



**Report of the Evaluation of
SPREP Information Resource Centre and
Pacific Environmental Information Network**

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Executive summary

1. Introduction

The Information Resource Centre & Pacific Environmental Information Network PEIN, Project No.8, ACP.RPA.001 was approved by the Commission on 28 February 2000 and is a three-year programme with total funding of €560,000. The project is being implemented by the South Pacific Regional Environment Programme (SPREP) and will conclude 31 December 2003.

The Project is in two components with SPREP designated as the Regional Authorising Officer (RAO) to expedite the process of paperwork given the nature of the work involved in Component 1 (design, building, supervision and equipment) in particular. Component 2 comprised in-country capacity building activities of PEIN which included workshops, equipment and in-country training.

The objectives of the evaluation are to assess whether all of the stated objectives, outcomes and results of the Project had been met and as well to determine the relevance, efficiency, effectiveness, impact and sustainability of the outcomes (intended or not) from the Information Resource Centre and Pacific Environmental Information Network Project, Components 1 & 2, and to make recommendations for the design and improvement of any future networking programme of a similar nature and design of the new project under the Ninth (9th) European Development Fund (EDF), based on lessons learned and feedback from the various stakeholders and especially the project recipients.

2. Implementation

Two consultants were engaged through a Fiji consulting company, Eco-Consult Pacific. The team comprised: Mr Peter Walton, an information management specialist with extensive experience of libraries and information networking in the Pacific; and Ms Elizabeth Erasito, Director of National Trust of Fiji Islands, with a background in environmental management and conservation issues.

Four countries were visited in the four weeks: Samoa (also the location of SPREP Secretariat), 11–18 August 2003; Tuvalu, 21–25 August 2003; Fiji Islands, 20 & 25–30 August 2003; Vanuatu, 31 August – 4 September 2003. The evaluation team returned to Samoa, 17–19 September 2003, to present the findings.

A total of 39 organisations were visited in the four countries (11 each in Samoa, Fiji Islands and Vanuatu; six in Tuvalu). A total of 80 persons were consulted – 18 in Samoa; seven in Tuvalu; 26 in Fiji Islands; 19 in Vanuatu; and 10 in SPREP Secretariat. The gender ratio was 40 male to 40 female.

3. Evaluation findings

The initial findings are summarised below.

Project Design: The original logical framework is inadequate both as a tool for project management and project evaluation. In particular, the original logframe reflects the poor choice of indicators, and demonstrates a breakdown in the intervention logic between activities and results. A set of activities (presented as Phases) was drawn up by member countries at the regional workshop to best utilise resources (financial and personnel) available through the IRC and PEIN Project. These phases were detailed breakdowns of activities listed

briefly in the original logframe, and were to complement it. However, they are not the same as activities listed in the *Financing Agreement* nor *Financing Proposal*, but they have the detail required that would have made them more suitable had they been included in the original logframe.

Despite concerns about the project design, and in terms of project implementation, based on the original logframe:

- the Activities listed were carried out
- the first Result, specifically, the IRC, was built and became fully operational in mid-2002, which was a delay of 12 months. Environmental information flow was increased to member countries, and as a result it is likely that environmental awareness increased, particularly in Samoa
- the anticipated Results have contributed to achieving the Project Purpose. In particular, the provision of equipment and training has brought substantive benefits to stakeholder institutions which has improved their capability. Additional work is required to consolidate this to ensure sustainability
- national capacity for environmental protection and sustainable development of Pacific island countries, the project's Overall Objective, has been increased.

Relevance: The project was relevant to the time it was designed, but that this point was several years before the project started. However, the activities undertaken are within the mandate of SPREP and contributed to meeting some of the current needs and opportunities. The work programme was determined in wide consultation with stakeholders, but no fundamental reassessment of the project design occurred. There is concern that the capacity of some national organisations to absorb project inputs is constrained by budgetary and infrastructural constraints.

That the project remains relevant is borne out by the continued enthusiasm among stakeholders, and the evaluation's assessment that effective information management is critical to achieving greater awareness of environmental issues.

Efficiency: The Information Resource Centre (Component 1), comprising 70% of the project cost (excluding contingencies and evaluation), was built at a final cost of WST 893,299.48 (ca. €65,310), which is 75.5% of budgeted amount. Physical inspection of the IRC suggests that in the main the building meets requirements, is functional and can be described as a success. The building will continue to accrue benefits to SPREP and the region since it will be able to archive environmental information in the form of documents and other resources for the foreseeable future, and provides a more than adequate space to manage the Pacific Environmental Information Network.

Implementation of activities under Component 2, the Pacific Environment Information Network, comprising the remaining 30% of the project cost have proceeded according to the agreed 'phases' (loosely related to the activities described briefly in the original logframe). A total of WST 318,246 (ca. €6,273) has been expended during the first 24 project months (the extent of the accounts available). This amount has purchased 14 visits to seven countries (72 days) for the purposes of technical assessment, establishment of national environment libraries and databases, training and national workshops. Additionally, money has been used to fund other national workshops, attachments and supply of computers and other equipment. Implementation of activities under Component 2 has been constrained by too few staff, and limited funds for travel and country activities. It has also been constrained by the fact that some activities which would have contributed to a more sustainable outcome had not been done, principally the consolidation of standards and procedures for data entry and data exchange. It is understood that these are being addressed.

A case could be made, based on the experience of what was achieved in Samoa, that had additional funds and staff been available, more progress could have been made in other member countries which would have contributed more to the sustainability of inputs.

Effectiveness: Under Component 1, a fully operational IRC (Result 1) contributes to the ‘improved capabilities of regional and national environmental authorities and departments to collect, process and disseminate environment-related data and information’ (original Project Purpose). The project has been effective in achieving this project purpose, and with some minor improvements, the facility will continue to provide benefits to SPREP and the region for the foreseeable future.

The establishing or strengthening of seven national environment libraries (activities carried out under Component 2) achieves a similar purpose at national level. There are now national central clearinghouses for environmental information and although there remains much work to do to bring some of these facilities to the level thought desirable, a good start has been made. It is noticeable that schoolchildren are the predominant users of the libraries, and all those consulted agree that this suggests that environmental awareness in the future will have been improved, which is an indicator that a contribution has been made towards achieving the Overall Objective.

Records of library materials have been collected and exchanged, although this process needs to be tightened up. None of the indicators identified against Results in the logframe are measurable and it is debatable whether the existence of an organised library collection where once there was none truly contributes to achieving the Project Purpose. What will make a difference is the use made of these facilities – the libraries and databases. Provided they are used – and used well – then project outcomes will be sustainable.

Impact: The impact of the project under Component 1, the IRC, is determined largely by the activities under Component 2, PEIN. The facility has been constructed as intended, and is functional, but its impact will be determined by how it is used, and this relates to PEIN activities. Had the IRC not been built, it is likely that the library resources at SPREP would have been difficult to access, and the capacity of SPREP staff to meet the environmental information needs of the region severely compromised.

As it stands now, information is more available now than it was before the project started, but yet there remain concerns about the accessibility of the IRC and national environmental libraries and the databases, even though the regional database is accessible on the SPREP web site. This has to do with the variable success at country level of promoting the resource in departments of the environment, government departments, NGOs and other institutions, and to the general public. This significantly limits achievement of the overall objective, as originally formulated. Some of the reasons for the limited achievement have to do with technological issues (data entry and data exchange), national capacity (principally staff resources) and project design (lack of an activity to address outreach and usage issues).

Economic and financial analysis: it was not possible to undertake a true cost-benefit analysis because of the absence of baseline data on the situation prior to project implementation. Using the ‘with or without’ approach, it is possible to state that the net benefits to the region have outweighed the cost, and that benefits will continue to accrue which is also a measure of the sustainability of the some of the activities. In terms of social equity, it is clear that there is a potential for the environmental information resources to be available to and accessible by a wide range of social groups, particularly schoolchildren, but that further work needs to be done to enhance access and improve usage.

A survey needs to be carried out early in the next phase of the project (under 9th EDF funding) so that data will be available by which to measure improved environmental awareness and natural resource decision making.

Sustainability: The project had and still enjoys support in the recipient countries. It is a success of the project that PEIN has engendered in some countries the desire to further develop national information networks. However, despite the advances made by the project, there is little evidence to suggest that PEIN will fare any better than other, similar networks over the last decade or so. The indications are already apparent that because too little time was available to spend in-country, assessing the technical capacity, needs and opportunities, providing training and technical guidance, the outcomes of the project to date are sustainable only to a limited extent.

In addition to addressing the technological concerns to do with database design and maintenance, the project also needs to adopt an alternative strategy that does not overtly attempt to bring about the development of national environmental information networks, thus perpetuating the compartmentalisation of aid projects, but in co-operation with other regional organisations and the countries, seeks to contribute to the building of multisectoral, national information networks. The potential is there to be realised even though it is acknowledged it is a daunting task. By being too focused on just one issue – environment – there is a danger that other sectors and the issues they are grappling with will be neglected. Recognition that environmental issues affect every sector of government and society as a whole is a necessary starting point. It is not suggested that SPREP or PEIN be responsible for building national information networks on their own, but that the broader objective be taken into account by PEIN when dealing with the specific objective of greater environmental awareness.

4. Overall recommendation

Recommendations to address all the issues raised, especially that of the project design, are presented in the full evaluation report. If the issues are addressed as recommended, there is no impediment to the consolidation of the work to date and its expansion into the new Pacific ACP States, as appropriate, under the 9th EDF.

Part 1 Introduction

1.1 Background

1. The South Pacific Regional Environment Programme (SPREP) was initiated within the South Pacific Commission (now Secretariat of the Pacific Community) in 1974. Since 1992, it is a regional institution with full organisational autonomy, hosted in the Samoan capital, Apia. SPREP's membership comprises 25 countries: 14 Pacific ACP States; 7 other Pacific island states and territories; Australia; France; New Zealand; USA.
2. Since its establishment in 1992, the Secretariat has continually expanded its coverage of environment issues to the extent that its staff has grown from less than 10 to 71, of which 36 are programme/project officers and 35 are support staff. The Secretariat's work programme encompasses major regional and global issues such as (i) natural resources management; (ii) pollution prevention; (iii) climate change and variability; (iv) economic development; and also a recognised the need for strengthening and enhancement of access to environmental information.
3. The *Action Plan for Managing the Environment of the South Pacific Region 2001–2004* guides all of SPREP's activities. This plan stipulates as guiding principle that 'capacity building provides SPREP members with the appropriate skills to enable them to improve the management and sustainability of their environment' (p. 21), and identifies long-term processes established by the Secretariat as mechanisms by which capacity building in the Pacific islands will be strengthened.
4. In view of the ever increasing responsibilities of SPREP, it was decided in 1997 to build new headquarters, as the old premises turned out to constitute a serious handicap for the achievements of its missions. This programmes' estimated cost of approximately €2 million was funded by six SPREP member countries and China. Construction began in June 1999 and was completed July 2000.
5. The design of the new headquarters although substantial in accommodating its programmes did not provide sufficient coverage to meet the objectives of institutional strengthening of SPREP members' environmental institutions and education, information and training. This was later rectified by the Government of Japan when they provided funding for the SPREP Training and Education Centre under their bilateral assistance through the Government of Samoa. This building was completed in January 2002.
6. Under the 8th EDF Regional Indicative Programme, the Regional Authorising Officer, Pacific Islands Forum Secretariat, was requested to consider a proposal to fund the SPREP Information Resource Centre (IRC) in addition to and separate from the building of new headquarters. The Centre would serve for the implementation of the Pacific Environmental Information Network (PEIN).
7. As a people's information network, PEIN is designed to provide environmental information in appropriate forms and languages to all sectors of the community recognising that women as well as men can play a significant role in environmental awareness raising. It is widely recognised that currently there is a general lack of knowledge about environmental issues among Pacific island people. Community knowledge and awareness of appropriate environmental protection and conservation practices are crucial for the success of national policies for sustainable development.

8. The *Information Resource Centre & Pacific Environmental Information Network*, Project No.8.,ACP.RPA.001 was approved by the Commission on 28 February 2000 and is a three-year programme with total funding of €560,000.

9. The Project is in two components with SPREP designated as the Regional Authorising Officer (RAO) to expedite the process of paperwork given the nature of the work involved in Component 1 (design, building, supervision and equipment) in particular. Component 2 comprised in-country capacity building activities of PEIN which included workshops, equipment and in-country training.

1.2 Objectives of the evaluation

10. The objectives of the evaluation are to assess whether all of the stated objectives, outcomes and results of the Project have been met and as well to determine the relevance, efficiency, effectiveness, impact and sustainability of the outcomes (intended or not) from the Information Resource Centre and Pacific Environmental Information Network Project, Components 1 & 2, and to make recommendations for the design and improvement of any future networking programme of a similar nature and design of the new project under the Ninth (9th) European Development Fund (EDF), based on lessons learned and feedback from the various stakeholders and especially the project recipients.

11. Specifically the evaluation will focus on:

- An assessment as to what degree the project has succeeded in its defined overall objective and expected results;
- A study of the individual components in order to gauge the completeness of components as stated in the original proposal and Financing Agreement;
- The identification of the strategic strengths and weaknesses of the project in order to guide future donor support to environmental information provision and networking in the region, and Pacific ACP (African Caribbean Pacific) States in particular.

12. It was envisaged that the evaluation would be carried out by two consultants, one ideally with a specialisation in information management, and the other with an environment background. In carrying out the terms of reference (see **Appendix 1**), the consultants applied the methodology laid out in the Commission's *Manual on Project Cycle Management, Integrated Approach and Logical Framework* (CEC DG VIII, Evaluation Unit, February 1993) and examined:

- project design
- relevance
- efficiency
- effectiveness
- impact
- economic and financial analysis
- sustainability.

13. The evaluation findings are presented in Part 2, and the conclusion and recommendations in Part 3.

Part 2 Evaluation report

2.1 Implementation

14. Two consultants were engaged through a Fiji-based consulting company, Eco-Consult Pacific. The team comprised Mr Peter Walton, an information management specialist with extensive experience of libraries and information networking in the Pacific; and Ms Elizabeth Erasito, Director of National Trust of Fiji Islands, with a background in environmental management and conservation issues.

2.1.1 *Itinerary and consultations*

15. Four countries were visited in the four weeks: Samoa (also the location of SPREP Secretariat), 11–18 August 2003; Tuvalu, 21–25 August 2003; Fiji Islands, 20 & 25–30 August 2003; Vanuatu, 31 August – 4 September 2003. The evaluation team returned to Samoa, 18–19 September 2003, to present the findings. The complete itinerary with a list of field visits and meetings is included as **Appendix 2**.

16. A total of 39 organisations were visited in the four countries (11 each in Samoa, Fiji Islands and Vanuatu; six in Tuvalu). A total of 80 persons were consulted – 18 in Samoa; seven in Tuvalu; 26 in Fiji Islands; 19 in Vanuatu; and 10 in SPREP Secretariat. The gender ratio was 40 male to 40 female. A list of all institutions visited and persons consulted is included as **Appendix 3**.

2.1.2 *Factors affecting the evaluation*

17. Two factors affected the implementation of the evaluation: selection of institutions to visit; lack of a crucial document at the start.

18. The organisations to visit and individuals to be consulted were drawn up by SPREP based on people and institutions that they had dealt with during the three year implementation of PEIN and in collaboration with PEIN National Co-ordinators, with allowance for the consultants to add anyone else not listed but deemed appropriate to be consulted. In Samoa, the programme worked out well and a good range of institutions and individuals were selected and consulted. In Tuvalu, Fiji Islands and Vanuatu, the initial programme of visits excluded non-Government entities, specifically NGOs. At the request of the consultants, this was corrected, but the timing of the visits was sporadic, more disjointed, which consumed time that would have been better spent preparing the evaluation report.

19. In all cases, the individuals in the organisations visited were very welcoming and shared freely and willingly of their ideas and perceptions. This contributed considerably to the findings and recommendations, and the consultants are grateful for their input.

20. On the second factor, the unavailability of a copy of the *Financing Proposal* at SPREP, and more specifically, the lack of the original logical framework (subsequently identified at Annex 1 to the *Proposal*), was a significant constraint to implementing the evaluation and assessing the results. The lack of a set of measurable indicators and assumptions constrain effective evaluation. At the outset, the consultants attempted to design a logical framework based on the evidence available – in the *Financing Agreement*, *Quarterly Reports* and the *Annual Work Programme and Budget* – so that the evaluation could proceed. Whilst this exercise was useful in highlighting issues and pointing to future directions, it took time.

2.2 Project design

21. The initial absence of a copy of the *Financing Proposal* in Samoa¹, and more specifically, the original logical framework, was a serious constraint to the evaluation. In order to continue with the evaluation of the project, the consultants ‘reverse engineered’ a logical framework based on information provided in the *Financing Agreement, Quarterly Reports* and copies of the *Annual Work Programme and Budget*. The result of this exercise is presented as **Appendix 5b**. This task was not only to facilitate assessment of the project, but it was intended that it would be helpful also to the RAO, implementing agency, donor and future evaluations, stakeholders and project beneficiaries. However, this logframe should not be seen as a definitive version, rather as a start of a process to develop a more detailed one, following a wider consultative process. A start has been made with a revised logframe and this is presented as **Appendix 6**.

22. Subsequently, a copy of the original logical framework was obtained, as Annex 1 of the *Financing Proposal*. A copy of this is included as **Appendix 5a**. There are a few similarities between the original logframe and re-engineered logframe, but the Activities and Results areas have been significantly expanded in the latter.

23. The evaluation of the original logframe is presented below. However, the re-engineered logframe is brought into the discussion for the reason that in implementing and reporting on the project, PEIN project staff employed an amended set of Results and Activities, and a slightly dissimilar Overall Objective.

2.2.1 Overall objective

24. The Overall Objective of the project as set out in the original logframe is ‘to build national capacity for environmental protection and sustainable development of Pacific island countries’ (**Financing Proposal, Annex 1**). According to guidelines prepared by the European Commission, an Overall Objective identifies an overall ‘lasting change, both at the level of the project/programme and beyond it’ (**CEC 2001a**, p. 10). The Overall Objective should have been rephrased so that it doesn’t read as if it is something to be undertaken, but something to be achieved, e.g. ‘national capacity for environmental protection and sustainable development of Pacific island countries *improved*’.

25. The verifiable indicator for the Overall Objective is ‘improved environmental awareness and optimal management of natural resources’, to be verified in ‘reports and assessments on the quality of environment (e.g. GEO)’. As a verifiable indicator, the one selected does not indicate the extent of the improvement in environmental awareness and management of natural resources, define the target group nor the time-frame within which this is to be achieved. It might be possible to measure an increase in environmental awareness if a pre-start survey had been carried out among communities most at risk, for example, people in rural areas. A better indicator might then have read: ‘Environmental awareness among rural people in the Pacific islands by increased 100% three years after project start’.

26. However, the Overall Objective presented in the *Annual Work Programmes and Quarterly Reports*, i.e. in the implementing documentation, is described as ‘to improve SPREP’s capabilities for information collection and management and, on this basis, to strengthen national capacity for environmental protection and sustainable development of the Pacific Island States and Territories in general and Pacific ACP States in particular’ (see **Appendix 5b**). There is no obvious reason why the Overall Objective was changed,

¹ A copy of the *Financing Proposal* was eventually sighted at the RAO (Forum Secretariat) and EU Delegation in Suva.

particularly since the original Project Purpose encompasses the ideas contained in the changed Overall Objective.

27. Considering the vertical logic, the Project Purpose contributes to the Overall Objective.

2.2.2 Project purpose

28. The original Project Purpose is ‘improved capabilities regional and national environmental authorities and departments to collect, process and disseminate environment related data and information’ (**Financing Proposal, Annex 1**). A project purpose is the specific objective to be achieved by the end of a project, something that outlives the project. What needs to be achieved is not just an improvement, but the capacity to do something that was hitherto not possible. It is suggested that the Project Purpose could more usefully have been expressed as SPREP and national environment agencies having the *capacity* to manage information rather than an ‘improved capability’ which is an interim phase (see **Appendix 6**).

29. The verifiable indicators for the Project Purpose are a ‘permanent and adequately resourced IRC to house the PEIN’ and ‘intensified information dissemination within member countries’. The sources of verification include the ‘number of documents produced and dispatched’, and ‘reports from SPREP centre and national networks involved in the project’. As indicators, these are only partially complete. Similar to the comments made in respect of the indicators for Overall Objective, there needs to be some timeline for the first indicator, e.g. the date the IRC is ready to be used. Indicators for ‘intensified information’ require an initial baseline study, and some indication of what would constitute *intensification* and a date.

30. In the implementation documentation (the *Annual Work Programmes* and *Quarterly Reports*), there was no mention of a Project Purpose. A Specific Goal was given: ‘To ensure the free flow of environmental information by utilising all available resources through the network, and within and between member countries’ (see **Appendix 5b**). It is not clear what the intention of the Specific Goal was, nor how it originated. With some rewording it would make for a good Result.

31. Considering the vertical logic, only one of the three Results contribute specifically to the Project Purpose (‘IRC fully operational by mid-2001’); the other two Results do not contribute specifically to the Project Purpose.

2.2.3 Results

32. In the original logframe (**Financing Proposal, Annex 1**), three Results are presented:

- IRC fully operational by mid-2001
- broadening of environmental information flow to member countries
- environmental awareness increased.

33. The first Result is a combination of a result and its verifiable indicators. It would have been better to present the Result as ‘SPREP IRC built, equipped and organised’, thus defining the idea of *fully operational*. Secondly, the date should have been included with the verifiable indicator, e.g. ‘Permanent and adequately resourced IRC to house the PEIN *by mid-2001*’. Even this though is not as good an indicator as that suggested in the amended logframe (Appendix 6) which reads: ‘IRC built to specification by mid-2001, and equipped and ready for use by project staff by mid-2002’.

34. The second and third Results are, with slight rewording (environmental information flow to member countries *broadened*), more in line with the traditional way Results are written. However, the indicators chosen to measure progress do not include specific targets to

be met, e.g. the *number* of trained personnel, the *extent* of the increased flow of information, the *number* of national and regional workshops held, and the *date* the Result is to be achieved².

35. The Results presented in the *Annual Work Programmes* and *Quarterly Reports* are greater in number than those in the original logframe (see **Appendix 5b**). In many ways, this is a more comprehensive set of Results than those included in the original project design, and reflected the need by PEIN staff for results that matched the activities undertaken by the project (Phases 1 to 5). The amended logframe (Appendix 6) has further refined the Results so that they do better match the activities undertaken.

36. Considering the vertical logic, the first Activity does contribute to the first Result, and there is a possibility that the second and third activities contribute to the second and third Results.

2.2.4 *Activities*

37. In the original logframe (**Financing Proposal, Annex 1**), three Activities are presented:

- build the Information Resource Centre
- train national environment department staff of national environment libraries
- organise national and regional workshops involving all stakeholders at national and regional level.

38. The area of greatest weakness in the project design is in the identification of Activities. Building the IRC (comprising 70 per cent of expenditure) is clearly the major activity, but it is not as clear how training national staff and organising workshops will contribute to the two other Results. It should also be noted that the idea of PEIN did not start with this project, but with activities conducted from 1995 under another project, SPREP Library Training Activities. The project's Overall Objective was drawn up in recognition that every programme or project within SPREP required information as a means to an end, and that the majority of national environmental personnel each programme or project dealt with were the same in every country. Skills acquired through PEIN training in information management were to assist national personnel better service the requirements of their own national needs.

39. It is also unclear why the set of Activities in the *Financing Agreement* are different:

- build the Information Resource Centre
- implement in-country training for Pacific ACP national environment department staff, including database establishment and maintenance
- organise and hold in Pacific ACP States workshops involving all major players on the national level (government and non-government departments, NGOs, women and youth groups, community groups) and assist in the establishment of national networks
- organise and hold two regional workshops as follow up to the national training.

40. Whilst this set of Activities has more detail than those in the original logframe, they do not help project staff determine their *key* activities. Perhaps for this reason, project staff drew on earlier consultations: national workshops in Samoa (1998) and Vanuatu (1999), and

² In comments on the initial draft of this report, SPREP drew attention to the fact that the original concept paper submitted to the EU (as an attachment to the *Financing Proposal*) did include numbers, e.g. 24 people trained in four years, eight national workshops and two regional workshops. In the copy of the concept paper provided to the evaluation (dated October 1998), no figures were included. From other comments on the draft it appears that the concept paper was revised in June 1999; this was not provided.

the regional workshops in 1998 and 2000. Out of these consultations were developed a series of ‘phases’ thought necessary to achieve Results and the Overall Objective. It is unfortunate that they were not developed further as formal Activities of the project³, but they were reiterated in each *Annual Work Programme and Budget*, and used to categorise the proposed PEIN activities.

41. The five phases are:

- Phase 1 – technical assessment (facilities, personnel and audience)
- Phase 2 – physical establishment of national environment libraries and in-country training
- Phase 3 – workshops (regional and national) to expand skills and develop expertise
- Phase 4 – establishment of national environmental information networks
- Phase 5 – in-depth training on database development and country attachments scheme

42. The way in which each Phase is described make them ideal starting points for a more thought out and logical set of Activities. They have been further refined in the amended logframe (see **Appendix 6**).

43. Whilst there is no need to include verifiable indicators at the level of Activities, there are indicators in the original logframe. The first indicator is that PEIN is finalised and fully operational by mid-2001, and the second, that there will be national environmental libraries in all eight original Pacific ACP States. Both indicators should have been placed at the level of Results.

2.2.5 Assumptions/preconditions

44. Firstly, there is no quarrel with the assumption under Project Purpose that governments be committed to maintaining awareness of environmental issues. Under Results, again the assumption is that governments will ‘maintain and support environmental personnel positions required in-country to execute PEIN’ and maintain core funding to SPREP. On the first of these, it is not clear that governments appreciate the personnel requirements for PEIN. It is not just about having a position filled; it is also about having it filled by a person with the right educational qualifications, experience and aptitude. This becomes more critical when the last Assumption, under Activities, is considered: if the person contributing to development of the work programme is inappropriate (qualifications, skills etc.) then this must impact on the quality of that work programme, and the capture of national interests in its development.

2.2.6 Discussion

45. The lack of access to the original logical framework by project staff is remarkable. Project management is made more difficult and, when things go wrong, it is harder to explain why. An attempt at a revised logframe in SPREP’s application for funding of a continuation/extension of the project under the 9th EDF suggests that project staff are aware of the need for a logframe that will assist them. For all of the reasons given above, it is recommended that the project logframe be revised, preferably during the planned regional workshop for October 2003, i.e. with the National Co-ordinators and their Directors (of departments of environment), and incorporated into the *Funding Proposal* under the 9th EDF. A good starting point for the discussion would be the proposed amended logframe in **Appendix 6**.

³ SPREP comments that once a Financing Agreement is reached, there cannot be any change without a long process of correspondence which would have resulted in more delays in the implementation of activities.

2.3 Relevance

46. The extent to which the problems and needs of target beneficiaries have been captured as project objectives contributes to assessing relevance.

2.3.1 Relevance at macro level

47. At the macro level, SPREP achieves its purposes through an action plan; the current action plan, 2001–2004, was adopted at the 11th SPREP Meeting in Guam, October 2000. The plan:

Embodies the vision of SPREP members and key stakeholders for the long-term management of their shared environment. It is the main planning document which identifies the broad priorities and key result areas of the regional agenda and associated capacity building processes and interventions. From this document, the Secretariat will develop its corporate plan and annual work programmes in support of national, regional and global initiatives (SPREP 2000, p. 1).

48. It is clear that at this level, the project's immediate beneficiaries, i.e. departments of environment in SPREP member countries, are part of the design process. Looking more closely at what the action plan shall contain, three activities are pertinent:

- co-ordinating regional activities addressing the environment
- strengthening national and regional capabilities and institutional arrangements
- increasing and improving training, educational and public awareness activities

49. However, all the issues being addressed under the action plan should be seen as a 'combined effort' for all SPREP programmes and projects, including PEIN. The action plan was used as the basic legal document in the proposal to the EU (through the Forum Secretariat) to fund PEIN and in the development of the concept proposal.

50. According to the project's initial logframe, the overall objective is to 'build national capacity for environmental protection and sustainable development', in order to 'improve the capabilities of regional and national environmental authorities and departments to collect, process and disseminate environment-related data and information' (Project Purpose). On this basis and at the macro level, the project has relevance: it is about co-ordinating regional activities addressing the environment; it strengthens the capabilities of national and regional institutions; and it is about disseminating information.

51. Turning to SPREP's current corporate plan, 2001–2005, various processes and services are grouped together as one 'division' in SPREP, known as Processes. They are the means by which SPREP expects to achieve the designated outputs in the corporate plan:

- Policy planning and institutional strengthening
- Human resource development
- Communications and information
- Technical advice and backstopping

52. PEIN, as part of Processes, is the means by which SPREP works to meet ends (i.e. the overall programme approach). For example, specific SPREP programmes might target specific issues, such as climate change, but the activities these programmes implement also require that there is the capacity within target communities to manage information effectively. PEIN contributes to developing that capacity.

53. Some of the mechanisms and tools are directly relevant to the project, specifically the clearinghouse mechanism, public awareness and consciousness raising, and networking. Other mechanisms and tools are indirectly relevant, such as training, information technology,

and technical advice and backstopping. Thus the implementation of the project within the division Processes is appropriate.

2.3.2 *Extent of consultations*

54. The project fits into and is informed by the overall mandate accorded SPREP, and within the SPREP Secretariat, implementation of the project in the Processes division is consistent with the activities. But what of the micro level; particularly, how relevant is the project to needs and opportunities as seen from the country perspective? And were the consultations which led up to the project development extensive enough?

55. In 1995, the Pacific Environmental Information Network project was described as a Unesco activity proposed to be funded by UNDP, and that implementation of the project would involve co-operation between Unesco, SPC and SPREP (PEIN 1995, p. 1). This is different from the PEIN project being evaluated, but yet an integral part of its history. The first PEIN – the Unesco project proposal that is – had as its objective:

The preparation of a comprehensive plan for the establishment of a 'Pacific Environmental Information Network' through which environment/conservation awareness information will be channelled to the general public of the island countries of the Pacific, utilising the available electronic and print mass-media systems in co-operation with regional agencies involved with environment conservation (SPREP) and the development of the communication media (Unesco and SPC) (PEIN 1995, p. 1).

56. This resulted in 'communication needs assessments' being undertaken in the three sub-regions of the Pacific:

- Polynesia: 24 May – 21 June 1993, carried out by Unesco (Communications Adviser), SPC (Radio Broadcasts Trainer) and a Consultant for SPREP
- Micronesia/Melanesia: 3 September – 3 October 1994, carried out by a Consultant for Unesco (journalist), SPREP Publications Officer (in Micronesia) and SPREP Librarian (in Melanesia), and SPC Television and Video Specialist

57. Essentially, the findings of these surveys supported the need for improved information and communication systems, to address the perceived weaknesses (PEIN 1995, p. 10):

- insufficient staff numbers in some countries and insufficient training for existing staff
- insufficient copying facilities
- insufficient communication facilities
- insufficient funding for local media campaigns (radio, TV, print)

58. Activities to address these issues were all encompassing ones, from development of libraries to how to design attractive print publications and write a radio script. Central to the thinking was the need for SPREP to address its own shortcomings, which included the need for extra staffing, and updating computer hardware and software, and development of 'national information centres for the environment' (NICE). An updated and enhanced SPREP would provide information and materials to NICES, and with their capacity enhanced, they would be in a better position to increase public awareness of environmental issues and appropriate solutions. It is interesting, in the light of the findings of this evaluation, that it was recommended that there be three staff in each NICE; essentially, it was suggested there should be a librarian, a media specialist and an outreach specialist in each NICE.

59. The next time 'PEIN' is mentioned it is as a library network, stripped of all the media and communications activities outlined in the Unesco project. The reason for this appears to be that it was too expensive. Coincidentally, SPREP were building their new headquarters and needed funding for a library and information centre. The proposal put to the EU through the Pacific Islands Forum Secretariat as the Regional Authorising Officer for the EDF was twofold: to build an information resource centre; and to further develop the Pacific Environmental Information Network, now described as a 'network of national environment libraries' (SPREP 1998, p. 3). The development of the libraries will contribute to making the materials they hold available to a wider audience, and as a network, it will help SPREP disseminate packages to member countries. The assumption is that a network is needed, in order to stimulate information flow. This in and of itself is not correct; a network can contribute to improved information flow only if, as in the original project proposal, there are also the staff and skills to disseminate information to the public.

60. Beyond the regional organisation/donor discussions, countries participated in the development of the PEIN project (still a 'concept' at this stage) through country consultations, two regional workshops, and the recommendations that arose from two national workshops (as a basis to develop national activities for Samoa and Vanuatu) in preparation for the PEIN project. These activities are:

- 1st PEIN Environmental Clearinghouse and Networking Workshop (regional), Apia, Samoa, February 1998
- Samoa National Information Sharing Workshop, February 1998 – a workshop funded by NZODA the objective being to report on findings by a consultant hired by the then Department of Environment and Conservation (also funded by NZODA) to establish a national environmental information centre and a national environmental information network (now known as NERDS). Activities identified in this meeting were later used by the NERDS Co-ordinator as the basis for Samoa's activities under the PEIN project
- Vanuatu National Information Sharing Workshop, November 1999
- 2nd PEIN Environmental Clearinghouse and Networking Workshop (regional), Apia, Samoa, 26 June – 2 July 2000, attended by National Co-ordinators from nine countries

61. The latter activity directly specifically informed the work programme for PEIN. Additionally, letters requesting help in setting up environment libraries had been received by SPREP.

2.3.3 Discussion

62. This project was based on an old design, informed by an even older survey in an altogether different time. The opportunity was not taken to reassess project relevance at project commencement, in part because the 2000 regional workshop was used to draw up the first annual work programme. In reference to this programme, it is stated that it is 'based on priorities identified by member countries since the first study done by SPC, SPREP and Unesco in 1995' (AWP I, p.7). It is unclear whether some of those priorities may have changed in the six or more years since that consultation⁴.

63. Local absorption capacity was underestimated. This is a serious problem; so underestimated that there may have been missed opportunities. Perhaps it was assumed that in the intervening years, the number and calibre of staff had improved, or that access to information and communication technologies had increased, but the fact is that it hadn't. The initial technical assessments (Phase 1) were an opportunity to reassess the situation, so it is

⁴ However, this was the purpose of Phase 1 activities (technical assessment of facilities, personnel and audience), to consolidate understanding of situations at the national and institutional level, and to better target interventions.

disappointing that in those countries that were thought to be 'ahead', i.e. Samoa, Fiji Islands and Vanuatu, Phase 1 was omitted and, in the case of Fiji Islands and Vanuatu, there was no opportunity for reassessment until August 2002 and April 2003 respectively.

64. Reassessment would have revealed that the same issues found in the surveys of 1993 and 1994 were still valid, i.e. that the calibre and number of staff was low, and that information management and information technology skills are rudimentary, which impact negatively on realising the opportunities the project presents. Expanding the project approach to encompass available IT personnel at appropriate institutions (which was done in Fiji and Vanuatu) is necessary.

65. SPREP perceived that information and awareness materials produced and distributed were not reaching the target audience, and at the country level, the demand for suitable materials and information was increasing, but the time wasted trying to find them was considerable given that the available information was not well organised and documented. Thus the idea of establishing national environment libraries and documenting the collections in databases is relevant to the issue at hand, and is relevant for the project. What was not noticed or not observed was that this was part of something bigger – the need for the capacity to manage information *per se*, irrespective of sector.

66. In this regard, there is no clear or strong linkage between PEIN and other initiatives in the region. In 1999, in Vanuatu, the national Inmagic workshop was conducted partly with the assistance of PIMRIS. Apart from that, the only references to other comparable networks are in travel reports, comments on databases in various formats that have been captured, or comments that a previous database was lost⁵.

67. A most immediate issue is the different software in use to manage bibliographic or library records. For example: use of WinISIS by PIMRIS (USP, SPC) and SOPAC; use of ProCite for agricultural bibliographic databases by SPC and IRETA (USP); use of DB/TextWorks for library catalogues, publications lists and archive catalogues by SPREP, and library catalogue by SPC. In so doing, especially when promoting their own sectoral interests, it can be said that regional organisations have skewed the national situation by introducing the different solutions. This has not been helpful and has, in part, arisen because of the diverse ways in which regional organisations have resolved the issue of affordability versus usability.

68. It is recommended that the opportunity be made at the regional workshop in October 2003 to reassess issues to do with relevance, and in particular to identify the barriers or constraints to improving the dissemination of environmental information.

2.4 Efficiency

69. The evaluation of efficiency concerns the various activities and how they were transformed into the intended results. Issues such as quantity, quality and timeliness are covered, as is the day-to-day management and value for money.

2.4.1 Inputs

70. The original agreed amount of €500,000 (excluding €60,000 for contingencies and the cost of the evaluation) was made available for Components 1 and 2, in the ratio of 70:30.

⁵ On several occasions, PEIN staff assisted in the recovery of these lost databases by contacting the appropriate regional organisation and assisting in making amends. For example, the Department of Marine and Wildlife Resources in American Samoa lost their records, and the PEIN Co-ordinator collaborated with PIMRIS in retrieving them.

Since the signing of the *Financing Agreement* in March 2000, the euro has strengthened in value against the Samoan *tala* by 10.3%, which has meant that the equivalent amount in local currency rose from WST 1,520,585 in March 2000, to WST 1,677,685 in September 2003⁶. By comparison, in October 1998, the amount requested would have been worth WST 1,801,920, which represents a decrease in value of the euro against the *tala* of 18.5%.

71. The final cost of Component 1 (the building) was WST 893,299.48 (or €265,310.21 at official Commission exchange rates for March 2003) (**AWP III**, p. 2). The amount budgeted was €350,000), thus the building came in at 75.8% of cost. The remaining amount budgeted for under Component 1 appears to have been transferred to Component 2.

72. The total amount of funding available under Component 2 was €150,000 (equivalent to WST 467,700 at project commencement, February 2001). **Table 2.4.1** shows the budgeted amounts under the various budget heads for the three years, February 2001 to December 2003, and the actual expenditure against those heads for the first two years, February 2001 to January 2003 (from the *Quarterly Reports*).

Table 2.4.1: Component 2, inputs 2001–2003 (in WST)

Activity	Budget 2/01-1/02	Actual 2/02-1/02	Budget 2/02-1/03	Actual 2/02-1/03	Budget 2/03-12/03	Actual
Equipm't for countries	37,714	45,652	47,000	44,851	60,000	
National workshops	11,604	7,153	13,000	5,658	9,000	
Regional workshops	116,043	92,617	0	0	110,000	
Country attachments	11,604	11,604	12,000	8,249	0	
PC travel	26,110	26,027	34,000	32,895	17,000	
PEIN communication	5,802	1,257	5,800	3,217	10,000	
PEIN stationery	2,901	644	2,900	1,120	1,000	
Auditing, bank fees	5,802	1,270	3,000	2,892	3,000	
Admin expenses	20,888	15,660	17,480	17,480	21,000	
TOTAL	238,468	201,884	135,180	116,362	231,000	

Note: Amounts are rounded up or down to nearest whole dollar.

73. The total amount spent in Years I and II was WST 318,246 (or €96,273 using official Commission exchange rates for January 2003, the last month of Year II). Actual expenditure came in under budget except for Equipment in Year I, where there was an overspend of 21.0%. The rate of expenditure against the budgeted amount in Year I was 84.7%, and in Year II it was 86.1%.

74. The other not inconsiderable inputs were the two staff implementing the project, together with their expertise, and the resource itself – the library, other information materials and the database. In addition, the sale of SPREP publications through the IRC has generated revenue that has contributed to the library's operating funds in the amount of USD 7,710 in 2002 and USD 1,422 in 2003. These are in addition to the regular contributions in the SPREP core budget which amounted to USD 2,348 in 2002 and USD 8,000 in 2003 (memo from **Brunt** and **Tuuau**, 15 August 2003).

2.4.2 Activities

75. Project activities are identified, scheduled and budgeted for in the *Annual Work Programmes*. Any revision to the activity schedule for the next reporting period is noted in

⁶ All rates are those posted on the Commission's web site, europa.eu.int/cgi-bin/make_inforeuro_page/en/WST

the *Quarterly Reports*; the same document also presents the actual dates of activities undertaken in the reporting period. Information derived from these two sources is presented in **Appendix 11, Table 1**.

76. Project activities are categorised in the *Annual Work Programme* as belonging to one or more of the following ‘phases’:

- Phase 1 – initial technical assessment for establishment of national environment library, and resource and training needs; a timeframe of three to five days is allocated
- Phase 2 – physical establishment of national environment library, handover of computer equipment and provision of training in library and database management; a timeframe of five to 10 days is allocated
- Phase 3 – regional and national workshops
- Phase 4 – establishment of national environmental information networks
- Phase 5 – advanced training in database software, plus country-to-country attachments

77. There have been 15 country visits in the first 31 months of the project (see **Table 2.4.2**). One country visit was for the first PEIN regional workshop (in Auckland, December 2001); one, to American Samoa, was not funded under PEIN; and two country visits were to a non-ACP Pacific country (Cook Islands) under the Lomé Convention.

Table 2.4.2: The phasing and duration of country visits

Activity	Countries	Days
Phase 1	Tonga, 19–21 Nov 01	3
	Tuvalu, 20–23 May 02	4
	Kiribati, 22–27 Feb 03	6
	Solomons, Jun 03	7
Phase 2	Cooks, 18–26 Jul 01	9
	Fiji, 21–25 Aug 02 (also Ph.4)	5
	Tonga, 26–29 Aug 02 (also Ph.4)	4
	Tuvalu, 14–21 Feb 03	7
	Vanuatu, Apr 03	5
	Solomons, 28 Aug–4 Sep 03	8
Phase 3	Regional workshop, 3–7 Dec 01	5
	National workshop, Tonga, 6–7 Dec 02	2
	National workshop, Fiji, 8–9 Dec 02	2
Phase 4	Cooks, 12–16 Mar 01	5
	American Samoa, 1–4 May 01*	4

* Not funded under PEIN but involving PEIN staff.

78. In all, 76 days were spent visiting PEIN member countries. Excluding those activities which were not funded under PEIN, that number drops to 72 days for 14 visits to PEIN member countries. In addition, there are activities that involve Samoa but which do not involve a country visit (SPREP Secretariat is located in Samoa). Primarily, these include activities under Phases 3 to 5. The activities associated with Samoa are presented in **Table 2.4.3**.

Table 2.4.3: The phasing and duration of activities associated with Samoa

Activity	Countries	Days
Phase 3	National workshop, 28–30 May 01*	3
	National workshop, 25–28 Aug 03	4
Phase 4	National workshop, 12–16 Nov 01	5
	National workshop, 19–20 Feb 02	2
Phase 5	Training attachment, 19–30 Mar 01	12
	Country-to-country attachment, Feb 03	21

* Not funded under PEIN.

79. Considering the duration of activities, 20 days were spent on the initial technical assessment (Phase 1) in four countries (Tonga, Tuvalu, Kiribati and Solomon Islands). This is an average of 5 days per assessment visited which is within the 3–5 days anticipated.

80. Under Phase 2, six countries were visited (Cook Islands, Fiji, Tonga, Tuvalu, Vanuatu and Solomon Islands) comprising 38 days, or an average of 6.3 days per visit; the anticipated time was given as one to two weeks.

81. The regional and national workshops under Phase 3 comprised 13 days. Of those days, 4 days were spent in Samoa; and the rest included in the tally for country visits (to Tonga and Fiji) and the regional workshop (in Auckland). A further 3 days was spent resourcing a national workshop in Samoa with funding from another donor.

82. The 12 days spent on Phase 4 activities, establishing a national environmental information network, consisted of 5 days in Cook Islands, and 7 days for two national workshops in Samoa. A further 4 days was spent resourcing a national workshop in American Samoa with funding from another donor.

83. Under Phase 5, 12 days was spent on the training attachment for the Samoa National Co-ordinator, and a further 21 days on a country-to-country attachment for the Training Officer with Samoa Division of Environment and Conservation (to Tonga).

84. All activities and associated inputs (computers, printers, etc) are summarised in **Table 2.4.4**. The cost of the activities as provided is only a rudimentary estimate (based on actual expenditure for Years I and II; budgeted expenditure for Year III). It should not be used as evidence for one country receiving more or less than ‘its share’, however defined. The reason for providing figures, even estimates, is to gauge the cost of providing activities in and for each PEIN member country. Not included are costs borne by other donors, such as AusAID.

85. The issue of ‘fairness’ or one country getting more than it deserved or less than ‘its share’, however defined, was raised during the consultations; in particular, the number of national workshops held, computers funded and training attachments for Samoa. This fails to recognise that Samoa had progressed further than any of the other countries and that a national environmental information network predated PEIN. In 1998, Samoa conducted a needs assessment on ways to improve environmental information management and utilisation as well as an assessment of the extent by which improved environmental awareness was a direct result of accessibility to environmental education; a NZODA-funded national workshop was conducted after this assessment. An outcome was a list of resource requirements to enable the NERDS network (which itself was established after agreement at the 1998 workshop) to implement identified activities efficiently. This was a national initiative, and one based on limited financial resources. The resource plan was taken into PEIN at commencement, i.e. 2001. In this regard, it is not surprising that Samoa received almost twice as much funding since the groundwork had been done and requirements clearly defined. Viable national networks do not emerge from the supply of equipment and training alone; they require those essential ingredients, manifest in the Samoan case: enthusiasm and initiative. The lesson to be learned is that a similar investment may be necessary in other countries to achieve an equivalent or better result.

Table 2.4.4: Direct documented inputs under Component 2 for PEIN member countries

Country	Quantity	Direct benefit	Cost (est.) in WST
American Samoa	<i>4 days, 2 visits 2 computers 2 printers</i>	Regional workshop participation (Phase 3) Establishing a network (Phase 4)	N/A
Cook Islands	14 days, 2 visits 3 computers 3 printers	Technical assessment (Phase 1) Establishing a national env library (Phase 2) Regional workshop participation (Phase 3) Establishing a network (Phase 4)	29,764
Fiji Islands	7 days, 2 visits 2 computers 2 printers 2 scanners 2 UPS 3 people trained 1 person, 2 times	Equipment (Phase 2) Regional workshop participation (Phase 3) Training (Phase 3) Establishing a network (Phase 4) Regional workshop participation (Phase 3)	61,522
Kiribati	6 days, 1 visit 1 computer 1 printer 1 scanner 1 UPS	Initial assessment (Phase 1) Equipment (Phase 2) Regional workshop participation (Phase 3)	58,309
Marshall Islands		No direct benefit	
Niue		No direct benefit	
Samoa	3 nat. workshops, 11 days 4 computers 4 printers 4 UPS 12 days, 1 person 31 days (country-to-country attach), 1 person	Training (Phase 3) & Networking (Phase 4) Establishing a network (Phase 2/4) Regional workshop participation (Phase 3) Advanced training (Phase 5) Country attachment (Phase 5)	96,081
Solomon Islands	13 days, 2 visits, 1 person trained 1 computer 1 printer 1 scanner 1 UPS	Initial assessment (Phase 1) Establishing a national env library (Phase 2) Regional workshop participation (Phase 3)	56,474
Tonga	9 days, 3 visits, 2 people 2 computers 2 printers 2 UPS 2 people attended	Initial assessment (Phase 1) Establishing a network (Phase 2/4) Regional workshop participation (Phase 3)	57,445
Tuvalu	3 days 3 days, 3 people 1 computer 1 printer 1 scanner 1 UPS 1 person attended	Initial assessment (Phase 1) Equipment & training (Phase 2) Regional workshop participation (Phase 3)	49,588
Vanuatu	5 days, 1 visit, 2 people 1 computer 1 printer 1 scanner 1 UPS 2 people attended	Equipment (Phase 2) Regional workshop participation (Phase 3)	46,522
TOTAL			455,705

Note: Countries in bold eligible under 8th EDF. Items in italics not funded under PEIN. Not included are equipment, e.g. photocopiers, and training opportunities funded by the AusAID SPREP Library Training Activities in Fiji, Marshall Islands, Niue and Samoa.

2.4.3 Outputs (results)

86. There were three expected results in the original logical framework (**Appendix 5a**) from the *Financing Proposal*:

- IRC fully operational by mid-2001
- Broadening of environmental information flow to member countries
- Environmental awareness increased

87. In the re-engineered original logical framework (**Appendix 5b**) derived from the *Annual Work Programmes*, the five expected results were:

- A completed and well-equipped Information Resource Centre (IRC) by July 2001, better able to co-ordinate a network of national environment libraries within Pacific island countries and act as the central processing unit of the Pacific Environmental Information Network (PEIN)
- A significant strengthening of environmental information flow to and within member countries in a variety and printing and electronic formats
- National environment libraries established within SPREP Pacific Island Countries
- Electronic sharing of information between national environment libraries and SPREP's Information Resource Centre
- Collections of all national environment libraries available and accessible on the Internet (via IRC web page on SPREP's web site)

88. Responding to the re-engineered logframe, the following results were achieved:

- Information Resource Centre became operational in mid-2002, capable of co-ordinating a network of national environmental libraries and acting as a central processing unit for PEIN
- There has been some strengthening of environmental information flow
- National environment libraries were established in two countries prior to project commencement – Samoa and Vanuatu – and established in a further five countries – Cook Islands, Fiji Islands, Tonga, Tuvalu and Solomon Islands⁷
- Database records have been exchanged between national environment libraries and SPREP
- Database records received by SPREP have been incorporated into the PEIN database and made accessible on the Internet (www.sprep.org.ws)

89. Focusing specifically on the PEIN database as a source of quantifiable data, **Table 2.4.5** presents contributions to PEIN database as presented in the lists of SPREP IRC New Additions found in the *Quarterly Reports*.

90. It is noticeable that the figures overall dropped slightly in Year II from Year I, when the contrary could have been expected. It is also noticeable that following an intervention in a country, records are made available to the regional database, but not thereafter. Comments from people consulted suggested that no update of the PEIN database had been distributed since December 2001, 18 months ago. This has much to do with the way records are contributed and the updating process. This is examined in greater detail in **Section 2.6**.

⁷ A national environment library in Kiribati is a planned activity for 2003.

Table 2.4.5: Contributions recorded in the PEIN database, Feb 2001 – Jan 2003

	SLIC	ACIS	IW	WS	AS	FBL	CK	VU	FJ	TO	KI	Total
2001												
Jan–Mar	454	56	102	5	4		8					629
Apr–Jun	462	2			52	727		1			3	1247
Jul–Sep	97						402	1			1	501
Oct–Dec	0											0
Subtotal	1,013	58	102	5	56	727	410	2	0	0	4	2,377
2002												
Jan–Mar	192	1					1					194
Apr–Jun	279		15									294
Jul–Sep	320		1	12			1	4	9	214	4	565
Oct–Dec	191			2					6	459	1	659
Subtotal	982	1	16	14	0	0	2	4	15	673	5	1,712
TOTAL	1,995	59	118	19	56	727	412	6	15	673	9	4,089

2.4.4 Discussion – organisation and management

Organisational arrangement

91. The project is implemented by SPREP; the Project Co-ordinator (also referred to as PEIN Co-ordinator) is the Information Resource Centre Manager. The IRC and its activities are part of a division with the all-encompassing title, Processes. Also in this division are training, information technology, education and environmental awareness and clearinghouse. As such, this is most obvious place for a project of this type and scope. The IRC Manager reports to the Co-ordinator (Processes); as Project Co-ordinator, she reports to the RAO through Co-ordinator (Processes) and Programme Delivery Manager. This arrangement ensures that the internal logic of SPREP activities is maintained.

92. The Project Co-ordinator is assisted by the Assistant Librarian. There is no Archives Officer as agreed to under the Financing Agreement. It is unclear why this position is not filled, and what the responsibilities of the position entail. Both staff in the IRC have professional library qualifications, and the Project Co-ordinator in particular was able to provide valuable input into the design and equipping of the IRC under Component 1 (discussion with **Tinai** and **Wright**).

93. The consultants note with concern the workload that the two IRC staff are required to shoulder. It is recommended that consideration be given by SPREP to recruiting a para-professional library/information assistant to carry out some of the more routine tasks, such as helping visitors, packing publications and shelving. This will free up the two professional staff to prepare and conduct training, prepare operators and user manuals, catalogue and index new information materials, and identify and address new information management opportunities.

Financial management

94. Financial management of the project has been tight, with only one instance found of EDF procedures not being followed. The same financial management system and the same auditors are used for the project as used by SPREP; PEIN has its own bank account. The only difference – a significant one – is that the financial quarters do not match up. SPREP's quarters are traditional – January to March, April to June – but the project commenced on 19

February 2001, so its quarters are 19 February to 18 May, 19 May to 18 August, and so on. All financial system reports are aligned to the traditional end of quarter; and reconciliation of bank statements takes place mid-month, which is awkward.

95. Having both the RAO and an EU Monitor within the organisation has been helpful in ensuring that EDF procedures are followed. However, prior to there being an EU Monitor, expenditure was undertaken with respect to a non-ACP country (Cook Islands, at that time not a signatory to the Lomé Convention). The expenditure concerned travel expenses and equipment. It is not clear whether the expenditure was 'refunded' in some way, or it was decided that a case could be made for Cook Islands. It is true that this error occurred in the early days of the project and was caused by lack of experience.

96. In discussion with SPREP staff (**Tuuau** and **Brunt**), recommendations were made in respect of financial management and EDF procedures, namely that:

- unexpended funds at the end of the work programme year not be physically returned to the EU, but that the amount be deducted from the tranche of funds for the new project year⁸; and
- in respect of paragraph 12.5 in the *Annual Work Programme and Budget* relating to purchasing procedures for items costing between WST 601 and WST 6,000, and between WST 6,001 and WST 30,000, where approval for purchase must be obtained both from the RAO and EU Delegation. It is suggested that because SPREP already follows procedures identical to those outlined, that the need for approval by the EU Delegation might be reduced, or that the amounts be changed so that only purchases above WST 20,000 require both signatures⁹.

Management and phasing of technical assistance

97. There are a number of issues to do with the management and phasing of technical assistance provided by the project. The first issue, a contentious one, is the *perception* by some individuals consulted that only countries in Polynesia benefited in the early years of the project. To an extent, there is some evidence for this when the phasing of the activities is reviewed (**Appendix 11**). The counter view is that there was no 'favouritism' and that countries that met the criteria (which were intended to contribute towards sustainability) were provided for first, which is as it should be. In the case of Vanuatu, and to an extent, Fiji Islands, it is clear that more progress could have been made by earlier interventions, even where there were doubts about the criteria having been met. For example, Vanuatu hosted a national Inmagic training workshop in November 1999, funded and led by SPREP. The momentum gained was not maintained because the first visit by SPREP under PEIN (to assist with the further development of the national environment library) did not occur until April 2003¹⁰. It's not just the time 'lost' but the loss of enthusiasm.

98. Co-ordination with other regional organisations is not as good as it might be, in a practical sense. Several reports of consultations and visits (included in the *Quarterly Reports*)

⁸ The Delegation commented that the issuance of one cheque is a small administrative burden to bear, given that the paperwork involved would be the same and thus there seems to be no advantage to the recommended change.

⁹ The cut-off levels relating to purchasing procedures are in Samoan *tala* in the *Annual Work Programme and Budget*; the Delegation has commented that they should have been quoted as euros. This has been changed effective November 2003.

¹⁰ SPREP commented that the first activity for Vanuatu was their attempt to attend the December 2001 regional workshop but, because of the cyclone, both participants were stranded in Cook Islands. Despite this, an allocation was made under the 2002/03 annual work programme for the PEIN Co-ordinator to travel to Vanuatu. SPREP wish it to be noted that its staff are required to operate within the SPREP structure, and approval for project staff to travel can only be given by the direct supervisor or RAO.

mention that records were garnered from defunct or redundant databases, mostly fisheries databases (using CDS- or Win-ISIS) or agricultural databases (using ProCite). It is good that these records were captured before it was too late, but the opportunity to discuss this with colleagues in other CROP agencies, particularly USP-PIMRIS, SPC Suva and SOPAC, does not appear to have been taken. The opportunity remains; it is recommended that as a matter of urgency the findings of the evaluation be shared with CROP partner agencies, and a meeting be convened at which the issues be discussed and a strategy formulated to address them.

Institutional capacities

99. A significant concern is the institutional capacity of co-operating national organisations. Put simply, the individuals selected by the respective departments of environment to be a national co-ordinator are without library and information management qualifications; at best, they are environmental information officers or environmental education officers, a background more suited to deploying information than organising and managing it. In designing the PEIN project, it was recognised that governments in the region would not increase staff and so it was very unlikely that information professionals would be national co-ordinators. What project staff have attempted to do, in some cases, is to simplify management of the libraries, but this has resulted in libraries being less user-friendly. Also, because the capacity or experience of some of the individuals being trained is greater, there has been the emergence of variability in the standards and procedures employed both for management of the libraries and the databases.

100. Recognising the dilemma this poses to project staff, different approaches might yet have been adopted that better reflect institutional capacities. For a start, it would have been better to have consolidated and updated available documentation and training so that incumbents had the best chance of starting off in the right way. Secondly, it would have been useful to have involved local trained librarians, where they exist, in developing the national environment libraries and associated databases. To an extent, this has happened in the more developed networks, principally Samoa, but this activity comes at a later stage in the development. By involving a local trained librarian earlier, the National Co-ordinator would have had ongoing local support.

101. Samoa is the only active network, which might reflect a better understanding of what PEIN is about. It is one of the fundamental principles of training that those being trained are more likely to succeed if they know why the additional skills are necessary. It is not clear just how much time was spent on the more sociological aspects of the task, such as discussions as to the importance of environmental information, why people adopt attitudes and how they may be changed, communicating with people individually and in groups. These skills underpin effective information management and provide a strong foundation for any task.

102. Overall, there appears to be a lack of understanding of the role of the National Co-ordinators, even by the Co-ordinators and their co-workers. The perception by government is that the project is about setting up libraries and helping them acquire equipment and training; it is not about information dissemination in the broadest sense. There is currently an indication that governments want to or see the need for networking, but when they think about how they might address this need, the PEIN project does not immediately spring to mind; in other words, the link between PEIN and developing national information networks is not as clear as it could have been. It is recommended that a description of the role and responsibilities of National Co-ordinators be drawn up by the project in collaboration with the National Co-ordinators (perhaps at the regional workshop in October 2003). The description should be akin to a formal job description, with the responsibilities of the position converted into competencies expected of a successful 'applicant'.

2.4.5 Discussion – implementation of activities

103. A critical feature of the discussion on efficiency are the approaches and methods used to implement the project, i.e. to transform the inputs into outputs (results).

104. It is clear that the project had too few people to undertake the range and extent of tasks required, specifically under Component 2. Once Component 1 was completed, i.e. the IRC was built, the task became to utilise the building (i.e. Component 2). Achieving the overall objective of the project is labour and skills intensive. If it is accepted that the phasing of project interventions as outlined in the *Annual Work Programmes* was the best approach, then it is relevant to consider whether an average of five days spent on the initial technical assessment (Phase 1) is enough; and whether an average of 6.3 days setting up a national environment library and providing training in library and database management is sufficient. The answer to both these is, no, not enough was spent in-country. Comments from persons consulted and experience from other projects suggest that a few days here and a few days there do not embed skills just learnt, nor really address the needs. As a strategy it succeeds only in half appreciating a situation, or leaving people half-trained, unable to cope when they hit problems, which they will.

105. It is unclear whether the limited number of country visits (14) was because of lack of funds, the workload at the IRC, or other reasons. From the pattern of country visits, it can be seen that they occur every two months in Year I, and every three to four months in Year II and III. Split between two people¹¹, this is not arduous. It could be the availability of funds: the amount in the budget for Project Co-ordinator travel was expended at close to 100% for the two first financial years. It is undeniable that travel in the Pacific region is expensive, and travel from Samoa more expensive than Fiji, which has better air links and more carrier competition. Which means that if it costs around WST 3,500 getting to and from Tuvalu, then a few extra days there (i.e. extra per diems) is a better use of the investment in travel. Combining trips – Fiji/Tonga and Tuvalu/Kiribati – is a good way to reduce the initial expenditure and was used by project staff on several occasions.

106. If there was too little time in-country, there was also too little follow up. Frequent communication ensures that nobody feels forgotten, ‘issues’ are dealt with as they arise, and that avenues of communication developed during the country visits remain open until the next visit. As access to email has developed in the region, the opportunity presents itself for regular ‘chats’ between the project and National Co-ordinators. Also, if email had been used to exchange database records, this too would have been a form of communication and would allow feedback (on contributions) and follow-up (see **Section 2.8.4**). Given that many of the planned visits/interventions were delayed to other dates (see **Appendix 11**), efficient communication is essential.

107. An assessment of the focus and outputs, both quality and quantity) of technical training and services concerns two specific activities: training and the databases. As with much else and in common with other projects, participants who received training were appreciative¹². Training is always welcomed irrespective of how effective it was. In the case of this particular project, very few of those consulted were able to comment on the quality of

¹¹ The Secretariat noted that the project staff of PEIN comprises the IRC Manager. Special permission was requested from the RAO to allow the Assistant Librarian to conduct some of the country travel to allow the IRC Manager to undertake required SPREP activities (i.e. SPREP annual work programme and budget compilation, annual report contributions, donor reports, SPREP meeting papers) as well as personal reasons. There is no guarantee that under the 9th EDF proposal, the Assistant Librarian would be travelling and/or conducting in-country activities of PEIN. Which further supports the suggestion that there were too few people to undertake the range and extent of tasks required.

¹² Attempts by the consultants during report finalisation to analyse training assessment forms was unsuccessful because of lack of time.

training provided. However, from observation and from a few comments it is likely that the extent of training is insufficient to ensure the sustainability of the intervention. One comment that is of interest, perhaps because it is unusual in its perspicacity, is that the trainers did not seem as familiar with the current version of the software, DB/TextWorks, as they did of the older version, Inmagic for DOS. This seems to tally with an observation that the potential of the software currently used has not been realised in all countries (Samoa again being the exception¹³); that the opportunity to design better, more helpful menus, data entry screens, display formats and query forms has not been taken¹⁴. When this is combined with the cumbersome database updating procedure, the lack of operational manuals and thus standards (data entry, approach to indexing, etc) it all adds up to opportunities missed. The operators have only rudimentary understanding of the software, and thus their level of confidence is generally low. In cases where the operators have access to IT support, e.g. Reserve Bank of Vanuatu and Fiji Department of Forestry, greater confidence is sensed in respect of managing the software. It was very helpful when IT staff also attended regional workshops or national training events, such as in the two aforementioned countries; this should be practised at all times.

108. In return for the training and supply of equipment, countries were expected to do certain things. The contribution of countries was outlined in Letters of Agreement prepared by SPREP and signed by the receiving entity. Letters of Agreement are included in *Quarterly Reports*. A typical example is included as Annex 4, *Quarterly Report*, No. 2 (QR I/2) relating to supply of equipment. The country agrees to:

- be responsible for the general upkeep and maintenance of the equipment provided;
- be responsible for any costs incurred in-country in relation to the equipment provided;
- catalogue, input and share environmental information in collaboration with other national agencies involved in [national network] using equipment and software provided;
- and so on ...

109. The Agreements are valid until the end of the project, February 2004 [sic]. The Agreement makes no mention of allocating appropriate staff to undertake the tasks for which the equipment was supplied, nor of adherence to any quality standards, nor to undertaking any transfer of skills learnt to others in-country (except to note that the equipment will become available to any PEIN-related training activity). In this sense, the Agreement places no undue burden on the institution which enters into it. This was a missed opportunity.

110. On the other hand, SPREP agrees to do certain things:

- upgrade the software(s) required;
- send quarterly updates (holdings list) of environmental information to [institution]; and
- make available on SPREP's web site any information and/or records catalogued into the equipment provided for regional and national access.

¹³ It is relevant to point out that the Samoa National Co-ordinator spent time with the software supplier in Australia, and was able to transfer the skills she learnt on utilising the functions of the software to others, within the framework of the national workshops.

¹⁴ The Secretariat commented that the main concern of the project was to ensure environmental information is widely accessible for environmental awareness, policy formulation, etc. Thus the concentration on inputting as much data as possible as opposed to 'wasting time creating search menus, display formats and query forms' (pers. comm. 15 December 2003). The evaluation disagrees with this approach, since it ignores the critical importance of design in helping users and operators interface effectively and efficiently with the system. The amount of time required to improve usability is insignificant in relation to the time required for data entry. The other comment from the Secretariat, that improving the look of the system was left to the National Co-ordinators to enhance 'ownership', is well founded.

111. The software, once installed, has not been upgraded and, although the records have been compiled as a printed list, they have not been supplied electronically (more on this in **Section 2.8.4**). However, the database has been mounted on the SPREP web site. It can be inferred therefore, that SPREP has not done everything it said it would under the Agreement, but outstanding issues are being addressed as a matter of urgency by project staff.

2.5 Effectiveness

112. Effectiveness is measured, according to logframe terminology, by the extent to which the project's results were used, i.e. whether they achieved the project purpose. Under the original logframe, the project purpose was 'improved capabilities of regional and national environmental authorities and departments to collect, process and disseminate environment related data and information' (*Financing Proposal*, Annex 1). The findings are presented in terms of: results obtained; achievement of purpose; beneficiaries; assumptions; and unidentified assumptions.

2.5.1 Results obtained

113. The list of expected results in the original logframe reflect outcomes, such as the IRC being fully operational, a broadening of environmental information flow and thus an increase in environmental awareness. None of these results is measurable objectively or even quantitatively using the indicators provided. The more practical set of results identified by project staff is presented in **Section 2.4.3**, along with the results obtained to date. The results as listed suggest a facility (IRC) and set of resources that are capable of being used. The question is: used by whom and for what purpose?

Information Resource Centre

114. The Information Resource Centre was opened in March 2002 and became operational in mid-2002. This provided a base for SPREP staff to co-ordinate a network of national environmental libraries and act as a central processing unit for PEIN. It also provided a place for the library and archive holdings of SPREP to be organised adequately and stored safely.

115. The design of the IRC is simple and recognisably a 'library'. There is enough shelving (rolling), reader places and the workroom area is large. There are books on shelves (in order) and in nine filing cabinets (in order); there is a photocopying room, a video viewing room, and three map/poster cabinets. The design incorporates three distinct areas to be air-conditioned, so that when the power goes out, the stand-by generator provides air-conditioning to the most important materials in the collection. As a result, the library area is not one large room sub-divided by shelving, but glassed-in areas physically separating the library shelving and publications for distribution from the reading area. The smoked glass used as room-dividers is an unusual feature, but there is plenty of natural light in the main area and a pleasant outlook. The counter (in library terminology, the 'issue desk') is a long, beautifully-designed piece of furniture. It is questionable as to whether such a large counter is needed, given the public use of the facility (as evidenced by the visitors' book). No member of staff sits behind the counter; it is used largely to display newspapers (although in a later visit, these had been stacked neatly to one side).

116. The log book records use of the IRC by visitors only, not SPREP staff. In terms of SPREP staff as users, most of their needs are satisfied by the 'door-to-door' service provided by the IRC whereby requests from staff are sent by email or phone, and the requested information sent back the same way or delivered to the officer direct. Data on these transactions was not requested but if not available, should form part of a continuing monitoring and evaluation process.

117. The reason for the limited use of the IRC by SPREP staff is probably rooted in the fact that most of the programme staff have access to the resources they need in their work areas. If people have what they need, they do not need to go elsewhere. There is a suggestion that these ‘materials’ be catalogued and included in the library database so that their existence may, at least, be known to other programme staff. The materials can remain where they are as ‘special collections’. It is understood that this has happened to a limited extent.

118. The IRC is open for the general public only between the hours of 2 pm and 4 pm, on Mondays, Wednesdays and Fridays. These limited visiting hours are in part because of staff commitments, but also so as not to detract from the first ‘national’ point of call: NERDS. The intention is that the library and information resource centre established in town by the Ministry of Natural Resources and Environment, and other libraries (e.g. Nelson Memorial, NUS and Samoa Polytechnic) are there principally to serve the general public, especially students. Therefore SPREP would not wish to compromise this activity by providing an alternative venue.

Pacific Environmental Information Network

119. Construction of the IRC was to provide a base from which activities could be implemented and managed under the Pacific Environmental Information Network. The outcomes in the original logframe spoke of broadening information flow and increasing awareness of environmental issues. Strengthening the two national environment libraries in existence prior to project commencement, establishing national environment libraries in five more countries (plus one more under alternative funding), and the development or further development of national environmental information networks in four countries (plus one more under alternative funding) are the outputs that contribute to achieving these outcomes. It is justified to say that there has been a ‘broadening’ of environmental information flow, however that may be measured, simply by looking at the number of records contributed by PEIN partners in the first two years of the project (**Table 2.4.5**). These same records have also been made available on the SPREP web site (www.sprep.org.ws). The network has also been used to provide copies of materials held in one place, to another place. Data pertaining to this activity was not sought by the consultants, but discussions with network operators revealed it had taken place.

120. The greatest benefits appear to have accrued to schoolchildren, who are heavy users of the various environment libraries. The reason schoolchildren are using the environment libraries is to complete projects and assignments, which must contribute towards an increase in environmental awareness.

2.5.2 Achievement of purpose

121. An IRC has been built and as indicated earlier, it is able to be used for the intended purpose which coincides with the need for an improved capability at SPREP, to ‘collect, process and disseminate environment related data and information’. Given that the facility has only been open for just over a year, there is still some work to do. The following are items or issues need to be addressed:

- There is a need for more display areas, both display racks (for newspapers) and display boards. It is clear that the lack of display boards (and wall-space upon which to hang them) is recognised as various architectural building designs and SPREP posters rest on the low windowsills or are fixed to the glass room-dividers. The walls in the foyer area could be utilised as display areas.
- The lack of available wall space means that it is difficult to find a suitable place for the filing cabinets containing the vertical files (of documents and reports). Only three filing cabinets are in the main area; the rest are in the workrooms.

- The study carrels seem underutilised and ‘lost’ in the main area. It is not clear how this might be resolved.
- More signage is needed, both to the IRC from the main reception, and within the IRC; for example, on doors leading to the shelved book and periodical collections (there is signage on the shelving units themselves). Similarly, there are no instructions for using the OPACs (online public access catalogues) and, during the consultants’ visit, the computers were not switched on.
- The workroom area, visible from the main public area, is untidy.

122. Time spent addressing these issues would help ‘finish’ the building and contribute to fully achieving project purpose.

123. Considering activities under Component 2, i.e. PEIN, is unclear to what extent there has been ‘intensified information dissemination within member countries’, the original indicator against project purpose. Establishing national environment libraries and associated databases of holdings does not in and of itself intensify information dissemination; this can only be achieved by the use to which the resource or facility is put. That it has not been suggests that there is a gap between resource development and benefits to users. Information is more available (and better organised) than before the start of the project; and yet is not necessarily more accessible. This is because, with the exception of Samoa, there has been only limited public awareness of the facilities and resources contained. Public awareness activities are needed to apprise the public of the resource and encourage their use. This was not an activity included in the design of the project but it was included in Phase 4 activities where it states ‘once a national network has been fully established, public activities become vital in this particular phase. Brochures, displays during appropriate national events ... are encouraged to let the public know that there is such a service available’ (**AWP III**, p. 10). Such an activity should have been incorporated into the design of the project. However, the activities completed under Component 2 have contributed but realising the goal is still some way off.

124. The idea of a network has been slow to take hold. In the original logframe, no mention was made of a network; in the re-engineered logframe, the specific goal was a network ‘to ensure the free flow of environmental information’. In part, the reason for the slow progress on developing national networks is because of technological constraints (database structure, management and use are the principal ones); in part it is because of a dichotomy of encouraging the development of sector-specific information networks which work against previous attempts at developing such networks. The interest at the national level is now more than before focused on developing national library and information networks. Whilst the slow progress to development of national information networks is a concern, there is a growing realisation that an opportunity is being afforded the project to contribute towards something that is likely to be more sustainable than past efforts (see also **Section 2.8.5**).

2.5.3 Beneficiaries

125. SPREP and its staff have benefited directly and indirectly from the construction of the IRC. The facility provides a place to store and thus make accessible tangible, corporate knowledge assets.

126. Under Component 2, the major beneficiaries of development of national environment libraries have been students and schoolchildren, not technical professional people in government departments, even those in departments of environment. Students and schoolchildren are mentioned specifically in the list of potential users of the libraries under the 9th EDF *Financing Proposal*; in the original *Financing Agreement*, however, they are assumed to be part of the wider ‘community’. The conclusion that others, particularly staff of government departments, do not use the facility is based on information supplied through

consultations, i.e. that staff said they had not used the library, or even that they did not know what it contained so would not have thought to use the library. Thus it is possible to argue that one of the major categories of users – environmental department staff – do not appear to avail themselves of the facility to the extent anticipated. As noted previously, this is to do with lack of a successful public awareness or marketing campaign and is largely in the hands of the national co-ordinators. If the project design had addressed this as a specific activity – for example, training for communicating with stakeholders – this might have helped.

2.5.4 Assumptions

127. The key assumption noted against project purpose was that governments would maintain a level of commitment to environmental concerns. One of the ways in which commitment can be measured is the amount of funding made available to support staff dealing with environmental activities. It was assumed, against results in the original logframe, that governments would support staff positions required in-country to execute PEIN, and that SPREP member countries would maintain the level of core funding. It is understood that in respect of the latter, core funding has been increased by 21% at the recent (2003) annual SPREP meeting.

128. Support for positions in national government departments is not just about funding, it is also about ensuring that the right person is recruited to fill the position. Given that the role of National Co-ordinator is a critical position of responsibility, there is variability in the selection of National Co-ordinators by governments. It would have helped had a position description been drawn up for the position, similar to a job description. This would have allowed selection criteria to have been introduced which would in turn have minimised the risk of designating an individual beyond their capacity. The ability of the National Co-ordinators to carry out all the *de facto* responsibilities of the position, more specifically, capacities for library management, information technology, communication and outreach has constrained achieving the project purpose. This issue is discussed further in **Section 2.8**.

2.5.5 Implementing environment

129. The low priority accorded to information and information networking as evidenced by lack of staff, or lack of staff of the right calibre, is a recurring theme in the Pacific. As noted in the foregoing Section, this is a means in which commitment by institutions to information management can be measured: if it's important, are resources allocated appropriately?

130. It is a concern that this is not just an issue at the national level, but that SPREP too has not allocated enough staff to support the activities (there should have been three staff; there are only two), with a consequence that progress was slowed. It is recommended that SPREP recruit a third staff member for the IRC, preferably one who has para-professional qualifications in librarianship.

131. Also at the regional level, the promotion of solutions to information management that do not take enough account of comparable initiatives by other regional institutions means that results in-country are likely not to be sustainable (viz. fisheries and agriculture). This is entirely correctable by the regional organisations and it is recommended that SPREP, in co-operation with other CROP agencies, address this.

2.6 Impact

132. The overall objective in the original logframe was 'to build national capacity for environmental protection and sustainable development of Pacific island countries' (*Financing*

Proposal, Annex 1). Leaving aside the flawed formulation of the overall objective¹⁵, this Section discusses the extent to which the overall objectives have been achieved.

133. Effective environmental protection and sustainable development both require access to information. To this extent, the development of organised and accessible collections of information (libraries and databases) is a significant contribution. However, greater impact could have been made if there had been a more extensive public campaign to promote the awareness and use of the resources available. Secondly, being aware of the existence of such a resource does not automatically imply that it is usable. Information management skills are essential in order to be able to formulate an information question, identify appropriate resources, access and use the resources. Added to this is the quality of the resource itself: Is it appropriate and relevant? Is it at the right level? From what has been observed, the consultants have concluded that there are a number of concerns about the ability of potential users to handle the information available. This could have been addressed within this project. In the revised logframe, activities are identified that would lead to an overall improvement in information literacy.

134. On a higher level, it is clear that 'sustainable development' *per se* is a concern not just of departments of environment, but of many government and non-government agencies. In the push by the project to develop national environmental information networks, and despite the slow progress made, a unique opportunity has opened up to establish credible national library and information networks which, if approached in the right way, will certainly contribute to more equitable and sustainable development. The project has some right to say that it helped in this regard. A simple example: in Vanuatu, staff of the Reserve Bank and Public Library attended a workshop (admittedly prior to the commencement of this project) and subsequently, a staff member from the Reserve Bank attended the PEIN regional workshop in 2000. As a result, both institutions began to emulate the database development activity – and thus increased their capacity. It is possible that this would not have happened had the project not been implemented. Further, because of their experience – and it has to be admitted, their library qualifications – they can see how this approach might be used to develop a national library network. Again, this is unlikely to have happened at this point or in this way had the project not been implemented. In these many small ways, the project had a direct and indirect impact.

2.6.1 Impact of information availability and accessibility

135. An overriding conclusion drawn by the consultants is that whilst information is more available, it is not yet widely accessible. This reduces the impact of the activities undertaken and results obtained. In particular, it contributes less to achieving the overall objective than is desirable. Mention has already been made of the reasons why: very little or limited public awareness; poor information management handling skills. But what must also be considered are factors to do with technology and skills; the latter will be addressed in the next Section.

136. As the regional network grows because of the establishment of national environmental libraries in the existing member countries or the addition of new member countries beyond the original 11, there are significant risks that management capacity at SPREP will be quickly outstripped (it is already stressed). This has to do with the way PEIN and the emerging national networks are structured. Currently, records from national databases are forwarded to SPREP to be merged into the regional database. This takes time and is an involved process for a number of reasons. At the national level, certainly in those networks that have been established, it is major concern that the merging of records is complicated or

¹⁵ An overall objective represents a future desired situation; but the original overall objective indicates something that is to be done ('to build'). See **Appendix 6** for revised overall objective.

has not begun. There is no future in a centralised network where the work, and problems, compound the closer to the centre the records are. Another model is needed.

137. The establishment of national networks is advancing quickly beyond the initial focus on environmental information, to encompass information on forestry, fisheries and other sectors (a good example is Fiji)¹⁶. That there is an environmental dimension to all these economic sectors is not in question; but it should be recognised that the national interest is transcendent and non-compartmental. Thus, at the national level the immediate objective is to improve the sharing of available information resources to support better decision-making, improve awareness, etc. This contributes to the overall objective of improving access to and use of environmental information, and so ought to be supported. How could this be done?

138. One model is to consider the national networks in the context of national needs, and to agree that there must be co-ordination and someone at a department of environment is as good as any other, but that this is not the same as suggesting that this co-ordinator must manage the network, provide all the training and, the biggest task of all, maintain the integrity of the national database upon which the integrity of the regional database is based. It would be far better, in a country of any size, that an appropriate individual be found to manage the database and provide the training. The network database need not be a mass of variable records but a single, unified entity. It is the database manager's task to ensure that all additions or amendments to the database conform to nationally-agreed – and preferably, regionally-agreed – standards. The database manager need not necessarily be a member of the department of environment; the person could be a member of another government department, tertiary institution, public or national library, or a contracted individual. But it is preferred that the individual has appropriate skills; skills usually found in a qualified librarian¹⁷. Each country's unique circumstances will determine the most suitable arrangement. The essential feature of this model is that the co-ordinator is the contact point for SPREP, thus ensuring SPREP continues to operate within its mandate – are made available to the whole network, and indirectly, to all the different regional networks. Only if this approach is adopted will there both be greater availability of information *and* improved access to information.

2.6.2 Impact on human resource development

139. It is very evident that there have been limitations on the depth and breadth of training. The reasons for this are, to a great extent, because of the amount of project staff time available to organise, prepare for and implement training activities, and the extent of budgeted funds for national and regional training activities. It should also be noted that because the majority of people receiving training have only limited information technology skills and are not librarians, there is much to absorb in the time available.

140. It would have been better to have targeted training specifically for librarians, information technology staff and environmental officers. For librarians, the training would have concentrated on using the software to add or amend catalogue records; for IT people, the

¹⁶ Subsequent to the visit by the consultants, the *de facto* National Library of Vanuatu, together with the Rural Economic Development Initiative (of the Ministry of Provincial Affairs) and Vanuatu Library Association have held a series of consultations to determine what it would take to develop a national library and information network. This is an unexpected outcome of the evaluation activity, and evidence that the PEIN project has had an impact beyond its original objective.

¹⁷ The Secretariat rightly points out that 'qualified librarians' are low on the list of priorities, and that governments are concentrating on zero growth (in respect of personnel) or downsizing. Thus their decision to use whatever staff were in place. The evaluation agrees. In an ideal world, strategic planning is about how to achieve the desired goals, and identifies resources to achieve these goals. The idea that effective management of information is critical to achieving an institution's goals is one that does not yet have wide currency.

training would have focused on the software itself; and for environmental officers, the training would have concentrated on improving their information management ability, i.e. identifying information assets, organising library materials, using the database, reaching out to individuals and communities to address their information needs, and aspects of management to do with networks and developmental activities. By not differentiating between the different targets of training, the risk is that some participants will be out of their depth; and others will be bored because they can't see the relevance of particular aspects.

2.6.3 Databases and information networking

141. The consultants were asked to comment specifically on databases and information networks where they are perceived to be 'particularly weak' (Terms of Reference, **Appendix 1**). Issues to do with the information networks have already been commented on, thus comments in this Section refer largely to the databases, with indirect comment on the network aspect of updating and distributing the regional database.

142. The building of library catalogue databases provides an opportunity to create awareness of what is available in each of the national environment libraries and, by exchanging or distributing the catalogue records, improve access to the resources in the libraries. The databases thus play a key role in improving the flow of environmental information. In addition, the databases or the records they contain are exchanged or shared. The success of the databases is founded on the quality of the data. However, currently, there are many concerns with the quality of the data being assembled and shared.

143. Many of the records being input are contributed by non-librarians whose understanding of esoteric concepts such as authors, titles and publishers let alone subject descriptors is hazy to say the least. The situation is compounded by there being no guidelines for data entry. There was a set of guidelines, limited though they were, that helped operators use the older version of the software, Inmagic. Guidelines have been developed for some countries (the extent of the guidelines is not known), but these have not been developed further. Project staff are aware of the urgent need for these guidelines because they have to deal with the contributed records. With hindsight, it would have been better to have determined these guidelines, reflecting a set of database standards, before the project commenced. The work done over the last two or more years has only increased the problem of data quality; the time would have been better spent on ensuring better quality input.

144. The structure of the database – not just the fields it contains but their attributes – determines how it can be used. From the documents seen, and lists of instructions provided to operators, it is very clear that updating the databases is not easy. This includes capturing records to send to SPREP for inclusion in PEIN, and the ability to import new or changed records from SPREP into an institutional database. In practice, the system does not work at all. There has been no update of the PEIN database on national computers since mid-2002, yet records have been contributed. This causes the in-country staff to wonder whether their work has been in vain, and is not good for morale. However, although records from 'national networks' are included in PEIN, it is understood that there is a lot of intermediate work required, by project staff, to get them to the state that they can be incorporated. In this respect, neither the contributors nor the managers are satisfied.

145. A better approach would have transferred responsibility for maintaining the national database, assuming it is a centralised, consolidated database of multiple institutions, to an individual in-country. This would mean that the data entry would be checked for consistency with agreed standards at the national level. All being well, the records then sent on to SPREP (for inclusion into PEIN) would be of a higher, more consistent standard, leaving project staff more time to consolidate records in a regional database. New and changed records can then be redistributed back to the national networks. It is recommended that these very serious issues

be addressed at the regional PEIN workshop in October 2003, and a set of guidelines and standards developed.

146. Secondly, although the project staff are able to use the software to develop forms, menu and query screens, and other features, those used to interface the database are fairly simple and, it can be said, not that helpful. For example, query screens used to enter terms or criteria for searching the database, use the two-letter code for the field name (AU, TI, SU) rather than the label that makes sense to a user (Author, Title, Subject). A small point perhaps, but indicating the extent of need for further development work. The project staff are now aware of this and, when time becomes available, will do something about it.

147. Whilst the PEIN database has been launched on the SPREP web site, for those countries or institutions that do not have good access to the Internet, there needs to be an alternative way of accessing the PEIN database. This can be accomplished quite simply by installing a search-only version of the software on target computers, along with the database. This facility is known as DB/Text SearchWorks, and is free with the main software, DB/TextWorks. It is unfortunate that this approach has not been undertaken with all non-contributing partners and users. Project staff are aware of DB/Text SearchWorks. Distributing the search-only software and databases on CD would improve access to environmental information; it is recommended that this be done.

2.7 Economic and financial analysis

148. The evaluation was asked to present findings from environmental, social and economic perspectives in terms of a social cost–benefit analysis for the entire duration of the project. Further, significant income distributional effects should be elaborated, and the issue of equity and well as efficiency should be addressed. The problem for the consultants is that neither the *Financing Proposal* nor any of the other project documents provide baseline data which could be used to measure change, nor is there any determination of what benefits were expected other than those included in the original logframe.

149. In the original concept paper, it was suggested that the ‘building and equipping of the Information Resource Centre will enable SPREP to better co-ordinate the existing and growing network of national environment libraries’ (SPREP 1998, p. 3). There is also a list of activities to be carried out by the IRC, to do with information conservation, information exchange and information management training. All these activities and the benefits derived from them have been achieved to a lesser or greater extent during the time of the project. In Section C of the concept paper, the checklist of consistency with the focus of the Pacific Regional Indicative Programme, all points under Sustainable Management of Natural Resources and Environmental Management and Protection were ‘checked’ except one¹⁸. However, under Higher Investment Returns and Income Generation, only ‘preservation of the region’s diverse cultural heritage’ was checked.

150. What can be said with some certainty is that without the project, many benefits would not have been realised. Without construction of an IRC, SPREP’s capacity to manage its library and archival material would have been seriously compromised. Without funding for PEIN, there would have been less progress on developing national environmental libraries, national databases and regional database. The outcome would have been continued lack of or limited access to environmental information and thus therefore less public awareness of environmental issues. Accepting the absence of concrete data, it can be said that it is highly likely that the benefits of the project have exceeded the cost manyfold.

¹⁸ Integrated development strategies.

151. At the national level, a comment on the draft report sums it up:

In Samoa's case, the establishment of a national environmental IRC has achieved the project purpose as stated in the [original] logframe. Without an established IRC, there would have been no centralised area where national (and regional and international) environmental information could be housed and disseminated. The information collected by the IRC is disseminated to the public through national awareness days, community workshops and schools. The IRC serves not only as the depository centre for all incoming environmental information, it is also the central clearinghouse for environmental information for Samoa (pers. comm., Oct 2003).

152. Samoa, the most developed of the network members, has clearly demonstrated that the benefits to them of the project have exceeded the cost. They have also addressed the equity issue in the sense that the activities of the project have provided greater access to environmental information for the public. Whilst it is true that in clarifying the direct beneficiaries of the project are departments of the environment in member countries (**SPREP n.d.**), the indirect beneficiaries are the public at large and the success or otherwise of the project will be measured among this community.

153. It is suggested that in order to assess benefits to the community, surveys be carried out among selected groups in specific communities (e.g. schoolchildren, media workers, environment officers, adult population at large) to gather the missing baseline data. Data should be collected to measure the extent of environmental awareness, and the extent to which natural resource management decisions include environmental information. In the case of the latter, what needs to be found out is whether environmental considerations play any part in natural resource decision making, and if so, how information is used and how useful that is. Over time, and if the project is successful, repeat surveys ought to show greater environmental awareness, and greater use of environmental criteria in natural resource management decision making. It is recommended that surveys be conducted at the start of the next phase of the project under the 9th EDF.

2.8 Sustainability

154. Unlike the presentation of findings for the other criteria (relevance, efficiency, effectiveness and impact), the conclusion will be presented at the beginning of this Section: the evidence suggests that unless alternative strategies are adopted, the chances of project outcomes being sustained are not good. Lest it be inferred from this comment that the project failed or was a waste of time, this is not the correct conclusion. It is simply that there are many interlocking issues, and alternative strategies and approaches to deal with these issues might contribute to greater sustainability. All the comments that follow, based on the Terms of Reference (**Appendix 1**) are intended to provide assistance in this regard.

2.8.1 Policy support

155. The project had support in the recipient countries insofar as it was wholly within the SPREP mandate, and attempted to address issues raised by member countries. However, there are reasons to question the level of support, and the extent to which the benefits the countries signed up for are the same as the project benefits.

156. The level of support by the recipient countries extended to identifying and making available staff as 'national co-ordinators', and providing space to locate a national environment library. The calibre of staff selected in a few countries is lower than required to implement the work of a National Co-ordinator. This may be due to the lack of a proper understanding of the work required of the Co-ordinators, and the impossibility of finding

people meeting the criteria within one person with departments of environment. This is being addressed.

157. On the second question – the interpretation of the benefits of the project – this is not easy to qualify. From the odd remark by government officers and from actions taken by the departments of environment, it seems that the countries may have expected the project to provide equipment and training alone; they did not all appreciate that the project was there to facilitate their development and that the equipment and training was only part of the solution, the rest would have to come from them. If true, this means that the way the project was presented to countries lacked in a few key respects. For example, the consultants discovered that there was a feeling that this or that country was gaining more than they were, and they wanted their fair share. There's nothing wrong with this belief except that 'fair share' in the context of the project is defined as 'inputs made available as and when certain criteria have been met'. One outcome of this approach is that some countries will receive more 'inputs' than others. The approach, although agreed to at regional workshops in 2000 and 2001, appears not to be well understood and leads to conflict.

158. However, provision of equipment and training will result in benefits to the countries. The equipment provided, principally a computer, printer, UPS and scanner, has enabled countries to undertake tasks that hitherto they were unable to do. Specifically, they have been able to mount the regional PEIN database and develop (and contribute) a database of records of their own library holdings. This is a critical task both in development of national capacity and sharing the results in the region. Training is an adjunct to the equipment, and has enabled operators to undertake tasks that previously constrained the management of environmental information. Provision of equipment and training has contributed directly to the Project Purpose. There appeared to be an understanding that a better organised and documented information resource (the actual activities carried out) contributes to environmental departments and agencies being in a better position to carry out their functions (their purpose).

159. The extent of support for the project from departments of environment has been described above. The extent of support from other government departments to a national environmental information network is determined by how much they think an 'information network' will contribute to something they see as important: better access to relevant and appropriate information. Outside of government, including the education sector and NGOs, there is strong support for information networks, but less if they are sectorally based. This suggests that provided the information network facilitated by the project is broad enough to encompass all sectors, there is little doubt of its being supported by many varied organisations; this is a precondition of sustainability.

160. Departments of environment and other government agencies have hitherto not been required to provide substantial resources to implement project activities. It is clear that allocating staff and finding a suitable location for a national environment library is within their remit and budget. The true test of resolve and ability will come later as more substantial resources are required; this is discussed below in **Section 2.8.2**.

2.8.2 Economic and financial analysis

161. In considering the contribution of the project to sustainable development, and given that prior to project start no financial analysis was prepared to determine what might constitute a benefit, the approach adopted by the evaluation is to look at what would have been the situation had there been no IRC and no PEIN. The cost of building the Information Resource Centre (Component 1) was WST 893,300; the cost of the first two years of activities under Component 2 was WST 318,246. If there had been no construction of an IRC, the library and archive collection may have remained housed in shipping containers (at worst) or

located at various places throughout the SPREP Secretariat headquarters (at best). Both solutions would have made it difficult to locate library materials and, in the case of the archive material, may have contributed to their physical deterioration and placed them at risk of loss. This resource, which is acknowledged to be a valuable one, would have been compromised to an extent that it is unmanageable, and is thus unsustainable. The benefit of constructing the IRC outweighs the cost of building it and, over time, will continue to bring benefits to the organisation and its clients.

162. Had the IRC not been constructed, it would have meant that IRC staff would have been located elsewhere within the Secretariat headquarters. Whilst to an extent, all that is required to manage the library collection (apart, that is, for a library) is a desk, chair and computer, in operational terms they would have been seriously constrained. Secondly, without the project there would have been no funding to advance the Pacific Environmental Information Network (Component 2). This would have meant that funds would not have been available to carry out in-country training and development, regional and national workshops, and supply of necessary equipment. In practical terms, it is likely that the regional network would at best have developed only slowly, and at worst, would have remained static or its development reversed (through loss of previously trained staff, equipment, etc). Thus the benefit of building the IRC and providing support for PEIN is in excess of the cost. Long term, the benefits continue to accrue as trained people in the environment agencies gain more experience and confidence in carrying out their tasks and providing a service to their clients.

163. Construction of the IRC and financial support for PEIN has contributed significantly towards sustainable development in project countries.

164. However, through the Letters of Agreement which the project used as an instrument to establish rights and responsibilities, and set the project activities into a timeframe, the crunch for countries in terms of economic sustainability comes after the end of the project. It is agreed that during the life of the project, the country will look after the equipment provided, but since it is under warranty and new, this is not financially onerous; once the project ceases, the equipment becomes the responsibility of the institutions concerned. Older equipment, particularly in countries where the power supply is uneven and climate harsh, are very susceptible to damage or terminal decay. Repair or replacement of this equipment, by this time hopefully considered to be essential, will become the responsibility of the recipient country. Similarly, the burden of maintaining software renewals and staff training skills become the responsibility of the institutions.

165. The long-term costs of participation in the project will be borne by the recipient countries and institutions. It is not clear that this is wholly apparent to countries and is likely to be the reason similar initiatives have failed to be sustained beyond the end of a project. Even though the economic cost of not managing information effectively is far greater than the cost of repairing and/or replacing ageing equipment, renewing software maintenance contracts and upskilling staff, project staff would be well advised to work with institutions to convey this message. As it stands, this lack of appreciation is a considerable threat long-term.

2.8.3 Community acceptance and ownership

166. The 'community' being addressed, as set out in the *Financing Agreement*, is 'all sectors of the community recognising that women as well as men can play a significant role in environmental awareness raising'; elsewhere 'Pacific island people'. There is no further identification of target groups, as requested in the Terms of Reference (**Appendix 1**).

167. The community with most at stake is the departments of environment in the various countries. The departments of environment exhibited strong support for the project and its activities since it addresses a core need. However, their capacity to maintain the initiatives

based on inputs to date is doubtful. There is an urgent need to consolidate the training provided and address the technological issues before enthusiasm is lost. There is a need to respond to the desire on the part of other government departments and NGOs for help managing their information assets and providing access to other information resources.

168. Addressing other sectors of the community, principally the students and schoolchildren, is dependent on there being a sustainable national environment library, and a national information network feeding into a regional information network.

2.8.4 *Appropriate technology*

169. Inputs from the project have involved the purchase of software to manage the library catalogue databases; specifically DB/TextWorks. In most cases, the software has been preinstalled on computers given to countries. There are indications that not all software installed on computers – those given and others – is entirely legal. The absence of an installation CD and DB/TextWorks *User Manual* at some sites being grounds enough for concern. Leaving aside the ethics of this, it is pertinent to draw attention to the report of the 7th Regional Information Technology Strategies Meeting (Tuvalu, 2–5 May 2000) where the IT representatives of the CROP agencies acknowledged:

The need to comply with licensing of software is recognised and while copyright may not be enacted in some Pacific Island countries, CROP agencies should endeavour to achieve compliance within a reasonable timeframe. Computer systems supplied under donor funded programmes should also include licensed software (p. 4).

170. SPREP is a CROP agency. Legal software and its maintenance safeguards the institution not only against prosecution but ensures software fixes, software updates and technical support are provided. Letters of Agreement between the project and a recipient of computer hardware and software indicate that SPREP (i.e. the project) will ‘arrange for and pay for ... required software’ and that ‘SPREP will upgrade the software required and used by [the network] where necessary’ for the lifespan of the project. Most sites were using versions 4.x of the software; one or two were using version 5.x of the software. None, including SPREP, were using the latest version (7.0) of the software which suggests that maintenance agreements had not been continued. Project staff are aware of the situation and are taking steps to address this concern. Nevertheless, it is recommended that the situation with respect to the different versions of the application program be examined with a view to aligning all users with the same, legal version of the software

171. In all cases, except Vanuatu, the computer hardware had been purchased in Samoa. This is of concern because of hardware support. Local dealers, where they exist, are unlikely to honour warranty agreements issued by manufacturers they themselves do not have an agreement with. The situation is complicated in that the best prices on computers were given by suppliers in Samoa; prices elsewhere in the region were much higher. There are two options: either buy everything in Samoa as the project attempted to do (on the basis of best price); or buy locally irrespective of the higher price (vs. Samoa) on the grounds that servicing would be easier.

172. The technology being used is not complex or ‘difficult’, nor inappropriate, but the extent of training in its use and how it is being used both mitigate against sustainability. Project input will be required for some time to come unless the quality and quantity of the training are increased; and project assistance will be critical as long as the present arrangements for updating the database continue. The updating technology can be addressed immediately; the need for further training will require additional funding and, to a large extent, the adoption by the project of alternative approaches to the development of information resources and networks at the national level (see **Section 2.6.1**).

2.8.5 Institutional and management capacity

173. The capacity of national entities to adopt and maintain activities and thus results initiated by this project is a significant concern. Too often, initiatives such as those in the fisheries and agriculture sector have fallen by the wayside once the funding finishes and the capital items have broken down. Project staff are aware of this major threat. In *Quarterly Report* No. 4 (QR I/4), the writer comments on the situation found in the Agriculture and Fisheries departments in Kiribati where the Agriculture library database was redundant because of an incapacity to install new software, and the Fisheries database was lost (along with the computer):

The Project Co-ordinator was able to assist the Division of Agriculture convert records from an old redundant software (DOS version of ProCite) to the Windows version. This is also another integral part of information sharing – for different networks to be able to work with other software available around the region. I firmly believe the PEIN project is addressing this “handicap” as the Project Co-ordinator has found in several countries that the majority of regional organizations establish networks and have not been able to follow through with the implementation and/or in updating countries on the latest versions of software currently used by each respective regional organizations (see p. 3 of Annex II).

174. The situation as described is correct, but there is still the same underlying assumption: that in the case of PEIN, this will not happen. Why not? If the funding for PEIN does not continue beyond 31 December 2003, will the beneficiaries be able maintain the hardware and, when the time is right, replace it? Will they be able to afford to pay the annual maintenance fee for the software? And do they have a legal version anyway? These are not idle questions, meant to vex the implementing agency; these are the same concerns experienced by other dedicated project officers in similar institutions across all sectors. To an extent, this is recognised. In the report of the 7th Regional Information Technology Strategies Meeting, Funafuti, Tuvalu, 2–5 May 2000, Appendix M lists the various library software used by the participating regional organisations for their libraries and/or networks (p. 56). It is worth updating the results:

Institution	Software used
FFA	Win-ISIS
Forum Secretariat	EOS Professional – library system
PIMRIS (fisheries network)	Win-ISIS
SCAINIP (agriculture network)	ProCite
SOPAC	Win-ISIS
SPC Noumea	DB/TextWorks (previously Texto & CDS-ISIS)
SPC Suva	DB/TextWorks (previously ProCite)
SPREP	DB/TextWorks & DB/Text WebPublisher
USP Alafua Campus (Samoa)	Athena (previously DB/TextWorks)
USP Emalus (Vanuatu)	Athena (previously CDS-ISIS)
USP Laucala Campus (Fiji)	Spydus (formerly known as Urica) – library system
USP Centre libraries	Athena (from 2002)

175. It is not in the consultants’ terms of reference to comment on the appropriateness of the software selection made by the regional organisations; but it is important to note that the selections they make can result in confusion within countries, and as such selection of software is not just an issue for the regional organisations but something that impacts greatly at the national and local level. Those countries who have received some training in the past are stuck when the support they previously had for the software (from a project) is no longer available; in many instances, they are unable to turn to others because there is no one else using the specialist software in country. Slowly, skills acquired are lost. And the training

cycle starts again when the next 'solution' rides into town. The time has come to address these issues.

176. An opportunity will arise to discuss these issues at the next PIMRIS meeting in October or November 2003. The Project Co-ordinator has been invited to attend. With goodwill on all sides it would be reasonable to expect that one outcome of the meeting would be an agreement on a regional strategy to address the issues. It is recommended that the Project Co-ordinator attend the meeting and share the concerns raised in this report. It is not suggested that regional organisations agree on a single software so as to force the countries to use that software; rather, it is suggested that it would be in everybody's interest to use the same software so that the major information resources of the region are compatible and in a position to be shared. From what the consultants have understood from those persons questioned, there is no problem with the selection of software. The countries largely have no or little experience in selecting this kind of specialist software, and few people able to do so. They are, as they have been for a long time, in the hands of the regional organisations anyway. It is thus up to the regional organisations to make the best decision, factoring in the long-term implications of that selection. These implications include:

- selection of a single software for a country allows a greater number of individuals to become experienced in its use, which in turn contributes to sustainability
- purchase of additional copies of the software can be done co-operatively thus reducing the unit cost
- software maintenance renewals can be included more easily in to budget submissions
- training can be done by any of the regional organisations and can better all users of the software in country, this too contributes to greater efficiencies and sustainability

177. Concern has been raised about a regional organisation exceeding its mandate, e.g. that SPREP's involvement with a national network that includes forestry and fisheries is encroaching on the mandate of SPC and FFA. That would be the case if SPREP was directing the establishment of a national network in country. That is not what is being proposed; what is proposed is that SPREP continue to act through its designated focal point, the department of environment. But because the environment department is also a partner in a national network of government and (hopefully) non-government agencies, it reflects the needs of the entire network and simply utilises its connections with SPREP to contribute to the network as a whole, for example, by organising training to be implemented by SPREP. Other departments, e.g. forestry or fisheries, can utilise their connection with SPC or FFA in a similar way, and since SPREP, SPC and FFA are reading the same script, then there is minimal duplication and greater sustainability.

178. The way regional organisations address these issues and emerge with an agreed strategy will be a test of their commitment, both to their own mandated interests and to the region.

Part 3 Conclusions and recommendations

179. According to the European Commission guidelines (**CEC 2001a**), this section should be 'realistic, operational and pragmatic', about current circumstances and targeted to specific audiences. In other words, not a repeat of the previous sections but the application of lessons learnt to current needs and opportunities. This is in line with the request of SPREP staff, during the consultants' initial debriefing on 12 August 2003: that the consultants comment on and contribute to the development of a *Financing Proposal* under the 9th EDF.

180. Conclusions are presented in **Section 3.1**, which also identifies remaining needs and current opportunities. The importance of sustainability is the focus of **Section 3.2**, and implications of such in **Section 3.3**. Recommendations for how best to proceed are presented in **Section 3.4**, with discussion pertaining particularly to the 9th EDF proposal.

3.1 Overall outcome

181. It is necessary to stress that the activities undertaken and results achieved to date by the project contribute to the overall project objective, and that this objective remains valid.

182. The facility that was built under Component 1, the Information Resource Centre, provides SPREP with a base that will continue to support environmental information management and dissemination activities in the region for the foreseeable future. Cognisance should be taken by project staff of the concerns raised in **Section 2.5.2** of the placing of some of the equipment and resources, the need for display areas, general tidiness, and the finishing of the publications' storage and packing area.

183. In respect of Component 2, the Pacific Environmental Information Network, some solid groundwork has been done and, despite the funding limitations, training and advice have been provided that is a good start. The project has succeeded in raising awareness about environmental information management issues, and has shown the potential of better management of information resources. There is enthusiasm and goodwill among national partners, which ought to be capitalised upon.

184. However, there are some fundamental issues to be dealt with:

- that as a matter of urgency the findings of the evaluation be shared with CROP partner agencies, and a meeting be convened at which the issues be discussed, particularly those related to the compartmentalisation of interventions, and a strategy formulated to address them (**Section 2.4.4, 2.8.5**)
- that the opportunity be made at the regional workshop in October 2003 to reassess issues to do with relevance, and in particular to identify the barriers or constraints to improving the dissemination of environmental information (**Section 2.3.3**)
- that surveys to gather baseline data on the extent of environmental awareness and its role in natural resource management decision making be carried out (**Section 2.2.2, 2.7**)
- that these very serious concerns about data quality and database updating be addressed at the regional PEIN workshop in October 2003, and a set of guidelines (operational manuals) and standards developed (**Section 2.6.3**)
- that a description of the role and responsibilities of National Co-ordinators be drawn up by the project in collaboration with the National Co-ordinators (perhaps at the regional workshop in October 2003) (**Section 2.4.4**)

- that the situation with respect to the different versions of the application program be examined with a view to aligning all users with the same, legal version of the software (**Section 2.8.4**)
- that the search-only software and databases be distributed on CD which would improve access to environmental information and generally improve awareness of the resource (**Section 2.6.3**)

185. As it stands now, the impact of the project outcomes is not as great as expected, and their sustainability is not assured. If the issues that have been raised in this report to do with the technological issues, providing further investment for training and visits, development of national information systems and improving public awareness of the information resources are addressed, then the impact of the project is greater, and sustainability more assured.

3.2 Sustainability

186. The project has support in the recipient countries, because the need for such an intervention as that being carried out by the project is still relevant and desired. For this reason, the next 'phase' of the project, i.e. the consolidation and expansion of the project, needs to be tightened up and a different approach adopted, one that recognises the opportunity at the national level for multisectoral library and information networks in support of public awareness, education and learning, and good governance.

187. Economic sustainability will be enhanced only when there is an appreciation at the national level that managing information assets costs money, but that not managing information assets effectively is even more costly. To encourage adoption of this stance, it is imperative that the project helps national departments of environment and national networks argue the case for a greater allocation of resources, and the best way to do this is by providing quality services in an efficient and effective way.

188. Community acceptance and ownership is assured if the project is seen to be assisting national institutions and agencies do the things that they want to do. Currently, this means helping institutions better manage their own information assets, gain access to information assets of other institutions, and develop national networks.

189. The technology on offer has the capacity to meet the needs of the target communities; in other words, it is appropriate but just needs a fine-tuning. It is essential that the use of the technology contribute to and demonstrate the value of effective information management. If this doesn't happen, it is all too easy for decision-makers to lose sight of the concomitant need for appropriate budgets and staffing levels.

190. In terms of the institutional and management capacity, the focus of the project should not be on developing environmental libraries, nor on the software and database, but on the purpose for doing this, i.e. to ensure that environmental information is more widely available and more accessible. If anything has been learnt from the experience of PIMRIS and other networks, it is that when the national nodes are weak, the network collapses. Instead of trying to compensate for failings at the national level, the project should ensure that all appropriate tools are fully developed and that the training programmes are comprehensive. This puts the national interests at the forefront and allows SPREP time to concentrate on the management of the regional resource, and development of information sharing and dissemination tools and strategies.

3.3 Management capabilities

191. Within the framework of SPREP's operational programmes, the project is well-managed. There are, however, a number of areas that can improve the performance level. Access to the funds is predicated on submission and approval of an annual work programme and budget. There is some indication that the initial submission is, if not late, then too close to the end of the current work programme year. Even in the best of circumstances, this can mean that there are delays to approval which lead to a delayed start to the new work programme year, sometimes by up to two or three months. Secondly, the process of approval appears to be taking longer than it ought because of the number of desks it has to visit. If this process could be tightened up, and an agreed timeline put in place (with deadlines) this would be more efficient.

192. The second area that needs to be addressed is the way in which funds are allocated. Currently, the approved work programme identifies the amount of funds that are to be used for a very specific purpose, e.g. an initial technical assessment in Kiribati, a computer for Tonga. This makes it easy to see how the allocated funds are going to be used, but it is not helpful to the project manager. This constrains use and allows no flexibility to respond to urgent needs or, perhaps more importantly, new opportunities. An alternative method would be for the input to the countries should be based on the state of development of their information networks so that they are equally developed, as the case may be in Samoa, at the end of the project. In adopting this approach, the actual distribution of project resources between countries should not be an issue. From the start, the project should indicate clearly what needs to be done in each country to meet the regional targets as set out in the 9th EDF proposal. A degree of flexibility can be built into the project design to allow for unforeseen events and developing opportunities.

193. During this evaluation, and aside from the person to person discussions, the consultants relied heavily on two written information sources: the *Annual Work Programme and Budgets* and *Quarterly Reports*. Based on this familiarity, the consultants feel competent to comment on the format and quality of the two types of document. Firstly, the *Quarterly Reports*: there is so much information contained in these documents that it is a shame there is no contents page to help the reader find his or her way around. The extent of this can be seen from the listing of annexes for each *Quarterly Report* (in **Appendix 4**). There needs to be a clearer line between the approved work programme and the activities actually undertaken. Summarising visits and training activities, and identifying equipment and resources disbursed (and to whom) is a good approach provided it is complete. Too often, time was spent trying to find the dates of a visit, or who received a computer. This should be easy to obtain from the summary of activities and inputs. The annexes comprising tour reports is a very good idea, one that would be more effective if there was greater editing of the content of these reports, so that it reads better, and the reader is more able to assess what was done, when, with whom and what the outcomes were. A format for reports should be devised, one that reflects the project results and purpose. The listing of contributions to the PEIN database may have been included to prove a point, but it would be better (and cheaper) to present a statistical overview of contributions as an annex, rather than the complete list of citations as is done at present. These comments are intended to be constructive criticism; some of these comments have been discussed with the project manager already.

194. There is less to say about the *Annual Work Programme and Budget* document: it serves a purpose and it is good that it includes an explanation of the five 'phases' used to support and justify project interventions. Similar to the *Quarterly Reports*, there needs to be a clear presentation of the project's overall objective, purpose, results and activities. Integration of the planned activities with a description of what those activities are intended to achieve will make for easier reading. If the performance-based approach is adopted, recipient countries will not be named, thus it will be essential to include the criteria by which selection will be made.

195. The project staff have worked hard to carry out a broad range of activities but have been hampered by the amount of their time to do this. One professional staff working on the project (and one on request) is too few to undertake the work required. It is likely that some of the activities not undertaken which have been noted, such as preparing the operational manuals, or designing more user-friendly interfaces to the database, are not done because of lack of time. When the project was first proposed, SPREP suggested that it would fund three positions: IRC Manager, Assistant Librarian and Archives Officer. The latter position has not been filled. As a contribution to the next phase, it is recommended that consideration be given by SPREP to recruiting a para-professional library/information assistant to carry out some of the more routine tasks, such as helping visitors, packing publications and shelving (**Section 2.4.4**). Related to staffing is the need to ensure that the professional staff whose primary tasks are to train and advise are in a position so to do. Whereas the software is usable without formal training for any reasonably computer-literate librarian, to fully exploit the potential of the software, and to improve the quality of training, the two professional staff should receive advanced training in the use of DB/TextWorks and DB/Text WebPublisher. And since use of DB/Text WebPublisher involves IT staff (the software is mounted on the web server), it is further suggested that at least one member of the IT section should receive specialist training on this software to ensure that SPREP's capacity is enhanced, and in so doing, that of the countries it serves.

3.4 Future strategies

196. The consultants were asked to indicate the best future strategies for results of PEIN at regional and national level, and to provide recommendations on how best to incorporate findings of the evaluation into 9th EDF *Funding Proposal*. Both these requests can best be addressed by focusing specifically on the revised *Funding Proposal* submitted by SPREP to the RAO and EC Delegation, 5 May 2003. In other words, this section will comprise a critique of the submission and recommendations for its improvement. Given that funding under the 9th EDF is dependent on this evaluation, this seems a useful activity.

3.4.1 Scope

197. The project as presented in the *Funding Proposal* submitted 5 May 2003 costs €560,275 (or 1.88 million WST at September 2003 EC rates of exchange). This amount is 1.93% of the indicative programme, and 8.00% of the non-focal programme.

198. The project as presented is intended to target the new Pacific ACP States (Cook Islands, Federated States of Micronesia, Marshall Islands, Nauru, Niue and Palau), by providing an opportunity for them to emulate the activities of the current project, and strengthen and/or implement activities in the 'old' Pacific ACP States (Fiji Islands, Kiribati, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu). The problem with distinguishing between the 'new' and the 'old' is that work has already been undertaken in one of the new states (Cook Islands), so they are at the same level as Tonga or Fiji; and no work has been undertaken in one of the old states (Papua New Guinea¹⁹). A better description of the scope of the proposed project is to *consolidate* the results obtained to date (in which ever country), and *extend* the opportunity to participate in PEIN to the other Pacific ACP States (under the new definition, the 14). This overcomes the concern that only new Pacific

¹⁹ At the start of the project, the Office of Environment and Conservation in Papua New Guinea did not have suitable facilities, available staff and did not think that establishing an environmental information centre was a priority for them, largely because at the time the Office was going through a reform, and the resources available to them (budgetary as well as personnel) had been reduced considerably. Recent communication with the Office (September 2003) has indicated that they are now able and interested in participating, thus Papua New Guinea has been included in the 9th EDF proposal (pers. comm. S. Bentin, 19 December 2003).

ACP States will benefit, thus abandoning some of the existing countries such that they are unable to advance further and diminish the sustainability of the outcomes, which equates to a wasted investment. Also, the amount being requested is too small to adequately address all the needs and opportunities even in the six new Pacific ACP States, thus competitive tendering needs to be maintained as an approach.

3.4.2 *Project design*

199. As noted in **Section 2.2**, the design of the original project is flawed. The logical framework for the next phase of the project (presented as Annex 1 in the 9th EDF *Financing Proposal*) is also flawed, particularly at the level of results and activities, and the indicators selected to measure success not helpful. For this reason, it is suggested that the amended logical framework for the original project (**Appendix 6**) be used as a basis for the new project. It is recommended that the amended project logframe be discussed during the planned regional workshop for October 2003, i.e. with the National Co-ordinators and Directors of Departments of Environment or equivalent, and that the results be incorporated into the 9th EDF *Funding Proposal* (**Section 2.2.6**). It is not suggested that the amended logframe is perfect (or even finished), but it will help. Specific comments at each level follow, based on the EC's project cycle management (**CEC 2001a**).

200. *Overall objective*: an overall objective needs to capture something broader, something longer-term not wholly achieved by a project on its own. It is not 'to do something', but a *state* to be arrived at. A reformulation of the otherwise reasonable objective is all that is needed, i.e. 'National capacity for environmental protection and sustainable development of Pacific island countries improved'. The only problem with this objective is how it might be measured, so that achievement can be celebrated. An 'improved' state requires that the current unimproved state is measured. Data needed include the quantity and destination of SPREP and other environmental publications, the quantity of environmental materials held in libraries, the number of records of such materials and their contribution to the PEIN database, the number of users of the libraries and database, the users' assessment of the quality of the libraries and database.

201. *Project purpose*: a project purpose is the objective to be achieved specifically by implementing this project. In the case of the original project, it was that SPREP and national environment agencies have a particular capacity to do something; for the next phase, it is assumed that SPREP has that capacity (the IRC) and so the focus is solely on the countries having the capacity to 'identify, collect, organise and disseminate environmental information appropriate to the needs of Pacific island communities'. This addresses the core problem and is sustainable. Again, there is a problem identifying indicators to measure when this state has been achieved. Indicators could include the number of people able to 'identify, collect, organise and disseminate environmental information', discernible by observation (materials in libraries well organised, catalogue records meet the standard set) or number of national events, for example, Environment Week, trade fairs, whereby environmental information is disseminated and thus contributes towards raising awareness of environmental issues. There is an important assumption at this level, that 'Governments will maintain and support environmental personnel positions and budgets required for environmental communication and information activities'. Capacity cannot be otherwise maintained.

202. *Results*: Result 1 in the amended logframe should be ignored, because that pertains to the original project and the building of the IRC; the other results are still valid for the proposed project, and are the 'products' of the activities. This was the area that was of concern in the original project logframe. The five results are:

- national environment libraries established and functional
- national and regional computer databases of environmental information developed and accessible

- national environmental information networks established and functional
- appropriate environmental information for the Pacific Islands identified and made available
- information literacy skills of environmental information users improved

203. The results as formulated are a more accurate and practical description of the desired outputs. The inclusion of tangible outputs such as the libraries and databases make it easier to appreciate what PEIN is about, rather than focusing on the network itself. That said, it is useful to draw attention to the need to establish functional information networks at the country level. These can be real environmental information networks, for example, in larger countries with many environmental agencies (e.g. Papua New Guinea) but are more likely to be virtual networks, part of national library and information networks. Environmental information *per se* is of little use unless it is relevant and appropriate to the needs of the target community. This harks back to the Unesco/SPC/SPREP study (**PEIN Project 1995**) and is an important output. Finally, to address the very real concern that the availability of environmental information alone is not enough, the last result encourages the development of information management skills among users at all levels. Only if this is done, can the project contribute to the overall objective. Specific indicators for Results 1 to 3 are provided for the original project; these will have to be updated for the next project phase. It is less easy to determine tangible indicators for Results 4 and 5, but it is suggested that observation to determine the appropriateness of the information or the information literacy skills of users is one method, undertaken by independent environmental and information specialists.

204. *Activities*: the opportunity has been taken to capture the five ‘phases’, used by project staff in the original project, to justify and manage the various interventions. Setting aside Activities 1.1 to 1.7 which pertain to the original project (and the construction and setting up of the IRC), the remaining activities all contribute to the results listed above. There are no indicators for activities; instead, the space is available for means and costs (discussed in **Section 3.4.3**).

205. *Preconditions*: the new phase cannot just be a continuation of the original project, for all the reasons stated throughout this report. For this reason, the step has been taken to establish two preconditions, not to prevent the 9th EDF proposal from starting, but to indicate the seriousness of the preconditions, and their role in strengthening the project outcomes:

- criteria are established for participation by national institutions in project activities
- standards are set for the entry, exchange and use of library catalogue data

206. The first precondition addresses the need for a transparent and agreed means of accessing project activities (and funds), which is essential in a performance-based approach. Some of the concerns raised with the consultants about ‘fairness’ can be ameliorated. The second precondition is to encourage the establishment and documenting of standards, upon which operating manuals and training are totally dependent, and to address the quality issues to do with the database. There is little point in increasing the number of contributors and contributions when to do so will multiply the problems with data quality. Far better to tackle this now while the situation is still manageable, and to ensure that any new network partners have the best chance of participating successfully in the activities. It is recommended that the report of the regional workshop in October 2003 will show whether the preconditions have been met.

3.4.3 Means and costs

207. Annex 2 of the 9th EDF Financing Proposal presents a cost estimate and financing plan for the three-year project, covering all 14 Pacific ACP States. There are two dangers with the estimates, both to do with the findings of this evaluation. The first danger is that as with

the original project, in trying to be fair to all member countries, too little time and resources are available to do a proper job, one that is more sustainable. The second concern is that the plan encourages the idea that the countries named are 'entitled' to certain funds. The cost estimate should be based on what needs to be done (allowing for the unforeseen) in each participating country so as to meet the regional targets at the end of the project. The assumption is that by the end of the project, all national networks would have reached a similar level of development. This could mean inputs of WST 20,000 in Samoa, WST 70,000 in Solomon Islands and WST 50,000 in Kiribati achieve a similar result. The cost estimates should be reworked accordingly, based on the question: 'What will it take to achieve the desired result in [country]?'.

208. When SPREP made its initial request for funding under the 9th EDF, in December 2002, it requested €674,000; this was scaled back on request by the RAO and EC Delegation and now stands at €560,275. Rather than going through the cost estimate (Annex 2) line by line, country by country, it is more useful to assess what this amount of money could buy, in relation to project activities and outcomes. Using the approach of 14 days for Phase 1 initial technical assessment, 21 days for Phase 2 and 7 days for another follow-up visit (42 days in total), and add to that three airfares per country. Using a very conservative per diem rate of WST 230 and current estimated airfares to 13 countries, the total cost is estimated at WST 266,000 or about the same as proposed (WST 264,418).

209. In the original 8th EDF project proposal, SPREP had estimated that PEIN would be set up in the eight Pacific ACP states for EUR 150,000; the proposal submitted for funding under the 9th EDF requests EUR 560,275, or approximately 3.73 times the amount allocated under the 8th EDF. The amount requested under the 9th EDF should be looked at separately from the amount allocated under the 8th EDF, but it incorporates lessons learned during the three years of PEIN. The evaluation considers that too few funds were available during the first phase of the project. With the benefit of hindsight, it is clear that capacity building to the extent required is costly, but to try and reduce costs to make them fit a smaller budget also reduces the impact of the investment, and accordingly does not contribute to sustainability. Secondly, the 9th EDF proposal specifically targets new Pacific ACP states, including three where costs are comparatively higher than in most Pacific ACP states. The three – Federated States of Micronesia, Marshall Islands and Palau – are also expensive to reach by air. It is likely that in-country activities will need to be conducted for longer and more frequently than other countries (to allow those countries to catch up). The increased allocation is justified and contributes to greater sustainability of outcomes achieved and maximises inputs/investments

210. There is no impediment to implementing further PEIN activities under EDF 9. However, it is recommended that the 9th EDF *Financing Proposal* be revised in the light of the comments above, and in particular, Sections 8, 9 and 10.

Appendix 1 Terms of reference

1. OBJECTIVES OF THE EVALUATION

The objectives of the evaluation are to assess whether all of the stated objectives, outcomes and results of the Project had been met and as well to determine the relevance, efficiency, effectiveness, impact and sustainability of the outcomes (intended or not) from the Information Resource Centre and Pacific Environmental Information Network Project, Components 1 & 2, and to make recommendations for the design and improvement of any future networking programme of a similar nature and design of the new project under the Ninth (9th) European Development Fund (EDF), based on lessons learned and feedback from the various stakeholders and especially the project recipients.

2. BACKGROUND

The Information Resource Centre and Pacific Environmental Information Network (PEIN) Project.

The South Pacific Regional Environment Programme (SPREP) was initiated within the South Pacific Commission (now Secretariat of the Pacific Community) in 1974. Since 1992, it is a regional institution with full organisational autonomy, hosted in the Samoan capital, Apia. SPREP's membership comprises 25 countries: 14 Pacific ACP States; 7 other Pacific island states and territories; Australia; France; New Zealand; USA.

Since its establishment in 1992, the Secretariat has continually expanded its coverage of environment issues to the extent that its staff has grown from less than 10 to almost 80. The Secretariat's work programme encompasses major regional and global issues such as (i) natural resources management; (ii) pollution prevention; (iii) climate change and variability; (iv) economic development; and also a recognised the need for strengthening and enhancement of access to environmental information.

The Action Plan for Managing the Environment of the South Pacific Region 2001–2004 guides all of SPREP's activities. This plan stipulates as guiding principle that 'capacity building provides SPREP members with the appropriate skills to enable them to improve the management and sustainability of their environment' (p. 21), and identifies long-term processes established by the Secretariat as mechanisms by which capacity building in the Pacific islands will be strengthened.

In view of the ever increasing responsibilities of SPREP, it was decided in 1997 to build new headquarters, as the old premises turned out to constitute a serious handicap for the achievements of its missions. This programmes' estimated cost of approximately €2 million was funded by six SPREP member countries and China. Construction began in June 1999 and was completed July 2000.

The design of the new headquarters although substantial in accommodating its programmes did not provide sufficient coverage to meet the objectives of institutional strengthening of SPREP members' environmental institutions and education, information and training. This was later rectified by the Government of Japan when they provided funding for the SPREP Training and Education Centre under their bilateral assistance through the Government of Samoa. This building was completed in January 2002.

Based on Article 157(1) of the Lomé Convention as revised by the agreement signed in Mauritius on 4 November 1995, the European Union was requested to fund the SPREP

Information Resource Centre (IRC) in addition to and separate from the building of new Headquarters. The Centre would serve for the implementation of the Pacific Environmental Information Network (PEIN).

As a people's information network, PEIN is designed to provide environmental information in appropriate forms and languages to all sectors of the community recognising that women as well as men can play a significant role in environmental awareness raising. It is widely recognised that currently there is a general lack of knowledge about environmental issues among Pacific island people. Community knowledge and awareness of appropriate environmental protection and conservation practices are crucial for the success of national policies for sustainable development.

The *Information Resource Centre & Pacific Environmental Information Network*, Project No.8..ACP.RPA.001 was approved by the Commission on 28 February 2000 and is a three-year programme with total funding of €560,000.

The Project is in two components with SPREP designated as the Regional Authorising Officer (RAO) to expedite the process of paperwork given the nature of the work involved in Component 1 (design, building, supervision and equipment) in particular. Component 2 comprised in-country capacity building activities of PEIN which included workshops, equipment and in-country training.

3. ISSUES TO BE ADDRESSED

The issues to be studied are outlined in Appendix A²⁰ which is structured according to the 'basic format' applied by the European Commission. The consultant is expected to elaborate on additional important issues identified.

The evaluation will cover the relevant activities and results achieved during the life of the programme (20 February 2000 to date) and also the impact and sustainability in the region and beyond.

Specifically the evaluation will focus on:

- An assessment as to what degree the project has succeeded in its defined overall objective and expected results;
- A study of the individual components in order to gauge the completeness of components as stated in the original proposal and Financing Agreement;
- The identification of the strategic strengths and weaknesses of the project in order to guide future donor support to environmental information provision and networking in the region, and Pacific ACP (African Caribbean Pacific) States in particular.

3.1 Project Design

Critically assess project preparation and implementation in Components 1 and 2 with due consideration to:

- Overall objectives
- Project purpose
- Results
- Activities

²⁰ Appendix A is *Evaluation in the European Commission: a guide to the evaluation procedures and structures currently operational in the Commission's External Co-operation Programmes*, CEC EuropAid Cooperation Office, Evaluation Unit H/6, Brussels, Belgium, dated 21 March 2001. The document is not included.

- Assumptions/preconditions

3.2 *Relevance*

An assessment should be made of how well the real problems and needs of the target beneficiaries have been addressed in the design of the programme. And to what extent local absorption capacities and the local implementation capacities were properly taken into consideration in the design.

Also an assessment should be made, both at the programme level and at the individual project level, of the appropriateness of initial consultations with, and participation by, key stakeholders including the European Commission (EC) Office, national authorities, intended beneficiaries, and other donors before the design was confirmed and implementation started. Complementarity and coherence with related activities undertaken elsewhere by government or other donors should be assessed. Any duplication of efforts and/or conflicts should be identified and commented on.

3.3 *Efficiency*

Analyse the relationship between the activities and the results of the project and evaluate the efficiency with which the activities have been undertaken in order to yield the project results. Have the means of the project (TA and personnel, equipment, training, etc.) been efficiently transformed through the project activities into the various project results. Could the same or similar results have been achieved at lower costs? This will require an assessment of the following factors, which will affect efficiency:

- Organisation and Management

Analyse the general organizational arrangements (structures, responsibilities, executive, administration, finance and contractual arrangements) relating to the project under both Components. An assessment is needed of the organization and management of each Component in relation to activities and results planned and achieved, as well as the capacity of management to adapt to changing circumstances.

Issues to be analysed include the plan of operations and timetable, financial management and budgeting, application of EDF procedures, terms and conditions, phasing of activities, internal monitoring arrangements, management of technical assistance provided by the project, coordination with other regional organizations, institutional capacities, operational-types and accompanying measures by Governments.

- Implementation of Activities

An evaluation of the approach and methods used to implement the project and activities of project personnel will be an important feature of the evaluation. An assessment is needed of the focus and outputs (both in quality and quantity) of technical training and services provided at national and regional level in the various Phases of Component 2.

An assessment of the partner country contributions from local institutions, government, target beneficiaries and other collaborating parties is also required. Were inputs provided as planned? Could reallocation of responsibilities have improved performance?

Assess also the quality of communication between the project and target beneficiaries, relevant government departments and other stakeholders.

3.4 *Effectiveness*

The evaluation will analyse the relationship between the results and the project purposes. The evaluation should address the following questions:

- What are the results obtained so far by the project and in what numbers are the beneficiaries (compare actual vs. planned)?
- To what extent have these results contributed to achieving the project purpose, or can be expected to do so in the future?
- Have there been unforeseen beneficiaries and if yes, to what extent and what type of demographic profile do they fall into?
- Have any intended beneficiaries been missed and if yes, do they make up a specific demographic profile?
- Have the assumptions required to translate results into project purpose been realised? If not, why and how did this affect the project?
- More specifically, are there any measures of the relevant regional organizations or national policy support not in place that has hindered the project achieving the planned results?

3.5 *Impact*

The evaluation should assess the impact, foreseen or unforeseen, positive or negative of the project. The ‘with-and-without project’ approach should be used, rather than the ‘before-and-after’ as the latter does not account for changes which would have occurred without the project.

The analysis should include only such factors that have changed because of the project. It should focus on direct benefits, but indirect benefits should be documented and quantified wherever significant.

The evaluation should then as far as data are available, analyse the:

- Impact of information availability and accessibility;
- Impact on human resource development

Where databases and information networking are particularly weak, this should be commented on and suggestions made on how to improve data quality and data availability for environmental awareness purposes.

3.6 *Economic and Financial Analysis*

The consultant should present the findings from environmental, social and economic perspectives in terms of a social cost/benefit analysis for the entire duration of the project.

It should elaborate significant income distributional effects and attempt to answer questions of equity as well as efficiency. For example, have different effects for different groups been identified? Which social groups (including men and women) will benefit most? Which groups will most likely adopt methods of information sharing developed by the project?

3.7 *Sustainability*

The consultant will assess the extent to which the results of the project on both, regional and national information networking services will be maintained.

The review should, in the first instance, give an assessment in global terms of the sustainability prospects of the project with particular emphasis given to:

- Policy support
 - Extent to which the project had support in the recipient countries
 - Existence of integrated planning frameworks to link social, economic and environmental policies with similar goals
 - Degree of agreement on the purpose and activities carried out
 - Support from relevant organizations (technical, political, business, etc.)

- Willingness to provide resources (financial and personnel)
- Economic and financial analysis
This part will be based on the findings of the analysis, and should lead to recommendations aimed at ensuring the sustainability of the project and its result at this level.
- Community acceptance and ownership
This important component of sustainability needs to be assessed in all target groups of the community mentioned in the Financing Agreement.
- Appropriate technology
Does the technology offered correspond to the capacity and needs of the target group(s)? Will the intended beneficiaries be able to adopt and maintain the technology acquired without further project assistance?
- Institutional and management capacity
To what extent does the adoption of and support to project activities and/or results by national regional agencies contribute to sustainability of the outcomes or services provided by IRC&PEIN? Assess the commitment of all parties involved, such as governments (e.g. through policy and budgetary support) and regional organizations (SOPAC, USP–Pacific Islands Marine Resources Information Systems (PIMRIS), USP-School of Agriculture (SOA), Forum Fisheries Agency (FFA)). Do these national and regional organizations have the capacity and commitment to maintain support and services at an adequate level? Due consideration should be given to the general information provision and networking mandates of all regional organizations.

3.8 Conclusion and recommendations

Having evaluated the project in terms of relevance, efficiency, effectiveness, impact and sustainability, summarise the outcome and draw conclusions. Formulate what policy, organizational and operational lessons are to be learnt.

- Overall Outcome
What were the main achievements of IRC&PEIN? Elaborate on the present and potential impact of the outcomes and sustainability. Elaborate also on remaining needs on the regional and national level and how these needs would be best met.
- Sustainability
Conclusions should be drawn and recommendations made regarding the key sustainability factors relevant to the project.
- Management capabilities
From the evaluation of the various organizational, supporting and management arrangements related to the IRC&PEIN (Components 1 and 2), make recommendations on the optimum way to implement similar projects funded by EDF to ensure the most effective and efficient use of resources, maximum impact and sustainability.
- Future strategies
Indicate the best future strategies for the use of the results from IRC&PEIN either at regional or national level. In particular, provide recommendations on how best to incorporate findings of the current study into the proposed 9th EDF PEIN Project.

Appendix 2 Itinerary and schedule of activities

The actual itinerary, schedule of visits and activities is presented below. Unless marked otherwise, each activity was undertaken by both consultants; those activities undertaken singularly are marked 'PW' (Peter Walton) or 'EE' (Elizabeth Erasito) as appropriate. Only the team leader travelled to Tuvalu.

The term 'meeting' is used to describe face-to-face discussions; 'field visit' to describe both discussions and observation of a facility and its equipment.

Note: there is a date change between the western Pacific and Samoa.

Week 1	Activity	From	To	
Mon, 11 Aug 03	Flight, Darwin – Sydney (PW)	01:30	06:20	
	Flight, Sydney – Nadi (Fiji) (PW)	12:35	18:20	
Tue, 12 Aug 03	Flight, Suva – Nadi (EE)	08:30	09:00	
	Flight, Nadi – Apia (Samoa)	11:45	14:35 –1	
	Consultants' first meeting	17:00	18:30	
<i>Tue, 12 Aug 03</i>	Briefing, SPREP & Project Management	08:15	10:30	
	Field visit, SPREP – Info Resource Centre	11:00	12:30	
	Meeting, SPREP – Dep Dir & Dep RAO	14:15	15:15	
	Meeting, SPREP – EU Monitor	15:30	16:15	
	Desk study, SPREP	16:30	18:00	
Wed, 13 Aug 03	Meeting, EU Delegate	08:30	09:00	
	Meeting, SPREP – Finance	09:15	10:15	
	Meeting, SPREP – International Waters	10:20	10:55	
	Meeting, SPREP – IT	11:00	12:00	
	Meeting, Dept Environment Dir	13:30	14:00	
	Meeting, Dept Education (cancelled, no show)			
	Field visit, National Library	14:30	15:15	
	Meeting, Dept Environment	15:30	17:30	
	Thu, 14 Aug 03	Field visit, Samoa Polytechnic	08:15	09:15
		Field visit, National Univ Samoa Library	09:30	10:30
Field visit, UN Development Programme		10:45	12:00	
Meeting, Tinai, Gordon & Assoc.		13:15	14:15	
Field visit, SPREP – Info Resource Centre		14:30	15:30	
Field visit, Univ South Pacific Library		15:45	17:30	
Fri, 15 Aug 03	Field visit, Avele College	08:15	09:30	
	Meeting, SPREP – Former Finance Manager	09:40	10:30	
	Field visit, O Le Siosiomaga Society	10:45	12:00	
	Field visit, METI	13:15	14:15	
	Meeting, SPREP – Pubs Coordinator (PW)	14:30	15:15	
	Desk study, SPREP	15:20	16:30	
Sat, 16 Aug 03	Report preparation – logframe analysis	08:00	17:00	
Sun, 17 Aug 03	Report preparation – logframe revision	09:00	21:30	

Week 2	Activity	From	To
Mon, 18 Aug 03	Field visit, Dept Environment	08:30	09:15
	Debriefing, SPREP – EU Monitor, IRCM	10:15	10:55
	Field visit, SPREP – Info Resource Centre	11:00	13:30
	Flight, Apia – Nadi (Fiji)	15:35	16:35 +1
<i>Tue, 19 Aug 03</i>	Flight, Nadi – Suva (delayed)	18:45	19:15

Wed, 20 Aug 03	Field visit, Environment Dept	08:30	12:30
	Meeting, EcoConsult	13:20	14:10
	Meeting, EU Delegation (cancelled, no show)		
	Meeting, SPC Library (PW)	15:00	16:40
Thu, 21 Aug 03	Flight, Suva – Funafuti (Tuvalu) (PW)	10:00	12:15
	Report writing	13:30	18:00
Fri, 22 Aug 03	Meeting, Environment Dept	08:30	10:30
	Meeting, Nat Library	10:30	12:00
	Meeting, Fisheries Dept	14:00	15:00
	Site visit, Agriculture Dept	15:00	15:15
	Site visit, USP Tuvalu Centre	15:20	15:35
	Meeting, Environment Dept	15:45	16:10
Sat, 23 Aug 03	Report writing	08:30	18:00
Sun, 24 Aug 03	Report writing	08:30	19:00

Week 3	Activity	From	To
Mon, 25 Aug 03	Phone meeting, TANGO	08:15	08:35
	Meeting, Office of the Prime Minister	08:40	09:00
	Debriefing, Environment Dept	09:10	10:30
	Flight, Funafuti – Suva (Fiji) (PW)	11:30	13:45
	Meeting, Forestry Dept (HQ)	15:00	16:30
Tue, 26 Aug 03	Field visit, SOPAC	08:15	09:15
	Field visit, USP – PIMRIS	09:30	10:30
	Meeting, Forum Secretariat	11:00	12:15
	Field visit, Fisheries Department	12:30	13:45
	Field visit, Min Agric, Info & Comm Section	14:00	14:45
	Field visit, Min Labour, OHS	15:00	16:00
Wed, 27 Aug 03	Report writing	08:00	09:45
	Meeting, EC Delegation in Suva	10:00	11:30
	Evaluation planning meeting	12:00	14:00
	Report writing	15:00	18:00
Thu, 28 Aug 03	Report writing	08:00	17:00
	Meeting, WWF Fiji	14:00	14:45
	Report writing	15:00	18:00
Fri, 29 Aug 03	Report writing	08:00	09:00
	Meeting, SPC/EU–DSAP	09:30	10:30
	Report writing	11:00	14:45
	Meeting, Live & Learn	15:00	16:00
Sat, 30 Aug 03	Report writing	08:00	11:30
	Flight, Suva – Nadi (PW)	13:00	13:30
Sun, 31 Aug 03	Flight, Suva – Nadi (EE)	07:30	08:00
	Flight, Nadi – Port Vila (Vanuatu)	10:10	10:50
	Report writing	14:00	17:00

Week 4	Activity	From	To
Mon, 1 Sep 03	Field visit, Environment Unit	09:00	11:15
	Field visit, USP Library (cancelled, no show)		
	Field visit, Reserve Bank	14:15	15:30
	Report writing	16:00	18:00
Tue, 2 Sep 03	Field visit, Fisheries Dept	09:00	10:00
	Field visit, Dept Forestry	10:15	11:15
	Field visit, Parliament Library	14:00	15:00
	Field visit, Live & Learn, WWF Vanuatu	15:15	16:15

Wed, 3 Sep 03	Field visit, Dept Agriculture	09:00	10:15
	Field visit, Dept Lands	10:30	11:30
	Field visit, Port Vila Public Library	14:00	15:00
	Field visit, Dept Provincial Affairs (REDI)	15:15	16:15
	Meeting, Environment Unit	16:30	17:30
Thu, 4 Sep 03	Report writing	08:00	16:00
	Flight, Port Vila – Nadi (Fiji)	18:00	20:30
Fri, 5 Sep 03	Flight, Nadi – Suva (EE)	06:45	07:15
	Flight, Nadi – Sydney (PW)	08:25	11:05
	Flight, Sydney – Darwin (PW)	19:25	23:15

Week 5

8–14 Sep 03: Preparation of draft report

Week 6	Activity	From	To
Mon, 15 Sep 03	Report writing		
Tue, 16 Sep 03	Report writing		
Wed, 17 Sep 03	Flight, Darwin – Sydney (PW)	01:30	06:20
	Flight, Suva – Nuku'alofa (EE) (Tonga)	09:00	12:00
	Flight, Sydney – Apia (Samoa) (PW)	13:15	22:45 –1
Wed, 17 Sep 03	Flight, Tonga – Apia (Samoa) (EE)	09:30	12:00 –1
	Finalising report	11:00	22:00
Thu, 18 Sep 03	Finalising report	08:00	09:30
	Discussion, SPREP IRC Manager	10:00	12:30
	Presentation of findings to SPREP & RAO	14:00	17:00
Fri, 19 Sep 03	Presentation of findings to EU	09:00	10:30
	Revising report	13:30	23:00
Sat, 20 Sep 03	Flight, Apia – Nadi (EE) (Fiji)	02:20	03:00 +1
Sun, 21 Sep 03	Flight, Apia – Sydney (PW)	05:05	12:05 +1
Mon, 22 Sep 03	Flight, Sydney – Brisbane (PW) – flights delayed & rescheduled, see below	16:05	17:30
	Flight, Apia – Auckland (PW)	15:30	20:10 +1
Tue, 23 Sep 03	Flight, Auckland – Brisbane (PW)	06:45	08:20

Week 7–9

22 Sep – 12 Oct 03: Review of draft report by SPREP, RAO, EU

Week 10

13–19 Oct 03: Final report sent to SPREP, RAO, EU

Appendix 3 List of persons and organisations consulted

Listed are all institutions visited and individuals consulted in carrying out the evaluation.

1. Organisations consulted

1.1 Fiji Islands

Delegation of the European Commission for the Pacific

Private Mail Bag, Suva, Fiji

Tel +679 331 3633 Fax +679 330 0370 Email eudelfiji@eu.org.fj

Live and Learn Environmental Education

Private Mail Bag, Suva, Fiji

Tel +679 331 5868 Fax +679 330 5868

Ministry of Agriculture, Sugar and Land Resettlement

Tel +679 338 4233

Ministry of Fisheries and Forests

Fisheries Department

PO Box 3165, Suva, Fiji

Tel +679 336 1122 Fax +679 336 1184

Forestry Department

PO Box 2218 Government Buildings, Suva, Fiji

Tel +679 330 1611 Fax +679 330 1595

Ministry of Labour, Industrial Relations and Productivity

National Occupational Health & Safety Service

PO Box 2216 Government Buildings, Suva, Fiji

Tel +679 331 6999 Fax +679 331 5029

Ministry of Local Government, Housing, Squatter Settlement and Environment

Department of Environment

PO Box 2131, Suva, Fiji

Tel +679 331 1699 Fax +679 331 2879

Pacific Islands Forum Secretariat, Development & Economic Policy Division

Private Mail Bag, Suva, Fiji

Tel +679 331 2600 Fax +679 331 2696

www.forumsec.org.fj

Secretariat of the Pacific Community (SPC)

Private Mail Bag, Suva, Fiji

Tel +679 337 0733 Fax +679 337 0021

www.spc.int

South Pacific Applied Geoscience Commission (SOPAC)

Private Mail Bag, Suva, Fiji

Tel +679 338 1377 Fax +679 337 0040

www.sopac.org

WWF South Pacific Programme, Fiji Country Office

Private Mail Bag, Suva, Fiji

Tel +679 331 5533 Fax +679 331 5410

www.wwfpacific.org.fj

1.2 Samoa

Delegation of the European Commission for the Pacific, Office in Samoa

PO Box 3023, Apia, Samoa

Tel +685 20070 Fax +685 24622
Matauaileoo Environment Trust Inc. (METI)
PO Box 1878, Apia, Samoa
Tel +685 21896
Ministry of Natural Resources and Environment (MNRE)
Private Bag, Apia, Samoa
Tel +685 22481 Fax +685 23176
National University of Samoa (NUS)
PO Box 5768, Apia, Samoa
Tel +685 20072 Fax +685 20938
Nelson Memorial Public Library
PO Box 598, Apia, Samoa
Tel/Fax +685 21028
O Le Siosiomaga Society Inc.
PO Box 2882, Apia, Samoa
Tel +685 25897 Fax +685 21993 Email ngo_siosiomaga@samoa.ws
Samoa Polytechnic
PO Box 861, Apia, Samoa
Tel +685 21428 Fax +685 25489
www.sampol.edu.ws
South Pacific Regional Environment Programme (SPREP)
PO Box 240, Apia, Samoa
Tel +685 21929 Fax +685 20231
www.sprep.org.ws
Tinai, Gordon & Associates Ltd
PO Box 9581, Apia, Samoa
Tel +685 22906, Fax +685 22913 Email tga@samoa.ws
United Nations Development Programme (UNDP)
Private Bag, Apia, Samoa
Tel +685 23670/2 Fax +685 23555
www.undp.org.ws
University of the South Pacific, Alafua Campus
Private Bag, Apia, Samoa
Tel +685 21671 Fax +685 22933

1.3 Tuvalu

Office of the Prime Minister, Department of Environment
Tel +688 20162 Fax +688 20167 Email enviro@tuvalu.tv
Ministry of Natural Resources
Vaiaku, Funafuti, Tuvalu
Department of Agriculture
Tel +688 20825 Fax +688 20826
Department of Fisheries
Tel +688 20742 Fax +688 20826 Email fisheries@tuvalu.tv
National Library
Tel +688 20711
Tuvalu Association of NGOs (TANGO)
PO Box 136, Funafuti, Tuvalu
Tel/Fax +688 20758 Email tangointuvalu@tuvalu.tv
University of the South Pacific, Tuvalu Centre
Tel +688 20811 Fax +688 20704

1.4 Vanuatu

Live and Learn Environmental Education

PO Box 1674, Port Vila, Vanuatu

Tel +678 27448 Fax +678 25308 Email smolbag@vanuatu.com.vu

Ministry of Agriculture, Forestry and Fisheries

Department of Agriculture and Rural Development

Private Mail Bag 040, Port Vila, Vanuatu

Tel +678 22525 Fax +678 25265

Department of Fisheries

Private Mail Bag 045, Port Vila, Vanuatu

Tel +678 23119

Department of Forestry

Private Mail Bag 064, Port Vila, Vanuatu

Tel +678 23856 Fax +678 25051 Email forestry@vanuatu.gov.vu

Ministry of Internal Affairs, Rural Economic Development Initiative

Private Mail Bag 021, Port Vila, Vanuatu

Tel +678 26111 Email dpa_92@hotmail.com

Ministry of Lands and Natural Resources

Department of Lands

Private Mail Bag 090, Port Vila, Vanuatu

Tel +678 27602 Fax +678 27708

Environment Unit

Private Mail Bag 063, Port Vila, Vanuatu

Tel +678 25302 Fax +678 23565 Email environ@vanuatu.com.vu

www.biodiversity.com.vu

Parliament of Vanuatu, Library

Private Mail Bag 052, Port Vila, Vanuatu

Tel/Fax +678 24084 Email biblparle@vanuatu.com.vu

Reserve Bank of Vanuatu

Private Mail Bag 062, Port Vila, Vanuatu

Tel +678 23333 Fax +678 24231

www.rbv.gov.vu

Vanuatu Cultural Centre, Public Library

PO Box 184, Port Vila, Vanuatu

Tel +678 22721 Fax +678 26590 Email vks@vanuatu.com.vu

Wan Smolbag Theatre

PO Box 1024, Port Vila, Vanuatu

Tel +678 27119 Fax +678 25308 Email smolbag@vanuatu.com.vu

2. Persons consulted

2.1 Fiji Islands

Mr George Beck, Technical Assistant (EC), Forum Secretariat – georgeb@forumsec.org.fj

Ms Vasiti Bole, Library Assistant, Ministry of Agriculture

Ms Elizabeth Fong, Deputy University Librarian, USP – fong_e@usp.ac.fj

Dr Siosiua Halavatau, Participatory Extension Officer, SPC/EU Development of Sustainable Agriculture Project – siosiuah@spc.int

Ms Venita Lal, Chemical Engineer, OHS, Ministry of Labour

Ms Bernadette Masianini, Agricultural Information Specialist, SPC/EU Development of Sustainable Agriculture Project – bernadettem@spc.int

Ms Archana Narayan, Field Officer, Live & Learn – archana@livelearn.org.fj
Mr Epeli Nasome, Director, Department of Environment – enasome@govnet.gov.fj
Mr Malcolm Ponton, Senior Technical Assistant (EC), Forum Secretariat – malcolmp@forumsec.org.fj
Ms Sunila Prasad, Programme Manager, Live & Learn – sunila@livelearn.org.fj
Ms Sunita Prasad, Library Services Officer, SOPAC – sunita@sopac.org
Mr Kamlesh Prakash, Head, Information & Communication, Min of Agriculture
Mr Ganeshan Rao, Co-ordinator, PIMRIS, USP – rao_g@usp.ac.fj
Mr Isikeli Raratabu, Principal Mechanical Engineer, OHS, Ministry of Labour
Ms Neomai Ravitu, Research Assistant, Fisheries Department
Mr Etika Rupeni, Fiji Country Programme Co-ordinator, WWF South Pacific Programme – erupeni@wwfpacific.org.fj
Ms Akosita Seru, Librarian, Fisheries Department
Ms Noor J. Shafiq, Library Assistant, Forestry Dept
Mr Alf Simpson, Director, SOPAC
Mr Enrico Strampelli, Technical Adviser, EC Delegation – enrico.strampelli@eu.org.fj
Mr Timoci 'Jim' Sukulu, Technical Assistant (IT), Forestry Dept – jim@forestry.gov.fj
Ms Margaret Tabunakawai, Beche-de-Mer & Trochus Officer, Fisheries Department
Ms Mere Tikoduadua, Information officer, Fisheries Department
Ms Eleni Tokaduadua, Environment Officer (Awareness & Education), Dept Environment – etokaduadua@govnet.gov.fj
Mr Malakai Tuiloa, Deputy Director, Fisheries Dept – mtuiloa@govnet.gov.fj
Ms Vasiti Vuiyasawa, Coastal Inshore Fisheries Officer, Fisheries Department

2.2 Samoa

Mr Dion Ale, Program Coordinator, O Le Siosiomaga Society Inc. – dion_ale@telstra.com
Ms Lelani Duffy, Principal Capacity Building Officer, Department of Environment & Conservation, MNR – laniduffy@lesamoa.net
Ms Aiga Esera, Principal, Avele College
Ms Martila Faapopo, Senior Library Assistant, National University of Samoa
Ms Jacinta Godinet, Principal Librarian, Nelson Memorial Public Library – jjpgodinet@lesamoa.net
Ms Muta Isara, Training Officer, Department of Environment & Conservation, MNRE
Ms Merimeto F. Keil, Information Management Assistant, UNDP – meto.keil@undp.org
Dr Emma Kruse-Vaai, Academic Director, Samoa Polytechnic
Mr Pati Liu, Assistant CEO, Department of Environment & Conservation, MNRE
Mr Chris Nelson, Senior Librarian, University of the South Pacific – nelson_c@samoa.usp.ac.fj
Dr Stephen Rogers, Head of Office, Delegation of the EC for the Pacific, Office in Samoa – stephen.rogers@delwsm.cec.eu.int
Ms Easter Chu Shing-Galuvao, Programme Officer (Environment), UNDP – easter.galuvao@undp.org
Ms Raewyn Soon, Acting Librarian, Avele College
Dr Ietitaia Setu Taule'alo, Chief Executive, Ministry of Natural Resources & Environment – taulealo@lesamoa.net
Mr Thomas T. Tinai, Director, Tinai, Gordon & Associates Ltd

Mr Togi Tunupopo, Chief Librarian, National University of Samoa – t.tunupopo@nus.edu
Ms Tologau Uatisona, Senior Librarian, Samoa Polytechnic
Dr Walter Vermullen, Executive Director, METI – walterv@meti.ws

2.3 Tuvalu

Ms Laulagi Aluna, Acting Librarian, Department of Fisheries
Ms Annie Homasi, Director, Tuvalu Association of NGOs – tangointuvalu@tuvalu.tv
Ms Pepetua E. Latasi, Environment Officer, Department of Environment
Mr Panapasi Nelesone, Secretary to Government, Office of the PM
Mr Metaio Tekinene, Director, Department of Environment – tmataio@hotmail.com
Mr Malaki Tihala, Deputy Director, Department of Fisheries – mtihala@hotmail.com
Ms Mila Tulimanu, Librarian, National Library

2.4 Vanuatu

Ms Eileen Boe, Head Librarian, Port Vila Public Library – vks@vanuatu.com.vu
Mr Fraser Bule, Principal Agric Officer (Technical Section), Dept of Agriculture
Mr William Ganileo, Database Manager, Dept of Lands, Min Lands & Nat Res – ganileo@hawaii.edu
Ms Lizbeth George, Filing Clerk, Dept of Forests
Ms Betsie Kaltabang, Librarian, Reserve Bank – bkaltabang@rbv.gov.vu
Ms Nicole Karlo, Senior Librarian, Port Vila Public Library
Ms Karen McDowall, AVI Librarian, Port Vila Public Library
Ms Leiwia Moli, Librarian, Parliament of Vanuatu – biblparle@vanuatu.com.vu
Mr Russell Nari, Deputy Director, Environment Unit, Min Lands & Nat Resources
Ms Louise Nasak, IT Manager, Reserve Bank – lnasak@rbv.gov.vu
Mr William Nasak, REDI Officer, Ministry of Internal Affairs – dpa_92@hotmail.com
Ms Nettie Naviti, Computer Officer/Librarin, Dept of Fisheries
Mr John Oke, AVI Technical Adviser, REDI, Ministry of Internal Affairs – john_r_oke@hotmail.com
Ms Linda Olun, Lands Officer (Planning), Dept of Lands, Min Lands & Nat Res
Mr George Pedro, Research Officer, Wan Smolbag Theatre & Acting Manager, WWF – smolbag@vanuatu.com.vu
Mr James Selwyn, REDI Officer, Ministry of Internal Affairs – dpa_92@hotmail.com
Ms Annie Shem, Field Officer, Live and Learn Environmental Education – smolbag@vanuatu.com.vu
Mr Trinison Tari, Education & Info Officer, Environment Unit, Min Lands & Nat Res
Mr Hannington Tate, Deputy Director, Dept of Forests – forestry@vanuatu.gov.vu

2.5 SPREP

Ms Satui Bentin, Information Resource Centre Manager – satuib@sprep.org.ws
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Mr F. Vitolio Lui, Deputy Director & Deputy RAO – vitoliol@sprep.org.ws

Dr Mat McIntyre, Acting Co-ordinator, Economic Development – matm@sprep.org.ws

Mr Sefanaia Nawadra, Marine Pollution Adviser – sefanaian@sprep.org.ws

Mr Paul Stapleton, Editor/Publications Officer – pauls@sprep.org.ws

Ms Alofa Tu'uau, Finance Manager

Mr Ray Wright, Former Head of Finance & Administration

Appendix 4 Literature and documentation consulted

Listed are all documents and other resource materials consulted whilst carrying out the evaluation.

1. Project documents

1.1 Preparatory phase (in chronological order)

- Pacific Environmental Information Network Project 1995. *[Report of the] Unesco/SPREP/SPC Interagency Meeting, 7–10 February 1995, Apia, Western Samoa.*
- South Pacific Regional Environment Programme 1998. *Pacific Regional Indicative Programme: Concept paper – SPREP Information Resource Centre and Pacific Environment Information Network.*
- Commission of the European Communities 1999. *Comments on the SPREP Information Centre and PEIN concept paper* [sent 11 June]
- South Pacific Regional Environment Programme n.d. *SPREP Information Centre and Pacific Environment Information Network (PEIN) concept paper – additional information.*
- Commission of the European Communities 2000. *Financing agreement between the ... and the ACP States of the Pacific Region: Information Resource Centre and Pacific Environment Information Network (REG/7706/000) EDF VIII* [signed CEC, 28 March 2000; countersigned SPREP, 29 June 2000].

1.2 Implementation phase

Codes in square brackets refer to the abbreviations used in the body of the report.

1.2.1 Annual work programme and budgets

- [AWP I] *Annual work programme and budget, 19 February 2001 – 14 January 2002.*
Annex 1: *[Three-year work plan developed by PEIN member countries at the 2nd Environmental Clearinghouse and Networking Workshop for PEIN, Apia, Samoa, 26 June – 2 July 2000]* (dated 2 July 2000)
Annex 2: [List of] SPREP Focal Points and PEIN National Coordinators
Annex 3: NERDS members

[AWP II] *Annual work programme and budget, 19 March 2002 – 19 March 2003.*

[AWP III] *Annual work programme and budget, 20 March 2003 – 31 December 2003.*

1.2.2 Quarterly reports

Codes in square brackets refer to the abbreviations used in the body of the report.

Reports for the first eight quarters were sighted. Each *Quarterly Report* comprises sections on: 1, Purpose and expected results; 2, Activities planned and carried out for current reporting period; 3, Activities planned and carried out for next reporting period; 4, Conclusions. Owing to the lack of page numbers, and the variety and importance of the information they contain, what follows is an index to all annexes in the *Quarterly Reports*.

[QR I/1] *Quarterly report, no. 1: reporting period 19.02.01–19.05.01*

Annex 1: Record of discussions during travel to Rarotonga, Cook Islands, 12–16 March 2001

- Annex 2: [Letter to Cook Islands Ministry of Marine] Introduction to PEIN (dated 22 June 2001)
- Annex 3: Guidelines to establishing national environmental libraries
- Annex 4: Travel report – American Samoa, 1–4 May 2001 (dated 14 June 2001)
- Annex 5: Letter of Agreement, *Department of Environment and Conservation, Samoa* (relating to NERDS Co-ordinator training attachment with Triad Data Magic in Australia; signed 13 March 2001)
- Annex 6: **Report on DB/TextWorks training attachment by NERDS Co-ordinator, 19–30 March 2001**
- Annex 7: Financial report for reporting period (dated 7 June 2001)
- Annex 8: SPREP IRC new additions, 1st quarter, Jan–Mar 2001

[QR I/2] *Quarterly report, no. 2: reporting period 19.05.01–19.08.01*

- Annex 1: Financial report for reporting period (dated 3 September 2001)
- Annex 2: Proof of expenditure of advance for replenishment purposes
 - Annex 1 (sic.): Purchase order PO0335, 6 UPSs; purchase order PO0334, 6 printers & 6 computers (dated 11 June 2001)
- Annex 3: **Report on NERDS Refresher Training Workshop, 28–30 May 2001** (dated 1 July 2001)
- Annex 4: Letter of Agreement, *Ministry of Marine Resources, Cook Islands* (relating to supply of equipment and software; signed 16 July 2001)
- Annex 5: Letter of Agreement, *Ministry of Culture and Development, Cook Islands* (relating to supply of equipment and software; signed 16 July 2001)
- Annex 6: Letter of Agreement, *Cook Islands Environment Service* (relating to supply of equipment and software; signed 16 July 2001)
- Annex 7: Travel report – Rarotonga, Cook Islands, 18–26 July 2001
- Annex 8: SPREP IRC new additions, 2nd quarter, Apr–Jun 2001

[QR I/3] *Quarterly report, no. 3: reporting period 19.08.01–19.11.01*

- Annex 1: Financial report for reporting period (dated 20 November 2001)
- Annex 2: Record of consultations, Tonga [visited 19–21 November 2001]
- Annex 3: **[Report of] NERDS Workshop on Environmental Information Sharing and Networking, Apia, 12–16 November 2001**
 - Annex 1: Practical exercises log book
 - Annex 2: Evaluation sheet
 - Annex 3: Letter of invitation [with programme] from Dept of Lands, Survey & Environment (dated 5 November 2001)
 - Annex 4: NERDS policies
 - Annex 5: Participants' list
 - Annex 6: Letters of agreement:
 - Department of Lands, Survey & Environment, Samoa* (relating to NERDS Workshop; signed 8 November 2001)
 - Nelson Memorial Library, Samoa* (relating to supply of equipment and software; signed 12 November 2001)
 - Samoa Polytechnic* (relating to supply of equipment and software; signed 12 November 2001)
 - National University of Samoa* (relating to supply of equipment and software; signed 12 November 2001)
- Annex 4: SPREP IRC new additions, 3rd quarter, Jul–Sep 2001

[QR I/4] *Quarterly report, no. 4: reporting period 19.11.01–14.01.02* (sic)

- Annex 1: Financial report for reporting period (dated 11 March 2002)
- Annex 2: PEIN Regional Environmental Information Sharing Guidelines
- Annex 3: [PEIN] Indicative timetable [of activities] for 2002/2003

Annex 4: **[Report of the] 1st EU/SPREP–PEIN Project Sub-regional Workshop on Environmental Information Sharing and Networking, 3–7 December 2001, Auckland**

Annex 5: Request for assistance by Dept of Lands, Surveys and Environment, Samoa, for NERDS Workshop for Teachers (dated 14 January 2002)

Annex 6: **Report on NERDS Workshop for Teachers as Users of the Environmental Information Network Database, 19–20 November 2002** (includes DLSE programme of activities already implemented and proposed activities for NERDS, 2001–2002)

[QR II/1] *Quarterly report, no. 1: reporting period 19.03.02–19.06.02*

Annex 1: Financial report for reporting period (dated 10 July 2002)

Annex 2: [Report of consultations], Tuvalu, 20–23 May 2002

Annex 3: SPREP IRC new additions, 2nd quarter, Apr–Jun 2002

[QR II/2] *Quarterly report, no. 2: reporting period 19.06.02–19.09.02*

Annex 1: Financial report for reporting period (dated 8 November 2002)

Annex 2: [Travel report] Tonga and Fiji Phase 2 – establishment of national environment libraries and in-country training (21–29 August 2002)

Annex 3: Letter of agreements:

Department of Environment, Fiji (relating to supply of equipment and software; signed [19] August 2002)

Department of Forestry, Fiji (relating to supply of equipment and software; signed 19 August 2002)

Department of Environment, Tonga (relating to supply of equipment and software; signed 19 August 2002)

Ministry of Fisheries, Tonga (relating to supply of equipment and software; signed 19 August 2002)

Annex 4: SPREP IRC new additions, 3rd quarter, Jul–Sep 2002

[QR II/3] *Quarterly report, no. 3: reporting period 19.09.02–19.12.02*

Annex 1: Financial report for reporting period (dated 31 January 2003)

Annex 2: **Combined travel report for Tonga and Fiji to conduct National Environment Information Sharing and Networking Workshops, 6 and 9 December 2002**

Annex 3: SPREP IRC new additions, 4th quarter, Oct–Dec 2002 [duplicated in next *Quarterly Report*]

[QR II/4] *Quarterly report, no. 4: reporting period 19.12.02–19.03.03*

Annex 1: Financial report for reporting period (dated 11 June 2003)

Annex 2: [Travel report] Phase 1: Kiribati, 22–27 February 2003

Annex 3: [Travel report] Phase 2: Tuvalu, 14–21 February 2003

Letter of agreement, *Department of Environment, Tuvalu* (relating to supply of equipment and software; signed 5 February 2003)

Annex 4: Vanuatu [Phase 2] – travel report (visited 14–17 April 2003?)

Letter of agreement, *Environment Unit, Vanuatu* (relating to supply of equipment and software; signed 28 April 2003)

Annex 5: **Samoa and Tonga – [country to country] attachment report** [i.e. from Samoa to Tonga; actual date of attachment not found]

Annex 6: SPREP IRC new additions, 4th quarter, Oct–Dec 2002 [revised version of listing in previous *Quarterly Report* ?]

1.2.3 Other documentation

Contract dossier. Volume 1: contractual and technical provisions.

Dean, Murray & Partners, 2000. *Schedule of quantities*. Auckland, New Zealand (November).

Letter of agreement, *Ministry of Natural Resources & Environment, Samoa* (relating to funding for NERDS National Workshop, 25–28 August 2003; signed 13 August 2003)

Tinai, Gordon & Associates, 2000. *EU-SPREP Information Resource Centre: final detail design report*. Apia, Samoa (September).

1.3 Supplementary phase

Commission of the European Communities 2003. *Succinct information on a project less than 2 m euro, 9th EDF* [follow-up project proposal; first draft received 31 December 2002; revised and sent to Brussels, 22 May 2003; distributed by Forum Secretariat to Pacific ACP States, 1 August 2003].

2. Other documentation

Commission of the European Communities, 2001a. *Evaluation in the European Commission: a guide to evaluation procedures and structures currently operational in the Commission's external co-operation programmes*. Brussels, Belgium: CEC, EuropeAid Cooperation Office. http://www.europa.int.eu/comm/europeaid/projects/ong_cd/eval_guidelines_en.pdf

Commission of the European Communities, 2001b. *Manual, project cycle management*. [2nd ed.]. Brussels, Belgium: CEC, EuropeAid Cooperation Office. http://www.europa.int.eu/comm/europeaid/evaluation/methods/PCM_Manual_EN-March2001.pdf

Department of Lands, Surveys and Environment, 2001a. *NERDS: User's manual for participating institutions*. Apia, Samoa: Department of Lands, Surveys and Environment, Division of Environment and Conservation, Capacity Building Section.

Department of Lands, Surveys and Environment, 2001b. *NERDS: Updating and maintenance manual*. Apia, Samoa: Department of Lands, Surveys and Environment, Division of Environment and Conservation, Capacity Building Section.

ITPacNet, 2000. *[Report of the] Seventh regional information technology strategies meeting, Funafuti, Tuvalu, 2nd – 5th May 2000*.

Pacific Islands Forum Secretariat, 2002? *The 9th European Development Fund: regional strategy paper and regional indicative programme for the period 2002–2007*. Suva, Fiji: Forum Secretariat.

Samoa Polytechnic, 2003. *Prospectus 2003*. Apia, Samoa: Samoa Polytechnic.

Secretariat of the Pacific Community, 2003. *Council of Regional Organisations in the Pacific, 2003*. Nouméa, New Caledonia: SPC.

South Pacific Regional Environment Programme, n.d. *Non-librarian's guide to Inmagic Plus*. Apia, Samoa: SPREP Library/Information Centre. [Pre-publication draft]

South Pacific Regional Environment Programme, 1999. *Your guide to technical and general publications*. Apia, Samoa: SPREP.

South Pacific Regional Environment Programme, 2000. *Action plan for managing the environment of the Pacific Islands 2001–2004*. Apia, Samoa: SPREP.

South Pacific Regional Environment Programme, 2002. *SPREP corporate plan 2001–2005*. Apia, Samoa: SPREP.

Appendix 5a Original logical framework

This version of the logical framework is included in the *Financing Proposal*, Annex 1.

	Intervention Logic	Objectively Verifiable Indicators	Sources Of Verification	Assumptions
Overall objective	To build national capacity for environmental protection and sustainable development of Pacific island countries	Improved environmental awareness and optimal management of natural resources	Reports and assessments on the quality of environment (e.g. GEO)	
Project purpose	Improved capabilities of regional and national environmental authorities and departments to collect, process and disseminate environment related data and information	Permanent and adequately resourced IRC to house the PEIN Intensified information dissemination within member countries	Number of documents produced and dispatched; reports from SPREP centre and national networks involved in project	Commitment of governments on the national level to the environmental concerns maintained/strengthened
Results/ Outcomes	IRC fully operational by mid-2001 Broadening of environmental information flow to member countries Environmental awareness increased	Improved and upgraded information services facilities at SPREP Number of trained personnel within departments of environment Increased flow of environmental information in various mediums [sic.] in-country Number of national and regional workshops held in collaboration with other CROP agencies	Annual reports of project (from Project Manager as well as national networks involved) Reports from collaborating CROP agencies	Government will maintain and support environmental personnel positions required in-country to execute PEIN Core funding by members of SPREP maintained at least on current levels
Activities	Build the Information Resource Centre Train national environment department staff of national environment libraries [sic.] Organise national and regional workshops involving all stakeholders at national and regional level	Preparation of PEIN finalised and PEIN fully operational by mid-2001 Number of national environment libraries established within 8 member countries	Financial statements/reports produced by implementing agency	Work programme developed by IRC in association with national environment department staff will be in line with national priorities

Appendix 5b Original logical framework

This version of the logical framework is included in the *Annual Work Programmes* and *Quarterly Reports*.

	Intervention Logic	Objectively Verifiable Indicators	Sources Of Verification	Assumptions
Overall objective	To improve SPREP's capabilities for information collection and management and, on this basis, to strengthen national capacity for environmental protection and sustainable development of the Pacific Island States and Territories in general and Pacific ACP States in particular	SPREP able to collect and manage information National capacity for environmental protection and sustainable development strengthened	Project reports SPREP Annual Report Country annual reports	
Specific goal (Project purpose)	To ensure the free flow of environmental information by utilising all available resources through the network, and within and between member countries	Improved flow of environmental information through the network, and within and between member countries	Project reports	
Results				
1.	A completed and well-equipped Information Resource Centre (IRC) by July 2001, better able to coordinate a network of national environment libraries within Pacific island countries and act as the central processing unit of the Pacific Environmental Information Network (PEIN).	Environmental information flow strengthened	Project reports Country reports	Member countries willing to share environmental information
2.	A significant strengthening of environmental information flow to and within member countries in a variety of print and electronic formats.	National Environment Libraries established	Country reports	
3.	National Environment Libraries established within SPREP Pacific Island Countries.	Information shared electronically between National Environment Libraries and SPREP's Information Resource Centre	Database	
4.	Electronic sharing of information between National Environment Libraries and SPREP's Information Resource Centre.	Collections of all National Environment Libraries on the Internet	www.sprep.org. ws	
5.	Collections of all National Environment Libraries available and accessible on the Internet (via IRC web page on SPREP's web site)			

	Intervention Logic	Objectively Verifiable Indicators	Sources Of Verification	Assumptions
Activities	Component 1			
1.	Build the Information Resource Centre	SPREP has Information Resource Centre	Certificate of building completion	Land available and plans approved
	Component 2			
2.	Implement in-country training for Pacific ACP national environment department staff, including database establishment and maintenance. Organise and hold in Pacific ACP States workshops involving all major players on the national level (government and non-government departments, NGOs, women and youth groups, community groups) and assist in the establishment of national networks. Organise and hold two regional workshops as follow-up to the national training	In-country training activities (8) held	Project report List of participants	National environment department staff able and willing to participate
3.		National workshops (8) held		National government and non-government institutions and groups able and willing to participate
4.		Regional workshops (2) held		Countries able and willing to send staff to participate

Appendix 6 Amended logical framework

	Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions
Overall objective	National capacity for environmental protection and sustainable development of Pacific island countries improved	Flow of environmental information through the network and within and between member countries improved within 3 years of project start	Project reports	
Project Purpose	Capacity in SPREP and national environment agencies to identify, collect, organise and disseminate environmental information appropriate to the needs of Pacific island communities	SPREP able to collect and manage information National capacity for environmental protection and sustainable development strengthened	Project reports SPREP Annual Report Country annual reports	Governments will maintain and support environmental personnel positions and budgets required for environmental communication and information activities
Results				
1.	SPREP Information Resource Centre built, equipped and organised	IRC built to specification by mid-2001, and equipped and ready for use by project staff by mid-2002	Inspection	
2.	National environment libraries established and functional	8 national environment libraries established and open to government officers and the general public by end 2003	Inspection Database records Quarterly report	Departments of the environment provide facilities and have staff available
3.	National and regional computer databases of environmental information developed and accessible	PEIN database includes all database records of environmental information from 8 national environment libraries and SPREP by end 2003 PEIN database distributed to 8 national environment libraries at three monthly intervals PEIN database accessible at 5 sites each in 11 countries by end 2003 PEIN database accessible on the SPREP web site by end 2003		
4	National environmental information networks established and functional	8 environmental information networks comprising 3 institutions per country established and functional by end 2003	Quarterly report Client satisfaction surveys reflect positive results	Access to appropriate environmental information among communities in the Pacific Islands leads to beneficial change
5.	Appropriate environmental information for the Pacific Islands identified and made available	Appropriate environmental information for the Pacific Islands accessible at sites throughout the region	Inspection Database Client satisfaction surveys reflect positive results	
6.	Information literacy skills of environmental information users improved	Users of environmental information able to access and use relevant materials retrieved	Quarterly report Client satisfaction surveys reflect positive results	

Activities		Means	Costs	
1.1	Identify and engage consultants to design the Information Resource Centre			
1.2	Based on the design document, prepare and advertise tender for building contractor, select contractor and building supervisor			
1.3	Complete construction of the Information Resource Centre and have building approved for occupation			
1.4	Furbish the Information Resource Centre (library shelving, study carrels, etc)			
1.5	Organise library materials on shelves and in vertical files (filing cabinets), and maintain SPREP library database to reflect the information resources available			
1.6	Set up and arrange work areas, IRC Manager's office and public areas to implement efficiently activities related to the management of the IRC and the PEIN network			
1.7	Design and set up a storage and packing area to distribute SPREP publications efficiently			
2.1	At the invitation of national departments of environment (or other designated department), carry out an assessment of their available facilities, information resources, information needs, staff capacity and target audience, and identify the potential for intervention (Phase 1)			
2.2	Based on the assessment, procure equipment and resources, and establish library facility (Phase 2)			
3.1	Design and build library catalogue database, train operators to implement standards for data entry and exchange of records (Phase 2)			
3.3	Design and implement training programmes and activities to strengthen the capacity of National Co-ordinators to manage computer databases, assess information assets and needs, develop and co-ordinate national environmental information networks, and undertake capacity building activities at the national level			

Activities		Means	Costs	
3.4	Organise annual regional meetings of National Co-ordinators to report on and evaluate country progress, determine strategies for the further development of the regional network, upgrade technical skills and inform the PEIN annual work programme			
3.5	Promote the Pacific Environment Information Network among stakeholders and communities in the Pacific Islands			
3.6	Design an effective monitoring and evaluation system to measure network outcomes			
4.1	Provide encouragement and support to the National Co-ordinator to enable him/her to initiate or further develop a national environmental information network			
4.2	Make available training outlines and materials to help the National Co-ordinators design and implement appropriate training for members of the national networks			
4.3	Strengthen national environmental information networks by providing equipment and resources to national institutions other than departments of the environment [see Activity 2.1.2], as appropriate			
5.1	In co-operation with SPREP technical staff and other agencies, determine the type and format of information required for an environmental information network by carrying out information needs' assessments on a regular basis			
5.2	Identify sources of appropriate environmental information and procure			
5.3	Establish a document delivery service, supported by access to finding tools such as abstracting and indexing services			
6.1	In relation to the Information Resource Centre and the Pacific Environment Information Network, assess the capacity of users to access and use information			
6.2	Develop appropriate responses to improve users' capacity to access and use environmental information			

Activities		Means	Costs	
			Preconditions	Criteria are established for participation by national institutions in project activities
				Standards are set for the entry, exchange and use of library catalogue data

Appendix 7 Country network – Samoa

1. Visits and individuals consulted

The consultants visited Samoa, 11 August – 18 August 2003. During their time there, they consulted with the following individuals:

- *Mr Dion Ale*, Program Coordinator, O Le Siosiomaga Society Inc.
- *Ms Lelani Duffy*, Principal Capacity Building Officer, Department of Environment & Conservation, MNRE
- *Ms Aiga Esera*, Principal, Avele College
- *Ms Martila Faapopo*, Senior Library Assistant, National University of Samoa
- *Ms Jacinta Godinet*, Principal Librarian, Nelson Memorial Public Library
- *Ms Muta Isara*, Training Officer, Department of Environment & Conservation, MNRE
- *Ms Merimeto F. Keil*, Information Management Assistant, UNDP
- *Dr Emma Kruse-Vaai*, Academic Director, Samoa Polytechnic
- *Mr Pati Liu*, Assistant CEO, Department of Environment & Conservation, MNRE
- *Mr Chris Nelson*, Senior Librarian, University of the South Pacific
- *Dr Stephen Rogers*, Head of Office, Delegation of the EC for the Pacific, Office in Samoa
- *Ms Easter Chu Shing-Galuvao*, Programme Officer (Environment), UNDP
- *Ms Raewyn Soon*, Acting Librarian, Avele College
- *Dr Ietitaia Setu Taule'alo*, Chief Executive, Ministry of Natural Resources & Environment
- *Mr Thomas T. Tinai*, Director, Tinai, Gordon & Associates Ltd
- *Mr Togi Tunupopo*, Chief Librarian, National University of Samoa
- *Ms Tologau Uatisone*, Senior Librarian, Samoa Polytechnic
- *Dr Walter Vermullen*, Director, METI

A scheduled meeting with the CEO at the Ministry of Education, Sports and Culture did not take place as he was unavailable.

2. National Environment Resource Database Samoa

The National Environment Resource Database Samoa (NERDS) is co-ordinated by the Ministry of Natural Resources and Environment. It currently comprises five institutions, including the Nelson Memorial Public Library (part of the Ministry of Education, Sports and Culture), the National University of Samoa (NUS), Samoa Polytechnic College, and Avele College (a boarding high school).

In 1998, Samoa conducted a needs assessment on ways to improve environmental information management and utilisation as well as an assessment of the extent by which improved environmental awareness was a direct result of accessibility to environmental education; a NZODA-funded national workshop was conducted after this assessment. An outcome was a list of resource requirements to enable the NERDS network (which itself was established after agreement at the 1998 workshop) to implement identified activities efficiently. This was a national initiative, and one based on limited financial resources.

SPREP provided technical assistance in setting up the environment library and through the provision of and training in the use of DB/TextWorks; in 1999, a photocopier was provided

for use by the Department. The first user manual for local use on DB/TextWorks was developed by the National Co-ordinator during this period.

3. Relationship to PEIN and national perspective

Since the Department of Environment and Conservation had initiated an environmental database and network (NERDS) prior to PEIN, the country was well placed to expand on the concept of PEIN. The location of SPREP in Samoa was an added benefit to this.

3.1 Activities and other inputs

Phases 1 and 2 were completed as pre-PEIN activities between 1998 and 2000. The National Co-ordinator attended a two-week training provided by Triad Data Magic (now Maxus Australia) in Melbourne in March 2001. The knowledge gained from this training was shared with the NERDS network through a NERDS Refresher Training Workshop held in May on her return. The year's activity concluded with a workshop held in November; the NERDS Workshop on Environment Information Sharing and Networking which was important in developing policy guidelines for the NERDS network. New computers to Nelson Memorial Library, Samoa Polytechnic and the National University of Samoa were distributed during this period.

The National Co-ordinator attend the first PEIN Regional Environmental Information Sharing Workshop which held in Auckland, New Zealand, 3–7 December 2001. The experience gained by NERDS provided valuable contribution to the outcome of the regional agreement on PEIN.

Computer equipment was installed at the three sites (National University of Samoa, Samoa Polytechnic and Nelson Memorial Public Library) occurred between November 2001 and 2002. As the IRC Manager is located in Samoa, requests for assistance were usually forwarded to her office on needs basis. The only training provided by the PEIN Co-ordinator was at Avele College, during installation. The National Co-ordinator provided all other training in the use of DB/TextWorks during NERDS workshops.

In recognition of students and teachers as the main beneficiaries and users of NERDS and PEIN, the National Co-ordinator conducted a NERDS Workshop for Teachers as Users of PEIN, March 2002.

Early in 2003 the NERDS Co-ordinator selected the MNRE Training Officer to attend a country attachment with Tonga (Phase 5).

In summary, Samoa has received the following from the project:

- Five sets of computer software and hardware
- Training for the NERDS Network on using DB/TextWorks and managing a database
- Training for the NERDS Co-ordinator with Triad Data Magic in Melbourne
- Country-to-country attachment for the MNRE Training Manager in Tonga
- The opportunity for one person to attend one regional workshop (Auckland 2001)
- Three training workshops for the NERDS Network between 2001 and 2003.

3.2 Relevance, efficiency, effectiveness and impact

Relevance: The Ministry of Natural Resources and Environment have benefited directly through the provision of computer equipment, software and training of staff apart from the National Co-ordinator. They have been able to use this to organise the MNRE database. The NERDS network have also benefited immensely though receiving computer equipment,

software and training. The NERDS network members with equipment and software have been able to provide students and users with access to the PEIN and NERDS database.

Efficiency: The NERDS Co-ordinator has obviously made a concerted effort to inform the NERDS network through the many workshops held annually since the project started. Important outputs produced by the National Co-ordinator are a NERDS User Manual, NERDS Updating and Maintenance Manual, NERDS Practical Exercises Logbook, and the writing of NERDS policies for members. The SPREC IRC Manager has provided important technical support to NERDS members.

However, there needs to be strategic decisions made to address issues of quality control for updating the data.

Effectiveness: The database, NERDS, was set up in 1999. To date there are 19,000 records in NERDS.

Training provided by the National Co-ordinator has been extensive to some degree. Librarians at the Samoa Polytechnic College, NUS and Nelson Memorial Library display more familiarity and skill in the use of the software. Support in troubleshooting has been provided by the SPREP IRC staff.

All NERDS network members who have received equipment from the project have the PEIN and NERDS database available for users. Main beneficiaries are identified as school students, university students, researchers and NGOs. There seems to be frequent users of the database at all four public points: the Nelson Library, Samoa Polytechnic, NUS and the MNRE Library. There is also greater awareness of the NERDS database outside the network due to promotion of NERDS by MNRE. Public awareness has increased with the provision of equipment to schools. To this effect, it can be said that the results have contributed to the project purpose.

Limiting factors to the project include need for skills training in use of software, improvement in updating of NERDS database, better co-ordination of network and consolidation of agreement principals for network.

Impact: The project has made a great impact on members of the NERDS network in the consolidation of environmental information, networking, expansion of knowledge on the use of the DB/TextWorks software and providing an opportunity to organise the individual organisations database. There has been a very positive impact on the beneficiaries and users who are mainly high-school and university students in the improvement in available information of the environment.

There is also the additional impact of the Ministry of Natural Resources and Environment taking on board the idea of a centralised environmental information centre (within MNRE) as opposed to Department of Environment IRC. This approach ensures that the information centre encompasses not just one division in the Ministry but includes the Planning and Urban Management Agency (PUMA), Land Management Division, Technical Services, Corporate Services and Legal Division. This in itself is a major advance by Samoa in recognition of the usefulness of wider accessibility of environmental information for planning, policy and decision making purposes.

3.3 Sustainability

The NERDS network is the most advanced of the PEIN project. While most of the components of the project are in place for an effective network there are several areas that will contribute to the sustainability of the project.

- Create links with NGOs as they have closer links to communities. The NGOs visited by the consultants were aware of NERDS and recognised its potential impact in providing appropriate environmental information to communities. It is possible that the NGOs in Samoa do not meet the requirements as identified in Phase 1. However their potential contribution to the project as a user, distributing information to target beneficiaries needs to be recognised
- As Samoa is well advanced in the PEIN project, the responsibilities of the National Co-ordinator to maintain the NERDS network are great. The National Co-ordinator is also a senior official of the DEC with other roles and responsibilities. She has shown great initiative in maintaining the network and this good work needs to be continued through employing a full-time official with the DEC to undertake the management of the DEC Library and manage NERDS. The Director for DEC confirmed that the position of Information Research Officer to carry out this responsibility in addition to other responsibilities would be made available in 2004
- Re-establish links with USP Library at Alafua Campus. While USP utilises a different software, their assistance in information management would be invaluable to the network and the current Senior Librarian is an expert in DB/TextWorks
- Consolidate agreements for information sharing and management, data entry, and future perspectives for the NERDS network.

3.4 Conclusion and recommendations

The NERDS network has been in effect since 1998. The use of DB/TextWorks has been accepted by members as appropriate for the purpose of the network members, the agreements pertaining to the network membership, ownership of data and use has been agreed to in principle, some format for data updating has been devised.

The Ministry of Natural Resources and Environment have proved to be the suitable national co-ordinating agency for this project and have shown commitment in pursuing management of NERDS. Determining a strategy for sustainability and a decrease in its reliance on SPREP should be the future focus of NERDS.

Appendix 8 Country network – Tuvalu

1. Visits and individuals consulted

The consultant visited Tuvalu 21–25 August 2003. During his time there, he consulted with the following individuals:

- *Ms Laulagi Aluna*, Acting Librarian, Department of Fisheries
- *Ms Annie Homasi*, Director, Tuvalu Association of NGOs
- *Ms Pepetua E. Latasi*, Environment Officer, Department of Environment
- *Mr Panapasi Nelesone*, Secretary to Government, Office of the PM
- *Mr Metaio Tekinene*, Director, Department of Environment
- *Mr Malaki Tihala*, Deputy Director, Department of Fisheries
- *Ms Mila Tulimanu*, Librarian, National Library

Additionally, brief visits were made to the Department of Agriculture and University of the South Pacific Tuvalu Centre Library.

2. Tuvalu Environment Information Network

The Tuvalu Environment Information Network (TUVEIN) comprises just one institution, the Department of Environment. The Department comprises five core staff, and has three programmes: climate change (two staff); waste management (11 staff including 3–4 labourers); international waters (two staff including a clerk). Around 1998, the number of people, particularly school children, visiting the then Environment Unit led to an awareness that too much time was being spent trying to locate materials to respond to all the requests, most of which were not organised.

3. Relationship to PEIN and national perspective

On 16 June 1999, the Tuvalu Government asked for SPREP's assistance to establish a library/information centre, i.e. the construction of a building and provision of technical assistance in setting up the centre, and documenting the reports and other documents from the Environment Department and other departments.

3.1 Activities and other inputs

SPREP, under any programme and not just PEIN were unable to fund the construction of a building because it is not a funding agency, and not within its mandate. However, they indicated willingness to provide assistance in establishing an environmental library/information centre in an existing building and training staff. The first (2001) annual work programme and budget for PEIN incorporated specific activities for Tuvalu, identified during the 2nd Environmental Information Clearinghouse & Networking Workshop, Apia, Samoa, 26 June – 2 July 2000. This workshop was attended by the person designated by the Environment Department to be the librarian, Ms Faasino Tautu.

The following activities were included in the first annual work programme:

- Technical assessment of facilities (Phase 1) – Apr 2001
- Procurement of computer hardware and software (Phase 2) – Jun–Aug 2001
- Installation of equipment and in-country training for National Co-ordinator (Phase 2) – Aug 2001
- Regional workshop in New Zealand, attendance by National Co-ordinator (Phase 3) – Dec 2001

The 1st PEIN Regional Environmental Information Sharing Workshop was held in Auckland, New Zealand, 3–7 December 2001 (shifted from Cook Islands because of a cyclone). This was attended by the Tuvalu librarian.

All other activities for Tuvalu were put back into the second (2002) annual work programme, as follows:

- Technical assessment of facilities (Phase 1) – May 2002
- Installation of equipment and in-country training for National Co-ordinator (Phase 2) – Oct 2002

The technical assessment of the facilities, personnel and target group (Phase 1) was conducted by the SPREP Assistant Librarian, 20–23 May 2002. The assessment included Departments of Environment, Lands & Survey, Fisheries and Agriculture, and the National Library. Report of the assessment included as Annex II in *Quarterly Report*, No.1 (19/03/02–19/06/02).

Installation of computer equipment and training in using the software, DB/TextWorks 5.1 (Phase 2), again conducted by the SPREP Assistant Librarian, took place in January 2003. In addition to the librarian, National Library sent one staff member (not a trained librarian) and one member of Environment Department spent one day learning about DB/TextWorks.

In summary, Tuvalu has received the following from the project:

- Assessment of need and potential for a national environmental information network
- Practical assistance in establishing a national environmental library
- One set of computer software and hardware
- Training for three people in using DB/TextWorks and managing a database
- The opportunity for one person to attend one regional workshops (Auckland 2001)

3.2 *Relevance, efficiency, effectiveness and impact*

Relevance: The direct target beneficiary is the Department of Environment; the case they made in 1998 to SPREP for assistance to help them organise and manage environmental information remains as valid today as it was five years ago. In the case of Tuvalu, there are few communities more in need of access to information to help them become aware of environmental issues and actions they can take to ameliorate the situation²¹. It is disheartening to discover that local absorption and implementation capacities remain at a low level. The initial technical assessment carried out in May 2002 noted that there was a concern about the capacity of the Department of Environment librarian's capacity to absorb the amount of training given (at regional workshops), and that the experience of other government departments, notably Fisheries, suggested that retention of trained personnel is an issue. Attention was paid to other, complementary activities and initiatives (e.g. PIMRIS) but the response was not adequate (see Sustainability below).

Efficiency: The initial technical assessment visit was postponed from April 2001 to May 2002 while issues related to a suitable facility and a suitable national co-ordinator were sorted out. This delay, and subsequent further delay (from October 2002 to January 2003) with installing the computer and training in-country staff under Phase 2 has tended to slow progress considerably and dampened enthusiasm from the Tuvalu side. There was some feeling that three days for the assessment and three days for the training were not enough; it was suggested that two weeks, especially on the second visit, would have allowed greater progress to have been made, and by virtue of this length of time, skills would have matured.

²¹ According to reports, 'recent figures suggest that Tuvalu's sea level has risen nearly three times as fast as the world average over the past decade, and is now 5 cm higher than 1993' (Fickling, D. 2003, "Exodus plan as Tuvalu sea levels rise", *Guardian Weekly*, 24–30 July, p. 5).

The computer, printer and software have been delivered, and all are still functioning, although without a librarian as she is now on maternity leave in New Zealand until November; the collection of environmental information resources have been organised as a library, but not in the best way; the site chosen for the library/information centre is unappealing to access located as it is in the bowels of the building (although the room itself is a nice size, with plenty of natural light).

It was noted that the first seven *Quarterly Reports* arrived, en masse, three weeks prior to the visit by the consultants, which suggests that communication between the project and Tuvalu contacts can be improved.

Effectiveness: In terms of results, Tuvalu has received equipment, training and technical assistance that have enabled the establishment of an environmental information centre. A database, TUVEIN, has been set up and now contains 321 records; they also have access to the SPREP PEIN database (with 20,614 records of which 285 are from TUVEIN). There has been no update of the PEIN database since it was delivered; records have been sent to SPREP by TUVEIN once. There is no operations manual (and no DB/TextWorks *User Manual* it seems) by which the librarian can refresh her memory. With no hard data, it is difficult to say who has benefited from this. The impression is that officers in the Department of Environment have benefited; there was talk about how easy it was to use the database, which implies some degree of familiarity with it. But use by the general public or other government departments is harder to identify. It did not appear that there had been much interaction between the facility and National Library, or Department of Fisheries, beyond the initial assessment and in-country training. Public awareness and promotion are tasks best carried out by National Co-ordinators. This not being the case is a reflection of the level of input at the national level, not by SPREP. Thus, the results do not seem to have fully led to achieving project purpose.

Contributing to the limited achievement of project purpose are several factors: the newness and location of the environmental information centre; the temporary absence of the librarian; the limited knowledge and skills base. It was assumed that establishment of an environmental information centre would lead to more public access and thus greater appreciation of environmental issues. Location was not factored in, which is unfortunate as a good location can make up for other deficiencies. Constraints at the national level can mitigate against selection of suitable locations and appropriate personnel.

Impact: If PEIN had not happened, it is less likely there would be anything resembling an environmental information centre in Tuvalu. That does not mean that there was (and is still) not the need. There is potential for information to be more readily available and accessible, but this hasn't been realised yet. As such, no assessment of impact on human resource development is possible.

3.3 Sustainability

It is clear that information networking in Tuvalu is still weak. Prior to the involvement of SPREP and PEIN, a meeting of the Departments of Environment, Agriculture, Fisheries, and Lands & Surveys came to conclusion that a joint library be set up. It had been hoped that with SPREP's involvement this might eventuate. The keenness to co-operate exhibited by the Departments of Environment, Fisheries, Lands & Surveys and the National Library (reported on in the initial technical assessment) suggests that there was an appreciation that sharing data and resources made sense. This opportunity has not been realised because of inadequate funding.

From comments made by various people consulted and from the consultant's own assessment, it is not obvious that Tuvalu sees the benefits in terms of a 'regional network'; the benefits are

seen as tangible items that contribute to achieving a specific, national objective. For this attitude to be reversed will take a different approach, one that recognises more the institutional constraints faced in Tuvalu. Until there is a new approach, the results to date will not be sustained.

By way of example, one need only turn to the Department of Fisheries: in the late 1980s the Pacific Islands Marine Resources Information System (PIMRIS) was established, to develop a network for fisheries and marine information not too dissimilar from PEIN. In Tuvalu, 12–14 years later, there is no fisheries library, no access to the PIMRIS database and no trained staff in position. The library was moved three times, each time less was replaced on the shelves until now the library is a heap of books and reports on the floor in the corner of a bare room with no shelves; the computer used for the PIMRIS database similarly moved around and ultimately died, and has not been replaced; and of the three Fisheries librarians, one migrated, one moved to the National Library and one is in Australia. The current Fisheries librarian is on a temporary contract; she has no library training. Turn to the National Library, and there are two staff with para-professional library qualifications (a certificate and diploma); the other two staff have no qualifications. A member of the National Library staff was sent to Australia or New Zealand and acquired a librarianship degree but chose not to return to Tuvalu; she now works at USP Library in Suva.

3.4 Conclusion and recommendations

The only conclusion that can be drawn from the findings of the evaluation is that the strategy of ring-fencing the Department of Environment, establishing an environment library/information centre, and setting up an environment library catalogue database is not the right approach in Tuvalu. To an extent this is recognised by Department of Environment staff and others consulted: individuals thrust into positions of responsibility (not by SPREP) but poorly trained or trained only to a limited degree, poorly supervised and, consequently, lacking in motivation does not help.

In Tuvalu's case, a better approach might have been for SPREP to spend more time looking at the opportunities for networking within Tuvalu, with the various government departments, leading possibly to the idea of establishing some sort of public information service, independent of any government department but providing information on a range of issues and subjects, including environment. An obvious place to site this is at the National Library, in the centre of Funafuti Atoll. Clearly, the current building housing the National Library is too small (and has long been too small for the numbers of people, especially students, served). Therefore, a more immediate concern is how to find funds for a purpose-built building to house the National Library which comprises the national archive collection, research library, public and children's library and a public information centre. If this facility also had a public Internet café and photocopying/binding service (thus a revenue-earning arm) it would also address several other needs in Tuvalu. The libraries of the various government departments would remain, but whilst responsibility for their safety would rest with the heads of departments, responsibility for ensuring that department staff were able to manage the small collections would rest with an enlarged and better-trained National Library staff. In this regard, the National Library has been identified as the next possible site (and accordingly could be part of the next phase of PEIN).

This approach would contribute to the overall objective of PEIN, of ensuring that environmental information is made more available and accessible leading to greater awareness and understanding of environmental issues; it's just a different way of getting there, but one that has received some support by those consulted.

Appendix 9 Country network – Fiji

1. Visits and individuals consulted

Consultations in Fiji occurred during the period 20 & 25–30 August 2003. The following individuals were consulted:

- *Mr George Beck*, Technical Assistant (EC), Forum Secretariat
- *Ms Vasiti Bole*, Library Assistant, Ministry of Agriculture
- *Ms Elizabeth Fong*, Deputy University Librarian, USP
- *Dr Siosua Halavatau*, Participatory Extension Officer, SPC/EU Development of Sustainable Agriculture Project
- *Ms Venita Lal*, Chemical Engineer, OHS, Ministry of Labour
- *Ms Bernadette Masianini*, Agricultural Information Specialist, SPC/EU Development of Sustainable Agriculture Project
- *Ms Archana Narayan*, Field Officer, Live & Learn
- *Mr Epeli Nasome*, Director, Department of Environment
- *Mr Malcolm Ponton*, Senior Technical Assistant (EC), Forum Secretariat
- *Ms Sunila Prasad*, Programme Manager, Live & Learn
- *Ms Sunita Prasad*, Library Services Officer, SOPAC
- *Mr Kamlesh Prakash*, Head, Information & Communication, Min of Agriculture
- *Mr Ganeshan Rao*, Co-ordinator, PIMRIS, USP
- *Mr Isikeli Raratabu*, Principal Mechanical Engineer, OHS, Ministry of Labour
- *Ms Neomai Ravitu*, Research Assistant, Fisheries Department
- *Mr Etika Rupeni*, Fiji Country Programme Co-ordinator, WWF South Pacific Programme
- *Ms Akosita Seru*, Librarian, Fisheries Department
- *Ms Noor J. Shafiq*, Library Assistant, Forestry Department
- *Mr Alf Simpson*, Director, SOPAC
- *Mr Enrico Strampelli*, Technical Adviser, EC Delegation
- *Mr Timoci 'Jim' Sukulu*, Technical Assistant (IT), Forestry Department
- *Ms Margaret Tabunakawai*, Beche-de-Mer & Trochus Officer, Fisheries Department
- *Ms Mere Tikoduadua*, Information officer, Fisheries Department
- *Ms Eleni Tokoduadua*, Environment Officer (Awareness & Education), Dept Environment
- *Mr Malakai Tuiloa*, Deputy Director, Fisheries Department
- *Ms Vasiti Vuiyasawa*, Coastal Inshore Fisheries Officer, Fisheries Department

2. Fiji National Environment Information Network

The Fiji National Environment Information Network (FINEIN) consists of the Department of Environment and the Department of Forestry.

The Department of Environment, created in 1993, uses its Environment Education Division to organise and disseminate environment information. Prior to the establishment of the Department, industrial and other developments in Fiji proceeded without the requirements of Environment Impact Assessments. Associated environmental related problems, many, which affect local communities, led to a surge in requests for information and assistance to address these issues. Concurrently, the activities of NGOs at community level increased local awareness and their demand for environment information.

This prompted the Department to set up a small library with a computer and photocopy machine in 1998 with assistance from SPREP. The training provided by SPREP was part of

their programme to assist 10 identified countries in establishing national environmental libraries within environment departments.

The Department of Forestry was invited as first partner to FINEIN in May 2002 by the Department of Environment.

3. Relationship to PEIN and national perspective

3.1 Activities and other inputs

There were no specific activities for Fiji listed in the first annual work programme (**AWP I**) for PEIN. Fiji's involvement in PEIN for this period was attendance at the first PEIN Regional Environmental Information Sharing Workshop which was held in Auckland, New Zealand, 3–7 December 2001.

The Fiji country report presented by the National Co-ordinator at the 1st PEIN Regional Meeting in 2001 indicated that Fiji ceased cataloguing during the 2000/2001 period due other work commitments (**QR I/4**). Activities request the following activities for the second annual work programme (**AWP II**):

- Installation of equipment and in-country training for National Co-ordinator (Phase 2) – July 2002
- National workshop in Fiji (Phase 3) – July 2002

The Department of Environment had identified the Department of Forestry as first network member. The PEIN Co-ordinator installed the new software, DB/TextWorks 5.1 on the Department of Environment old and new computer equipment in August 2002. During this period, the old computer equipment was presented to the Department of Forestry, and the Project Co-ordinator provided training (three days) in the use of the software for the Departments of Environment and Forestry (Phase 2).

In December 2002, the first National Workshop was held in Suva. Attended by nine representatives of government departments (Environment, Forestry, Fisheries, Occupational Health and Safety, Agriculture, Energy, National Planning, National Disaster Management, and Women), the participants discussed the possibilities of a national environment information network. It was agreed that SPREP would draft a User vs. Provider Guide to address issues of concern regarding access to information provided by the network.

The final annual work programme (**AWP I**) does not include any activities for Fiji.

In summary, Fiji has received the following from the project:

- Regional workshop in New Zealand, attended by Department of Environment IT personnel (Auckland 2001)
- Two sets of computer software and hardware (for the Departments of Environment and Forestry)
- Training for three people in using DB/TextWorks and managing a database
- National workshop for nine government departments on the potential for a national environment information network

3.2 Relevance, efficiency, effectiveness and impact

Relevance: In response to the need for a library to host the increasing volume of environmental literature and respond efficiently to increasing public requests for information on the environment, the Department of Environment requested assistance from SPREP to establish their Environmental Library in 1998.

Fiji was identified as having been initiated into the project via pre-PEIN activities. This was a justification for not carrying out Phase 1 (technical assessment) despite the fact that Phase 2 commenced in Fiji four years later (2002). It is very likely that during this time the in-country needs and capacity had changed and these factors should have been raised by the National Co-ordinator and incorporated into the project approach. Phase 2 activities were requested by the National Co-ordinator.

The main impetus for the Department of Environment was to establish a physical library and database for the Department. Training and equipment provided under the SPREP Library Training Activities provided direct benefits to the Department. The concept of information networking was recognised by the Department and presented at various fora. The Department's first priority was to network within the Ministry of Local Government, Housing and Environment, before moving out to other government departments. The National Co-ordinator created a Ministry library committee made up of representatives from the various departments; several meetings were held, but could not reach a consensus as to where the national environmental information centre/library could be housed. In liaison with the IT section, the National Co-ordinator succeeded in having the InmagicPlus database (a precursor to DB/TextWorks) mounted on the Ministry's server, so that all could access it.

In 2002, the Department began to explore the concept of a national network by identifying the Department of Forestry as the first network partner. Non-governmental organisations, local public and other libraries are not yet part of the network, which is an indication of how much more work there is to do.

Efficiency:

The first PEIN activity for Fiji was for Ministry IT personnel to attend the 1st PEIN Regional Environmental Information Sharing Workshop, held in Auckland, New Zealand, 3–7 December 2001. On return to Fiji, the IT personnel held a meeting with the National Co-ordinator and provided some understanding of the network concept.

Delivery of a new computer to the Department of Environment and in-country training in the software for both the Departments of Environment and Forestry, was provided in August 2002, planned to coincide with a visit to Tonga to save costs for the PC. As this was the participants first exposure to the software, the three days spent in Fiji to assess both libraries, install computer and software and provide training in the use of the software was inadequate. This was complicated by the fact that the above-mentioned IT personnel had left the Ministry (and migrated) thus taking with him all the knowledge gained by attending the first regional workshop. This is a good example of how precarious the situation can be.

The computer presented by the PC to the Department of Forestry was the old Environment computer, given to them through the SPREP Library Training Activities. This crashed within a month; it was not until June 2003 that the Department of Forestry received a new computer from the project. Since then they have entered 481 records into the database. The Department of Environment have entered 2,379 records. There has been no update of the PEIN database since it was delivered in 2002. There is no operations manual (and no DB/TextWorks *User Manual*, only an old Inmagic operations manual). Both National Co-ordinator and Forestry Librarian clearly identified the need for an operations manual. This was partially addressed by the Department of Forestry Technical Assistant who, with the assistance of the PEIN Co-ordinator during training provided in June 2003, developed a simple user manual to assist the Librarian. There is no assessment or monitoring process for quality of data entered into the database.

Effectiveness:

The results of PEIN in Fiji have been the establishment of an environmental library, equipment, and technical training. A database, FINEIN, has been set up and now contains 2,379 records. The National Co-ordinator also has access to the SPREP PEIN database (with 20,945 records).

Both the Department of Environment and Forestry have benefited greatly by having access to software, which allowed their efficient recording of library holdings. This is especially true for the Forestry Department. The main users of the database have been students at all levels. According to the Environment Department, 90% of requests for information are from students, and the database has contributed greatly to the degree of efficiency requests for information are responded to. The remaining users are Department staff and consultants.

Use of the database is limited to the two departments. There is little knowledge of its existence outside of the departments. There is also very little knowledge of the PEIN project among the NGO community who were not included in the national workshop. It was assumed that since the national workshop was held only recently (December 2002), discussions regarding the national network would have been held in the first half of 2003 as a follow-up to the workshop. This was not the case and is indicative of the input provided at national level.

The project results have not contributed greatly to the project purpose. Limiting factors include: poor technical skills and knowledge of the software, poor understanding of the full concept of PEIN, lack of understanding of the responsibilities and role of the national co-ordinator, and other institutional roles and responsibilities in developing the network.

Impact:

The impact of PEIN in Fiji has been an efficient environment library with a computerised database, utilised mainly by students. There is significant potential to go beyond this, especially with the resources available in Fiji.

3.3 Sustainability

The national workshop held in December 2002 was the first opportunity for SPREP and the National Co-ordinator to reveal the concept of PEIN to potential network partners albeit in the absence of NGOs. People consulted who represented government departments at the workshop were fully supportive of the idea and the concept of information sharing. The weakness has been in the follow-up to pursuing the establishment of the network after the workshop.

There are several important factors that could potentially assist or contribute to an effective information network in Fiji:

- Existing networks – there are several environmental networks already in place. These include the Fiji Locally Managed Marine Areas (FLMMA), Fiji Land Information Systems (FLIS), National Biodiversity Strategy and Action Plan Steering Committee (NBSAP), Wetlands Committee and the PABITRA Project. These networks are mostly chaired by the Department of Environment and consist of both Governmental Departments and NGOs. The Department of Fisheries has recently established Rural Fish Centres in the provinces and is discussing the possibility of these centres servicing both farmers and fisherfolk. The Occupational Health and Safety Department Environmental Unit works closely with the Environment Department and industrial sector. The PEIN project could link into these networks for information sharing instead of establishing a new network. This also provides the National Co-ordinator with the opportunity to work

closely with the chairs of existing networks, most of which are Environment Department officers.

- Role of NGOs in creating links to communities. The fact that most environmental NGOs in Fiji work closely with communities cannot be ignored, as they are the most likely conduits of environmental information to local communities. Consultations with WWF and Live and Learn Environmental Education Fiji proved very positive as both NGOs saw the benefits of an information network and both have the capacity to contribute financially to FINEIN.
- Create links with Pacific Islands Marine Resources Information System, based at the USP School of Marine Studies. PIMRIS was established with the purpose of developing a network for fisheries and marine information in 1988. The purpose of PIMRIS is similar to that of PEIN, therefore PIMRIS, 14 years later, provides valuable lessons. A good example is the Fiji Fisheries Department which, despite having a trained librarian has no computer and a manual database which uses not the PIMRIS classification system, but the Dewey Decimal Classification as this was seen to be more suitable for users. This indicates that user needs have to be identified and incorporated into strategies
- Ensure IT personnel are involved with the network, which was what happened initially. The example provided by the Forestry Department reveals the extent of technical expertise available to assist with the project. Most government departments, SOPAC, SPC and WWF have their individual IT sections to service their computers. Another example is the creation of the Fiji Mangrove Database created by the USP School of Marine Studies, which employed a person with IT skills to develop the database and enter all data.
- Ensure trained librarians are included in the network to contribute to the proper maintenance of the database. Of the departments consulted, the Departments of Fisheries, Forestry and Agriculture had trained librarians to manage their libraries. Of the other organisations consulted, PIMRIS, SOPAC and SPC had qualified librarians. While it may not be possible to have all departments or organisations with trained/qualified librarians, it is important that the National Co-ordinator realise the potential advantage of having six librarians in the national network.

3.4 Conclusion and recommendations

The overall objective of PEIN is to ensure that environmental information is made more available and accessible to the people thus improving awareness and understanding of environmental issues.

The conclusion drawn from the findings of this evaluation is that the approach to FINEIN is still in its infancy. Fiji is relatively advanced in that the requirements for an information network i.e. technical personnel, specialist software, environmental networks and trained librarians are all possible to realise. What is needed is for SPREP and the National Co-ordinator to explore further the opportunities to expand the existing environmental networks and to use the wide range of available expertise to contribute to an efficient and effective FINEIN.

Appendix 10 Country network – Vanuatu

1. Visits and individuals consulted

The consultants visited Vanuatu, 31 August – 4 September 2003. During their time there, they consulted with the following individuals:

- *Ms Eileen Boe*, Head Librarian, Port Vila Public Library
- *Mr Fraser Bule*, Principal Agric Officer (Technical Section), Dept of Agriculture
- *Mr William Ganileo*, Database Manager, Dept of Lands, Min Lands & Nat Res
- *Ms Lizbeth George*, Filing Clerk, Dept of Forests
- *Ms Betsie Kaltabang*, Librarian, Reserve Bank
- *Ms Nicole Karlo*, Senior Librarian, Port Vila Public Library
- *Ms Karen McDowall*, AVI Librarian, Port Vila Public Library
- *Ms Leiwia Moli*, Librarian, Parliament of Vanuatu
- *Mr Russell Nari*, Deputy Director, Environment Unit, Min Lands & Nat Resources
- *Ms Loise Nasak*, IT Manager, Reserve Bank
- *Mr William Nasak*, REDI Officer, Ministry of Internal Affairs
- *Ms Nettie Naviti*, Computer Officer/Librarin, Dept of Fisheries
- *Mr John Oke*, AVI Technical Adviser, REDI, Ministry of Internal Affairs
- *Ms Linda Olun*, Lands Officer (Planning), Dept of Lands, Min Lands & Nat Res
- *Mr George Pedro*, Research Officer, Wan Smolbag Theatre & Acting Manager, WWF
- *Mr James Selwyn*, REDI Officer, Ministry of Internal Affairs
- *Ms Annie Shem*, Field Officer, Live and Learn Environmental Education
- *Mr Trinison Tari*, Education & Info Officer, Environment Unit, Min Lands & Nat Res
- *Mr Hannington Tate*, Deputy Director, Dept of Forests

An scheduled meeting with the Senior Librarian at the University of the South Pacific Emalus Campus did not eventuate as both he and his deputy were unavailable.

2. Vanuatu Environment Information Network

The Vanuatu Environment Information Network (VANEIN) comprises just one institution, the Environment Unit of the Ministry of Lands and Natural Resources. The Unit comprises three core staff. Development of the library and associated library catalogue started in 1996 when, with some funds from SPREP Library Training Activities, the Unit was able to employ a part-time librarian to organise (using Dewey) and catalogue (manually) all their library materials. Later that same year, the then SPREP Librarian visited and installed Inmagic for DOS on a new computer and the process of transferring all catalogue cards to a database commenced. By the end of 1997, the database contained over 2,000 records. In November 1999, an in-country Inmagic for DOS workshop was held at USP Emalus Campus, funding and training provided by SPREP. All government departments except Lands, the Public Library and Reserve Bank attended; and though a national workshop, there was an observer from Cook Islands funded through the Cook Islands Capacity 21 national budget. Following the workshop, two institutions took up the use of Inmagic for DOS: Reserve Bank and Public Library. However, the Environment Unit's computer crashed and was never successfully repaired.

3. Relationship to PEIN and national perspective

Given the amount of work done in Vanuatu prior to the project starting to establish a national environmental library and database, and following the 1999 in-country training workshop, the country was in a very good position to take up the challenge and develop a national network.

The demise of the Environment Unit's computer, was a severe blow, one from which the country has not recovered.

3.1 Activities and other inputs

Vanuatu requested a new computer, printer and associated software be provided under PEIN, to replace the old computer. This request was made initially at the 2nd Environmental Information Clearinghouse & Networking Workshop, Apia, Samoa, 26 June – 2 July 2000, which was attended not only by the Vanuatu National Co-ordinator, Mr Trinison Tari, but also the IT Manager for the Reserve Bank of Vanuatu, Ms Loise Nasak. Ms Nasak's attendance was an inspired request from Mr Tari, as she was able to appreciate the opportunity the software offered (and on return to Vanuatu purchased a legal version of DB/TextWorks and converted the Bank's old Inmagic for DOS database). Country recommendations were drawn up during the final two days of the workshop and were included in the first PEIN annual work programme (**AWP I, Annex 1**). Unfortunately, the two Vanuatu participants were not in attendance on those days hence the non-inclusion of a verbal request to the PEIN Co-ordinator. As has been the situation in several other cases, verbal requests are unhelpful on their own; they must be followed up by written requests.

The National Co-ordinator attempted to attend the 1st PEIN Regional Environmental Information Sharing Workshop was held in Auckland, New Zealand, 3–7 December 2001, but became stranded in Cook Islands (the intended venue). The request to replace the defunct computer was made again at this regional workshop and followed up by a discussion with the Director of Environment, and a budget for the supply and installation of two computers (plus associated training) was included in the second annual work programme (to be carried out September 2002).

Installation of computer equipment and training in using the software, DB/TextWorks 5.01 (Phase 2), conducted by the SPREP IRC Manager, took place in April 2003. The old Inmagic for DOS database was converted at this stage, but installation of the new software on the old computer was unsuccessful because of the age of the hardware and limited memory.

In summary, Vanuatu has received the following from the project:

- One set of computer software and hardware
- Training for two people using DB/TextWorks and managing a database
- The opportunity for two people to attend one regional workshop (Auckland 2001)

3.2 Relevance, efficiency, effectiveness and impact

Relevance: The Environment Unit has been a direct beneficiary of the project, with the supply of equipment and training. An indirect beneficiary has been the Reserve Bank which observed the potential of the software, and on their own initiative began to use it (their catalogue database now comprises about 9,000 records). Indirectly too, other government departments, specifically Forestry, Agriculture and Fisheries, the Parliament Library and Public Library have agreed to co-operate to develop a national library network.

Efficiency: In discussion with Environment Unit staff, there were questions as to why the delay in receipt of a new computer (eventually acquired April 2003), and why the lack of visits. Various suggestions were put forward. In *Quarterly Report* No. 4 (19/12/02–19/03/03), it is stated that 'progress has been slow due to some personnel and technical issues experienced by the Environment Unit'. The technical issue was a request for equipment other than a computer; the personnel issue refers to concerns about how the national environment

library was being managed²². It is further stated that there was 'no adequate technical support in relation to in-house information technology and/or equipment maintenance'; this is contradicted by the Reserve Bank who, at their own expense had provided technical support to Environment to try and resurrect the old computer. Visits were not deemed necessary by project staff since they received input from the Environment Unit Director and other staff in the Unit (e.g. Biodiversity, Capacity 21).

The new computer is still operating, and the Environment Unit library is tidy, with the majority of materials findable.

Effectiveness: The database, VANUATU, that was set up in April 2003 is a copy of the PEIN database. Into this database has been added 190 records; a further 2,173 records in the original PEIN database have been amended to reflect the Environment Unit's holdings making a total of 2,363 records of materials held in Vanuatu. SPREP has acquired (for the PEIN regional database) all the records scavenged from the defunct Inmagic for DOS database, plus some of the 190 new records input in April 2003.

The training of the operator has enabled that person to use the database to search for and enter/edit records, but not to make any structural changes such as alter a menu screen or design a report form. Support for this, should it be needed, can be provided by the Reserve Bank.

Neither the VANUATU nor the PEIN database is mounted on any other computer in Vanuatu; and the library catalogue database at the Reserve Bank has also not been distributed to any other institution. To the extent that there is a catalogue of materials in the Environment Unit library, the results have contributed to the project purpose. It is not known how much use is made of the library, and to what extent the database has assisted. The delay in providing the computer equipment, software and training has hindered development considerably. It did not appear that there had been much interaction between the facility and other departments or entities. Public awareness and promotion are tasks best carried out by National Co-ordinators. Where this does not happen, it is a reflection of the level of input at the national level, not by SPREP. Thus, the results do not seem to have fully led to achieving project purpose.

Impact: Since the organisation and development of the Environment Unit library preceded PEIN, the only activity that would not have happened if there had been no PEIN project would have been that the computer, software and training would not have been provided. It is possible that had this been the case, the officer would have soldiered on using Inmagic for DOS on another computer, or funds may have been found to replace the old defunct computer.

It is almost certain that had the Reserve Bank staff not attended the pre-PEIN training workshop, they would not have learnt about Inmagic for DOS; and if the IT Manager had not attended the 2000 regional workshop, she would not have helped the Reserve Bank's librarian make a submission to management to purchase DB/TextWorks software, and Vanuatu would have been without the level of expertise they now have. Neither of these initiatives have greatly improved access to information outside of the two institutions, but they may indirectly have given rise to the idea of networking government departments to improve information management. If this is so, then this is a considerable advance in strategic thinking. There is currently before Cabinet a paper outlining a proposal to develop a 'national information

²² The Secretariat draws attention to the 'reluctance of NBSAP and IWP projects in lodging information produced and researched by these projects in the NEL for fear of being misplaced ... a concern well founded as the current information officer is not very proactive nor at work when needed ... a majority of users and information researchers use the IWP and NBSAP officers to acquire their environmental information' (QR II/4, Annex 4).

centre', which is essentially the operational capacity to network government departments. Should this submission be successful in gaining Cabinet approval, there is a chance that Vanuatu will be able to do what no other Pacific island country has done.

3.3 Sustainability

Currently, there is a reasonable hope that the advances made through the project can be sustained in the short term. To increase these odds, other government departments need to be included and a real information network established. There is an opportunity for PEIN project activities to be complemented by another EDF-funded project, Island Systems Management, implemented by SOPAC. The national co-ordinator for this project is the Database Manager at the Department of Lands, Mr William Ganileo. This project seeks to harness available information resources such as those found in ArcInfo and MapInfo databases (GIS). Considerable computer power and networking will be a feature of the project's activities in Vanuatu. There is an opportunity to link in with this initiative and, in this regard, the PEIN Co-ordinator has demonstrated to Lands the potential of DB/TextWorks to access a GIS-produced map. She is awaiting feedback on this.

The National Technical Advisory Group (TAG) is the co-ordinating body which brings together all departments to do with the rural economy. In a way, the TAG is already a network, one that it makes strategic sense to support. The Environment Unit is part of TAG. The operational arm of TAG is the REDI (Rural Economic Development Initiative) office of the Ministry of Internal Affairs (previously Home Affairs). REDI has produced economic development plans for the six provinces, and the REDI office is one body charged with co-ordinating access to information across all sectors and government departments, and is the focal point for the provincial administrations. As such, it has a significant vested interest in marshalling available information and the establishment of a library/information network to the extent that it could facilitate its development.

3.4 Conclusion and recommendations

The extent of interest shown by the institutions visited in Vanuatu to co-operate in exchanging and sharing information is indicative of an unrealised potential. The key factor is that all inputs and activities should be supportive of national interest. The Port Vila Public Library and Parliament Library have the staff although only the Parliament has the equipment to participate immediately in developing an information network, together with the Reserve Bank which has the experience, and Environment. Government departments such as Forestry, Agriculture and Fisheries don't have the staff nor the equipment, so they will not be able to participate immediately. But the Department of Agriculture in co-operation with Forests and Quarantine have agreed to share a librarian; this position is included in next year's budget. The Department of Lands, and NGOs such as Live & Learn and WWF, have the equipment and some staff.

With reference to comments made by the Deputy Director, Environment Unit, Mr Russell Nari, for the need to promote management of information, and that there needs to be a standardised library system, there is a clear opportunity to do something about this. It is for PEIN project staff to determine how involved they want or are able to become, but if the lessons learned from involvement in NERDS is indicative, then the more involved the better. A good first start would be to help the various institutions better appreciate how they can develop an information network, and the implications of such a development. This might be done, at the invitation of Vanuatu, by facilitating discussions between all the interested parties and helping to draw up a strategy, document agreements and design proposals for aid funding. Two aspects are critical: development of and support for the technology used; and content management. The former is already in place to a certain extent: the Reserve Bank have acquired skills in the use of the software, and with further training, would be in an even better

position to support use of the software and provide training. Additional support might come from the Department of Lands, particularly with the Island Systems Management Project. The second factor – content management – is not so easily resolved. The current lack of staff with qualifications and experience in library database management is a major hurdle. However, a long-term strategy to make use of AVIs (Australian volunteers) concurrent with a policy of encouraging ni-Vanuatu staff to acquire higher library and information management qualifications and experience, this issue can be resolved.

There needs to be a greater investment in Vanuatu at this time, not less. The expected outcome will contribute to the overall objective of PEIN, of ensuring that environmental information is made more available and accessible leading to greater awareness and understanding of environmental issues.

Appendix 11 PEIN activities, 2001–2003

Table 1: Planned, revised and actual timetable of activities

2001/02	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
Quarterly Report ID	QR I/1			QR I/2			QR I/3			QR I/4 AWO 2001/02 Closed			
Planned	Design and construction of IRC				Equip IRC							Reg Wks (CK)	
	CK Ph.4		TV Ph.1	AS Ph.4 Nat Wks			TV Ph.2						
	CK Ph.2		AS Ph.4			WS Ph.4/5 Equip		WS Ph.4/5 Nat Wks					
	TO Ph.1												
		WS Ph.5 Attach											
Revised	CK Ph.4		TV Ph.1	AS Ph.4 Nat Wks		WS Ph.4/5 Equip	WS Ph.4 Nat Wks		TV Ph.1	WS Ph.4 Nat Wks	Reg Wks (CK)	WS Ph.4 Nat Wks	
	CK Ph.2		AS Ph.4			CK Ph.2				TO Ph.1			
	TO Ph.1								Reg Wks preparation (CK)				
		WS Ph.5 Attach											
Actual								Design and construction of IRC					
		CK 12–16 Ph.4		AS 1–4 Ph.4						WS 12–16 Nat Wks Ph.4	Reg Wks 3–7 (NZ)		
		WS 19–30 Attach		WS 28–30 Nat Wks		CK 18–26 Ph.2				TO 19–21 Ph.1			

Note: Actual activities/inputs in italics not funded under PEIN.

2002/03	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Quarterly Report ID		QR II/1			QR II/2			QR II/3			QR II/4	
Planned	IRC completed					IRC operational						
				TV Ph.1	TO Ph.2	FJ Ph.2	WS Ph.5 Attach	VU Ph.2	TV Ph.2		TO Ph.3 Nat Wks	
						FJ Ph.3 Nat Wks			KI Ph.1			
Revised		VU Ph.2		TV Ph.1	TO Ph.2		FJ Ph.2				FJ Ph.3 Nat Wks	
							TO Ph.2				TO Ph.3 Nat Wks	
Actual	IRC completed	IRC opened										
	WS 19-20 Nat Wks			TV 20-23 Ph.1			FJ & TO 21-29 Ph.2/4				TO & FJ 6-9 Nat Wks	

2003	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Quarterly Report ID	QR II/4 continued										
Planned		IRC final payment			IRC Equip			Reg Wks (WS)	Reg Wks (WS)		
				WS Ph.4 Equip	SB Ph.1	WS Ph.3 Nat Wks	SB Ph.2				
							KI Ph.2				
Revised	TV Ph.2	VU Ph.2									
	KI Ph.1										
	WS Ph.5 Attach										
Actual	TV 14-21 Ph.2		VU Ph.2		SB? Ph.1		Eval. 11/8-9/9				
	KI 22-27 Ph.1						WS 25-28 Nat Wks				
	WS? Ph.5 Attach						SB 28/8-4/9 Ph.2				