

## **Bridging the gap: building environment information linkages & network- a Pacific, Samoan Model.**

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### **Introduction**

On a regional level, SPREP assists the development of member countries' national assessment reports towards environmental management, encompassing all of the four major areas identified in its Action Plan. The development of national strategies is dogged by the lack of adequate information infrastructure and mechanisms. Constraints affecting the negotiation and implementation of Multilateral Environmental Agreements (i.e.: CBD, UNFCCC, Waigani etc) include inadequate access and analysis of environmental information.

Reviews of the Barbados Programme of Action (BPoA) and the World Summit on Sustainable Development show the need within the Pacific to create (where none exist), strengthen and enhance access to environmental information.

Experience has reaffirmed that sustainable development is best achieved through adoption of integrated and holistic approaches at all levels. The Pacific Environmental Information Network (PEIN) is a relatively small intervention but has already made an attempt at mainstreaming environmental issues through linkages to various sectors at beneficiary level. It comes at a time when there is greater expectation of regional organizations to assist members meet international and global obligations towards achievement of sustainable development goals and is contributing to better livelihood of the Pacific through the development of basic information infrastructures.

### **PEIN overview**

As a people's information network, PEIN is designed to provide environmental information in appropriate forms and languages to all sectors of the community recognizing that women as well as men can play a significant role in promoting environmental awareness. It targets environment and related government departments (inclusive forestry, agriculture, land use units; meteorology; ports authorities; police; foreign affairs); schools (Universities and Colleges); Public, National and Special Libraries with final beneficiaries listed as Government personnel; Students (Tertiary, Colleges & Primary); Community at large (inclusive Non-State Actors); Regional and International organizations and bodies (inclusive Secretariats of various MEAs).

### **Objective of PEIN**

The overall objective of the project is to build national capacity for environmental management and sustainable development of Pacific ACP States. In order to resolve the lack of environmental awareness, information accessibility, analysis and usage will be enhanced through the cross-sectoral services provided through the PEIN network. The PEIN services a network of targeted beneficiaries who directly interface with existing national systems (e.g.: NSAs, National Women's Groups, National Youth Groups, Church leaders and Congregations, Media etc.).

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The objectives and purpose of the intervention flow from the global level (i.e.: WSSD, WSIS, BPoA, Multilateral Environmental Agreements) to the regional level (SPREP Action Plan, Pacific Regional Strategy etc.) to the national level (National Assessment Reports; NBSAPs etc.).

This development objective contributes to the information infrastructure of SPREP member countries and Pacific ACP States and will assist efforts at sustainable and efficient use of natural resources, improved economic status and social capital development.

An initiative geared towards a regional approach is a necessity as it not only directly assists PACPs on the national level, it is also a conduit towards meeting obligations of countries and regions on the global and international level. Implemented within a framework of four technical phases (Phase I: Technical assessment of facilities, personnel & audience; Phase II: Purchase and installation of appropriate equipment and preliminary in-country training; Phase III: Environmental awareness activities and National workshops; Phase IV: Country attachment scheme), the PEIN relies heavily on its national counterparts identified in the early stages of the project. These national counterparts are normally Environmental Education Officers and/or Information Officers based within Departments of Environment or SPREP's operational in-country Focal Points. In very rare cases have the focal points been allocated not from environmental departments (e.g.: American Samoa's operational focal point is the Department of Marine, Wildlife & Resources (DMWR), not EPA).

Skills acquired through PEIN training in information management were to assist national personnel better service requirements of their own national needs. Its 'members' are by default SPREP's 25 member countries and territories; regional links/partners such as USP (PIMRIS & SOA), SOPAC, SPC, PIFS and FFA. International links/partners include UNEP-INFOTERRA, IUCN/WRI/IIED-INTERAISE, Global Information Network, various links through existing SPREP projects/programmes – e.g.: SIDSNet, PaciNet, POPs: UNEP Chemical, IMO, UNDP etc...Some links operate through formal organizational Memorandum Of Understanding (MOUs) whilst others work through 'project mandated' objectives. Figure 1 shows the Pacific model that won an international award at the 2004 Stockholm Challenge Environment Category, in its innovative use of IT tools for the sharing of information between scattered islands and peoples. For more information on the Stockholm Challenge, visit [www.challenge.stockholm.se](http://www.challenge.stockholm.se) website.

Current members of the PEIN are the 14 Pacific ACP states and one non-ACP state (American Samoa) with the dissemination aspect operating in 10 of the 15 members mentioned above. Of the 10, Samoa is currently the top country in terms of national membership (13 network members: 5 sites – 4 providers and 1 user). The system can operate as a stand-alone database or can be accessed via internet through the SPREP website ([www.sprep.org.ws](http://www.sprep.org.ws)). The PEIN system relies heavily on the "people-aspect" of networking hence its heavy concentration on capacity building in the form of national in-country trainings, country attachments and national workshops. It also works closely in collaboration with the environmental education and training section of SPREP.

### **Looking ahead**

The PEIN Project will address capacity building through country attachments, workshops and seminars and other complementary programmes implemented by SPREP and its sister regional organizations. Linking activities with similar interventions envisaged through the

Convention on Biological Diversity, and UNFCCC's clearinghouse will also ensure sustainability of PEIN's cross-sectoral service.

The major problem undermining attempts to redress environmental problems is poor quality access to and analysis of appropriate information. The SPREP Action Plan reflects what each country perceives as its main environmental issues for the given timeframe (i.e.: 2001-2004, 2005-2009). Information accessibility, analysis and dissemination are identified as a major stumbling block in the implementation of almost all environment-related initiatives. Community knowledge and awareness of appropriate environmental management is crucial for the success of national policies for sustainable development. PEIN addresses information infrastructure required for the collection, documentation and dissemination of available and appropriate information to all sectors of the community and as well, assists in the quest for knowledge management. It will strengthen support to all Pacific ACP States through capacity building activities. Training will encompass all three components of capacity building (i.e. institutional, human and systemic).

Information dissemination, analysis and management cannot be tackled solely through the infrastructure (i.e.: systemic), it must also look at providing support in the creation of national information policies and strategies (institutional) and provide training for environmental personnel to better analyze and repackage information into appropriate formats. By incorporating PEIN into the national level and through the creation of national networks, there is assurance of a wide spread reach of information and a wider concentration of efforts to link the various partners that are already networked or linked to various sectors of the community, on the national level.

### **Case study Samoa: Samoa Environment Information (SEI) network**

#### **Overview**

Samoa's participation to the United Nations Conference on the Environment and Development (UNCED) in 1992 was the first stepping stone for the country to pledge its commitment and support to the international community to work towards addressing key issues related to environmental conservation and sustainable development. The development of the National Environment Sustainable Management Strategy for Samoa (NEMS) 1993, is one positive outcome of UNCED, because this strategy specifically outlined twelve target environment components for Samoa to directly respond to local and regional emerging environmental problems. The government's political support for the sustainable management and use of natural resources through establishing conservation areas, national parks and the development of national legislations, policies strategies, and national environment public awareness events saw the growth of environmental interest from the public.

The gradual awareness about local, regional and environmental problems started to find its niche within the formal education system through environment education and the existing subjects taught in science and social science. Similarly, local environmental concerns were the highlights of every community workshops or road shows conducted by different government ministries or NGOs promoting development sectors with a strong emphasis on sustainable development. For instance, the Samoa Tourism Authority road show to promote tourism in communities, strongly advocated for the importance of Samoa's natural environment as a reflection of our culture, identity and how Samoan people live in harmony with nature. This informal education approach is an indication of driving environmental awareness to the community or village level. In this context, a new culture of "environmental consciousness" has emerged and along with it comes the craving for environment related

information dealing with various issues such as; climate change, biodiversity, pollution in both terrestrial and marine, sustainable development and the list is endless.

### ***Division of Environment & Conservation (DEC) Information Resource Center***

The DEC was established in 1989 under the Ministry of Natural Resources and Environment<sup>†</sup> and was solely responsible for addressing means for sustainable development that would accentuate the value of natural resource management for Samoa's national planning. As workload for the division grew, so did the need to set-up an information center for employees of DEC to do research work and house all reference materials received from regional and international environment organizations, as well as local research study, field work, and reports. In 1998 the DEC through NZODA conducted a study to assess the need for environmental information. The outcome of the study in which Ms. Satui Bentin of SPREP conducted, distinctively identified that the DEC Staff Information Resource Center has expanded its services to provide information for the growing number of local researchers on environmental issues.

The NZODA funded project produced this report emphasizing the need to formally set-up an environment information center to accommodate the demand from schools (students doing research), academic researchers from Tertiary Institutions, international and local consultants, other government ministries and the general public. The outcome of the NZODA report for Samoa came at the right time when SPREP had just started the Pacific Environment Information Network project (PEIN). Unlike other Pacific Island Countries who were members of PEIN, Samoa through its own initiative had already completed its first phase of technical assessment and now is sure of what approach they need to undertake for the establishment of the Resource Center and at the same time set-up a network of information providers and users. This report became the guideline for Samoa's implementation of PEIN.

### ***Establishment of the SEI-network***

Like all new projects, information networking is no different. A period of trial and error can go on for a while, before the responsible agency can come up with deliverable output for potential stakeholders to see and gauge their interest. The development of the Samoa Environment Information Network database (SEI-network database<sup>‡</sup>) is no easy task given the limited number of staff available and the hours spent on entering data. SPREP through the EU-PEIN project provided technical support in developing the environment information database with the use of the DB/Text Software program. The continued support from NZODA for capacity building in environment information compilation and dissemination prompted the approval of funds for the first national environment information networking workshop in February 1999. This workshop launched the national database of environment information that DEC has put together with the technical support from SPREP. The outcome of the workshop consolidated the members for the first SEI-network and this included; two tertiary institutions, four government ministries, 2 environment NGOs and two colleges.

The members of the SEI-network identified the need to access information and promote sharing of this information to students, teachers and learners who are the main users of environment information. In order to make the information available from each institution

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<sup>†</sup> Ministry of Natural Resources & Environment was formerly the Department of Lands Surveys and Environment. The name change is a result of government reform in 2002

<sup>‡</sup> SEI-network was formerly the National Environment Resource Database for Samoa (NERDS), the name was changed due to request from members to come up with a name that is more marketable and catchy for people's interest.

through the use of the SEI-database, members feed in the relevant information to DEC for updating the national database. It was also the responsibility of DEC being the national coordinator to install the search version of the national database with all its members. The information in the database is basically a catalogue or listing of reference materials from international, regional and national level, which include the location of where a user can borrow the actual report or reference material. It was this common understanding that guided the SEI-members access and sharing of information. In addition, institutional policies of each member's apply when a user borrows the information from their library or resource center.

The DEC being the driver of this project was able to mobilize its resources from other existing environment programmes, such as the GEF-Operational fund to continue the capacity building training for the SEI-network members and its new members on how to use the program. In 2001 funds were received from the UNDP-GEF Operational programme funded a national workshop for the SEI-network and also demonstrated to participants the GEF website and how they would be able to access environment information from the global network. This workshop identified the need to purchase PC's for member institutions with already established resource centers, but have problems in accessing the SEI-database because there is no computer to host the database. The leading role DEC plays at the national level in pushing forward capacity building trainings for the SEI-network and acquiring PC's for pilot institutions reflected the commitment from both members of SEI-network, the national coordinating agency MNRE and support from donor organizations. In addition capacity building trainings for the SEI-network would not have been possible had it not been for SPREP's continued technical support as well as the purchasing of PCs for some members of SEI-network under PEIN project.

The SEI-network expanded its recognition to Samoa's sister island American Samoa who had expressed interest to participate in the SEI-network trainings. The interest from American Samoa colleagues was to find a better means of improving their information dissemination to the public. As well, American Samoa is a member of the PEIN project and they have also been very active participants. Apart from its country-country ad hoc partnership between the SEI-network and environment institutions in American Samoa, the MNRE is the national focal point to the UNEP-INFOTERRA global environment information network.

### **Lessions learned**

The SEI-network is one particular project of MNRE that has continuously evolved with the growing need for environment information. It started off as a reference information center for the staff of the Division of Environment and Conservation, and now it has expanded to be the Resource Information Center for the Ministry of Natural Resources and Environment, being the depository and clearing house for all information that comes into the four main divisions of MNRE (Technical, Land Management, PUMA and DEC). The Information Resource Center is the main place for researchers, students and academia's to use when they come in to look for information and do studies. Although, progress is witnessed in the evolving changes of the SEI-network as a result of the commitment by the Division of Environment and Conservation of MNRE, it has also at the same time experienced a number of pitfalls such as;

- The current institutional arrangement as a result of the government reforms structure 2003 which has moved the Capacity Building Section (CBS) from the DEC to the Corporate Service Division of MNRE. Although the intention has some potential in terms of being the central section to provide backstopping support to all other divisions, with regards to public education and awareness, trainings and information dissemination, there are major drawbacks to the type of leadership capacity and priority focus of the current division to

promote and emphasize the valuable contribution that the Information Resource Center provides to Samoa, and the work of the SEI-network. The constraint emerges from the misconception that Corporate Services Division being the central division providing all administrative support to the ministry should at the same time absorb other sections providing a similar service. However, what has been overlooked is that the functions of CBS runs parallel to that of the Corporate Service Division, therefore they can not integrated. For instance, CBS fitted in well with DEC because it was developed under the functions of DEC. Similarly it can merge into PUMA (Planning and Urban Management Services) and Land Management Division because they provide technical service to external stakeholders unlike Corporate Service, which focuses internally on MNRE. Thus, projects, like the SEI-network is directly for external stakeholders of MNRE whereby the CBS is the leading national coordinator for the project. However its static status is a result of the lack of support from the divisional head because of the limited knowledge into the work and functions of CBS, which provides a valuable service to the ministry externally.

- The high number of staff turnover has been a problem, especially with member focal points in each institution under the SEI-network. Henceforth, the SEI-network coordinator in collaboration with members encouraged partner trainings on the use of the SEI-network database program in the event that one person leaves for greener pasture, another person can take-it up.
- The lack of high level support for information access, sharing and dissemination is a long- standing issue raised by all members of the SEI-network. It seems that the inputting or cataloguing of existing information into the SEI-network database has faced a brick wall a number of times due to the lack of support from divisional heads of many government ministries within the SEI-network to provide equipments (PCs) to enable the cataloguing and storing of information. This issue is attributed to the traditional reference being made to any Information Resource Center as a library, when it is not. And it seems that the library being stigmatized, as not being a priority of many government ministries is very disappointing because it holds back the progress of people that have been trained in the use of the SEI-network database. The MNRE has moved away from this trend but the current place at which the PEIN project and SEI-network is being hosted may face similar dilemma like its members, and thus defeat the whole purpose for which the SEI-network coordinator under the DEC had pushed for an information resource center because it provides more services to the public.

### **Way forward**

The SEI-network is a good example of information access, sharing and dissemination at the national level. In fact the PEIN project has Samoa as the leading country in this Project, which is now at its last phase of implementation. The valuable potential of information as we all know is the key that open up doors of opportunities to people to build knowledge and improve accuracy in the collection and dissemination of information. The initiative taken by MNRE is a step forward to what each Pacific Island Country should regard as one priority area of national planning. The SEI-database is a tool that enables the network and linkages between members of SEI and users. The Environment Information Resource Center within the MNRE provides the central place for dissemination of information to all relevant stakeholders (users) and the recording and collection of environment information for storage and use.

The SEI-network through the use of its information database can ensure access and sharing of environmental information or resources by users. The dissemination of information can

empower communities, students, or anyone to support Samoa's sustainable management of its natural resources. The network also provides an alternative solution to the issue of access to information stated in Agenda 21;

There is already a wealth of information that could be used for the management of sustainable development, but many people have trouble finding the information they need, when they need it" (Agenda 21, 1993:61)

The MNRE SEI-network although well established now with members and they have some on-going programmes, more consolidated work is yet to unfold, but the current placing of the SEI-network and PEIN Project with Corporate Service may lose sight of what information networking and linkages is all about. Generally, if there is a choice for a suitable section or division, for the PEIN project and SEI-network to be managed due to its information technicality in management, it would be with the IT Section of MNRE and PUMA, as they have people with the capacity and knowledge to manage. The Capacity Section can still manage the daily operational activities of inputting data or cataloguing in the MNRE database and the IT Section to update the SEI-network database.

### **Conclusion**

The PEIN and the various national networks established in its member countries is working to redress the information gap by utilizing and linking other national, regional and international networks that are not already linked or working in partnership with and through PEIN. It is envisaged that PEIN will eventually evolve into a partnership network where each partner will have equal responsibility in the documentation and dissemination of information and as well, in the maintenance, monitoring and analysis of information dissemination resulting in a much higher percentage of public awareness and understanding of environmental issues.

By the next five to ten years, every member would have agreed to an exchange policy or would have written a national information policy that encompasses information dissemination, analysis and exchange between all partners. It also presumes that within the same timeframe, every partner and/or existing network irrespective of 'subject' area would be connected or linked in one way or other.

### **References:**

- Agenda 21, 1993. Section-4 Information Decision Making  
 Bentin, Satui. 1998. National Assessment to Gauge the Need for Environment Information, DEC, funded by NZODA  
 Taulealo, T.I. 1993. National Environment Management Strategies, SPREP.