

# Tok Blong SPPF

A Quarterly of News and Views on the Pacific Islands

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VICTORIA, B.C., CANADA

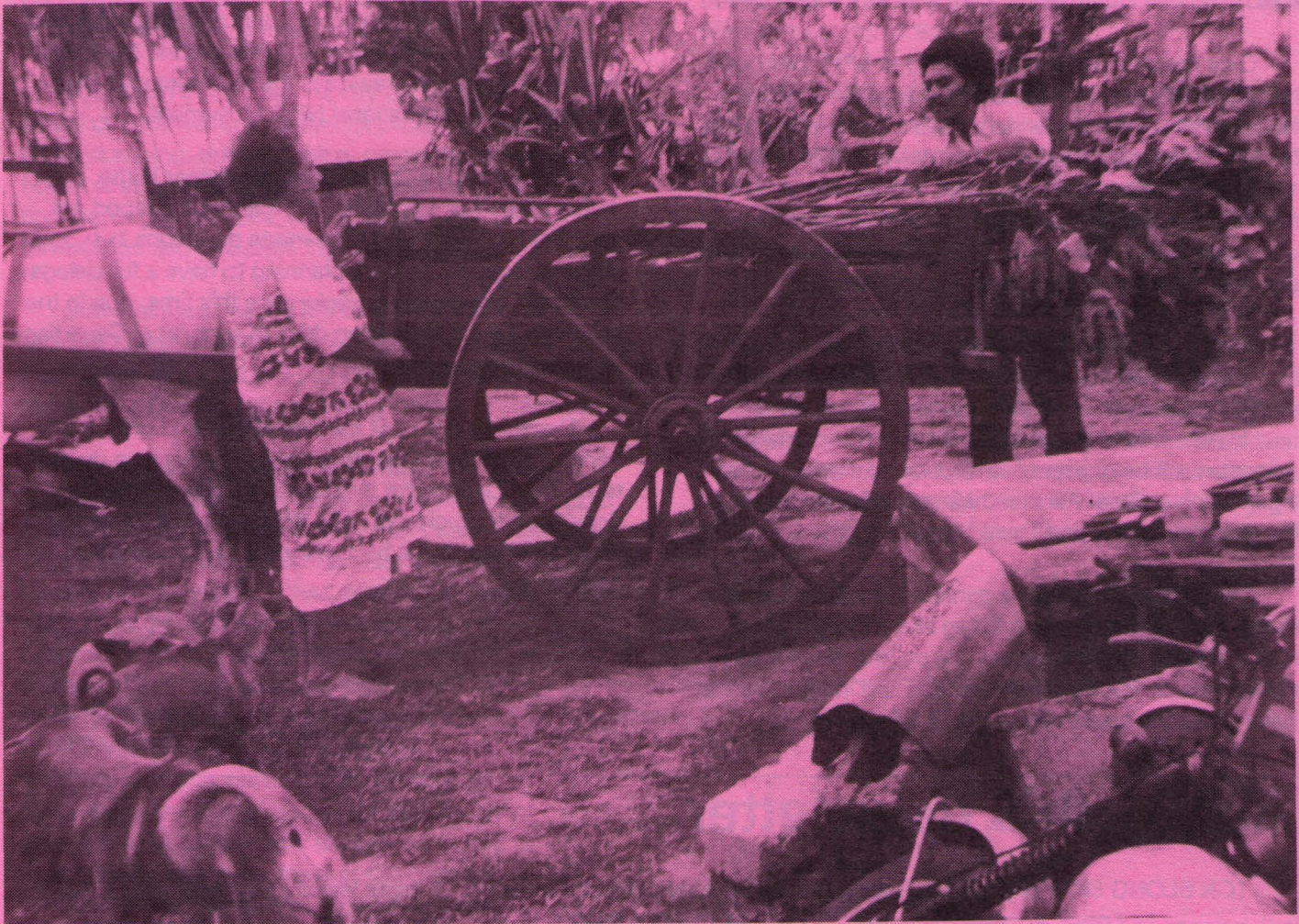


Photo courtesy of Sinisia Taumoepeau

*Tonga*

## **INSIDE**

### **WEAPONS DESTRUCTION ON JOHNSTON ATOLL**

- Also ...Rumbles of Change in Western Samoa and Tonga
- ...Nuclear Pollution
- ...Environmental Concern for Coral Reefs in Tonga
- ...Tuvalu's First Woman MP



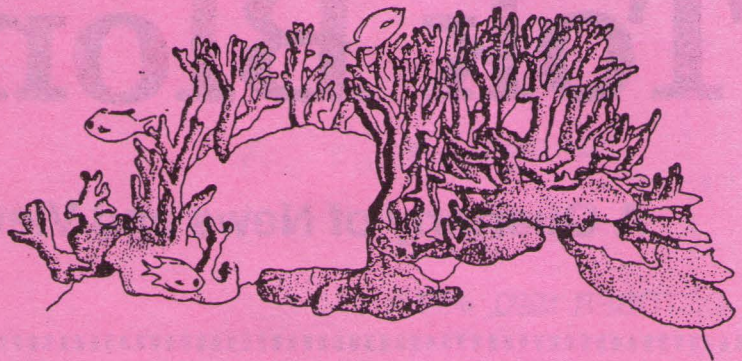
# SPPF UPDATE

We are still settling into our new office. As the move occurred several months before it was planned, it has set back a couple of our projects. We are now planning to have a new set of issue oriented fact sheets, as well as a new series of country fact sheets, available by the end of the year. Look for more information on these new resources in the January issue of **Tok Blong SPPF**.

Over the last month a big priority at SPPF has been helping to organise the Canadian delegation to the 6th Nuclear Free and Independent Pacific Conference. The 5th NFIP Conference was held in Manila in November of 1987 with two Canadian delegates in attendance. The NFIP Conference is the working meeting of the network of groups around the Pacific who focus on justice, peace and independence issues in the Pacific.

The NFIP movement is led by indigenous people and a majority of the delegates at the conference will be indigenous people. This year the conference will be held in Aotearoa/New Zealand. During the conference delegates will be guests of several Maori marae, including the University of Auckland Marae, Tahuna Marae, Reretewhioi Marae, and Taiao Marae.

The theme of this year's conference will be "Listen to the Tangata-Whenua" or "listen to the people of the land." The Conference will decide on priorities for joint campaigns on Pacific peace, justice, and independence issues over the next three years. It will provide an



important opportunity to share ideas and strategies and to strengthen the network of activists around the Pacific. The meeting will also reassess the structure and effectiveness of the International NFIP Movement.

A report on the Conference will appear in the January issue of Tok Blong SPPF and a full report will be mailed to those who have made donations in support of the delegation. We are planning to have a full delegation from Canada at the conference this time, due to the success of our fund-raising drive in support of Canadian indigenous delegates.

Thanks go out to all the individuals and organisations for their generous donations. Thanks also go out to Air New Zealand for their assistance in getting the delegation to Auckland. And along with our delegates, we at SPPF send our best wishes for a successful conference.

Randall Garrison  
Executive Director

## About this newsletter...

TOK BLONG SPPF is pidgin, a language used in many parts of the Pacific. It might literally be translated as "this talk belongs to SPPF" or SPPF newsletter. **TOK BLONG SPPF** is published four times per year in English by the South Pacific Peoples Foundation of Canada. Partial financial support for this newsletter from the Canadian International Development Agency (CIDA) is gratefully acknowledged.

SPPF's major aim is to promote awareness of development, social justice, and other issues of importance to the peoples of the South Pacific. Through this newsletter we hope to provide Canadians with a window on the Pacific that will foster understanding and promote action in support of Islanders in their struggles for development.

We welcome readers' comments on the newsletter, as well as suggestions for articles, selections of clippings, or notices of development education materials of interest. We reserve the right to edit material. Views expressed do not necessarily reflect those of SPPF or of CIDA.

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# Nerve Gas Atoll

BY DAVID ROBIE

In the depths of a New Zealand winter, the Pacific's small atolls beckon us with an obvious and simple charm. But, for the US military, Johnston Atoll holds a more subtle attraction - it has been chosen as the site to store and destroy nerve gases and chemical weapons being removed from West Germany. The nerve-gas burnoff, which began in July 1990, has divided peace and environmental campaigners.

The South Pacific has rapidly become a mosaic of actual or potential environmental problems - hazardous waste dumping, driftnet fishing, ocean dumping, greenhouse effect, ozone depletion, nuclear tests, deforestation, nerve gas burnoffs, coral reef damage, mining devastation and pollution. The list is growing.

Some of these issues are being discussed as the region's heads of government gather at the South Pacific Forum in Port Vila [July 1990-Ed.] this week, but there are unlikely to be many easy or instant solutions.

New Zealand officials, for example, are cautious. Although the environmental debate looms large in both Australia and New Zealand, they don't want to be seen as pushing their concerns onto island leaders too forcibly or too quickly. "It has taken three decades for the environmental debate to get where it is in New Zealand," says one senior official from the Ministry of External Relations and Trade (MERT). "But it is only just beginning in many Pacific nations." Even so, the director of MERT's environment division, Roy Ferguson, believes environmental issues are likely to be among the major domestic challenges facing South Pacific governments over the coming decade - as well as continuing to be a major part of regional politics.

Two crucial problems that have already provoked bitter debate are the burnoff of US nerve gases on Johnston Atoll and the dumping of Western waste in the Marshalls.

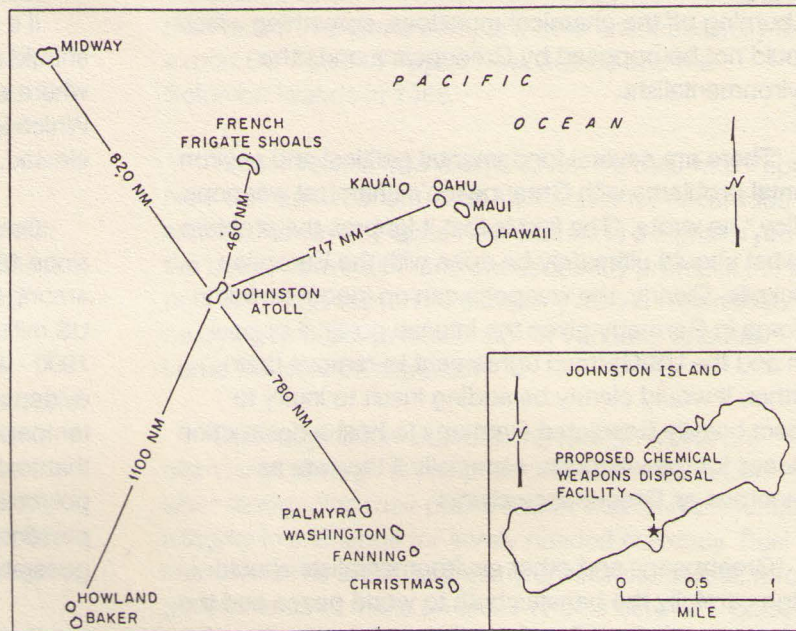
The US chemical weapons stockpile in West Germany currently holds an estimated 400 tonnes of lethal nerve gas - GB (Sarin) and VX - contained in about 100,000 200mm and 155mm shells. Nerve gas causes convulsions and death - sometimes within 10 minutes of

exposure. Mustard blistering agents H, HD and HT are also among the weapons. The US military is storing and destroying that huge stockpile on Johnston Atoll in the South Pacific.

Fearing that this move subjects the region to the risk of "another Bhopal or Chernobyl" - as some critics claim - church leaders, environmentalists and politicians are campaigning to stop it.

The Pacific Conference of Churches recently condemned the move, saying it would continue the misuse of the Pacific as a dumping site for nuclear and chemical wastes. The conference's secretary-general, Fijian Rev Aquila Yabaki, said the burnoff was a political decision to appease the US allies.

President John Hagleam of the Federated States of Micronesia has challenged the \$US3.1 billion scheme because of the potential poisoning of tuna by waste from the burnoff. American Samoa Governor Peter Tali Coleman and Cook Islands Prime Minister Geoffrey Henry are among other Pacific leaders who have gone on record as opposing the burnoff. New Zealand Prime Minister Geoffrey Palmer called for a Cabinet report.



Location of Johnston Atoll in the central Pacific Ocean (USDOA figure)

From Pacific Research, May 1990



A resolution of the Honolulu-based World Council of Indigenous Peoples (WICP-Hawaii) has declared that "burning nerve gases on Kalama [Johnston Atoll] threatens the purity of the Pacific skies" and poses an "unreasonable risk to the life, health and general welfare of Pacific peoples".

Greenpeace issued a report in February claiming the burnoff was likely to produce highly toxic emissions and was seriously deficient in health and safety standards. It warned that the problem of destroying chemical weapons could become a "perpetual environmental plague".

In June the US Army hit back with a final environmental impact report which claimed the hazards from the burnoff on Johnston Atoll were "minimal". A \$US150 million four-barrelled, high-tech incinerator was completed on the atoll last year. But, partly due to delays in "operations-verification testing", burnoffs only began earlier this month.

The most convincing case for allowing the US Army to destroy the nerve gases on the atoll has been made by Trevor Findlay, editor of *Pacific Research*, the magazine of Australian National University's Peace Research Centre. An article in the May issue, entitled "Green vs Peace? The Johnston Atoll Controversy", has provoked a bitter row among environmentalists and disarmament campaigners in the Pacific.

In it, Findlay argues that the US Army is making a major gesture towards world peace and disarmament by burning off the chemical munitions, something which should not be opposed by Greenpeace and other environmentalists.

"There are several fundamental political and environmental problems with Greenpeace's chemical weapons policy," he wrote. "The first is that it ignores the problem of what should ultimately be done with the European stockpile. Clearly, the weapons can no longer be left in storage in Germany given the intense political opposition and the US/German agreement to remove them... Further, it would clearly be adding insult to injury to expect heavily populated Germany to host a destruction process for the weapons, especially if they are as dangerous as Greenpeace claims ...

"Greenpeace and other environmentalists should weigh carefully the benefits both to world peace and the environment that will flow from the total destruction of chemical weapons and a perpetual ban on their acquisition and use, as against temporary and perhaps

marginal gains to be made from the disruption of the destructive process [in the Pacific]."

Influential Australian columnist Brian Toohey, former editor of the *National Times*, joined the debate with a similar criticism of the environmental lobby. The Greenpeace action, he said, was threatening to undo "one of the most encouraging arms-control initiatives" in recent history.

Other commentators and researchers strongly disagreed. In a scathing attack on Findlay's views in the July issue of New Zealand's *Peacelink* magazine, Peace Movement Aotearoa researcher Owen Wilkes said the article "appears to be a sophisticated bit of propaganda" in support of the US military.

"Burning the Red Hat munitions on Johnston Atoll does not reduce the total stockpile of chemical weaponry. Similarly with the West German stockpile," said Wilkes, a former Stockholm International Peace Research Institute researcher. "It is being shifted out of Germany because Chancellor Kohl wants it shifted to improve his December election chances. These weapons are obsolete, and likely to be replaced by modern 'binary' chemical weapons ...

"Burning may be safe. The point is we don't know, and we will not be able to afford an environmental monitoring network in the Central Pacific to keep tabs on any little problems the army has in getting the kinks out of the system.

If it is as safe as the US Army says it is then they should do it in Germany - in the Ruhr Valley perhaps where a little bit of extra pollution will hardly be noticed. Which is more important - getting Helmut Kohl re-elected, or keeping the Pacific safe for its inhabitants?"

Greenpeace has opposed the Johnston Atoll plans since 1983. In its 101-page February report circulated among Pacific governments, the movement said that the US military's three studies so far - in 1983, 1988 and 1990 - were obsolete and ignored recent scientific evidence on the creation of toxins in similar high-temperature incinerators. It cites scientific data showing that toxic polychlorinated dibenzo dioxins (PCDDs) and polychlorinated dibenzo furans (PCDFs) are always present among the products of incomplete combustion generated by incinerators of the Johnston Atoll type.

It also described the military environmental-impact report as "inadequate to meet the criteria set down in the US National Environmental Policy Act and subsequent court interpretations".



Poka Laenui, president of WCIP-Hawaii, asked in a letter to Cook Islands Prime Minister Geoffrey Henry: "If the army is so certain about the safety of the incineration of such gases, why not incinerate it in Germany where it is now? Why not ship it to the closest American port and incinerate it there: Why are they compounding the dangers of incineration with the dangers of shipping these gases halfway around the world?"

According to Wilkes, the US Army environmental impact statement on the West German munitions makes "even more scary reading" than the Greenpeace critiques of it. "The munitions will be brought in shipping containers, and the containers will be stacked on a narrow strip of land between the sea and the three kilometre runway which dominates Johnston Atoll, he says. "Numerous aircraft use that runway every day, and it only needs one aircraft to go off course and plough through those stacked containers, and we will have thousands of nerve gas grenades and bombs bobbing around in the Pacific Ocean for decades."

WCIP-Hawaii's Laenui says that when the US Army proposed the transfer of nerve gases from Okinawa to Johnston Atoll five years ago, "a few of us insisted they conduct hearings in other Pacific Island nations. Their response was that those islands were beyond the required scope of the law and not part of the environmental consideration."

Johnston Atoll's nearest Pacific neighbour, the Marshall Islands, is embroiled in its own controversy - over plans by two US companies to export "non-toxic" waste there. In June, Greenpeace handed the Marshallese Government copies of a damning report about the waste traders, citing criminal records and alleged securities fraud involving several of the key people involved.

Greenpeace's report, hand-delivered during a visit by the new Rainbow Warrior, also claimed to expose the environmental flaws in the proposals of the two rival companies, Admiralty Pacific and Micromar.

"Their plans are thinly disguised attempts ... to make money out of the waste crisis," says Greenpeace toxic wastes campaigner Lesley Stone. "They won't solve the US waste problems - nor will they benefit the Pacific. They will just dump the problems and the responsibility for the problems on the laps of the Marshallese people."

The Greenpeace report said Admiralty Pacific president Jim Thompson spent four months in prison in 1975 after pleading guilty to securities fraud. Investigators had discovered that "Thompson has a history of

financial deception and other alleged illegal activities for which he has received criminal charges more than once", the report said. Court records, letters from prosecutors and a prosecution affidavit were cited in support of the claims.

Admiralty Pacific has proposed schemes for 17 million tonnes of garbage landfill on Ebeye, Kwajalein and other atolls, and to dump used tires in lagoons - and Thompson reportedly tried secretly to negotiate a plan for nuclear-waste dumping in the Marshalls.

Micromar's president, Dan Fleming, who split with Thompson last year, is currently preparing an engineering study on the feasibility of exporting US garbage to create almost 100 hectares of landfill at Kwajalein Atoll. He promises no garbage will be dumped in lagoons or the ocean and no toxic waste will be shipped to the Marshalls.

Fleming also claims "Landfill will be protected by massive seawalls, dikes and will be sealed and leakproof". But Greenpeace, in its detailed critique of the Micromar proposals, says claims that there will be no toxins and that the surrounding environment would not be contaminated "are impossible to fulfil" .

While most other Pacific nations have rejected waste-dumping proposals or put them on hold, a California-based company has also come back into the reckoning. Global Telesis is trying to arrange a long-term deal that could send millions of tonnes of US hazardous waste to incinerators throughout Asia and the Pacific. The same company tried unsuccessfully to export US waste to Papua New Guinea and the Solomon Islands in 1988.

Global Telesis now claims to have a deal with Papua New Guinea to construct an incinerator for hazardous wastes. However, Papua New Guinea is a signatory to the Lome Convention and consequently prohibits the import of foreign waste. The company also is reported to be trying to build an incinerator in Vanuatu, another Lome Convention signatory.

Cash payments for accepting foreign waste are often large enough to tempt Pacific countries to consider mortgaging their public health and environmental integrity in exchange for sorely needed currency. Business deals like these, say many environmentalists, force governments to make an unfair choice between "poison and poverty".

[Reprinted from **Listener & TV Times** July 30, 1990]



# Johnston Atoll : Greenpeace's position

In 1983 Greenpeace began registering concerns about the disposal of chemical weapons at Johnston Atoll. The concerns were two-fold: that the prototype incineration process would harm the environment; and that the JACADS incinerators would be used to dispose of other chemical weapons stockpiles besides those stored there, in addition to other hazardous wastes. These questions have been raised repeatedly by Greenpeace in the EIS process regarding Johnston Atoll.

These concerns, among many others recently presented in the "**Greenpeace review of Johnston Atoll Chemical Agent Disposal System (JACADS)**" (Aug 1989)[Greenpeace Review], have been borne out. Since JACADS is the test site for the USA Chemical Stockpile Disposal Program (CSDP) many of the environmental dangers posed by chemical weapons incineration have a direct bearing on disposal at the eight other land-based continental US (CONUS) chemical weapon stockpile facilities (Maryland, Kentucky, Alabama, Utah, Indiana, Oregon, Arkansas, Colorado).

## **Chemical Stockpile Disposal Program**

Each of the nine sites will face serious long-term environmental problems associated with some of the most toxic chemicals known to science - including dioxins and furans - which will eventually bioaccumulate in living tissues; generation of hazardous wastes contaminated with dioxins and furans requiring storage in RCRA landfills - presumably within the same site, excepting Johnston Atoll; and health and safety problems associated with handling of the weapons during transport and operations.

Greenpeace believes that any exposure to dioxins, furans and other bioaccumulative products of incomplete combustion is a great concern. Studies have failed to demonstrate any level of dioxin exposure which has no effect. Recent revelations of data manipulation on studies of human exposure may indicate that dioxin is a potent human carcinogen.

Further, the Department of the Army (DOA) has failed to adequately address these concerns identified in the "Greenpeace Review" in the Draft Second Supplemental Environmental Impact Statement (DSSEIS).

The longer term problems identified in the earlier review, and this current review, may in fact become a perpetual environmental plague. According to the Conference Committee Report for Department of Defense

Appropriations 1990, Nov 13, 1989, in Amendment

#107, "The Committee believes that it may be possible or desirable to continue to use these facilities for disposal or (sic) other wastes or conventional munitions. Such use might require some changes to the design of the furnaces before they are installed in the facility. The Committee directs the Army to investigate and report on the feasibility and desirability of using chemical weapon disposal facilities for other purposes after the primary mission is completed. Such a report should address associated costs and design changes that may be required, as well as management alternatives for operation of such a plant."

In a report often quoted by the Army and others, entitled "Disposal of Chemical Munitions and Agents" written by the National Research Council (NRC) in 1984, this idea of creating regional Department of Defense (DOD) hazardous waste centers was suggested. "In addition the DOD generates a substantial quantity of industrial and hazardous wastes, which must be disposed of in an environmentally acceptable manner. It might be possible to increase substantially the life-cycle benefits of the disposal facilities for chemical weapons if the incineration systems could be subsequently modified to dispose of other DOD wastes." ["Disposal of Chemical Munitions and Agents," NRC, National Academy Press, 1984, p 68).

Since the DOD has no long term plan for the disposal of DOD hazardous wastes, with the exception of the unacceptable Chemical Stockpile Disposal Program, Greenpeace opposes this ad hoc attempt by the DOA and DOD to use incineration as the disposal technology anywhere in the world.

Greenpeace's concerns that JACADS would be used for other purposes, despite DOA claims to the contrary, seem to be validated by the Congressional and NRD proposals. In light of the Congressional directive for the Army to do the feasibility study for redesign of all chemical weapons disposal incinerators, and based on the Army's inadequate piecemeal approach to JACADS, Greenpeace believes that the Army has a duty under NEPA to conduct a comprehensive analysis of the entire proposed action.

Other environmental concerns addressed in this review of JACADS, have specific relevance to Johnston Atoll in its marine environment. These concerns speak to impacts on the marine microlayer, an extremely bioac-



tive zone in the water column; impacts on endangered and threatened species; possible impacts on pelagic fish stocks; the remoteness of the site in terms of monitoring and independent oversight activities; the transport of wastes from JACADS; the transport of the European chemical weapons stockpiles to Johnston Atoll; and health and safety problems associated with handling of the weapons during transport and operations at JACADS.

### **JACADS and European Chemical Weapons Disposal**

Based on a March 1988 Implementation Plan budgeting for the removal of the European stockpiles by 1992, the "Greenpeace Review" called on the Army to file a Supplemental EIS to evaluate the Department of the Army's plans to transport the European stockpile to JACADS. The DOA filed a Draft Second Supplemental EIS in February 1990. On March 7th, the United States and West Germany announced that stockpiled chemical weapons stored in Germany would be shipped to Johnston Atoll as soon as August or September 1990.

Interestingly, the same March 1988 Plan quoted DOA Undersecretary James R. Ambrose who stated that transportation is a "formidable, complex and uncertain task ..." and that transportation would increase the likelihood of an accident and make the chemical weapons more vulnerable to sabotage or terrorism.

A June 1989 report entitled "Risk Associated with the Demilitarisation of the United States Chemical Weapons Stockpile" prepared for presentation at the Air and Waste Management Association meeting, concluded that on-site disposal of the CONUS stockpiles was the preferred option because "of these three (a national disposal centre, regional disposal centres, and on-site disposal) it was determined that the greatest environmental impact was due to abnormal operation (accidents) and transportation accidents. The impacts included human fatalities and chronic illness, destruction of wildlife and wildlife habitat, destruction of economic resources and adverse impacts on the quality of life in the affected areas."

The Army concluded in 1988 that on-site disposal was the preferred option for the CONUS weapons. The worst case scenario for a truck or rail accident in a populated area was between 5,000 and 10,000 fatalities, with a caveat that "although the efforts made to ensure that uncertainties about the values for accident and risk analyses were treated consistently and systematically for all alternatives, the actual values may still be in error by as much as a factor of 10 in either direction." However, it seems political considerations are the motivating force behind Chancellor Kohl's decision to move

stockpiles from West Germany rather than any true analysis of the risks. The transportation risk assessment by which the US Army reasoned that on-site disposal was the least dangerous of the three options should apply equally to shipment of the German stockpile.

Additionally, the Army is legally compelled to consider in a single EIS all parts of the proposed chemical stockpile disposal program. This includes not only an analysis of the cumulative effects of all proposed or foreseeable uses of the JACADS facility but also a comprehensive consideration of the full range of environmental effects associated with disposal of the European stockpile (e.g. transport, destruction technology).

### **Political Implications Associated with Transport of the German Stockpile**

The DSSEIS states that "there are no viable alternatives to the proposed action (transferring the European stockpile to Johnston Atoll). Even the no action alternative, the continued storage and/or disposal of the European stockpile in Europe, is prohibited under existing international agreements."

A major inadequacy of the DSSEIS is its failure to cite the international agreements(s) referenced in this justification for "no action" requiring transport of the stockpile .

Greenpeace supports the "no action" alternative to leave the stockpiles in West Germany in monitored, retrievable storage until a safe destruction technology is developed.

In their decision to require transport of the European stockpile, both Chancellor Kohl and the US Government fail to consider or address other significant agreements pertinent to the shipments: violation of the spirit and letter of two international agreements governing the transfer of hazardous wastes - the Basel convention on the Control of Transboundary 'Movements of Hazardous Wastes and Their Disposal (March 1989) and the Lome IV convention (December 1989).

Greenpeace believes that as a matter of policy the US and West German governments have an obligation to comply with the spirit and letter of both the Basel and Lome conventions in reference to the shipments of these weapons (hazardous wastes) through international waters and/or airspace to their destination.

In particular, the threat of this proposed action to the Pacific has been inadequately addressed.



As a region, the Pacific vehemently opposes the export of hazardous wastes to their ocean. This sentiment was recently expressed by Hawaii State Representative Annelle Amaral during a public hearing on March 20, 1990 concerning the shipments: "The Pacific will not be the dumping ground for the world .. we live here, we use her waters, we will fight to keep free of this obscenity."

A resolution of the World Council of Indigenous Peoples based in Honolulu expresses this same sentiment:

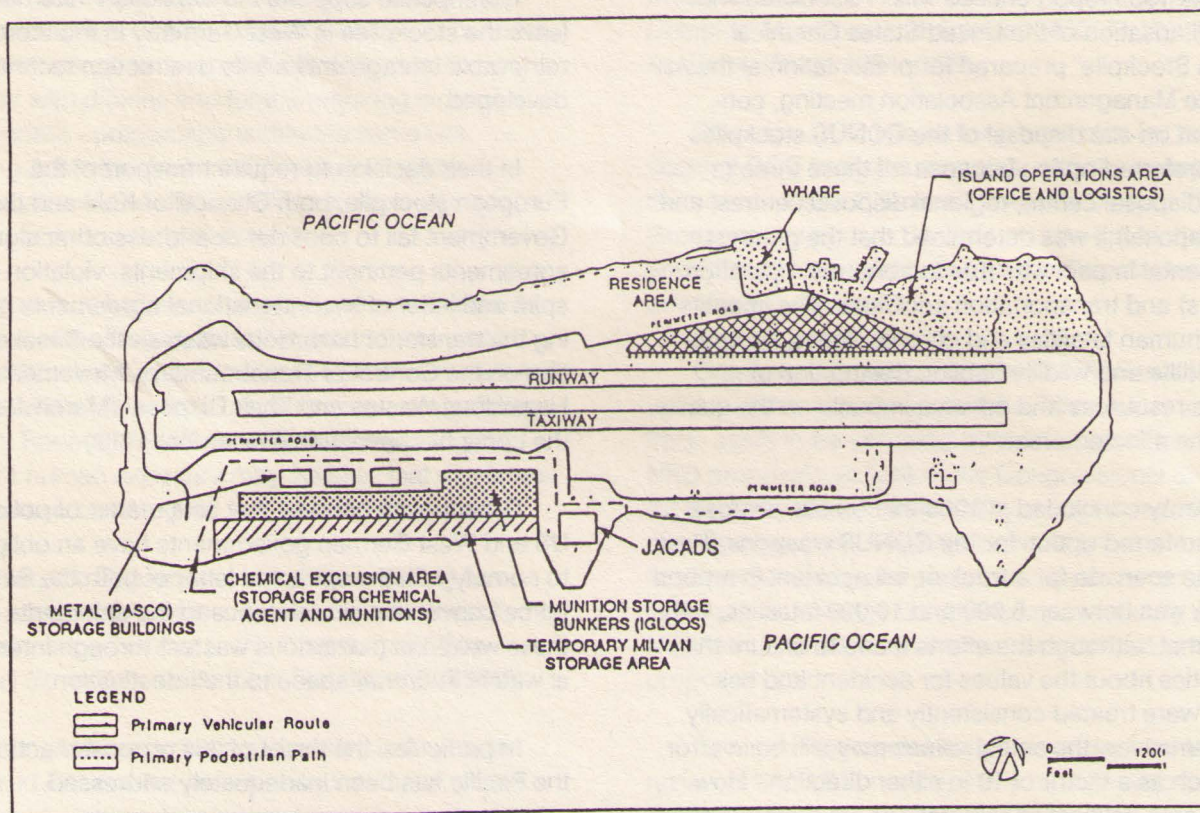
"Whereas, having due regard for the migratory nature of sea life, the ever changing currents and unpredictable forces and range of these currents throughout the Pacific Ocean; and ... Whereas, having due regard to other people of the Pacific who must share the same ocean and air currents with the people of Hawaii ... the pollution of any part of the Pacific diminishes the integrity of all of the Pacific and is intolerable; the program of burning nerve gases .. on Kalama (Johnston Atoll) threatens the purity of the Pacific skies and constitutes an unpredictable and unreasonable risk to the life, health and general welfare of all Pacific peoples ... Be it further resolved, that all of the island of and surrounding Hawaii, irrespective of political status or geopolitical boundaries, should be an integral part of any treaty among Pacific nations to assure a clean Pacific.

As a matter of policy, the principle of "prior informed consent," which governs the export of highly hazardous chemicals such as banned or severely restricted pesticides should apply to the shipments of chemical weapons through the Pacific. Therefore, the US and West German governments should notify all the countries of the southwestern and western Pacific about the proposed action, and the inherent risks, and solicit comment and approval prior to the action commencing. The burden of proof falls on the DOA to adequately answer all concerns!

In conclusion, there are many outstanding concerns and inadequacies which this review will address, and which require comment by the DOA.

While Greenpeace does support the destruction of chemical weapons and welcomes disarmament agreements banning the production of unitary and binary chemical weapons, the destruction of existing chemical weapons stockpiles must be conducted in an environmentally safe way in any country where these stockpiles exist. The current CSDP wholly fails to meet these requirement.

[Executive Summary from the "Greenpeace Review of Johnston Atoll Chemical Agent Disposal System (JACADS, Draft 2nd Supplemental Environment Impact Statement, February 1990)]



Location of facilities and major roadways on Johnston Island (USDOA figure)

From Pacific Research, May 1990



# GREEN vs PEACE?

## The Johnston Atoll Controversy

By Trevor Findlay

To the casual observer there would appear to be no incompatibility between the icons of disarmament and environment. After all, isn't the production, deployment and use of weapons both a wasteful diversion of the earth's resources and a blight on our planet? Shouldn't getting rid of weapons be environmentally desirable? Well, yes - in general. Yet the case of chemical weapons illustrates that when disarmament meets environment there may be painful choices - trade-offs - involved.

The decision to move American nerve gas from the Federal Republic of Germany to the remote Pacific territory of Johnston Atoll, for storage and eventual destruction has catalysed debate over the environmental effects of chemical 'demilitarisation'. The debate has grave implications for the entire future of the international effort, in which Australia is intimately involved, to rid the world of the scourge of chemical weapons (CW). On one side is ranged an unholy (if temporary) alliance of the United States Army and the professional arms control community, while on the other is to be found the environmental movement, represented largely by Greenpeace and support by community leaders in the Pacific and elements of the US Congress. West German activists seem divided over the issue.

On 8 March of this year the US Army disclosed hurriedly prepared plans to remove, by the end of 1990, the entire stockpile of US chemical weapons from West Germany, leaving Western Europe free of such American weapons for the first time in 20 years. While the United States had originally pledged a withdrawal by 1992, West German Chancellor Helmut Kohl had announced an earlier pullout without prior US agreement, presumably to bolster his chances in December's general elections. Politically, the United States now has no option but to withdraw the weapons as soon as possible.

The US chemical weapon stockpile in the Federal Republic comprises approximately 400 tons of lethal nerve gas - GB (Sarin) and VS - contained in about 100,000 8-inch and 155mm projectiles constituting less than 1% of the total US stockpile, the weapons have in the last few years been withdrawn to one location, a secluded depot at Clausen near the French border in the state of Rhineland-Palatinate. The complex plan for

their removal involves placing the shells in vapour-proof containers, trucking them in high security convoys 28 miles to a railhead at Miesau, transporting them by train to the North Sea port of Nordenham and then shipping them to Johnston Atoll in the Pacific. There they will be stored and eventually destroyed in a high-temperature incinerator plant on Johnston Island, the largest of four islands that constitute the atoll. It is estimated that the removal of the weapons to the Pacific will take about 3 months, from July to September, although destruction will reportedly not begin until 1994.

Johnston Atoll is an unincorporated US territory located in the central Pacific Ocean about 1300 km (about 800 miles or 717 nautical miles) southwest of Hawaii. The European chemical weapon stockpile will join stockpiles of mustard gas removed from Okinawa and stored on Johnston Island in 1971. The chemical weapon destruction plant, called the Johnston Atoll Chemical Agent Disposal System (JACADS) has been under construction for some years. Originally designed to destroy only the Okinawa stockpile, it was also hoped that JACADS would demonstrate the feasibility of the destruction process intended for the remaining stockpiles of old American chemical weapons at 8 locations in the continental United States. The US Army is currently completing inspection and testing of JACADS, which is expected to begin full operation by July 1991. A so-called 'operational verification testing period', presumably involving actual chemical munitions, was scheduled to begin this month, more than a year later than originally expected.

The construction and testing of the plant has not been without difficulties. The chairman of the US Congressional House Defense Appropriations Sub-Committee, Representative John Murtha (Democrat - Pennsylvania) warned in October 1989 of 'serious management problems' at Johnston Island, difficulties 'with overall reliability' of the machines that will disassemble the munitions and 'technological uncertainties' with the three main furnaces and air purification equipment. Army officials and two independent observers have now concluded that these problems have largely been solved. Congress is delaying funding for additional destruction plants in the continental United States and



for the operation of JACADS until the facility proves its capabilities.

In 1983, the US Army prepared the required Environmental Impact Statement (EIS) to assess the impact of the technology, construction and operation of JACADS on the environment of Johnston Atoll. In 1988, it produced a supplemental EIS (SEIS) to examine the deposition of solid and liquid waste produced by JACADS. In February 1990, a second SEIS was drafted to assess any additional environmental impact resulting from the destruction of the European stockpile at Johnston Island. Finally, a separate 'Global Commons' environmental review will be prepared to address the potential impact of shipping the European stockpile from the North Sea to Johnston Atoll's 12-mile territorial limit. The Army's conclusions in all three JACADS Environmental Impact Statements, prepared by qualified scientists at the US Government's Oak Ridge National Laboratory, were that the destruction of chemical weapons at Johnston Island could be carried out in a 'safe and environmentally acceptable manner'.

Reaction to the US Army's long-standing but little known plans has been fired by the issue of the European stockpile. The Pacific Conference of Churches (PCC) at a recent meeting in the Marshall Islands said the plans would continue the 'misuse of the Pacific as a dumping site for nuclear and chemical wastes. Solomon Islands Bishop Boseto, PCC executive committee chairperson, declared: "It is harmful to people, the environment and the whole of God's creation". The Australian Conservation Foundation described the plans as 'outrageous', declaring that the European stockpile should be dealt with in the continental United States, rather than "attempting to ship it off to a tiny US island in someone else's backyard". The government of the Federated States of Micronesia (FSM) and elected officials in Hawaii have also expressed concern about possible damage to the marine ecosystem. On the other side of the world, in West Germany popular opinion is divided between those who see the weapons as too dangerous to move (which would seem to indicate on-site destruction), those who simply want them out of Europe in the quickest, safest way possible, and those who worry about dispatching Europe's problems to the Pacific Ocean.

The most detailed and systematic response has come from the environmental group Greenpeace, which has expressed concerns about Johnston Island since 1983. It has commissioned two reports, the first in 1989, commenting on the US Army's 1983 and 1988 environmental impact statements, the second in March 1990 on the Army's February 1990 supplementary statement.

Greenpeace found all of the Army's statements wanting. While its tactic has been to 'throw the book' at the Army, deploying every conceivable criticism to boost its case, its most important claims are that:

1. Recent studies of high temperature incineration have shown that several classes of highly toxic compounds are generated in significant quantities, even in state-of-the-art incinerators. In particular highly toxic, bio-accumulative chemicals such as polychlorinated dioxins and furans have allegedly been formed in virtually every incinerator studied, when organic matter and a source of chlorine are burned together.
2. New scientific studies have apparently documented the role of the sea surface microlayer in concentrating and recirculating such toxic substances which may then find their way into the marine food chain.

Greenpeace also found the reports deficient in analysing previous experience with CW destruction, the quantities of the substances to be destroyed at Johnston Island, the identities and quantities of uncombusted chemicals likely to be produced, the potential impact of accidental releases, the potential overall environmental impacts on the island's bird sanctuary, endangered species and marine life, and the lack of disaster plans to ensure the safety of personnel on the island.

The US Army responded indirectly to some of Greenpeace's claims in its February 1990 report, including agreeing not to dump solid waste by-products from the incineration process into the ocean and providing more information in areas where Greenpeace had judged it inadequate. The Army also challenged Greenpeace on the dioxin/furan issue, pointing out that of all the agents to be incinerated only mustard gas, which is not part of the European stockpile, provides the chlorine necessary for production of dioxins and furans. Dr Shirley Freeman, formerly a defence scientist with the Australian Department of Defence and currently a Visiting Poppleton Fellow at the Peace Research Centre, concurs:

Concern about the possible release of dioxin to the environment is probably exaggerated. There is a theoretical possibility that some dioxin might be produced during the incineration of mustard gas. None could be produced when nerve agents are incinerated.

As for other chlorinated organic materials, the US Army claims that tests at its facility at Tooele, Utah, produced only very small amounts of dioxins that pose no threat to human health and no detectable furan. In its latest report Greenpeace adds a new claim: that the salt



brine used to capture the effluent from the burning process will itself provide the chlorine source for the production of dioxins and furans.

In any event the Army has pointed out that during the operational testing period, which had been scheduled to commence in March 1990, it will be monitoring stack gases for polychlorinated biphenyls (PCBs), toxic metals, dioxins, furans and other potentially toxic combustion by-products. The incineration system will be required to demonstrate that 'a 99.99% destruction and removal efficiency is reached for each hazardous compound being destroyed' and that 'particulate matter emissions do not exceed permit limits'. The Army also commented that 'the existence of a sea-surface microlayer of the ocean that might concentrate toxic materials in the open ocean is possible, but its existence as a consistent entity in the rough open ocean is tenuous'. Shirley Freeman notes that if dioxin were concentrated in the 'hypothetical' microlayer of the ocean it would rapidly be destroyed by UV radiation.

Clearly there is legitimate scientific debate over the potential effects on the environment of the destruction of chemical weapons. It is also clearly proper and laudable that Greenpeace should keep the US Army 'honest' over the environmental effects of incineration. The issue that brings Greenpeace into conflict with the arms controllers is not its environmental ardour per se, but rather:

- its insistence that **no material whatsoever** [Greenpeace's emphasis] be released by any CW destruction process
- its total opposition to incineration in any form
- its total opposition to the shipment of the European stockpile to the Pacific, and
- its proposed alternative to destruction.

Greenpeace recommends 'above-ground monitored retrievable storage of the existing stockpiles at Johnston Atoll until such time as further research has been conducted into alternative destruction methods and conclusively demonstrates that an environmentally safe alternative method is available'. It proposes the same for the European stockpile.

There are several fundamental political and environmental problems with Greenpeace's CW policy. The first is that it ignores the problem of what should ultimately be done with the European stockpile. Clearly the weapons can no longer be left in storage in Germany given the intense political opposition and the US/German agreement to remove them. They would in any event have to be moved or destroyed within a year or

two as a requirement either of a US/Soviet CW reduction agreement or a comprehensive CW treaty. While moving the stockpile now involves a finite risk, further storage does nothing to reduce this risk and has its own environmental dangers, which, because of the age of the weapons, can only increase over time. Further, it would clearly be adding insult to injury to expect heavily populated Germany to host a destruction process for the American weapons, especially if they are as dangerous as Greenpeace claims.

As for the option of moving the stockpile to the US mainland, this would involve greater handling and more risk to populated and environmentally sensitive areas than delivery to Johnston Island - which is located in a very isolated part of the world compared to any of the 8 CW storage/destruction sites in the continental United States. In the case of 4 of these (in Alabama, Kentucky, Utah and Oregon) the US Army estimates there is a high risk associated with cross-country transport of chemical munitions between receiving port and disposal site. This was the very reason for the decision to destroy the continental US stocks of CW on-site, rather than move them to a central destruction facility. The second major problem with Greenpeace's stance relates to the destruction process as a whole, in that Greenpeace probably overstates the environmental dangers of high-temperature incineration, while failing to balance these against the potential environmental dangers of continued storage. While Greenpeace clings to its dictum that 'no material whatsoever' must be discharged into the environment during chemical weapons destruction, the laws of physics dictate that this is impossible whatever happens - either continued storage or an alternative 'demilitarisation' process. The longer the chemical agents are stored, either in Europe or the Pacific the more likely it is that a major leak will occur, a far more damaging prospect than controlled high-temperature incineration. The European stockpile is old and potentially unstable, while the Army has already conceded that the storage canisters on Johnston Island are being effected by their marine environment. It would seem that the sooner these are destroyed, in as environmentally sound a way as possible, the better.

Moreover, Greenpeace's storage option appears likely to stretch into the unforeseeable future. There are currently no proven alternatives to high-temperature incineration. Greenpeace itself has been unable to suggest one. Even if one were developed, it is unlikely to be environmentally or politically cost-free. According to Shirley Freeman, while the toxicity of chemical weapons fill can be reduced by hydrolysis, the products of this process can be retrieved and re-used in the synthesis of new chemical weapons fill. The only way to break the



carbon-to-phosphorus bond which is the critical part of the molecule is by high temperature incineration. Similarly the hydrolysis product of mustard gas, thiodyglycoll, could be used to re-synthesise mustard. While scientists at Texas A & M University claim to have bred bacteria capable of neutralising nerve agents, this has not been substantiated and would in any event apply to mustard gas. Meanwhile, high-temperature incineration technology is itself improving. Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) recently announced the invention of a plasma arc furnace capable of completely destroying dioxins and all other toxic chemical wastes at very high temperatures.

Finally, and perhaps most importantly, Greenpeace, while paying lip service to the cause of chemical disarmament - devoting only one line to the question in its latest report - then proceeds to totally ignore the disarmament context in which CW destruction must take place.

The United States, for example, is committed by Public Law to destroying all of its unitary stockpile of chemical weapons by 30 April 1997. It is also likely to be committed to destroying all but 5,000 tons of its current stocks by a bilateral agreement with the Soviet Union which is likely to be concluded at the May 1990 Bush/Gorbachev summit. In addition, the new chemical weapons convention, which could be completed within two years, will require the irreversible destruction of all chemical weapons as part of a worldwide, perpetual ban on such weapons. The current 'rolling text' of the new treaty, being negotiated by the Conference on Disarmament in Geneva, requires that all states destroy their existing stocks of chemical weapons within 10 years after entry into force of the agreement.

Both superpowers are already facing logistical, technical and environmental challenges in attempting to meet these deadlines. The Soviet Union was forced by environmental protests to convert its only CW destruction plant, at Chapeyevsk, into a training centre even before the operation of the plant had commenced. There is no information publicly available as to how other CW states, including France and Iraq, or states with old unusable stocks, such as Belgium and Canada, plan to destroy their weapons. There is clearly a need for international cooperation in achieving the safest possible destruction method. Talks between the two superpowers and members of the Conference on Disarmament are proceeding to this effect. Greenpeace has called for a joint Soviet/US research project, but only into 'environmentally sound detoxification processes', not improved high-temperature incineration.

Opposition to the planned destruction process, however minor the environmental effects, could have major political consequences. Not only could it delay or even block the first real disarmament agreement the world has ever seen - namely the total abolition of chemical weapons for all time - but it could foster cynicism in those states which do not possess chemical weapons but which regard a new treaty as a litmus test of the great powers' willingness to disarm. It could also give succour, however illogically, to those states in the Middle East (and perhaps elsewhere) which have recently come to regard chemical weapons as a necessary part of national defence. It will be hard enough to convince current CW possessors like Iraq, Israel and Libya and potential CW powers to sign the new treaty, without having the United States and the Soviet Union in possession of old stocks or their components, however well stored and monitored they might be. It is on these grounds that Greenpeace has been urged by arms control advocates such as the Quakers, the Washington-based Council for a Livable World, the Federation of American Scientists and the Peace Research Centre to reconsider its policy.

A delay in concluding a chemical weapons convention could ultimately have major environmental consequences as well. The greatest threat to the environment posed by chemical weapons is not their controlled destruction but - in descending order of magnitude - their use, their further proliferation to other countries and their increased manufacture by current CW states.

But a compromise is possible. Greenpeace should drop its opposition to the shipment of the European stockpile to Johnston Island and the unrealistic requirement that CW destruction of chemical weapons both for political and environmental reasons, it is prepared to make a one-off exception to its general anti-incineration stance. For its part the US Army should provide much greater evidence and assurance that its planned withdrawal, storage and destruction procedures will be as environmentally safe as possible and that the risks to Johnston Island in particular are minimised. It should also permit Greenpeace and interested Pacific countries such as Australia, which is currently conducting an independent study of the Johnston Island plans, to monitor these procedures. If the Soviet Union can be permitted to monitor missile production plants in the United States it would seem illogical to deny a respected Western environmental organisation the same right in regard to chemical weapon destruction.

In any event Greenpeace and other environmentalists should weigh carefully the benefits both to world peace and the environment that will flow from the total



destruction of chemical weapons and a perpetual ban on their acquisition and use, as against the temporary and perhaps marginal environmental gains to be made from the disruption of the destructive process.

[The author is grateful to the following for their

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[Reprinted from **Pacific Research**, May 1990]

## 'Hot' Shrimp Stalk Sea: Ghosts of Nuke Tests

By David Zimmerman

A cautionary tale about the safety of nuclear-waste disposal is etched in the sands beneath the lagoon of Enewetak Atoll in the Marshall Islands. Biologists are bringing it to light.

Enewetak was a test site for U.S. nuclear weapons from 1948 to 1958. Then radioactively hot coral and soil from blast areas were buried, under concrete, on tiny Runit Island on the atoll's east rim.

Enter, in 1981, a research team of biologists and radiation specialists, including marine ecologist Thomas H. Suchanek, Ph.D., now of the University of California at Davis. Dr. Suchanek is an expert on "ghost" shrimp.

As their name suggests, these shrimp are almost translucent. They are cigar shaped but are related to other swimming and crawling shrimp netted in huge numbers in the oceans and served up with cocktail sauce.

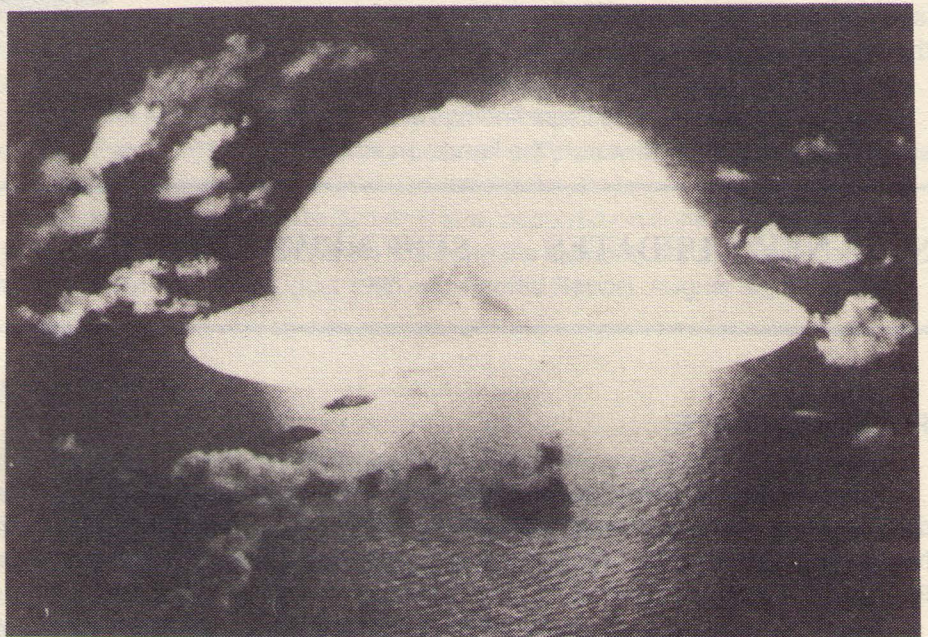
Ghost shrimp, however, are rarely seen in the water or on the ocean floor, according to Dr. Suchanek. They avoid predators by spending their lives hidden in long, elaborate tunnels dug into the shallow, sandy tropical bottoms. Their presence is inferred from the volcano-shaped sand mounds they throw up from these burrows. To eat, ghost shrimp pull water or ocean sediment in through one end of their architecturally complex burrows, extract the nutrients, and pump the residue out the other end.

Biologist Suchanek has developed elegant ways to study ghost shrimp (which are called calianassids, technically). For example, he pours liquid fibreglass resin into

their burrows. When it sets, he dredges away the sand to expose the Leger-like molds of their labyrinthine tunnels and storage chambers.

Following Enewetak nuclear-bomb tests and nuclear-waste burial, Dr. Suchanek said, scientists from the Lawrence Livermore National Laboratory in California, the major nuclear-arms laboratory, measured radioactivity in the lagoon near Runit. They found it essentially safe - minimal radioactivity - down to a depth of 10 inches beneath the surface of the sand.

But they neglected the ghost shrimp, which burrow possibly as far as 6 feet below the surface.



**Test bomb exploding at Enewetak. Shrimp in 6-foot deep burrows were irradiated and decades later were found to be spewing out radionuclides with their waste.**

The Bettman Archive (from Medical Tribune, Dec 14/90)



At the depths where the shrimp live, Dr. Suchanek and his colleagues found, through core sampling, that the sand is extremely hot; radiation levels are up to 300 times higher than on the nearby land surface of Runit.

The buried radioactive material includes slowly decaying radionuclides. Among them are americium-241 and plutonium-239 and -240, which have half-lives of up to about 25,000 years.

No one knows, said Dr. Suchanek, why the radioactive sands are somewhat buried. They could have been forced downward by the nuclear-bomb blasts or by natural sedimentation processes. Or they may have started on the exposed surface, then been buried slowly by currents and tides. They could be unburied, in an instant, by a typhoon. This radiation certainly can cause birth defects and harmful mutations in the ghost shrimp. Worse, in digging and maintaining their burrows, these crustaceans throw the buried hot sand up onto the lagoon floor. Dr. Suchanek said that readings of 10 times background level were recorded in the shrimp's sand mounds.

Even as they feed, ghost shrimp create nuclear pollution. Dr. Suchanek and his colleagues collected out-flow water and sediment from their burrows. It was three times hotter when pumped out than it had been when sucked in, a few moments before.

This lagoon area, then, may not be safe for its natural animal inhabitants or for the native Marshall Island people - and may remain unsafe for tens of thousands of years.

Dr. Suchanek described these findings at an annual scientific meeting of Earthwatch, the hands-on environ-

mental organisation, in Boston. He and his co-workers also have published this information in *Nature* and *Bulletin of Marine Science*.

Discovery of the ghost shrimp suggests that nuclear engineers' other schemes for "safe" disposal of radioactive waste need to be treated with skepticism. Livermore researchers called Enewetak safe a few years ago. But clearly, it is not.

Currently, 'safe' disposal plans call for embedding nuclear wastes in hard ceramic dishes and dropping them into deep ocean waters. But, knowing Nature's vagaries, who can be sure that biological and hydrological ghosts of the depths will not propel these dangerous wastes back up into the human environment?

[Reprinted from **Medical Tribune**, Vol 30, No 30, December 14, 1989.]



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**SPPF NEWS UPDATES**

**SPPF NEWS UPDATES**

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## **FORUM UPDATE**

The 21st South Pacific Forum meeting was held in Port Vila, Vanuatu, at the end of July. The Forum spent a great deal of its time on environment questions including the US chemical weapons disposal on Johnston Atoll, the greenhouse effect, and driftnet fishing. A special committee was established to find ways to strengthen the South Pacific Regional Environment Program.

The Forum agreed to the incineration of chemical weapons already stored on Johnston Atoll, but expressed grave concerns about shipping European stockpiles to the Pacific for disposal. The Forum stressed the South Pacific's firm opposition to Johnston Atoll becoming a permanent toxic waste disposal site.



## FIJI

President Ganilau unilaterally proclaimed a new Constitution for Fiji on July 25th. The new Constitution allocates seats in the lower house on the basis of race, 37 for ethnic Fijians, 27 for Indo-Fijians, and 6 for others. This guarantees a majority of the seats in the lower house to ethnic Fijians who make up only 46% of the population. It also guarantees disproportionate influence for Fijians in rural areas as only 5 of the 37 Fijian seats are allocated to urban areas. The Great Council of Chiefs will select the President and 24 of the 34 members of the Senate.

In addition to concern about racial discrimination in terms of representation and public service employment, there is further concern about the emergency powers section which allows a simple majority of the lower house, i.e. the Fijian members acting alone, to suspend all other provisions of the Constitution, including those guaranteeing fundamental rights.

The opposition Coalition led by Kuini Bavadra has called for a referendum on the Constitution and has made the decision to boycott the elections if held without a prior vote on the Constitution. Although he was not present when it was proclaimed, General Rabuka has reaffirmed that he intends to seek the Prime Minister's job under the new Constitution. (From **Pacific Islands Monthly**, August 1990, **Islands Business**, August 1990, and **Pacific Report**, July 19, 1990.)

## BOUGAINVILLE - The Endeavour Accord

Week-long talks between the government of Papua New Guinea and the Bougainville Revolutionary Army held on the New Zealand naval ship Endeavour in early August led to an agreement now known as the Endeavour Accord. The agreement provides for an end to the blockade of Bougainville by PNG Security Forces and a restoration of health, education, banking, transport, communication, and electricity services, all of which had been cut off since the April 17th declaration of independence by the BRA. The major questions of the future political status of Bougainville and the future of the Bougainville copper mine have been put off until future talks, probably to be held in October. (From **Pacific Islands Monthly**, September 1990, **Islands Business**, September 1990, and **Pacific Report**, September 27, 1990.)

## PNG-INDONESIA BORDER CLASHES

Incursions across the border into Papua New Guinea by Indonesian troops were reported in late June. The Indonesian army says these incidents have occurred in pursuit of Free Papua Movement (OPM) guerillas who fled into PNG. There is, however, no agreement between the two countries giving Indonesia troops the right to cross the border under any circumstances. Two groups of West Papuan refugees, totalling more than 900 people, are reported to have fled across the border into PNG as the result of clashes between the OPM and Indonesian troops.

The largest incursion of Indonesian troops, estimated to be up to battalion size, occurred on June 26th near Yapsei, about 130 kms south of Jayapura. PNG troops were rushed to the border following the incident, but there has been no comment from the PNG government. (**Tapol Bulletin** No. 100, August 1990 and **Pacific Report**, August 30, 1990.)

## SOLOMONS NFD SOLD TO CANADIANS

The government of the Solomon Islands has sold the National Fisheries Development Corporation (NFD) to the Canadian company, BC Packers. BC Packers purchased NFD for S\$20 million, but as BC Packers did not assume NFD's S\$8 million debt, the net return to the government was only S\$12 million. The opposition has criticized the low sale price as being less than the value of one of the two purse seiners included in the deal. Local development groups also criticized the government for not seeking a local owner for NFD.

For its part BC Packers has promised to keep all the present 450 employees of NFD and to embark on a major effort to train Solomon Islanders for management positions. BC Packers has already put one ship to sea skippered and entirely crewed by Solomon Islanders. BC Packers has also promised major investment in NFD, possibly as much as S\$50 million over the next five years. (**Link**, May-June 1990, **Washington Pacific Report**, September 1, 1990, and SPPF.)



# Explosions in Paradise

BY CRAIG CORMICK

## The French have been testing atomic weapons in the Pacific for nearly 25 years.

In that time they have exploded 163 atom bombs at and nearby the small atoll of Mururoa. Evidence shows it is now quite impossible to believe the official line that the tests have caused no environmental or health damage.

The first French atomic test was carried out at Mururoa Atoll in 1966. The first bomb, a messy plutonium-fission device, was detonated on a barge in the lagoon. It sucked a large column of water into the air, and then rained it back down with dead fish that were left to rot in irradiated heaps. It was not a noble start to the program.

Despite increased protests from the countries of the region, and from the colonised people of French Polynesia, the French Government has confirmed its commitment to continue testing nuclear bombs claiming that it is doing no damage to the environment. As recently as April this year, it has put out statements that there is 'infinitesimal' danger to the health of the people of the region. Yet as each new bomb is exploded, and more scientific evidence comes to light, it becomes increasing harder to justify these claims.

Recent findings into radiation leaks and the poisoning of the local food chain show that the official claims have little accuracy.

One Australian, Dr. Tilman Ruff, has shown that the French atomic tests, and associated military activity in the region are a direct cause of food poisoning in the area. He has also accused the French colonial authorities of deliberately not collecting and distorting health statistics, including cancer rates in the territory.

Dr. Ruff, lecturer in social and preventative medicine at Monash University's Medical School, who has visited French Polynesia, says figures available on cancers in the territory cannot be meaningfully interpreted because they are so incomplete.

"There is some evidence of some deliberate non-collection and non-dissemination of health statistics." Comprehensive health statistics were regularly published

until 1966 when "it stopped coincident with the beginning of the testing."

The World Health Organisation then requested that a South Pacific Cancer register be established, but it took many years and a lot of lobbying from other countries in the region before a register was finally set up.

However, according to Dr. Ruff, the South Pacific Commission review on cancer in Pacific island countries could not assess the incidence of cancer in French Polynesia because of the incompleteness of reporting of cancer causes there.

## Low Cancer Claim

Dr. Ruff said that the French had claimed that the level of cancer in the South Pacific was the lowest in the region- at about one fifth the levels of New Zealand and Australia. But he said the French data was obtained only from the central hospitals and did not include people treated for cancer in private hospitals, regional health centres the military hospital, or those that left the region for more advanced treatment.

Although considerable efforts have been made in recent years by Tahitian health officials to better collect cancer statistics in the Territory (especially under the current Health Minister, Mr. Jacqui Drollet), they have faced considerable difficulties. Not only has there been opposition from French officials, but they have faced a grossly inadequate system of collecting health statistics, dominated by the French military.

In fact, until Mr. Drollet's appointment, the head of the French Polynesian Public Health Service was a French general.

Dr. Ruff says the chief of epidemiology in the Ministry of Health in French Polynesia informed him that as recently as 1987, 70 per cent of cancers officially listed in records at the main hospital in Tahiti were not appearing in the Ministry's cancer register. Up to 80 percent of



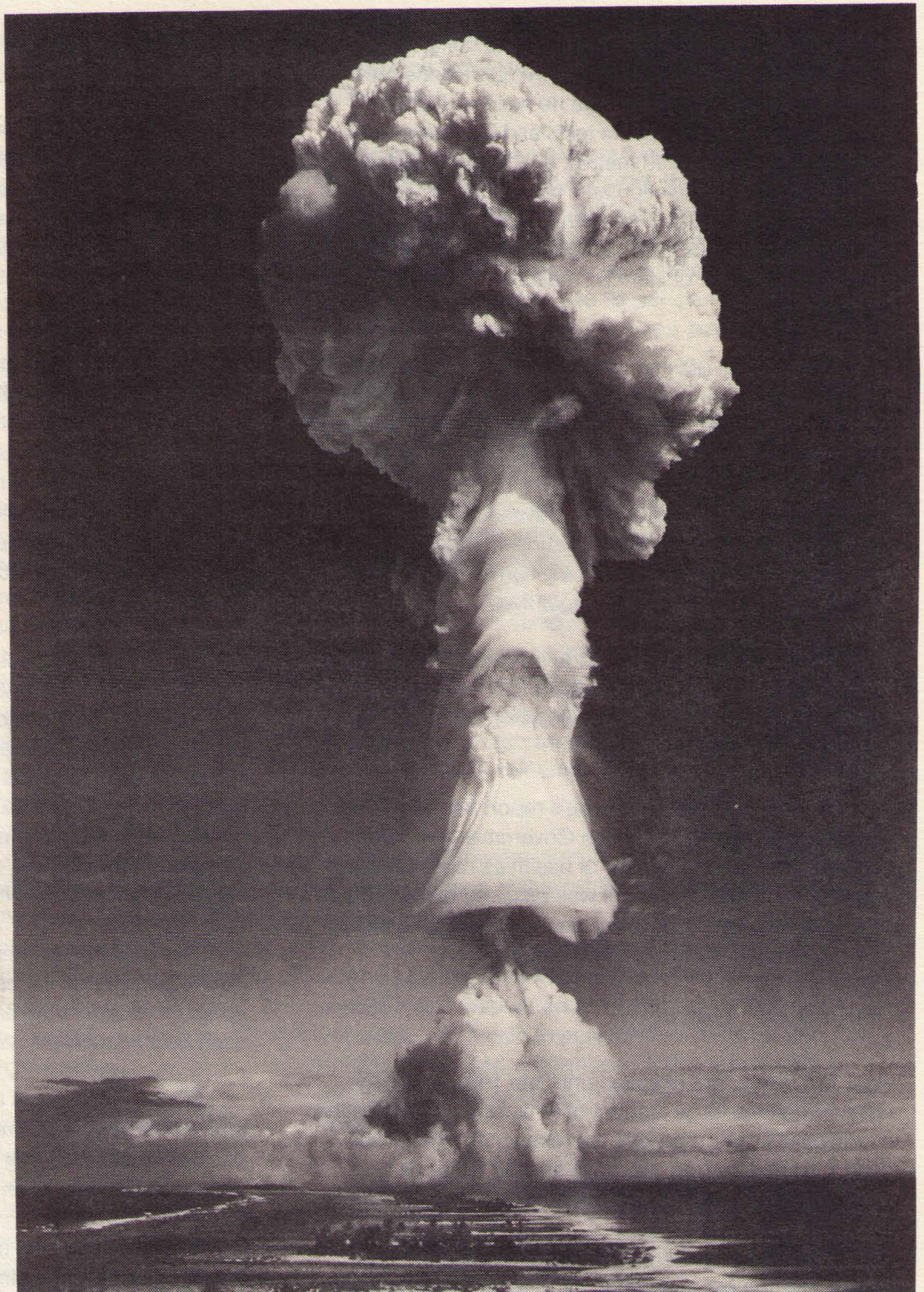
doctors in the region were French military doctors, who had a conflict of loyalties in collecting health information that could potentially embarrass the French military.

Although many in the territory are worried about an apparent increase in cancer cases, the lack of good scientific data has made it impossible to determine cancer increases with any accuracy and has prevented many critics from being more outspoken against the tests.

Another serious problem is misinformation being generated. Some scientific reports, highly critical of various aspects of the nuclear testing, have been quoted by the French Government as giving them a clean bill of health. In the case of one report, the 1984 Atkinson Report, the French statements were issued six months before the report was published.

In April this year, a team of French scientists, including members of the Association of French Physicians for the Prevention of Nuclear War (AMFPGN) visited the atoll to investigate health aspects of the testing. In response to this first-ever independent French medical mission to visit French Polynesia, the French Government organised a visit at the same time by a group of expert scientists and medical journalists felt to be more supportive of the French Government's position.

This officially sponsored group visited Mururoa at the same time as the AMFPGN delegation, and distributed a statement saying that it found the risk of radiation in French Polynesia was "infinitesimal". The statement received wide coverage in the Australian media, and was generally credited to the AMFPGN



delegation which quickly put out its own statement dissociating itself from the comments. However, lacking international connections, such as a national wire service, the release received negligible coverage. The AMFPGN report will be published as soon as it has been completed.

Another successful case of misinformation concerned a report by Jacques Cousteau who took his ship the Calypso to French Polynesia in 1987 to investigate



potential environmental damage around the atoll. His survey was conducted under severe restrictions preventing him from obtaining the data he needed. He was given only five days to make tests and his divers were limited to a depth of 200 metres, although the tests were conducted at between 800 and 12000 metres. Sampling water from the lagoon was restricted, as no access was being allowed to the waste disposal areas and, inexplicably, a number of planned measurements could not be made.

However, he did find that there had been extensive damage to the coral, threatening a land collapse, which would release many highly radioactive substances into the waters, as well as existing radiation leaking.

Cousteau's team found high levels of radioactive substances present, including iodine-131 (short-lived) in plankton in the lagoon, as well as high levels of cesium-134 and cesium-137 (much longer lived).

The French authorities made no written documentation available to Cousteau's mission and the nuclear test which the mission was able to observe, had a very small one kiloton explosive power.

Dr. Ruff says that Cousteau's report has often been misrepresented by the French Government, and does not give the atoll a clean bill of health as has often been reported, instead, "he said it was basically being used as a high-level waste repository, and said it was the worst possible way of storing nuclear wastes."

## Structural Damage

The report, not released until late 1988, also suggested that the large amount of structural damage to the coral base of Mururoa was the reason the French announced that they would move all their larger explosions to nearby Fangataufa Atoll.

The French authorities however insisted that the reason for the move was simply to avoid "unnecessary jolts" to Mururoa's buildings. The French Ministry of Defence and the Atomic Energy Commission also claimed that the 15 years of underground testing had only damaged a mere 0.79 percent of the atoll's sub-structure.

This claim has been countered by French information revealing significant structural damage, including one single accident which, according to a 1983 French Ministry of Defence report, on 25 July 1979 tore a hole in

the flank of the atoll estimated at one million cubic metres.

The southern end of the atoll's reef ring, where the underground tests were held, is only 23 kilometres long, and 46 bomb shafts were drilled in it. By 1980 the French were faced with a problem- this thin stretch of coral was completely used up. But not to be deterred, they transferred their testing to the coral core at the centre of the lagoon and continued testing.

The French authorities have also issued statistics showing that over 2000 Polynesian workers at Mururoa actually had a reduced risk of cancer deaths while employed there, however they have not detailed their survival rates once they have left. Dr. Ruff says this is critical information, as most radiation-related cancers do not show up until decades after the explosions, which is well documented in cancer rates after US tests in the Marshall Islands.

One of the prime authorities on Polynesia, and co-author of the book "Poisoned Reign: French Nuclear Colonialism in the Pacific, Bengt Danielsson, wrote in the March issue of the Bulletin of the Atomic Scientists, "There seems little doubt that leakage from the underground testing initiated in 1976 has led to irradiation of the sea fauna around Mururoa, and that many contaminated fish, shellfish, squids, and sea turtles have been consumed by the inhabitants of nearby islands."

However, he says that an ever greater danger to the Pacific Islanders is the amount of plutonium waste spread throughout the area, and that after 20 years, such health problems have not been addressed.

According to Bengt Danielsson, a typhoon struck Mururoa in 1981, washing out to sea huge amounts of nuclear waste, including between 10 to 20 kilograms of plutonium that had been sealed under asphalt.

Between 1966 and 1974, the French exploded 44 nuclear bombs in the atmosphere, despite the 1963 treaty between major powers banning such testing. Yet despite New Zealand's monitoring stations in the region recording high levels of fallout, the French continued to assert that there were no dangerous levels of fallout in French Polynesia. It was only as a result of political and economic pressure by countries such as Australia and New Zealand that the tests were moved underground in 1975.

Research into the US tests in the Marshall Islands has revealed that it takes up to 15 years for the effects of fallout to become apparent in the population. The most



common radiation-induced diseases are thyroid cancers, leukemia and brain tumours.

Bengt Danielsson writes, "As could be expected, it is from the early 1980s that a sharp increase in the number of these three types of cancer has occurred in French Polynesia." He also criticises the French Government's secrecy in failing to accurately reveal its cancer statistics.

Dr. Ruff supports Danielsson's allegations, and says there is much evidence from doctors and church workers in French Polynesia that cancer rates are high. "It is a bit hard to ignore so many people saying that...but there is just no data to support it."

It has only been as a result of recent scientific findings into the radiation levels at the atoll that the French have admitted that there could be some danger to the local population from their nuclear tests, but have added that the risk is small and would only affect a few people.

For the 188,000 people of French Polynesia, radiation poisoning is not the only legacy of the French atomic tests. They are also being threatened by an outbreak of a chronic, painful food poisoning called ciguatera, attributed to the testings.

It is caused by small, single-celled marine organisms which produce ciguatera toxins. When coral is destroyed or damaged, usually by construction work or the more severe atomic testing, the number of toxic organisms increase, or the amount of toxins they produce increases. The toxins then work their way up the food chain, having no observable effect on fish, but becoming more concentrated in the larger species.

When humans eat these larger fish, they can be afflicted with the poisoning, leading to vomiting, diarrhoea, abdominal pains and paralysis, and in more severe cases, even death. The symptoms, accompanied with loss of balance and muscular co-ordination, can linger for weeks or years, and may be retriggered by simple things such as alcohol, chicken or even non-toxic fish.

Dr Ruff says that the incidence of ciguatera is about equivalent to that of hepatitis or sexually transmitted diseases.

### **Disastrous effect**

Ciguatera poisoning can have a disastrous effect on those people who make their living from the sea. According to Dr Ruff consequences include possible

malnutrition due to the need to avoid fish, a dependence on imported foods and the crippling of fishing-based economies.

Dr Ruff says that ciguatera has been endemic at Mururoa for the past two decades. In some areas of the Pacific, up to 90 per cent of the fish being eaten is coming out of a can. At the nearby Gambier Islands of French Polynesia, Japanese researchers have found that from 1971 to 1980 up to 56 per cent of the population suffered annually from ciguatera poisoning.

According to Polynesian mythology, most of the islands of Polynesia were dragged up from the ocean's bottom by the demi-god Maui, the fisher of lands. With the power of his descendants' beliefs, he pulled the islands and atolls up, and the plants and animals flourished on them, enabling them to be inhabited by the peoples of Polynesia.

There is now a serious possibility that the power of the atomic tests may send the first Polynesian atoll sinking back to the ocean bottom. The French took control of Tahiti in 1842, replacing the monarch, Queen Pomare IV, with their own representative and making it the first island in the Pacific to come under the control of a foreign power.

Almost 150 years later, Tahiti and the surrounding islands remain one of the last Western European colonies.

For the French Polynesians, French colonialism means a lack of political independence and also a lack of economic independence. Dr Ruff says that French Polynesia now has to import 80 per cent of its food. Exports of coffee and vanilla have stopped and those of products like copra and coconut oil have fallen considerably.

"There is a massive economic and social dependence on the French, to the point that in Tahiti, even the water that many people drink is imported from France.

"In Tahiti they talk of the 'social bomb' which for many people is of more immediate concern than the actual explosive one."

The French plan to continue nuclear tests at the rate of about six each year for the foreseeable futures. Yet even if the tests were stopped, radioactive wastes will continue to leak from Mururoa and Fangataufa for centuries to come, and there will be no stop to the slow poisoning of French Polynesia.

[Reprinted from **The Canberra Times**, April 4, 1990]



# Tonga's precious coral reefs abused and broken

By Richard Chesher  
Marine Research Foundation

The Government of Tonga is concerned about the health of the Kingdom's coral reefs. Not long ago no one would have thought twice about such a thing.

Coral was everywhere in Tonga's shallow water and if anything, people considered it a problem because its sharp branches made it hard to walk on the reef and fish hid deep inside its many holes and caves, making them hard to catch.

Even today many people think of coral as a rock, not something which is alive and could be either healthy or sick. But corals are living animals and, like any other animal, they get sick and die. This has been a bad generation for the living corals of the Kingdom. Many areas of living coral reefs have died.

## Dying

First I would like to tell you why it is bad for the corals to die. Then I will explain why they have been dying. This way you can understand why the government is concerned and what you can do to help.

Corals are one of the oldest kinds of animals of the sea and are important, perhaps the most important, member of the shallow water undersea world of the tropics;. Corals grow very slowly. Some branching yellow and blue corals can grow one inch a year. The round, solid corals grow more slowly; some one quarter of an inch a year; some one half an inch a year.

A big round coral head five feet in diameter is more than 200 years old. Most corals you see on the reefs of Tonga are smaller and younger than that and research shows there are corals which only live two or three years and never grow very large. Depending on the reef the age of the average coral may be only 20 to 30 years.

In a village, the average age of the people who live there might be 15 years of age but the village in which the people are living can be more than 200 years old.

A coral reef is like that. The corals living on it today may average 200 to 30 years old but the coral village itself is actually many thousands of years old.

In fact, the coral reefs in the Kingdom of Tonga today, the ones we are familiar with, are the same coral reefs which were here when people first came to these islands thousands of years ago.

They are a priceless Tongan heritage. They have been there, those living corals, growing, giving birth to new baby corals, and dying through the years, producing, as they worked, homes for fish and shells, and protection for the islands from storm waves. The Tongan people have used the food from these undersea villages since they got here. Probably, they would not have been able to survive here without the coral reef's supply of food so, in a very real way, the Tongan people of today would never have existed without the living coral reefs.

## Slow growth

The slow growth of all the living corals, on a reef, over thousands of years, builds coral reefs. Some coral reefs are so big they have become islands. With the exception of the volcanic islands along the western edge of Tonga, the people of Tonga live on top of very old coral reefs. You only have to look in a quarry or dig in the ground to find the long dead skeletons of coral.

You can see how important the living corals are to Tonga. They have built the islands and have given food for the people to survive with. They are still helping to build islands and to protect the shores from the big waves during storms by growing slowly, year after year after year. Scientists are saying the sea will rise between one to three feet in the next 40 years. The Government of Tonga, like many other Pacific nations, is worried about what rising sea levels will do to the low-lying coastlines of some islands. It is interesting that the growth rate of corals is about the same rate as the average predicted rise in sea level. If the coral reefs are healthy and alive the living corals might be able to grow upward enough to help protect the shorelines from being destroyed by storm waves. Tonga really needs its living corals now.

## Fish homes

Where living corals grow they form the homes, the underwater islands and villages, for many kinds of fish and shells and other things the Tongan people like to eat.

Fishermen know the best fishing will be where the coral is very well developed and alive. Women and



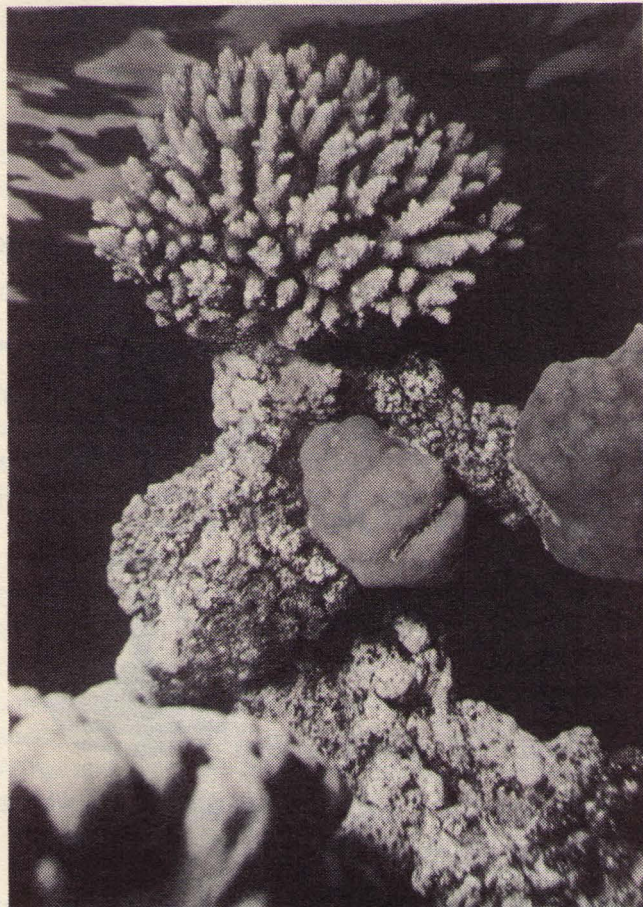
children know the best shells are found in places where there is live coral. This is true because the sea life of the shallow water areas of Tonga, depends on the living corals in many ways. Just like birds depend on trees. Just as Tongans depend on their islands, their village and gardens.

There are many animals and plants which depend upon living coral. When the coral dies all these animals begin to go down in numbers, If the coral dies and does not come back after awhile most of the fish and shells will go.

Why should the coral of Tonga die? They are so big and there are so many of them it seems as if nothing could harm them. About 50 years ago, that was true, very little the Tongan people did could harm the living coral reefs. But times have changed.

### **Modern tools**

This is the first generation of Tongan people who have easy access to the modern tools of technology. Only 20 years ago there were not many face masks and flippers in Tonga; today there are thousands. Only 30 years ago there were not many Tongans walking on the



coral reefs with shoes and boots. Today almost everyone who walks on the reefs wears shoes or boots. Forty years ago most people fished with traditional methods; today almost all fishermen use monofilament nets, iron poles, spear guns, monofilament lines and steel hooks, and have access to a boat with a motor or outboard motor so they can work reefs further from where they live. Today there are more fishermen than ever before and more people who walk the reefs looking for food.

This makes a big difference to the corals. Before, when people walked without shoes, they were careful because live coral is sharp and cuts bare feet and ankles. Today, wearing shoes or boots, people walk where they please and step on many live corals. This injures them because although corals have very strong skeletons, the living part is just a thin, very soft skin on the outside. Young boys wearing boots run through beds of small corals, crushing and killing them for fun. Their mothers pay no attention at all. Women use hammers and steel knives and men use iron poles when walking on the reef looking for Huluhuli or shells. They break and turn over many live corals as they look. The broken corals die.

Shells and fish lay their eggs under live corals and under dead coral rocks. When people turn live or dead coral rocks over looking for shells, the eggs dry out in the sun and die. There can easily be thousands of eggs under a single rock and if they are killed, many thousands of little fish and shells will never be born. people should never turn over living corals. And when they turn over dead rocks, when they are through looking for shells, they should put the rocks back just the way they found them so the eggs will survive.

### **Fishing methods**

Sometimes, people still catch octopus (feke) with lures but most fishermen now simply bust away the reef to take a feke. When they break the coral to take the feke they destroy a feke-home where another feke could have come to live. If they break the home of a female feke protecting its eggs, the hundreds of baby feke still in their eggs die. The old way of lure fishing made sure there would always be plenty of feke. The new way of fishing can ruin the fishing for feke for everyone.

Fishermen now have very big monofilament nets which they sometimes put across the entrance to a shallow lagoon or around a big thicket of branching coral. Then some of the fishermen go inside with poles and masks and break the coral to small pieces



to frighten the fish into the nets. If it is shallow they wear shoes and break many small corals, too.

When fishermen take kukukuku from the reef they put an iron bar into the shells of the vasuva and break it loose from the reef, often breaking many corals around the vasuva.

### Commerce

There was, not long ago, a foreign fishing boat, working in partnership with a Tongan man, which fished everything from the coral reef by putting down a big heavy steel bar with a drag net made of chain. They pulled this through the coral and broke everything, ruining the coral. Even today you can go and look in the places they did this and the reef is dead and the fish gone. These people were stopped by fishermen who were very angry about the destruction of their fishing grounds.

There are people who take coral from the reef to sell overseas. One man in Tongatapu was taking all kinds of corals from the reef to send overseas to be sold as decorations. One of Tonga's most valuable resources would, if this man was allowed to continue, become dusty, broken decorations in some European apartment building for a few years and then thrown into the garbage. This man had a huge pile of corals behind his house and his boat was filled to nearly sinking when he came in with it filled with coral. He did not have a permit to export this coral and when he was discovered, the government stopped him from doing this.

### Coral mining

In Vava'u, another coral mining operation began in 1988. The men involved say they want to take one particular kind of coral to sell to a company in the United States to be used to make artificial bones. While this is better thing to do with coral than selling it for decorations, the men want to take quite a lot of it and the government must be sure they are doing what they say and that there will be no damage to the rest of the coral reef when the coral is taken.

### Problems

Breaking living coral can cause many problems. Some of these are not obvious and, because the undersea villages are so old and so complicated, even scientists do not understand all the problems breeding coral causes. Some problems do not happen right away and breaking coral on the reef today may cause

very serious problems several months later or even several years later.

### Coral diseases

Sometimes coral is broken by big storms. Normally, this happens only once every five or 10 years. In Tonga, big cyclones, the kind which can break and kill much coral, have been rare. The years between storms give broken coral time to heal and regrow. If a coral is broken, it can regrow from the broken part. So, after a big storm, the coral reef can heal itself; 'like a person can heal a broken bone or a cut in the skin.'

But today, the coral is being broken every day. There is a disease called *Oscillatoria* which is a cyanophyte bacteria that infects broken coral. Because of the constant breakage of coral during the past 20 years, this coral disease is now common in Tonga. Whenever a coral head is cut or broken - even a small cut from a flipper or a boy stepping a coral - it can become quickly infected and in two or three months even large and old coral heads can die from the disease.

Whole sections of Tonga's coral reefs are now dead, especially in shallow water near villages where breakage is most common. These reefs do not produce as much food as living healthy reefs.

It is important to prevent coral breakage in areas where the coral is now alive and healthy to prevent the spread of this disease. Breaking living coral can cause plagues of the crown of thorns.

[Reprinted from **Matangi Tonga**, January-February 1990]

## CORAL REEFS IN THE SOUTH PACIFIC



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# Crusading Tongan MP under fire

By David Robie

*A cash-for-passports case seriously threatens Tonga's ruling establishment. A reformist MP has filed a lawsuit, but there is mounting pressure on him to let the issue die.*

Crusading Tonga editor and MP Samuela 'Akilisi Pohiva has won yet another court battle, but he faces mounting pressure to silence him in his quest for open government and public accountability.

A recent controversy over bizarre claims of a coup threat in the Pacific kingdom diverted attention from the real story - a crisis facing the monarch-dominated Cabinet over a lawsuit alleging a huge passport scam.

The case involves accusations of corruption and unconstitutional practices in the controversial sale of Tonga passports to foreigners, mainly Asians.

Backers of the lawsuit, including Mr Pohiva, believe as much as 145 million pa'anga (about NZ\$162 million) could be missing from the public coffers.

Auckland-based lawyer Nalesoni Tupou says the passport case will change the history of Tonga - for better or for worse. But he is confident the result will eventually lead to open government.

Already, the government is stalling for as long as it can to prevent the case coming to court, he says.

When Finance Minister Cecil Cocker and Police Minister Aka'alo - who are named in the lawsuit along with the Kingdom of Tonga - tried to have the case struck out, an appeal hearing was set for the Tongan Privy Council.

Then the sitting judge, New Zealand Chief Justice Sir Clinton Roper, upheld a plea by Mr Tupou to have Mr Cocker and Mr Aka'alo barred from sitting on the council hearing. King Taufa'ahau Tupou IV was also asked to vacate his seat as council chairman. Mr Tupou successfully argued that the council - "rather like King Arthur and his men" - could not be the judges while also being defendants.

Government lawyer Clive Edwards then managed to have the case referred to the newly created Appeal Court, which will include several judges from Pacific

nations on the bench, because of the constitutional implications of the Privy Council meeting without the king. However, though the court is supposed to be constituted in July no budget has been allocated this year, thus delaying the case further. Legal sources suggest the lawsuit could be put off for up to five years.

Pressures to inhibit the reforms sought by Mr Pohiva have been applied from a number of quarters, including an alleged conspiracy to discredit the MP and force him out of the Legislative Assembly.

King Tupou himself recently joined the public pressure when he accused both Mr Pohiva and Catholic Bishop Patelisio Finau - another outspoken advocate for democracy - of being Marxist, in an extraordinary outburst during a New Zealand television interview. (Both men deny the accusation.)

A legal attempt to prevent Mr Pohiva taking his seat in the Legislative Assembly when the new session opened last week foundered when Chief Justice Geoffrey Martin ruled in his favour on an electoral petition. Mr Pohiva, who won a landslide victory in the February general election, was accused by a conservative rival of bribery, corrupt and illegal practices, and threatening voters during the campaign.

The bribery allegation involved a gift of about \$27,000 during the past three years from his MP's salary and allowances to an overseas scholarship fund for Tongan students. Mr. Pohiva has campaigned vigorously against excessive payments to MPs.

Rejecting the accusation, the Chief Justice said that whatever Mr Pohiva had done in the circumstances would have laid him open to being accused of bribery.

"If [as occurred] he returned the money, he could be accused of bribery," the Chief Justice said, "If he kept the money he could be accused of inconsistency or even dishonesty by keeping the benefit of the payments about which he had previously complained.

"What he did was consistent with his previous public stance and it is difficult to see what else he could have done if he were to retain his credibility."

The Chief Justice was also scathing in his judgment about the testimony of the chief prosecution



witness, Sione Tu'i Moala, who claimed to have attended three of Mr Pohiva's campaign meetings where Mr Pohiva is alleged to have mentioned the gift.

"I find the whole of his evidence [about the meetings] has been invented. Whenever he [Moala] was asked a question outside his prepared script he had to guess, and in these three instances at least, his guess was wrong," Judge Martin said.

"The inescapable conclusion is that someone has put these stories into his head and persuaded him to repeat them in court."

A defamation case filed against Mr Pohiva by nobleman Fusitu'a has been adjourned indefinitely. The writ was filed after the MP reported that Fusitu'a, his wife Eseta, Director of Education Paula Bloomfield, and Lands and Survey Chief Superintendent Sione Tongilava had launched a political party to oppose Mr Pohiva.

A British protectorate since 1900 till 20 years ago, Tonga approaches next century with a jaded constitution written in 1875 by a Wesleyan missionary, Shirley Baker. Under this constitution, Tonga's 30-seat Legislative Assembly has 10 cabinet ministers plus two governors appointed by the King, nine members voted for by the 33 nobles, and nine members elected by Tonga's 100,000 "commoners".

Though all basic freedoms are constitutionally guaranteed - a heritage of reformist King George Tupou I - they are hampered by feudal aspects of the traditional system. There is no provision for political parties.

"In our constitution Tongans have many freedoms," one Tongan writer said, "but the reality is that Tongans are still very much under the rule of the nobles."

Mr Pohiva, co-editor of the crusading newsletter Kele'a (conch shell) has been campaigning to change this ever since he was first elected to the Legislative Assembly in 1987.

He and his reformers contested the February election portrayed as an official opposition - and they easily won six of the nine commoner seats. Their victory was seen as a triumph for a new wave of idealistic politicians campaigning on issues rather than on status and traditional lines.

Viliami Fukofuka, a businessman and co-editor of Ele'a was among the successful candidates.

Political sources in Tonga suggest the passport case "will open a giant can of worms" that could provoke the collapse of the autocratic government.

"I'd rather have differences settled in court than being like Rabuka - outside the court," Mr Tupou.

Although the establishment odds are stacked high against Mr Pohiva and Mr Tupou, they believe they have a strong legal case: "If justice and morality is there, you will always win."

Funds from the cash-for-passports scheme are allegedly paid into foreign bank accounts. One such Bank of America account in San Francisco is said to have the finance minister, one other cabinet minister and a senior government official as signatories.

A Trust Fund Act passed in 1988 by the Kingdom made the account "exempt" from the public accounts which need to go before the Legislative Assembly - allegedly in breach of the constitution.

Tonga has five kinds of passports: ordinary "subject", diplomatic, official (ministers and families), "protected person" and "Tongan national".

The special category of "protected person" passports have been on sale for about five years for at least \$13,500 each. More recently citizenship certificates and "Tongan subject" passports have been sold for more than \$34,000.

The Tongan National Passport Act now has given a new status for wealthy Asian applicants and several of these passports are believed to have been sold for \$170,000. Passport applicants apparently do not need to prove they have no criminal records.

Since Chinese troops crushed the pro-democracy protesters in Tiananmen square a year ago at least 10,000 applications have been made for Tongan passports in Hong Kong and Japan. Thirty Chinese who have travelled to Tonga to buy passports have been stranded after Hong Kong, Japan and Taiwan refused to recognise the documents.

Australian and New Zealand officials are concerned about the implications of the passport trade and the potential for serious unrest.

However, King Tupou recently warned in the news magazine Matangi Tonga: "At present Tonga is very stable but a move for change ... would result in a coup d'etat."



Mr Pohiva insists changes must come to make government more accountable and he stresses his commitment to peaceful change. He is undaunted by the upheaval his political challenges are unleashing. In a historic legal victory over the government by a commoner in 1988, he was awarded \$29,000 damages plus costs for unfair dismissal and denial of free speech. Since then Mr Pohiva, a former schoolteacher with no chiefly connections (he was orphaned as a child) and Kele'a have become symbols of change.

Comparing that judgement to Britain's Magna Carta, Mr Pohiva said then it would lead to King Tupou

coming under greater pressure to remove feudalism from the Tonga political system and to allow greater democracy. He followed this with unsuccessful impeachment proceedings against Finance Minister Cocker, alleging incompetence and misuse of funds.

But there is a clear objective behind the muck-raking. "What I'm doing in publishing *Kele'a* is providing the people with the facts," Mr Pohiva said. "And it's up to them to draw the implications."

[Reprinted from **The Dominion**, June 6, 1990]

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## Chance for Democracy

By Ulafala Aiavao

Western Samoa plans to hold a referendum in October on the issue of allowing everyone on or over the age of 21 years to vote in general elections, currently a privilege only of the chiefs (matai). The referendum, if approved by the matai-dominated Parliament, will, however, not question the right of chiefs only to stand in general elections. But the referendum will be open to everyone aged 21 years and over.

The 47-seat Western Samoa Fono (Parliament) consists of 45 seats reserved for matai who are elected by matai. The other two seats are for people of non-Samoan ancestry who are elected under universal suffrage by voters aged 21 years and over and registered under the Individual Voter's Roll.

The referendum "is a delicate issue", said Finance Minister and Cabinet spokesman Tuilaepa Sailele when announcing the plan last month. If accepted by Parliament, universal suffrage will completely transform Western Samoan politics and revolutionise an electoral system that currently allows only 11 per cent of the population to vote. In the 1988 general elections, for example, only 8.7 per cent of the population of 160,000 voted; 12,100 matai and 1,955 individual voters. The debate for universal suffrage has been going on since the 1970s although there have been differences on the voting age, some wanting 21 years, some 25 and some 30.

Sailele acknowledged the problems created by the presence of matai with multiple title holders. This year's count showed that 18,000 matai hold 24,000 titles. More

titles are being created or bestowed. The rate is faster than that of population growth. In 1961, a year before independence, there was one matai title to every 24 people. In 1981 the ration was 1:11, and for the 1988 general elections it was 1:8. The ration drops to 1:4 if those below the age of 16 years are not counted. The current electoral system causes the abuse of the matai system. In Western Samoa, only matai can participate in elections for the 45 seats filled by the indigenous people. Only a matai can vote and only a matai can stand for elections. It is not a democracy of one man one vote, but it is a system of one matai title one vote. A man or woman with 10 matai titles can vote 10 times in one general election. The number of registered matai titles has increased from 4700 in 1961 to 20,600 for the 1988 general elections. Some chiefs hold seven titles, enabling them to vote seven times.

The number of multiple title holders has increased dramatically in recent years, so has the number of people holding the same title. The Registrar of the Lands and Titles Court, Galumalemana Netina, said one recent case involved a matai who wanted to share his title with 117 other people. Another tried to give his title to 153 others. The record is held by a chief who tried to share his title with 200 people. This record attempt was challenged and the number of people was reduced.

As they run out of chiefly titles, the West Samoans simply create new ones. One new title being challenged by the Lands and Titles Court is Ofa, a name many Samoans remember as that of the killer cyclone which hit them last February. Other new titles being challenged



are Apaau Vaalele (aeroplane wings), Samala (hammer), Vaiaga (cave pool), Tatatuli (knee tapping), Tee (defy), and Luka (Luke). Titles are being crosschecked with a 1955 register listing all ancient Samoan titles. Winning votes is not all that is behind the flood of titles in Western Samoa. In many cases titles are bestowed as reward for good deeds. For example, Samoans living overseas send back to their families at home WS\$70 million a year, half the country's annual budget. To reward their family members abroad, those at home give them a chiefly title. While it is illegal to bestow title on someone living outside the country, ceremonies still take place and the titles continue to be exported. People in Western Samoa are also made chiefs as an acknowledgement of their services. They in turn are sought to help families during weddings, funerals and fundraising. There was even a case where a four-year-old boy was given a title.

The alarming increase in the number of matai is having an effect on traditional resources and village life. Take the sharing of land, for example, where matai have the first say. While in the past land and other property might be the responsibility of one matai, today the same property can be the subject of dispute among several people holding the same chiefly title. Village-level leadership has also been weakened by the presence of too many chiefs these days that when they meet in one village some remain outside the meeting house because all the customary seats have been taken up.

October's referendum will also seek opinion on an enlarged parliament, whether numerically, or from unicameral to bicameral. A bicameral system is likely to involve a lower House of Representatives and an Upper House of Pule and Tumua comprised of customary groupings of people.

An example of the weaknesses of Western Samoa's electoral system was the case involving Muliagatele Gina Moore, a woman who beat the system. She is the only person in Western Samoa to have legally voted in the Individual Voter's roll, while her husband, who holds a matai title, was voting in the separate roll for matai.

How did she do it? Using the name Gina Moore, she was listed on the Individual Voter's roll to help elect two MPs to represent people of non-Samoan ancestry. She was removed from that roll when her husband registered his matai title because no one can vote as an Individual Voter if they hold a registered matai title or are married to someone with a registered matai title.

So Moore was stripped of her right to vote.

She sued and lost in the Magistrate's Court in January of 1982. She sued again, this time in the Supreme Court. In a landmark decision the Supreme Court not only overruled the lower court, it declared the electoral system unconstitutional because it discriminated against voters. A subsequent Court of Appeal decision in August 1982 reversed the Supreme Court ruling, but not before Gina Moore managed to vote on the Individual Voter's roll while her husband cast his vote as a matai.

Today Gina Moore holds the title Muliagatele which she

hopes to use for the first time as a voter in the February election where she will vote as a chief.

"It's about time," she said, when she heard of the planned referendum.

[Reprinted from **Pacific Islands Monthly**, July 1990]

**One of the influential groups which has pursued universal suffrage for Western Samoa is the country's Council of Churches, headed by Roman Catholic Cardinal, Pio Taofinuu. The council began making formal approaches to government about electoral reform five years ago, although its concern over abuse of matai titles dates back well before then.**

*Cardinal Pio said there is no point in saying that only chiefs should vote when so many people are becoming chiefs. Universal suffrage will protect traditional values and customs. Cardinal Pio said the present system permits the creation of matai titles merely for political purposes; more chiefs mean more votes. He said abuse is destroying the foundations of Samoan traditions and way of life. Cardinal Pio wants the practise of making chiefs out of children stopped.*

*Cardinal Pio opposes party politics and suggests government appoints Cabinet Ministers from both sides of the House. Western Samoa's ruling Human Rights Protection Party is headed by Prime Minister Tofilau Eti Alesana. The Opposition Samoa National Development Party is headed by former Prime Minister Tupuola Efi, now known as Tupua Tamasese Efi.*

[Reprinted from **Pacific Islands Monthly**, July 1990]



## COOK ISLANDS

In late September the Cook Islands High Court reserved its decision on the attempt to unseat Manihiki MP Ben Toma. The Opposition went to court alleging that Toma is ineligible to sit due to the fact that he now lives in Australia and returns to the Cook Islands only for parliamentary sittings. The Opposition filed the suit only after Toma defected from the Opposition and joined the Government ranks. This gives Prime Minister Geoffrey Henry the two-thirds majority necessary to make the far-reaching changes to the Cook Islands Constitution being sought by the government. (From **Pacific Report**, September 27, 1990.)

## NIUE REDEVELOPMENT

Plans for increased economic self-sufficiency for Niue went off track last year when hurricane Ofa heavily damaged the island's only hotel. In July the lack of accommodation led Niue Airways to cut its Auckland flights from weekly to fortnightly after just two flights of its new Boeing 737 service which uses equipment leased from Solomon Airlines.

Earlier in the year Niue Premier Robert Rex promised the hotel would be restored without government subsidy. In September The Premier reversed that policy and committed more than NZ\$600,000 of government money for rebuilding the hotel. This led to the resignation of two cabinet ministers and to the leader of the informal opposition in Niue, Young Vivian, joining the cabinet. (From **Pacific Report**, July 19 and September 27, 1990, and **Islands Business**, September 1990.)

## TOKELAU BUDGET MEETINGS

Tokelau's 1990-91 budget meetings were held in Apia, Western Samoa, this year. Delegates from all three atolls were taken to Apia because it was judged too expensive to hold the talks in Tokelau itself. That would have required stationing a ship off one of the islands to provide facilities for the meetings with New Zealand officials. In 1989 New Zealand provided all but NZ\$754,000 of the territory's NZ\$4.7 million budget. (**Pacific Islands Monthly**, August 1990.)

## TUVALU WATER

Tuvalu experienced a water crisis in July as a result of a long dry spell. Only 50% of the normal rainfall fell on Funafuti in the first four months of 1990. Rationing was instituted with only four gallons of water a day for each household. Some relief came with the arrival of the USS Schenectady on a goodwill visit to Tuvalu. The Schenectady filled the water tanks on Tuvalu's inter-island ship Nivaga II and off-loaded 60,000 gallons into the shore tank for general distribution. (**Pacific Island Monthly**, August 1990.)

## BELAU DIRECT RULE

In July the US department of the Interior moved to tighten controls over Belau in the face of the repeated failure to get endorsement for the proposed Compact of Free Association. In a draft secretarial order originally to take effect on July 31st, the Department of the Interior announced the creation of an Assistant Secretary of the Interior who would be resident in Belau. This would represent a significant step backward from self-government as it now exists in Belau.

The resident representative is to have extensive supervisory power over the government of Belau, including control over all official communication between Washington and Belau and the right to approve all US government spending in Belau. In the face of stiff protests from Belau and other US territories in the region, the Department promised further consultations in late September. (From **Pacific News Bulletin**, September 1990 and **The Washington Pacific Report**, September 15th, 1990.)



# A Woman's Champion

**Naama Latasi: politician,  
community worker**

**Naama Maheu Latasi, Tuvalu's Minister for Health, Education and Community Services, from the constituency of Nanumea, is the first woman elected to parliament in Tuvalu. Her husband, Kamuta Latasi, is Member of Parliament for Funafuti. They have four children, two boys and two girls. Naama Latasi is a former Commissioner of Girl Guides, and a prominent worker in women's affairs. Although born in Tuvalu, she was brought up in Kiribati. A person of boundless energy, she is a champion of women's development, and a concerned and caring individual. Her appearance on the political scene marks the dawning of a new era for women in Tuvalu. Latasi is a quietly spoken but strong minded woman. She spoke to **Pacific Island Monthly's Diana McManus.****

*You spent your youth and early married life in Kiribati. When did you return to Tuvalu?*

My father is from Nanumea. My mother comes from Kiribati, and my husband's home island is Funafuti. I have loving and lasting memories of my childhood and youth in Kiribati and still retain great affection for the country. I returned to Tuvalu with my husband in 1975 where we were both offered jobs in the government. However, in 1978 my husband was assigned to Fiji as Tuvalu's first Ambassador abroad. At the completion of our assignment in Fiji, my husband was offered the post of Manager of British Petroleum in Funafuti, which he continues to hold, but his passion, as always, remains in politics.

*Do you find your background and experience helpful in coping with the demands of this Ministry?*

Yes, indeed. I think I was very lucky, first of all, to have been brought up as a Girl Guide, then to serve this marvellous institution as a Commissioner until last year when I became the Minister. Guiding inspired me with a passion for service to mankind. I was involved in building up the character and developing the facilities and potential of our girls to make them into useful members of their families and communities.

My Ministry is fundamentally concerned with the development and refinement of Tuvalu's human resources and I find that the principal objectives of my portfolio beautifully conform with my background, interests and experience.

An undertaking which provides me with great satisfaction was the establishment of the Olave Kindergarten in



Funafuti, which is progressing on a sound professional basis. I ventured into this project as Girl Guides Commissioner with hardly any resources, but managed to obtain a small grant from the British Girl Guides association. We offered one of our family houses in Funafuti to accommodate the pre-school. It was, perhaps, destiny which prepared me this way and steered me to where I am today.

*How was your interest in women's affairs developed?*

My years in Fiji provided an excellent opportunity to widen my knowledge and understanding of various movements and campaigns for the emancipation and development of women in the Pacific Region and elsewhere. And, as the wife of an Ambassador, who was also Dean of the Diplomatic Corps, I had the opportunity to exchange views and interact with people from different parts of the world and from different levels of society.

Later I learnt a lot about women through various conferences. In 1987 I attended a three-month course in Sydney on the development of women. Since then, other conferences relating to the role of women in the Pacific have given me a broader outlook on conditions in different countries.

*How else have you been involved with women's development?*

Apart from being Minister responsible for the development of women, I continue to remain a member of the Nanumea and Funafuti women's associations which are branches of the National Women's Council of Tuvalu. One time I was Deputy President, if that's the right word . . . only for awhile. I gave that up to look after my ill father-in-law.

Three associations are generally involved with improving the quality of women's lives . . . home technology, building handicraft centres and helping women earn an income, encouraging home gardening, improvement of primary health care, sewing workshops and things like that. One of the major drawbacks was lack of resources to implement their ideas. Now, as Minister, I'm in a position to negotiate and seek assistance for such projects.

I'm also a leading member of the Kiribati Women's Association here in Funafuti. We meet monthly for mutual support and discussions.



*Do all your commitments interfere with your marriage?*

I want to say that my husband has been very, very supportive. I would not be able to do all these things without his help. He has always been an understanding partner, encouraging me to fully contribute to whatever I considered worthwhile.

As Girl Guides Commissioner I often had to attend conferences abroad leaving our small children behind. Sometimes I was away for up to three weeks and during my absence Kamuta gladly performed all the domestic chores including cooking for and feeding the children. I'm fully appreciative of him.

Indeed he has set a good example for the men of Tuvalu to follow; that is, to adopt a flexibility in roles and adjust sensibly to circumstances to allow women to pursue their useful interests, and apply their faculties fully to the welfare of their families, communities and the nation.

*Are roles changing in Tuvalu society?*

Yes, they are. Much faster than anyone can realise. There is an undercurrent of social change and its ripples become visible every now and then. We are much more exposed to outside people and cultures, and to a variety of lifestyles and ideologies of people in this region and beyond. Socially, it's a very delicate transitional period through which Tuvalu is passing. We have to remain very firm and steadfast to keep the fabric of our society strong. We want to maintain our identity and dignity. We don't wish to develop into a synthesised society whose texture belongs nowhere.

I am a strong woman on principles, and I like to see our women take their rightful place in this changing society, but this should take place in harmony, rather than conflict with the men-folk of our nation.

*What do you regard as the woman's role in today's society?*

I must stress that our concept of women's development is not what it may be in some western cultures. We wish to raise the status, the contribution and participation of our women in national development within the perimeters of our culture and traditions.

The first and foremost duty of a woman is towards her family and community. She must apportion her time to make sure she fulfils her role as a wife and mother honourably. She should not get involved in so many activities that she neglects her own children and members of the family. It's important for women to be aware of their right to equal opportunity with men to express their opinion, and to participate in decision making and decision execution.

Women must respond sensibly to the changing economic scene of the country and acquire the skills to enable them to pursue income earnings activities.

All this, of course, can only be made possible if men too understand, adapt and change as required. Above all, men or women, we must remain strongly attached to our cultural values and practises, and never be led off the track by the thinking, values and practices of people from overseas within whom we come into contact through travel, tourism or videos.

*Do you have difficulties in your position because you are a woman?*

Not really, On the contrary, I have received commendable cooperation and assistance from the male staff. I have nothing but praise for my colleagues in Cabinet. At ministerial discussions my contributions are treated with the same respect as anyone else's. Similarly in all the committees and non-governmental organisations. I find no expression of the slightest prejudice against my gender. Despite the fact that women in our society still remain a disadvantaged group, it is certainly not on account of any prejudice against them. It is much more to do with adherence to traditional roles and conventions.

*Does having more women on decision-making bodies present a cultural threat?*

No. I don't see any threat in it at all. Our culture and society at present is like a cart with one full size wheel and the other a miniature. How can such a cart reach its destination? What I want to see is the miniature wheel being developed to full size as well, so that the cart of our national development can move smoothly and fast and in order to realize the goals we have set for ourselves. Women's full participation in all our national affairs is therefore a necessity, and not a threat in any way.

*What are you doing at Government level about improving the condition of women?*

I am considering several structural changes in the women's office of my Ministry, largely to facilitate greater concentration on women's welfare programmes. We need more training programmes and more trainers. I'd like to see a considerable increase in resources, both monetary and technical, to ensure the success of women's welfare programmes at grassroots level.

Another of my serious concerns is to heighten women's awareness of their present condition and infuse them with dynamism to work towards their own betterment. I'm keen to see the infrastructure of the Women's National Council and all the women's associations strengthened. They are reliable channels of communication and can play a very valuable role in mobilising women at all levels.



*Why are you working so hard for women in particular?*

Our nation is not endowed with many natural resources. Our greatest wealth lies in our people. One of my primary objectives is to ensure that we develop our human resources to the fullest for the benefit of the nation. As such, I have to make sure that women, who are relatively left behind in this regard, receive the extra attention due in order to catch up with the menfolk; so we can strive for the good of all.

*Cultural definition and change form a part of your portfolio. What are some developments in that area?*

We are in the process of strengthening the development of the Tuvalu language and promoting its greater use in our education system. Our national language must be given its rightful status as the first language of education. We have schemes to provide incentives for the promotion and production of literature in the Tuvaluan language.

We are also making sure that our culture is emphasised throughout the education system, so that when our youth go overseas for education and training they do not lose sight of their identity.

[From **Pacific Islands Monthly**, May 1990]

## Crisis Centre for Women in Fiji

By Konio Seneka

The PNG produced video on domestic violence entitled *Stap Isi by the Women and Law Committee* is proving to be a great success in Fijian villages.

*Stap Isi* and posters on wife-beating are some of the materials used by Women's Crisis Centre in Suva as they embark on their major awareness campaign on domestic violence.

The centre plans to visit the cluster of islands in the Lau group of islands and villages in the other main island - Vanua Levu.

More than 15,000 Fijian and Indian women who have become victims of domestic violence have gone through marriage counselling and legal assistance since the establishment of the centre in 1984.

I was in Suva for the Pacific Regional Executive Committee meeting of the World Association for Christian Communication from August 26 to September 5 and had a chance to visit the centre.

For most women, they have had enough and do not want anything more to do with their husbands, although with the help of the centre and supportive police and court action, many go back to their husbands hoping for a better domestic environment.

Co-ordinator of the Centre, Ms Shamima Ali, said this ability to produce changes has encouraged counsellors and given confidence to their belief that action on the part of everyone brings results.

A 24 hour telephone service is available seven days a week. The centre's priority, she said, is to look for a location for the construction of a new refuge centre to accommodate women who refuse to return to their homes for fear of their safety.

She said many women end up going back to their home as there is no place to accommodate them. Most of the women who come to the centre find themselves back at the centre. As many women do not have access to telephones it is often difficult to follow-up their cases.

Fiji has a high divorce rate as more and more couples are opting out of marriage. A recent survey carried out showed that Fiji's soaring divorce rate could be much higher than Britain, which is believed to have the highest rate in Europe, and the United States which has the highest number of divorces in the world.

The increasing breakdown in family life has been attributed to an increasing awareness by women of their rights. Social welfare officials in Suva said increasing political, economic and social tensions following the two 1987 military coups have also put additional pressures on the family structure and are contributing factors.

In most cases family, relatives, neighbours and the law, police and courts, treat domestic violence as a private matter between the husband and the wife and no one wants to get involved.

"If anything they always blame the woman. In most cases she gets no real help and therefore has no choice but to remain in a violent situation," said Ms Ali.



Many women and children become victims of violent crimes and they suffer in silence. There are few sympathetic and understanding people to whom a woman feels she can turn to if she is attacked. Some women find it impossible to tell anyone what has happened.

There is a real need for women and children who have been raped or are victims of sexual or domestic violence to be able to talk to someone who understands, is sympathetic and especially someone who will not be critical nor judge their emotions or actions.

Statistics showed that many women stay in violent domestic situations for years until they reach a point where their ability to tolerate is dead.

Ms Ali said centre clients include women who have been married for 20 years and have been subject to domestic violence for most of those years.

She said society views women as second-class, they are the property of the man they marry, who can do as they please with their 'property'. And when men see their power base threatened, they resort to violence to show that they are the boss.

"When they face problems in the homes many are hopeless with no proper means of support, no housing as they are being forced out of the home. Most of these women do not have the economic option nor the education and therefore no bread and butter skills to survive. The practicalities of being a single parent with so many mouths to feed is daunting," she said.

The centre is a registered voluntary organisation and is primarily aimed at assisting victims of domestic violence, rape, sexual harassment and child abuse. WCC is affiliated to the Fiji Council of Social Services. It has a staff of seven, three fulltime counsellors and four volunteers who have gone through courses and training programmes.

It works closely with its sister organisation and an activist group known as the Fiji Womens' Rights Movement. Although the group has not been recognised by the Fiji interim government, it has been allowed to appear on behalf of victims during court proceedings.

[Reprinted from **The Times of Papua New Guinea**, #558, September 13, 1990]

# RESOURCES

## BOOKS

### **The Health of Women in Papua New Guinea.**

Joy E. Gillett. Papua New Guinea Institute of Medical Research Monograph No 9. 1990. 180 pp.

Based on published and unpublished data, interviews of the health community and visits to health care centres and designed primarily for health policy makers. However its layman's language make it an asset to administrators, health officers, teachers and women's groups. References. Funded by UNICEF, PNG Institute of Medical Research and CUSO. Available free from UNICEF, PO Box 472, Port Moresby, PNG.

### In **Museum**, (#165, No.1, 1990) feature article "**Museum Issues in the Pacific**"

20 pp., UNESCO publication.

Topics include role of museums in the Pacific. Touches on materials on or from Australia, Fiji, Hawai'i, Aotearoa, Western Samoa and Papua New Guinea. Copies of articles available from: Institute for Scientific Information, (Att. of Publication Processing), 3501 Market St, Philadelphia, PA 19104, USA

### **Pacific Marine Museums and Data Centers**

L.B. Landauer & D.A. Landauer for the Institute for Marine Information. Flying Cloud Publications. 1990. 242 pp. Published every 5 years, this directory lists all facilities in the Pacific and the Pacific Rim on the topic.

## AUDIO VISUALS

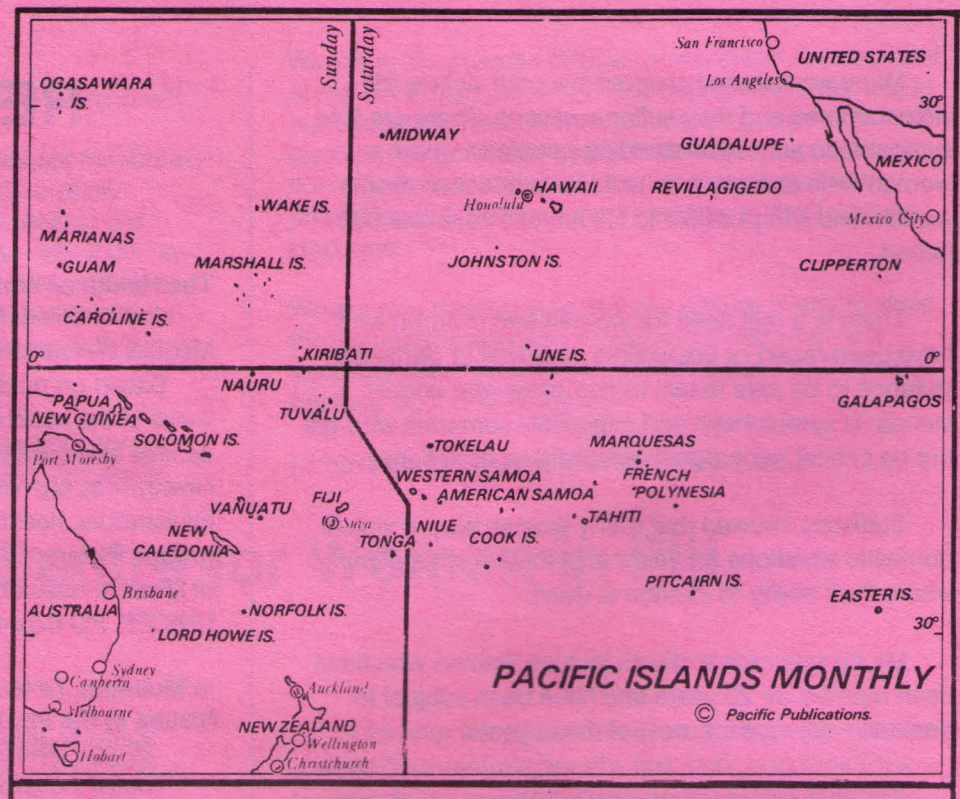
### **Drift nets in the South Pacific : Greenpeace investigates**

10 minutes, NTSC/VHS or PAL/VHS. Good introduction to the South Pacific drift net fishery, much footage from a voyage of the Rainbow Warrior in the Tasman Sea.

### **A Dream of Peace**

12 min, NTSC/VHS, Produced by the New Zealand Foundation for Peace and distributed by the Video Project, Davkore Co., Mountain View CA, USA 415/655-9050. Documents the quest for nuclear free zone status in the South Pacific nations starting with French testing and focuses on events in New Zealand leading to the passage of its nuclear free legislation.





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Contact SPPF or Ecumenical Coalition of 3rd World Tourism, PO Box 24, Chorakhjebua, Bangkok 10230 Thailand

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