. Tony Ata, Acting Town Clerk and Senior Health Inspector*
Department of health: *Mr. George Taleo, National Malaria Supervisor*
Mr. James Yaviong, Entomology Technician
PRVBDP: *Mr. Hilson Toaliu*

Solid waste collection.

It was pointed out during this meeting that communities or squatter settlements and the residents of Port Vila will be encouraged by the Health Department to conduct cleans ups of their yards. The collected rubbish are usually brought together into heaps along the road sides. Most of the population do not own vehicles to collect their rubbish to the dump site. This would need the co-operation and participation of the Municipality in the collection of these solid waste.

The Acting Town Clerk admitted that as at present, the collection of solid waste in the town area is not the responsibility of the Municipality. However the Municipality has a new council recently elected which has a indicated strong commitment in the Port Vila Beautification project. The beautification project involves the planting of trees along the main roads, cleaning of public areas including the sides of the main streets of Port Vila. The Acting town clerk was confident that the Municipality will amend the council bylaw to allow the Municipality to be engaged in the solid waste collection in Port Vila. This amendment will allow the council to engage in the solid waste collection.

Meeting with Wansmol Bag Theatre Group.

I had a meeting with Ms. Joe Daras of the Wan Smol Bag Theatre to discus possible involvement of Wan Smol Bag Theatre group in community education through theatre plays, video production and radio spots. Joe indicated that a team from Australia who have expertise in puppet show, will be visiting Wan Smol Bag Theatre group in Vanuatu in October to assist Wan Smol Bag develop puppet show plays to be filmed. Joe agreed that it would be possible for the group to help produce a play on malaria and dengue. This exercise will need a scrip to be written. Joe had shown interest in this and said that she would write the scrip with technical input to be given by the malaria control team of the Vanuatu Department of Health. Joe also said that a book let would also be produced on the content of the play for those who show the video to use, as well as distribution into schools. This method was used when Wansmol Bag Theatre produced and filmed a play called "ON THE REEF " funded by SPREP.

This video, if produced, can also be used in the other countries covered by the PRVBDP.

The theatre group can still go around into the communities to perform the plays as this allows community to ask questions which would be answered by the team members

Funding

Joe explained that the script writing and the puppet development would be partly funded by Wansmol Bag Theatre. Funding will be required for the multiple copying of the puppet show video as well as the production of the booklets. The theatre plays and tours would be fully funded by the PRVBDP.

Methods of Funding.

Wansmol Bag Theatre Group has received a substantial part of its funding from the British ODA as well from various Regional Organisation such as SPREP for funding of specific activities. Wansmol Bag Theatre receives funds direct from funding organisation. The PRVBDP can forward funds direct to the Wansmol Bag Theatre group to fund plays and the video production.

Joe Daras would be providing estimated budget costs for the puppet video production, theatre plays to be staged in the islands and the radio spot costs..

Meeting with SCFA Project Manager

Village Health Workers (VHW) Training

Village Health Workers training in Vanuatu is currently in progress, a project funded by AusAid and executed by Save The Children Fund Australia. Since 1995, 2 training courses have been conducted in each of the 6 Provinces in the country except for Torba where just one training was conducted. One of these two training courses are the 8 weeks pre service training that intake between 14 and 19 participants and the other an in service training of 2 weeks duration usually has in takes of between 12 and 16 participants.

The curriculum covers the main diseases including malaria and dengue fever. The revised curriculum, written in bislama has the following lay out for each disease.

- Definition of the disease
- The cause of the disease
- How the disease is spread
- Treatment
- Vector life cycle (diseases such as malaria)
- Prevention

Meeting with Environmental Health Officers

This meeting was mainly focused on the training of Village Sanitarians in the control vector borne diseases. The village sanitarians who were trained in the past should be employed by the Provincial Governments. Due to limited budgets faced by the Provinces, Village Sanitarians were not employed, and those employed were laid of their job. Village sanitarians training covers a wide range of basic environmental topics including control of vector diseases. Due to this situation, refresher training for these people is not seen as an immediate activity.

Hilson Toaliu