



# Inception Report 2013

*Pacific POPs release reduction through improved management of solid and hazardous waste*

April 2014



## Table of Contents

1.0	Overview	4
1.1	Introduction	4
1.2	The Project	4
	1.2.1 Project Goal	5
	1.2.2 Project Objective	5
	1.2.3 The Project Document (ProDoc)	5
2.0	Project Inception Workshop and Steering Committee Meeting 2013	5
	2.1 Project Steering Committee endorsed changes to the GEFPAS project	5
	2.2 Additional Project Steering Committee Recommendations	7
3.0	Endorsed Project Activities	8
<b>3.1</b>	<b>Component 1: Development of national uPOPs strategies and regional uPOPs reduction guidelines</b>	<b>8</b>
	3.1.1 Comments on National uPOPs session	8
<b>3.2</b>	<b>Component 2: Training and awareness raising to improve solid and hazardous waste management</b>	<b>9</b>
	3.2.1 Vocational training	9
	3.2.1.1 Comments on vocational training session	9
	3.2.2 Pilot waste management demonstrations	9
	3.2.2a) Healthcare pilot (Kiribati)	10
	3.2.2b) Used oil combustion for power generation (Samoa)	10
	3.2.2c) Assessment of relic transformer PCB concentrations pilot (RMI)	10
	3.2.2d) Composting and integrated recycling pilot (Niue)	10
	3.2.2e) Comments on pilot project session	11
	3.2.3 Awareness campaigns	11
	3.2.3.1 Comments on Awareness campaign session	12
<b>3.3</b>	<b>Component 3: Training in post-NIP chemical inventories, stockpile management, and safe disposal of laboratory chemicals</b>	<b>12</b>
	3.3.1 Development of chemical training and awareness materials	13
	3.3.1a) Chemical inventory management	13
	3.3.1b) Chemical handling	13
	3.3.1c) Chemical disposal	14
	3.3.1d) Chemical safeguarding	14
	3.3.1e) Chemical store database	14
	3.3.1f) Train PIC Customs officers in improved chemical management procedures	14
	3.3.2 Comments on Chemical Training session	14
<b>3.4</b>	<b>Component 4: Development of a regional used oil management system</b>	<b>14</b>
	3.4.1 Comments on regional used oil management session	15
<b>3.5</b>	<b>Component 5: National technical assistance for post-NIP activities</b>	<b>16</b>
	3.5.1 Comments on Post-NIP assistance	16
<b>3.6</b>	<b>Component 6: Development of a system for used pesticide container management</b>	<b>16</b>
<b>3.7</b>	<b>Component 7: Project Management</b>	<b>18</b>
	3.7.1 Project Management Plan Overview	18
	3.7.2 Project Implementation Structure	18
	3.7.3 Project Steering Committee	18
	3.7.4 Project Supervision and Coordination	19
	3.7.5 Project Tasks/Schedule	19
	3.7.6 Project Risks/Mitigation	19
	3.7.7 Project Communications Management	21
	3.7.8 Project Sustainability	21
	3.7.9 Project Monitoring and Evaluation	21
<b>4.0</b>	<b>Conclusion</b>	<b>24</b>

Table 1: Steering Committee agreed project changes and associated budget	6
Table 2: PSC Recommendations	7
Table 3: Used oil management actions	15
Table 4: Post NIP funded activities, 2013	16
Table 5: Proposed used pesticide container budget	17
Table 6: Risks/Mitigations Summary	20
Table 7: Monitoring and Evaluation	22
APPENDIX 1: Inception/Project Steering Committee Meeting, and NIPs Update Training Workshop Programme	25
APPENDIX 2: List of Participants	27
APPENDIX 3: Minutes of Inception Meeting and Project Steering Committee Meeting	30
APPENDIX 4: Agreed Project Budget	42
APPENDIX 5: Project Work Programme	43

## 1.0 Overview

The *Pacific POPs release reduction through improved management of solid and hazardous waste* project was developed with the aim to improve poor regional waste management, the principal source of unintentionally produced POPs (dioxins and furans) emissions in the Pacific region, and therefore help address the obligation of Stockholm Convention Parties to reduce, minimize and where feasible, eliminate dioxins and furans. An Inception Meeting to increase stakeholder awareness of the project and to build stakeholder engagement is considered a critical component of project management by the Implementing Agency. This meeting was held in November 2013.

The Project Inception Report presented here is the corresponding reporting requirement for this meeting specified in the Project Document (ProDoc) that includes a detailed narrative describing:

- i). the institutional roles and responsibilities of the project partners;
- ii). stakeholder engagement commitments;
- iii). progress on project establishment and start up activities;
- iv). a detailed project management plan;
- v). a project supervision plan; and
- vi). a monitoring and evaluation plan suitable for progress tracking purposes.

## 1.1 Introduction

Poor waste management is a major threat to sustainable development in Pacific island countries and territories (PICTs) as it has negative impacts on the region's environment, as well as on public health, water resource quality, fisheries, agriculture, tourism and quality of life in general. In particular, poor chemical and used oil management remains an ongoing and escalating problem for the Pacific region. While the use of chemicals and petroleum products is essential in the modern world, the unsound management of chemicals and petroleum products can have significant negative impacts on both the environment and public health. The financially disadvantaged (and specifically women and children) are often those most affected by these adverse impacts. This issue is often exacerbated by the failure of many Pacific island countries to successfully implement national obligations required under signature to the Stockholm Convention, or by the lack of a national framework under which chemicals can be managed systematically. A lack of technical and financial capacity within Government Departments is often cited as the major reason for this systemic failure. Pacific island country representatives have consistently highlighted the priority need for in-country activities on several aspects of improved waste and chemical management in order to increase their capacity to manage this issue.

## 1.2 The Project

Recognizing these issues, the *Pacific POPs release reduction through improved management of solid and hazardous waste* project was developed to improve poor waste management practices, the principal source of unintentionally produced POPs emissions in the Pacific region, and therefore addresses the obligation of Stockholm Convention parties to reduce, minimize and where feasible, eliminate dioxins and furan releases. In addition, the project was designed to strengthen and build the capacity of participating countries to institutionalize the implementation of their Stockholm Convention NIPs in a sustainable, effective and comprehensive manner, while building upon and contributing to strengthening country foundational capacity for the sound management of chemicals.

### **1.2.1 Project Goal**

The goal of the project is to reduce the release of unintentional POPs through improved management of solid and hazardous wastes in the Pacific region. The project will assist fourteen Pacific island countries (Cook Islands, FSM, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu) in the establishment of sustainable national waste and chemical management strategies and systems.

### **1.2.2 Project Objective**

The objective of the project is to reduce priority unintentionally produced POPs emissions arising from poor waste management practices, thus meeting Parties' Convention obligations to improve the management of chemicals in the Pacific region. This will be achieved through assistance in the development and implementation of unintentionally produced POPs reduction strategies and guidelines, vocational training of waste workers, training of Pacific island country staff in improved chemical management, and the development of a regional waste oil export and reuse system.

### **1.2.3 The Project Document (ProDoc)**

The project is funded by the Global Environment Facility (GEF) and is jointly implemented by the United Nations Environment Programme (UNEP) and the UN Food and Agriculture Organization (FAO). The project was officially endorsed by Ms Monique Barbut (CEO and Chairperson of the Global Environment Facility) on the 24<sup>th</sup> July, 2012. Twelve months later, UNEP completed a Project Cooperation Agreement (PCA) on the 4<sup>th</sup> July 2013, which was signed by SPREP at that time, commencing the project. The FAO have yet to complete associated basic contracting arrangements. The SPREP Project Manager was recruited in 2012 on advice from UNEP, but was only able to commence duties on the 22<sup>nd</sup> July 2013, following release and signature of the PCA.

## **2.0 Project Inception Workshop and Steering Committee Meeting 2013**

As an initial exercise to mark the implementation phase of the project, UNEP execution training was held for relevant SPREP officials at the Tanoa Skylodge, Nadi, Fiji on 19<sup>th</sup> November 2013. The half-day training focused on UNEP reporting procedures and requirements, project coordination reporting and monitoring and evaluation of the project. This was followed by a two day Inception Workshop at the same venue to provide participating countries with updated contemporary project planning information since the Project Consultation workshop which was held as part of the project design phase in April 2011. The meeting was also used to reiterate and ensure full national conversance with commitments required to participate in the project and to seek endorsement of final changes to the project design since the release of the Project Document (ProDoc) in July 2012. The joint 2013 Inception Workshop and the Project Steering Committee (PSC) meetings were attended by representatives of 13 of the 14 Pacific island countries participating in the project (Cook Islands, FSM, Fiji, Kiribati, Marshall Islands, Nauru, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu). Niue did not attend the 2013 Inception Workshop nor the PSC.

### **2.1 PSC endorsed changes to the Project**

A number of changes to the project design were endorsed by the PSC following advice and information presented by the project Executing Agency (SPREP) at the Inception Meeting. These changes were connected with the recent advances made in the Cook Islands in composting operations. This progress

has superseded the original GEFPAS pilot project design which included a Cook Island composting pilot project. Similarly, recent advances in used oil management in Samoa have highlighted the potential regional preference for utilizing used (waste) oil as a diesel extender in electrical power generation rather than recycling it offshore. Access to new (and as yet unconfirmed; March 2014) information that up to 6 small transformers may have been shipped to Jaluit Atoll (Republic of the Marshall Islands) and buried in the late 1980's has also required a revision of the original planned work detailed in the Project Document (2012). The PSC agreed changes and associated budget adjustments to the final project are summarized below (Table 1):

**Table 1: Steering Committee agreed project changes and associated budget**

ProDoc Budget Line	Original Activity	Steering Committee Endorsed Change	Project Document budget (\$US)	Final project budget (\$US)	Rationale for activity and budget variation
1103	Cook Island compost	No longer part of GEFPAS project	45,000	0	Cook Islands now have a composting operation in place. Budget transferred to 1226.
1222	Regional economic consultant Cook Island compost	No longer part of GEFPAS project	20,000	0	Cook Islands now have a composting operation in place. Budget transferred to 1226.
1226		Used oil extender pilot consultancy (Samoa or RMI) endorsed	0	65,000	Use of used oil as a diesel extender is a preferred use of used oil in the Pacific. There is no information on the potential environmental (uPOPs) implications of this type of use. Budget transferred from 1103 and 1222.
2105	RMI PCB analyses	RMI PCB analyses increased	0	18,000	New unconfirmed information suggests that 6 transformers are buried in RMI. Budget transferred from 4104.
4101	Cook Island compost monitoring equipment	No longer part of GEFPAS project	2,500	0	Cook Islands now have a composting operation in place. Budget transferred to 4108.
4104	PCB Field kits	PCB field kits budget reduced	20,000	2,000	Unrealistically high original budget estimate. Budget balance transferred to 2105.
4108	Used oil extender pilot consultancy (Samoa or RMI) equipment	Used oil extender pilot consultancy (Samoa or RMI) endorsed	0	2,500	Use of used oil as a diesel extender is a preferred use of used oil in the Pacific. There is no information on the potential environmental (uPOPs) implications of this type of use. Budget transferred from 4101.

## 2.2 Additional PSC Recommendations

In addition to project endorsement, a number of recommendations to potentially enhance project outputs were made by PSC members. These recommendations and the corresponding response of the Executing Agency are summarized below (Table 2):

**Table 2: PSC Recommendations**

Steering Committee Recommendation	Recommendation made by	Executing Agency (SPREP) Response
Vocational training sessions should result in the creation of a trainer network that communicates via email.	Melanie Ashton (UNEP)	This network will be promoted by SPREP at waste management trainings to help share experience, and maintain waste management improvement momentum
The need to have linkages between the technical work under the used oil work (Component 4) and the Customs training (Component 3) need to be considered	Vaitoti Tupa (Cook Islands) Seema Deo(SPREP): Recommendation developed from discussion	This will be incorporated into Customs training modules and will also be incorporated into the Waigani training manual
The synergies between Component 4 and Component 6 connected with extended produced responsibility (EPR) will need to be addressed during the course of project implementation	Richard Thompson (FAO)	Agreed
Although working with Green Customs and Regional Customs Organizations may not be possible, there is a need to draw on their resources for the development of Customs Training material	Melanie Ashton (UNEP)	Agreed
The possibility of use of the EDF10 PacWaste project as co-finance for a new GEF VI project will need to be confirmed and formalized	David Haynes (SPREP) Melanie Ashton (UNEP)	Agreed
There is a need to develop a modality for vocational course participants to report back to SPREP in project component 2. This may be difficult, however it is essential for monitoring and evaluation purposes. Mentoring of participants does not necessarily have to be face-to-face.	Jacqueline Alvarez (BRS) Melanie Ashton (UNEP)	Reporting format developed and released in trainings carried out in 2014
Communication plans should have links to pilot projects and used oil management initiatives	Seema Deo(SPREP) Melanie Ashton (UNEP)	Agreed
UNEP and BRS to provide feedback on the project training package and related technical guidance tool kits	Melanie Ashton (UNEP)	Agreed, independent review of all training modules has been budgeted for
A budget breakdown per country on involvement/costs to be circulated as soon as possible.	Fuatino Leota (Samoa) Mavis Depaune (Nauru)	Agreed

### 3.0 Endorsed Project Activities

Following the first PSC Meeting and in accordance with the ProDoc, the following activities will be completed as components of the *Pacific POPs release reduction through improved management of solid and hazardous waste* project:

#### 3.1 Component 1: Development of national uPOPs strategies and regional uPOPs reduction guidelines<sup>1</sup>

Development of regional dioxin and furan reduction guidelines and national unintentionally produced POPs management strategies will be fundamental to achieving reductions in national dioxin and furan emissions. These strategies are likely to focus on maximization of organic waste composting, minimization of waste incineration, and/or through the application of cleaner production techniques where incineration remains necessary. Regional reduction strategies will be incorporated into the revision of the Pacific Regional Waste Strategy 2010-2015, and will also be integrated where possible, into PICs' national solid waste management strategies. Critical tasks under this component include:

- i). Development of a regional strategy to reduce unintentionally produced POPs(uPOPs)emissions similar to the Pacific regional asbestos and E-waste strategies. The strategy will include a legislative element, and reference to model legislation, such as that already developed by the Government of Samoa. The regional strategy is intended to inform national strategies, and to help build donor confidence.
- ii). Development of a regional "model" legislation/regulations for unintentionally produced POPs that may be integrated into PIC legislative frameworks;
- iii). Provision of a review of existing national unintentionally produced POPs related legislation/regulations and provision of advice on potential options for revision (using the NIP as a basis for this);
- iv). Working with government counterparts to incorporate regional strategic guidance to address unintentionally produced POPs emissions into national solid waste management strategies; and
- v). Identification of key players in waste management to be targeted for outreach on sustainable approaches in waste management.

##### 3.1.1 Comments on the Project Component 1 from the Meeting participants included:

**PNG representative:** *inquired on whether countries should concentrate on the priority POPs*

**UNEP/BRS representative (Jacqueline Alvarez):** *advised that a good start would be to focus on at least two priorities.*

**PNG representative:** *queried as to why there were more focus on controlling the chemicals, rather than building on technologies.*

**UNEP/BRS representative (Jacqueline Alvarez):** *advised that some countries were doing so, but there was also a need to define how one would minimize, and approaches could defer for different countries.*

**University of Queensland representative (Jochen Muller):** *inquired as to what the inventory stated as "the sources of dioxins"?*

**PNG representative:** *stated that there was too much focus on air, and there was a need to start making detections on soil.*

---

<sup>1</sup>This component was planned to be undertaken by the AFD Technical Assistant employed under the AFD/SPREP component of this project. Due to the extensive delays in completion of the projects administrative arrangements, this Officer is no longer available to work on the project, and no alternative financial or staffing resourcing arrangements have been identified by UNEP for completion of this project component.



**University of Queensland representative (Jochen Muller):** advised that one needed to test the air first before the soil.

**UNEP/BRS representative (Jacqueline Alvarez):** advised that it was good to detect the amount.

**SPREP representative (FG):** stated that some countries did not have any data, and could use the 2013 data as a baseline.

### **3.2 Component 2: Training and awareness raising to improve solid and hazardous waste management**

Training and awareness of improved solid and hazardous waste management is central to minimization of unintentional POPs production. This will be achieved through three complimentary project elements: vocational training (including student projects, currently funded through AFD), dissemination of lessons from regional waste management pilots, and national level awareness campaigns.

#### **3.2.1 Vocational training<sup>2</sup>**

Vocational training of semi-skilled waste management workers from the 14 PICs has been completed in 2013 and the first half of 2014. The two week, training-of-trainers courses on solid and hazardous waste management was funded, developed and implemented under the AFD project through Griffith University and the Fiji National University (FNU). The course modules were developed and delivered by Griffith University through a contract supervised by the AFD TA and include training units on waste management techniques, landfill management and hazardous waste management. The training course also incorporates demonstration site visits coordinated by the AFD TA. Years three and four of the course (2015-2016) will be funded under this project. A summary of course participant feedback from past courses has been presented in AFD quarterly reports. An assessment of training provider performance and potential alternatives is currently being prepared which will help guide training provision options in 2015-2016. Mechanisms to allow course graduates to report back on in-country training initiatives and to keep in contact with each other through an alumni network have been developed by SPREP to assist with ongoing student support (see Section 5.4).

##### **3.2.1.1 Comments on the course to date from the Meeting participants included:**

- a) *The necessity to document in country training resulting from the AFD training course;*
- b) *The necessity for the establishment of an alumni network to assist with ongoing student support;*
- c) *The need to ensure that the trainings are connected with training institutions in the Pacific;*
- d) *The availability of the course for semi-skilled waste workers;*
- e) *Inclusion of POPs training (this will be done under component 3);*
- f) *The course materials could be used as a resource for the Pacific and globally; and*
- g) *Investigation of the possible synergies of Component 2 and Component 6 on Pesticide Container Management’.*

#### **3.2.2 Pilot waste management demonstrations**

Pilots of specific waste management activities undertaken to reduce production of unintentionally produced POPs were designed during project preparation. These include composting, improved healthcare waste management and analysis of used oil PCB concentrations. Anew pilot to assess the environmental implications of the use of used oil as a diesel extender was also approved by the PSC at its first meeting.

<sup>2</sup>The University of Fiji and the University of the South Pacific either lacked the capacity or were uninterested in hosting the AFD waste management course when approached by the SPREP AFD TA in July 2012.

**3.2.2a) Healthcare pilot (Kiribati)**

Healthcare waste is not well managed in Kiribati, mainly because the hospital in Tarawa (Nawerewere Hospital) has not prioritised the issue and allocated necessary resources to address it. There are serious OH&S issues with how the waste is stored, transported and handled by hospital staff, and there is a growing stockpile of (out of date) pharmaceuticals that require incineration. Excess medical waste is being burnt in the open on the beach because of the limited capacity of the existing incinerator. This pilot will compliment the current EDF10 PacWaste healthcare waste project by supplying funding for PPE and incinerator operational costs (fuel and operators salary) to achieve minimum standards of healthcare waste management at Nawerewere hospital. Specific operational details of the project will be completed when the PacWaste survey of the hospital is completed.

**3.2.2b) Used oil combustion for power generation (Samoa)**

The disposal of used-oil is a significant issue in all Pacific island countries. Typical used oil generation quantities range from around 5,000 litres per year in the smallest countries to several million litres or more per year in the largest. Some of the oil is disposed by open burning or simple incineration, generating *unintentional* POPs, and some of the oil is simply dumped. This pilot project is proposed to be run through the University of Queensland will investigate the environmental consequences of the use of used oil as a diesel extender in the generation of electrical power. Under the Stockholm Convention, Parties are obliged to minimize their releases of POPs through unintentional production via promotion of the use of best available techniques, and through promotion of the application of best environmental practices. The project will investigate any elevation in furan and dioxin production in the exhaust gas of diesel engines burning used oil in contravention with national Stockholm Convention requirements and the requirements of the Samoan Waste Management Act.

**3.2.2c) Assessment of relic transformer PCB concentrations pilot (RMI)**

In 1994, the US Environmental Protection Agency undertook a clean-up of PCB containing transformers in the Marshall Islands. Oil from the transformers was analyzed for PCB content and the contaminated oils were removed from the Marshall Islands, along with contaminated soils from the area. The empty transformer cases were crushed and buried in a concrete-lined pit on Majuro. Recent (unconfirmed) information<sup>3</sup> has indicated that up to 6 small transformers maybe have been shipped to Jaluit Atoll and buried in the late 1980's. RMIEPA has identified the need for the testing and labeling of these transformers suspected of containing PCBs as a priority area of interest for the GEFPAS project. RMIEPA staff will confirm the existence of the transformers, and if they are present, the transformers will be tested for the presence of PCBs. Any oil present in the transformers will then be appropriately disposed of.

**3.2.2d) Composting and integrated recycling pilot (Niue)**

The Niue Department of Environment has identified composting and waste separation for recycling as priority areas for unintentional POPs production minimization in Niue. There is very little waste recycling practiced in Niue, with only intermittent aluminium can recycling and some backyard composting. Green garden waste is burnt in many backyards because it is not collected as part of the weekly rubbish collection and the uptake of home composting has been minimal. The dump site is illegally set alight

---

<sup>3</sup> Bruce Kijiner, (pers comm.). Director, Office of Environmental Planning & Policy Coordination (OEPPC), RMI.

several times a year by unidentified persons, causing the unnecessary creation of unintentional Pops. The pilot project will consist of two separate components sharing some resources and equipment. The first will be the demonstration and evaluation of a green garden waste collection programme in the north of the island (approximately 200 households), which are situated in close proximity to the SLM farm in the north of the island. Each household will be provided with a green-waste collection bag which will be collected into a modified trailer towed behind the regular waste collection truck. The second component consists of the demonstration and evaluation of recyclable waste separation at the household and waste facility level in the south of the island (approximately 200 households). They have been targeted due to their proximity to the proposed waste transfer station in Avatele, making it easier and more cost effective for the waste collection contractor to pick up and deliver the recyclable waste to the transfer station. Each household will be provided with a recyclables separation bin. The same modified trailer used for green waste collection will be used for the collection of recyclable waste.

### 3.2.2e) Comments on the Pilot Projects from the Meeting participants included:

- a) **Palau representative:** inquired on whether there were any plans to monitor emissions from the incinerator. **SPREP representative:** advised that there were no such plans under the GEFPAS to do so, although the temperature will be monitored to ensure dioxin formation was minimized.
- b) **Kiribati representative:** shared that the Health Department saw waste as an environment issue, and there was a need to change this perception.
- c) **PNG representative:** stated that there was a need to get a regional incinerator and incinerate everything, instead of going on with this.
- d) **Cook Islands representative:** stated that the region had tried to collaborate with Australia and NZ, but at the end of it, they have had to dump out asbestos at sea. Also added that the discussion of waste has been ongoing for a longtime, with all options discussed, and it has been in a way that is most feasible for the Pacific.
- c) **Samoa representative:** stated that there was a need to develop frameworks for Public Private Partnership (PPP) at the national level, and bring together key actors at the national level.
- d) **SPREP representative:** advised that the issue of solid waste management in atolls was extremely important. He added that there were funding assistance under the EDF10, and approximately 500K for better management of solid waste in atoll countries.
- e) **Fiji representative:** commended JICA/JPRISM project, with the formulation of 3R Policy in place for Fiji which would contribute to the increase in recycling rate for Fiji.
- e) **SPREP representative (DH):** advised that in support of the GEFPAS, an air quality analysis of Fiji focusing on dioxins will be undertaken by a student based at Macquarie University.

### 3.2.3 Awareness Campaigns

A key aspect of project Component 2 is an education and awareness programme connected with unintentional POPs production which will be executed at the grass roots level (community groups, agricultural workers and farmers), provincial level (environment staff) and the Ministerial level. This will be completed in three areas:

- i). National environmental education officers and other relevant staff will be assisted to develop proposals for and implement national awareness campaigns to help mainstream the prevention of unintentional POPs production. The SPREP team will be providing a generic guide for the region and with

that, draw up a regional GEFPAS communication plan that is aligned with other regional projects on solid and hazardous waste management.

ii). Student projects are anticipated to continue to be developed, funded and communicated as part of the waste management training course provision following an assessment of their efficiency in late 2014. Examples of currently funded projects are presented in Section 8.1. Mentored student projects funded through the GEFPAS project will include 1 project per country (total 14 per year) for course years 2 and 3, with each project receiving up to \$5000 in support. This is a total budget of up to \$US140,000.

iii) The Inception workshop also included a presentation by SPREP's Communication Team on communication tools that could be developed at the regional level and adopted by PICs when developing awareness packages for the project. These need to match the priority education and awareness areas of that have been identified by the countries. Examples of success stories such as the "E-Waste Project" which involved training the media on E-Waste issues, was highlighted as a good awareness model.

### **3.2.3.1 Comments on the Awareness and Education Programme from the Meeting participants included:**

**PNG representative:** stated that it might be worth having a "train the trainers" for Scientists to become journalists. He added that there was a need to carefully consider the approach taken in awareness, especially in cases where it may contradict with food security, such as cases where plastic bag is being promoted to be contributing factor to POPs when burnt. He further added that for such a case, there may not be trees available in certain areas, hence they will have to resort to burning plastics, in order to cook food. He concluded that it was therefore important to target issues rather than POPs on its own.

**SPREP representative:** added that there was a need to be cautious of messages that are promoted, and the need to have it packaged in such a way that for every issue, there is an option for it.

**Cook Islands representative:** shared that in the Cooks, aside from schools, community and private sector, they were also targeting government itself, who happened to contribute to 50% of POPs Pollution. He added that communities were always asking, "how about government?", so this is now in place.

**SPREP representative:** welcomed this as an excellent approach in tackling such an issue, and advised that in most cases, governments did contribute in many ways to pollution.

**University of Queensland representative (Jochen Muller):** stated that the media could also be a dangerous player in many cases, however, he shared the same sentiments that targeting issues rather than chemicals, is important.

### **3.3 Component 3: Training in post-NIP chemical inventories, stockpile management, and safe disposal of laboratory chemicals**

Chemical management remains an ongoing and escalating problem for the Pacific region. While the use of chemicals is essential in the modern world, the unsound management of chemicals can have significant negative impacts on both the environment and public health. This issue is often exacerbated by the failure of many Pacific island countries to successfully implement national obligations required under signature to the Stockholm Convention, or by the lack of a national framework under which chemicals can be managed systematically. A lack of technical and financial capacity within Government Departments is often cited as the major reason for this systemic failure. Pacific island country representatives have highlighted the priority need for in-country activities on several aspects of

hazardous waste management in order to increase their capacity to manage chemicals. Three key areas for improvement are identified: inventory development and stockpile management; management and disposal of laboratory and school chemicals; and the regulation and management of hazardous chemical imports/exports by Customs staff.

### **3.3.1 Development of chemical training and awareness materials**

Development of high quality training materials to be delivered over a 2 week, intensive training period in each country is critical to the improvement of in-country chemical management.

Course materials will be developed by in-house SPREP experts, who will tailor parts of the training to be more country specific, based on information collated per country. The quality of the training materials will be independently verified prior to use in the region. The training modules and delivery will also include Component 4 training aspects on Waigani/Basel, with the training programme (to be developed) to include training/guidance for countries in developing their National uPOPs Strategies under Component 1. The delivery will be undertaken by SPREP's Hazardous Waste Adviser and two training assistants, and with that, adopting the "islanders training islanders" mode of training.

Materials developed will include:

- a. Training modules in chemical and inventory management;
- b. Training modules in laboratory chemical disposal;
- c. Training modules in Customs procedures (incorporating *Green Customs* practices) for enforcement of the Basel and Waigani Conventions;
- d. Model national guideline on chemicals management;
- e. Best practice guide to reduce chemical use and subsequent build up;
- f. Dissemination of awareness and technical guidance tool-kits for laboratories (schools, hospitals, veterinary) and other chemical storage sites for the safe management of chemicals; and
- g. Dissemination of awareness and technical guidance tool-kits for Customs areas.

#### **3.3.1a) Chemical inventory management**

Completion of in-country training in chemical inventory development and an enhanced inventory exercise to include new POPs and laboratory chemicals in schools, hospital and veterinary laboratories will be carried out in each country using materials developed in 3.3.1. Completion of this training will enable Pacific island environment and education department staff to develop and maintain chemical inventories to prevent build up of unused chemicals in country. The course is expected to take 3 full days, with 2 days classroom type instruction, and the third day being devoted to completing a demonstration inventory.

#### **3.3.1b) Chemical handling**

Completion of this training will enable Pacific island environment, hospital, customs and education department staff to recognize and safely handle and store chemicals and other dangerous goods. The course is expected to take 2 full days, with classroom type instruction and hands on identification and handling of a range of commonly used chemicals.

### 3.3.1c) Chemical disposal

Completion of this training will enable Pacific island environment, hospital and education department staff to safely undertake basic disposal of a range of commonly used laboratory chemicals. The course is expected to take 3 full days, with 2 days classroom type instruction, and the third day being devoted to practical disposal of unwanted chemicals.

### 3.3.1d) Chemical safeguarding

Completion of design and estimated cost of a regional repackaging, collection, shipping and disposal activity for disused pesticides/POPs and school chemicals, that cannot be disposed of in country will be completed in each country.

### 3.3.1e) Chemical store database

Chemical store locations and other meta-data will be compiled for each country on a regional GIS database.

### 3.3.1f) Train PIC Customs officers in improved chemical management procedures

Training of national Customs officers in the enforcement of national chemical regulations and preventing the importation of banned substances will be completed.

### 3.3.2 Comments on the Project Component 3 from the Meeting participants included:

**Cook Islands representative**– stated that there was a need to link with the training of Customs officers under the MP. SPREP had been unrepresented at SC/COP meetings, and recommended that since SPREP was doing the work, they should also be attending.

**UNEP/BRS representative** – advised that SPREP was a Basel Regional Centre, however this was a perfect match. She further added that there was a need for the role to be strengthened. For the chemical trainings/updates, there was a guidance already developed, hence this could be adopted to develop it.

**FAO representative:** stated that there were significant synergies with FAO's activities in the region and in other regions such as the Caribbean - particularly for sustainable chemicals management. He added that in the process of identifying the training needs, it would be important to maintain close liaison between FAO and SPREP to develop common training material.

## 3.4 Component 4: Development of a regional used oil management system

Used oil is defined as any petroleum-based or synthetic oil or fluid that, through contamination, has become unsuitable for its original purpose due to the presence of impurities or loss of original properties. Improper disposal of used oil can have major negative impacts on natural resources such as groundwater, the marine environment and soil. Used oils typically contain a range of compounds that may have adverse impacts when released into the environment. These compounds include polycyclic aromatic hydrocarbons (PAHs), heavy metals, additives and antioxidants, trace levels of chlorinated solvents, and polychlorinated biphenyls (PCBs). Sustainable used oil management requires the establishment and operation of an appropriate management framework that improves national management of used oil and promotes shared used oil management responsibility by all stakeholders.

The following actions (Table 3) will be carried out in 11 countries under the GEFPAS project. These actions will build on the work in Samoa, Fiji and Vanuatu that has been completed and reported under the AFD project.

**Table 3: Used oil management actions**

Action	Intended Outcome
1. Investigate and provide recommendations on practical and environmentally and economically sustainable mechanisms to dispose of used oil.	Robust management of used oil to ensure environmental and human health protection supported by adequate and enforceable regulations under the Waste Management Act 2010
2. Develop or adopt national standards to specify quality guidelines (e.g. acceptable water and impurity content) for used oil end-uses.	Long term community cost savings
3. Develop and implement a financial and regulatory instrument to manage used oil based on the polluter pays principle.	The costs associated with used oil treatment/final disposal are met by those responsible for generating the used oil ( <i>polluter pays principal</i> )
4. Establish a used oil governance structure with clear separation of regulation and service delivery of used oil management activities.	
5. Complete an audit of the quantity, generation rates and status of used oil in each country in the region.	A comprehensive understanding of the status of used oil management in the region
6. Development of a national registers of oil importation and disposal data.	Improved management of used oil based on information and data
7. Develop national used oil management monitoring regimes using key performance indicators.	
8. Collation and regular reporting of data and information relating to used oil management activities.	
9. Establish and apply appropriate standards, guidelines, and safeguards for the handling, collection, transportation, storage, and treatment/final disposal of used oil.	Minimization of public health risk from substandard used oil management activities
10. Implement and enforce minimum OH&S standards for best practices for handling and disposal of used oil (including personal protective equipment) for all workers involved in handling used oil.	Minimization of environmental risk from substandard used oil management activities
11. Implement a national used oil collection and storage system.	Risk from exposure to used oil is minimised to petroleum handling workers
12. Training for customs officers and environment staff on detecting used oil and Waigani/Basel Convention procedures.	Improved regulation and control of international movements of used oil
13. Undertake national used oil awareness campaigns.	Communities are informed and aware of the relative risks posed by used oil
14. Implement regular training for workers involved in handling and processing used oil	Communities are informed of best practices in used oil management

**3.4.1 Comments on the Project Component 4 from the Meeting participants included:**

**FAO representative:** stated that there was a synergy between Component 4 and component 6 and that both components will in all likelihood use Extended Producer Responsibility (EPR) legislation to require suppliers to fund the collection and disposal through the supply chain. He further advised that this could also apply to other waste streams such as tyres, and the component should work together with regards in developing a framework legislation that would support all the EPR obligations. He added that in larger countries, the most effective mechanism was to put the responsibility for running and funding the collection onto the suppliers, where government is left to monitor and regulate the scheme.

**AFD Technical Assistant :** welcomed this and stated that the stewardship system was an EPR system.

These have thus been noted by the project, however, will await the signatory between FAO and SPREP before this project component commences.

### 3.5 Component 5: National technical assistance for post-NIP activities

This component is co-financed by the AFD project. Funding for these student-initiated projects (to the value of \$US5000 per project) is currently offered as part of the waste management training under the AFD project. GEFPAS funds may be allocated to this activity following a positive assessment of completed AFD funded 2013 student projects. The AFD funded projects are presented in Table 4. Further details of ongoing aspects of this component are reported under report Section 5.4.

**Table 4: Post NIP funded activities, 2013**

Country	Funded project under AFD
Cooks Islands	Improved E-waste management in Aitutaki
Fiji	Promotion of a central recycling bank facility for Suva City
FSM	Used oil storage facilities
RMI	Eco Bags (non-plastic) awareness campaign
Solomon Islands	Eco Bag Alternative to Plastic Bags
Samoa	Minimisation of E-Waste materials disposal to landfill
Tonga	A school based composting pilot project

#### 3.5.1 Comments on the Project Component 5 from the Meeting participants included:

**PNG representative:** *inquired on whether the project proposals were sent to the focal point or institutions?*

**AFD Technical Assistant:** *stated that projects were submitted by the student/participant.*

**SPREP representative (DH):** *added that this was part of the course outline under component 2, with set criteria.*

**Kiribati representative:** *sought clarification on whether there was a deadline for this year's proposals.*

**AFD Technical Assistant:** *advised that there was still a chance to submit. He added that according to the project document, there were 28 participants expected per year, where only the best 14 project proposals (1 per country) were chosen.*

### 3.6 Component 6: Development of a system for used pesticide container management

Agriculture is an important component of the economies of many Pacific Island Countries. As agriculture, cropping and farming have intensified in the Pacific, the wide-scale use of pesticides is understood to have grown. The accumulation of used pesticide containers is now a significant problem for many Pacific island countries. This is a concern, as contaminated containers, may be re-sold and used for water and food storage with no real effort to remove residual pesticide contaminants. Component 6 of this project will implement a pilot collection and pretreatment programme for used pesticide containers in three Pacific island countries (Fiji, Samoa and Tonga) and trial the use of best-practice recycling techniques for cleaned, collected pesticide containers. This project component will be implemented by FAO, and executed by SPREP. The budget from FAO for this programme is presented in Table 5. There are five significant elements to this TCP proposal. These include:

- A baseline survey of the current situation in Samoa, Fiji and Tonga relating to annual pesticide container generation rates by quantifying the types and quantities imported,
- A feasibility and cost benefit study to determine the best triple-rinsing and container collection strategies for these countries (and the region),
- Completion of a review of required supporting legislative, regulatory and/or policy amendments to ensure sustainable programme funding;



- d. Development of a training and extension programme for container management for the agricultural sector (i.e. triple rinsing programme), and
- e. Implementation of a pilot program based on the best options for future management.

It should be noted that while it is envisaged that this Component will be executed by SPREP under a Letter of Agreement arrangement with FAO, at the time of writing, this was still not in place.

**Table 5: Proposed used pesticide container budget**

<b>Component Description</b>	<b>Sub Component</b>	<b>Main Component</b>
<b>Consultants international</b>		72000
Container Management	36000	
Guidance (Container Collection and Recycling)	36000	
<b>Consultants National</b>		99000
Training, education and baseline data collection	75000	
Policy and Legislation Guidance	12000	
Model Legislation Development	12000	
<b>Contracts</b>		15000
Export of waste plastic	15000	
<b>Travel</b>		117315
Consultants National	15000	
Consultants International	27625	
Consultation Workshops	52390	
Travel FAO Technical Advisor	22300	
<b>Equipment</b>		66000
Expendable Equipment and Supplies	6000	
Non Expendable Equipment	60000	
<b>Salaries</b>		62810
FAO Legal Advisor Salary	8000	
FAO Technical Advisor Salary	32000	
Finance officer salary (FAO)	22810	
<b>General Operating Expenses</b>		17698
General Operating Costs	17698	
<b>Support Costs</b>		44982
SPREP Management (10%)	44982	
<b>Grand Total</b>		<b>494805</b>

### **3.7 Component 7: Project Management**

Effective project management will result in completion of the project in a timely and cost effective manner. Project management responsibilities include the establishment of structures for supervision, coordination, and implementation. These shall provide for communication mechanisms that include a clearly established schedule of meetings. A number of project administrative arrangements will assist in this process. The GEFPAS Project Management Plan articulates activities carried out over the entire project from its initiation through planning and execution.

#### **3.7.1 Project Management Plan Overview**

The GEFPAS project involves 14 Pacific Island Countries: Cook Islands, Federated States of Micronesia, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. The project objective is to reduce priority unintentional POPs emissions arising from poor waste management practices, thus meeting Pacific parties' Convention obligations to improve the management of chemicals in PICs. This will be achieved through a) provision of assistance in the development, implementation of unintentional POPs strategies and guidelines; b) provision of vocational training of waste workers, training of PIC staff in improved chemicals management, and c) the development of a regional waste oil management system.

The project has seven major components:

1. Development of the regional unintentional POPs prevention management strategy and guideline;
2. Training and awareness raising in solid and hazardous waste management;
3. Enhanced, post-NIP inventory, stockpile management and safe disposal strategy for unwanted pesticides (including POPs and school laboratory chemicals);
4. Waste oil export and reuse - regional system in place;
5. National technical assistance for post-NIP activities;
6. Pesticide Container Management - Development of a national used container system; and
7. Operation of a Project Management Unit.

#### **3.7.2 Project Implementation Structure**

For effective implementation purposes and proper guidance, the Project will have the following project structure:

#### **3.7.3 Project Steering Committee (PSC)**

The Project Steering Committee's primary role is to ensure project outputs meet programme objectives. The PSC membership includes representatives from all 14 Pacific island country project partners, representatives from SPREP, UNEP, FAO, and regional project partners. The PSC was originally conceived to meet annually over the life of the project, however funding constraints make this scenario highly unlikely. At a minimum, the PSC will meet three times over the duration of the project: at the inception workshop in 2013, at mid-term (possibly as a side event to the SPREP Meeting in 2015) and at the conclusion of the project in 2018. Other cost-effective opportunities to meet through teleconferences will also be explored.

#### **3.7.4 Project Supervision and Coordination**

The Director of Waste and Pollution Control, Dr David Haynes, oversees that all project objectives during the project term is met with. The Project Coordinator, Ms Lusiana Ralogaivau, supervises the implementing of all the planned activities, and is the first point of contact with the Implementing Agency (UNEP). She also ensures that all bi-annual reporting on the technical and financial aspects, together with any proposed changes are submitted to the Implementing Agency on a time. This role of the PMU unit also entails ensuring ongoing project monitoring and evaluation by the Project Coordinator, whilst a mid-term evaluation (2015) and end of term evaluation (2018) will be undertaken by independent consultants.

#### **3.7.5 Project Tasks/Schedule**

The project work plan is presented in Appendix 5.

#### **3.7.6 Project Risk/Mitigation**

As in any project, there are risks to effective and timely implementation of the tasks, which would need to be anticipated during the life-term of the project in Pacific Island Countries. Table 6 is a summary of risk and mitigation for the project (adopted from the project documents and TCP 2):

**Table 6: Risks/Mitigations Summary**

<b>Risk</b>	<b>Level</b>	<b>Mitigation actions</b>
Governments are not supportive of the of the systems in place/ change in national priorities/Sustainability aspects	Low - Medium	Inception has already assured endorsement and commitments, however the development of policies and Regional Framework that will see countries official commitments assures national governments support. The Sustainability of the project will be highlighted and communicated throughout the different stages of all components.
SPREP unable to handover the operation of the program to a local operator/FNU/governments (Used Oil System/Pesticide Container Management System/Chemical Management System)	Medium	SPREP will take the initiative to develop the necessary linkages with existing parties/recyclers/regional institutions to ensure that the long term sustainability of the systems/trainings developed commissioning.
Failure to agree by PICs(national level) to recommended strategy	Low	The involvement of PICs throughout the process of development, and finalization of reports will be priority.
Injury to personnel working on project activities or to nearby members of the public	Low	Mitigation will involve compliance with appropriate OHS protocols and safety officer monitoring.
Delay in funds due to processes/reporting	Low	Reporting Timelines to be strictly followed, and clarified at all levels, together with familiarisation of internal processes during the commencement stage. Clarifications will also be made at the early stages, to PICs, and will also be included in the Letter of Agreements, which will entail processing/reporting requirements
Project coordination becomes ineffective due to lack of cooperation among institutions	Low-Medium	On-going communication using all means such as emails/circulars and also targeting both technical and political focal points, made at all stages of the project should mitigate this risk.
Transport units inadequate and road access difficult	Low	The selected countries have sufficient transport systems and adequate roads.
Variable costs for equipment or services exceed budget allocations/exchange rates	Low	Project partners will need to work within budget, and for piloting aspects, a well-constructed contract with fixed pricing and close monitoring, will help mitigate this. Contingencies will need to cover the exchange rate issues.
PIC government approval systems / bottleneck	Low-Medium	With full ongoing communication/visits by project team should lower the risk of allowing this to delay implementation.
Materials handling equipment inadequate or unavailable	Low	This is usually the case on the islands and any contractor utilized by the project will be required to bring appropriate equipment to the island as a contract requirement.
Lack of manpower at national level, causing a delay in implementation	Low	Local consultants and part-time technical assistants will be hired to assist in the flow of the project. With this, there will be more in-country engagements to some extent for the GEFPC, to liven the engagement and ensure further means of assistance.
Natural Disasters causing delays	Low	This is to be mitigated via more implementation works carried out in the 2nd , 3rd and 4th quarters of every year. In the likely event of cyclones. Aside from that, constant communication is the way forward to mitigate this aspect

### **3.7.7 Project Communications Management**

Effective Communications will be required over the course of the project, with different approaches used for different stakeholder groups. A project communications strategy is currently being developed, and will be circulated to the National Focal Points once finalized in the first quarter of 2014. This will be used as a guideline for the education and awareness aspects of the project. Communications regarding meetings, workshops, activities to be implemented, mentoring and reporting will be made via email (official circulars or email from Project Coordinator and PMU team) to the National Focal Points/National Project Team/ and to the Implementing Agency. UNEP project templates will be adopted by PMU for bi-annual technical and financial reporting to UNEP.

### **3.7.8 Project Sustainability**

The sustainability of any project is key aspect, in ensuring the success of a project. The project had incorporated aspects in the development of the project such as the following:

- a) Component 1 - Development of a regional and national unintentional POPs strategy and model legislation for the purposes of sustaining it within national priorities and ensuring countries use this absorb activities within their Departments and countries
- b) Component 2 - the development of vocational training modules with a regional institution, in order to have it absorbed into the curriculum in the next four years and that it continues.
- 3) Component 3 - the inventory, laboratory and customs training modules will also be developed and disseminated in the same manner, with firstly a "train the trainers" component, and will be a resource for regional institutions to adopt and for SPREP and other organizations can adopt for trainings in this area.
- 4) Component 4 - Development of the Extended Producer responsibility (EPR)/Stewardship for the Waste Oil Reuse System is a sustainability strategy in itself for this aspect.
- 5) Component 6 - The development of an EPR system is also part of the program and should thus assist in sustaining the pesticide container management for PICs.

### **3.7.9 Project Monitoring and Evaluation**

Monitoring and evaluation of the project will be verified at midterm review having, at a minimum, a rating of satisfactory and at project completion, at a minimum, satisfactory. In addition the following verifiable indicators will also be utilized: the project management plan; GEF quarterly reports; UNEP 6-monthly reports; FAO 6-monthly reports; AFD 6-monthly reports; mid-term project review, and the project completion M&E report.

**Table 7: Monitoring and Evaluation**

Indicator	Midpoint target	End of project target	Means of verification	Frequency	Responsibility
<b>Component 1</b> Minimization of unintentional POPs emissions through avoidance of incineration and the application of cleaner production techniques	<ul style="list-style-type: none"> <li>Review of existing national unintentional POPs related legislation and/or regulations</li> <li>Provision of advice on potential options for national regulation and legislation revisions</li> </ul>	<ul style="list-style-type: none"> <li>Development of a regional model legislation and /or regulations on unintentional Pops for integrated into PIC legislative frameworks</li> <li>Incorporation of regional strategic guidance to address unintentional POPs emissions into national solid waste management plans</li> <li>Incorporation of unintentional POPs strategy in regional waste management strategies</li> </ul>	<ul style="list-style-type: none"> <li>Revised national solid waste management plans</li> <li>Revised regional waste management strategy</li> <li>National unintentional POPs regulations and/or legislation</li> </ul>	Annual	SPREP
<b>Component 2</b> Increased capacities and uptake of best practices by stakeholders to minimize unintentional POPs creation in the course of solid and hazardous waste management	<ul style="list-style-type: none"> <li>Vocational training program has been run twice (2015)</li> <li>20 PIC trainees executing national action plans</li> <li>Pilots in selected PICs underway</li> </ul>	<ul style="list-style-type: none"> <li>Vocational training program has been run four times (2015 and 2016)</li> <li>An additional 20 PIC trainees executing national action plans (total of 40 over 2 years)</li> <li>Pilots in selected PICs completed</li> </ul>	<ul style="list-style-type: none"> <li>Waste management alumni activities</li> <li>Student action plans and training reports</li> <li>Lessons learnt reports from pilot sites published and shared with 14 PICs</li> </ul>	Annual	SPREP
<b>Component 3</b> PIC governments capable of developing and maintaining inventories, managing school chemicals, and safe-guarding disused chemicals	<ul style="list-style-type: none"> <li>Training modules in chemical and inventory management, laboratory chemical disposal, Customs procedures developed</li> <li>Model national guideline and customs information on chemicals management completed and disseminated</li> <li>Best practice guide and toolkit completed and disseminated</li> <li>All four training modules completed in 7 PICs</li> <li>Local disposal training completed in 7 PICs</li> <li>Technical guidance toolkit disseminated</li> <li>National chemicals management guidelines developed</li> </ul>	<ul style="list-style-type: none"> <li>Chemical store locations on geographic information system for all 14 PICs</li> <li>Design and cost-estimate of disposal activity complete for residual chemicals in all 14 PICs</li> <li>All four training modules completed in 14 PICs</li> <li>Local disposal training completed in 14 PICs</li> </ul>	<ul style="list-style-type: none"> <li>In-country training reports</li> <li>Guidance document</li> <li>GIS output</li> <li>Best practice guideline document</li> <li>Design and cost-estimate of stockpile disposal</li> </ul>	Annual	SPREP
<b>Component 4</b> Waste oil collection, storage, and export systems established and used oil, reused in Fiji, preventing unintentional POPs generation through burning	<ul style="list-style-type: none"> <li>Complete an audit of the quantity, generation rates and status of used oil in each country</li> <li>Develop and implement a financial and regulatory instrument to manage used oil based on the polluter pays principle</li> <li>Establish a used oil governance</li> </ul>	<ul style="list-style-type: none"> <li>Implement a national used oil collection and storage system in each country</li> <li>Collation and regular reporting of data and information relating to used oil management activities including disposal</li> </ul>	<ul style="list-style-type: none"> <li>Used oil collection and export, or collection and reuse systems functioning for each participating PIC</li> <li>Development of legislation for EPR for used oil management</li> <li>Implementation of public education program on used</li> </ul>	Annual	SPREP

## GEFPAS POPs REDUCTION PROJECT

	structure with clear separation of regulation and service delivery of used oil management activities		oil and its collection		
<b>Component 5</b> National technical assistance for post NIP activities	<ul style="list-style-type: none"> <li>No longer being carried out due to delays in project implementation</li> </ul>				
<b>Component 6</b> Used pesticide container management, recovery and recycling strategy formulated	<ul style="list-style-type: none"> <li>Baseline survey of annual pesticide container generation rates in Samoa, Tonga and Fiji</li> <li>Feasibility and cost benefit study of best practice triple-rinsing and container collection strategies for the region</li> <li>Completion of a review of legislative, regulatory and/or policy amendments</li> </ul>	<ul style="list-style-type: none"> <li>Development of a training and extension programme for container management</li> <li>Implementation of a pilot program based on the best options for future management</li> </ul>	<ul style="list-style-type: none"> <li>Baseline survey data</li> <li>Cost benefit study</li> <li>Legislative review</li> <li>Extension programme</li> <li>Pilot programme completed</li> </ul>	<b>Annual</b>	<b>SPREP</b>

#### 4.0 Conclusion

The Project has already received great interest from the island countries, with many considering this as a framework for the NIP works, and for initiating national improvements in solid and hazardous waste management in their island countries.

Minor changes to the project have been incorporated into the 5 year project design to account for advances made over the last 3 years since the original planning meeting in 2011 and to account for the extended delay in project commencement.

These include:

1. Incorporation of regional unintentional POPs planning into a regional waste management strategy;
2. Investigation of pollutant impacts from the use of used oil as a diesel extender;
3. Dropping of the Cook Islands composting trial as the work has already been completed in country
4. Adoption of a multi-strand education and awareness programme utilizing demonstration student projects, and regional and national education programmes;
5. A significant reduction in post-NIP technical assistance as this component is no longer funded;
6. Modification of the FAO programme to focus on improved used pesticide container management; and
7. Allocation of a portion of R&M finances to investigation of the distribution of DDT stockpiles in the Solomon Islands and/or Vanuatu.

Overall, the project is expected to fulfill its original objective which is to ensure systems are in place to allow PICs to meet their key obligations with regards to the Stockholm Convention on Persistent Organic Pollutants.



**APPENDIX 1:INCEPTION/PROJECT STEERING COMMITTEE MEETING WORKSHOP PROGRAMME**

**Tanoa Skylodge Hotel, Nadi, Fiji  
20th-22<sup>nd</sup> November, 2013**

		<b>Facilitator</b>
08.00-08.30	Arrival and registration of participants	Lusiana Ralogaivau
08.30-10.00	<ul style="list-style-type: none"> <li>• Official opening Welcome addresses                             <ul style="list-style-type: none"> <li>○ UNEP , FAO, AFD, SPREP</li> <li>○ CHIEF GUEST</li> </ul> </li> <li>• Introductions of participants/presenters</li> <li>• Official Workshop Photo taken</li> </ul>	Frank Griffin (SPREP)
10.00-10.15	<i>REFRESHMENTS</i>	
10.15-11.00	Overview of GEF-Pacific POPs Release Reduction Project <ul style="list-style-type: none"> <li>• Introduction to Project Concept</li> <li>• Project Objectives</li> <li>• Components                             <ul style="list-style-type: none"> <li>○ Project Management Unit</li> </ul> </li> <li>• Budget Summary</li> </ul>	Melanie Ashton (UNEP)
11.00-11.30	Component 1 <ul style="list-style-type: none"> <li>• National uPOPs Strategy Process</li> <li>• Model Regulations on uPOPs</li> </ul>	Frank Griffin (SPREP)
11.30- 11:50	<ul style="list-style-type: none"> <li>• Component 2 - OVERVIEW</li> </ul>	Frank Griffin (SPREP)
11:50-12:20	<ul style="list-style-type: none"> <li>• Component 2 - VOCATIONAL TRAINING OVERVIEW</li> </ul>	Stan Ebelewicz (AFD)
12:20-12:40	<ul style="list-style-type: none"> <li>• Component 2 - Kiribati - Medical Waste</li> </ul>	Frank Griffin (SPREP)
12:40 - 13:00	<ul style="list-style-type: none"> <li>• Component 2 - Niue Composting/Waste Separation</li> </ul>	Lusiana Ralogaivau (SPREP)
13:00 - 14:00	LUNCH	
14:00 - 14:30	<ul style="list-style-type: none"> <li>• JICA 3R Approach</li> </ul>	JICA
14:30 - 14:45	<ul style="list-style-type: none"> <li>• Component 2 - Republic of Marshall Islands - Oil Analysis</li> </ul>	Frank Griffin(SPREP)
14:45 - 15:00	<ul style="list-style-type: none"> <li>• Component 2 - Used Oil Analysis</li> </ul>	Jochen Mueller (UQ)
15:00 -15:15	<ul style="list-style-type: none"> <li>• Component 2 - Air Quality Analysis</li> </ul>	Cynthia Isley  (Macquarie University)
15:15 - 15:30	REFRESHMENTS	
15:30 - 16:00	<ul style="list-style-type: none"> <li>• Component 3 - Enhanced Post NIP (Trainings on inventories of labs, customs training, and chemical management/guideline</li> </ul>	Frank Griffin (SPREP)
16:00 -16:30	<ul style="list-style-type: none"> <li>• Component 4 - Waste Oil Export and Reuse                             <ul style="list-style-type: none"> <li>○ Background on AFD</li> <li>○ Project Update</li> </ul> </li> </ul>	Stan Ebelewicz (AFD)
16:30 - 17:00	<ul style="list-style-type: none"> <li>• Discussions and Round-off</li> </ul>	Frank Griffin
17:00 - 19:00	<ul style="list-style-type: none"> <li>• COFFEE MEET/NIBBLES</li> </ul>	

**DAY 2 INCEPTION/PSC WORKSHOP**

		<b>Facilitator</b>
8:00 - 8:20	Re-cap of Day 1	Lusiana Ralogaivau (SPREP)
8:20 -9:00	<ul style="list-style-type: none"> <li>• Component 5 -National Technical Assistance for post-NIP activities</li> </ul>	Stan Ebelewicz (AFD)
9:00 - 9:30	<ul style="list-style-type: none"> <li>• Component 6 - Pesticide container management/Stockpile disposal/Contaminated site management</li> </ul>	Richard Thompson (UNEP/FAO)
9:30 - 10:00	<ul style="list-style-type: none"> <li>• Communications and Awareness National uPOPs issue</li> </ul>	Seema Deo (SPREP)
10.00-10:15	<i>REFRESHMENTS</i>	
10:15-13:00	<ul style="list-style-type: none"> <li>• Project Steering Committee Meeting                             <ul style="list-style-type: none"> <li>○ Work plan and Budget Summary Presentation</li> <li>○ Discussion</li> <li>○ Sign Off</li> </ul> </li> </ul>	SPREP/UNEP/FAO/AFD
13:30 -14:30	<ul style="list-style-type: none"> <li>• LUNCH</li> </ul>	

## APPENDIX 2: LIST OF PARTICIPANTS

## GEFPAS POPs RELEASE REDUCTION PROJECT INCEPTION WORKSHOP

	Name	Country	Designation/Address
1	Mr Vaitoti Tupa	Cook Islands	<b>Director</b> National Environment Service, Rarotonga, Cook Islands. Ph:(682) 21256 F: (682) 22256 E: vaitoti.tupa@cookisland.gov.ck
2	Ms Laisani Lewanavanua	Fiji	<b>Senior Environment Officer</b> Waste Management and Pollution Control, Department of Environment, Suva, Fiji. Ph: (679) 3311699 F: (679) 312879 E: laisani.lewanavanua@govnet.gov.fj
3	Ms Patricia Pendrus	Federated States of Micronesia	<b>Sustainable Development Planner</b> Office of Environment and Emergency Management Pulikir, Pohnpei, Federated States of Micronesia. Ph: (691) 3208814/3208815 F: (691) 3208936 E: pattiwarm@gmail.com
4	Mr Farran Redfern	Kiribati	<b>Senior Environment Officer</b> Environment and Conservation Division Ministry of Environment, Lands and Agriculture Bikenibeu, Tarawa, Kiribati. Ph: (686) 28211/ 28000/28425 F: (686) 28334 E: farranr@environment.gov.ki
5	Ms Morina Mook	Republic of the Marshall Islands	<b>Chief of Waste and Pollutants</b> Environment Protection Authority, Majuro, Marshall Islands. Ph: (692) 6253035 / 5203 F:(692) 255202 E: mookey15@gmail.com
6	Ms Mavis Depaune	Nauru	<b>Project Coordinator</b> Commerce, Industry and Environment, Yaren District, Government Offices, Nauru Island. Ph: (674) 5563977 E: monmave@gmail.com
7	Ms Metiek Kimie Ngirchchol	Palau	<b>Laboratory Supervisor</b> Palau Environment Quality Protection Board, Palau. Ph: (680) 4883600 F: (680) 4882963 E: eqpb@palaunet.com
8	Dr Peter Petsul	Papua New Guinea	<b>Senior Lecturer</b> School of Science University of PNG, PNG

			Ph: (675) 70080501 E: <a href="mailto:liapph@gmail.com">liapph@gmail.com</a>
9	Ms Fuatino Matatumua-Leota	Samoa	<b>Principal Chemicals and Hazardous Waste Management Officer</b> Division of Environment and Conservation Ministry of Natural Resources and Environment Apia, Samoa. Ph: (685) 67200 F: (685) 23176 E: fuatinol@gmail.com
10	Ms Rosemary Apa	Solomon Islands	<b>Chief Environment Officer</b> Ministry of Environment, Climate Change, Disaster Management & Meteorology, Honiara, Solomon Islands. Ph: (677) 28049 / 23031 ext 201 F: (677) 28054 E: rosemaryapa@gmail.com
11	Ms Mafileo Masi	Tonga	<b>Senior Environmentalist</b> Ministry of Lands, Environment, Climate Change & Natural Resources, Nukualofa, Tonga. Ph: P: (676) 25050 F: (676) 23216 E: mafileo.masi@gmail.com
12	Mr Epu Falenga	Tuvalu	<b>Capacity Building and Monitoring Officer</b> Department of Environment, Funafuti, Tuvalu. Ph: (688) 902960 / 20179 E: licaepu@gmail.com
13	Ms Carol Rovo	Vanuatu	<b>Senior Waste Management and Pollution Control Officer</b> Environment Protection and Conservation, Port Vila, Vanuatu. Ph: (678) 5972239 E: crovo@vanuatu.gov.vu
14	Professor Jochen Muller		<b>Prof. Environmental Toxicology</b> National Research Centre for Environmental Toxicology The University of Queensland 39 Kessels Road, Coopers Plains Qld 4108, Australia Tel: +61-7-30009197 E: j.mueller@uq.edu.au
15	Ms Karine de Fremont		<b>Directrice Adjointe</b> Agence Francaise de Développement 2 rue de Barleux BPJ1 – 98849 Noumea Nouvelle – Calédonie Ph: (687) 282 603 F: (687) 242 413 E: <a href="mailto:defremontk@afd.fr">defremontk@afd.fr</a>
16	Ms Melanie Ashton		<b>UNEP representative</b> E: <a href="mailto:Melanie@iisd.org">Melanie@iisd.org</a>

17	Ms Giovanna Chiodi		<b>UNEP representative</b> E: <a href="mailto:Giovanna.CHIODI@unep.org">Giovanna.CHIODI@unep.org</a>
18	Ms Jacqueline Alvarez		<b>UNEP/BRS representative</b> E: <a href="mailto:jacqueline.alvarez@brsmeas.org">jacqueline.alvarez@brsmeas.org</a>
19	Dr David Haynes		<b>Director</b> Waste and Pollution Control Division, SPREP Apia, Samoa Ph: (685) 21929 ext 245 F: (685) 20231 E: <a href="mailto:daviah@sprep.org">daviah@sprep.org</a>
20	Dr Frank Griffin		<b>Hazardous Waste Adviser</b> Waste and Pollution Control Division, SPREP Apia, Samoa Ph: (685) 21929 F: (685) 20231 E: <a href="mailto:frankg@sprep.org">frankg@sprep.org</a>
21	Mr Shiro Amano		<b>Chief Advisor, J-PRISM Project</b> Apia, Samoa Ph: (685) 21929 ext F: (685) 20231 E: <a href="mailto:amano46@gmail.com">amano46@gmail.com</a>
22	Ms Seema Deo		<b>Communications and Outreach Adviser</b> SPREP, Apia, Samoa Ph: (685) 21929 ext 306 F: (685) 20231 E: <a href="mailto:seemad@sprep.org">seemad@sprep.org</a>
23	Mr Meapelo Maia		<b>GEF Support Adviser</b> SPREP, Apia, Samoa Ph: (685) 21929 ext 307 F: (685) 20231 E: <a href="mailto:meapelom@sprep.org">meapelom@sprep.org</a>
24	Mr Stanley Ebelewicz		<b>AFD Technical Assistant</b> SPREP, Apia, Samoa Ph: (685) 21929 ext 219 F: (685) 20231 E: <a href="mailto:stanleye@sprep.org">stanleye@sprep.org</a>
25	Ms Lusiana Ralogaivau		<b>GEFPAS Project Coordinator</b> SPREP, Apia, Samoa Ph: (685) 21929 ext 279 F: (685) 20231 E: <a href="mailto:lusianar@sprep.org">lusianar@sprep.org</a>
26	Ms Pueina Parkinson		<b>JICA Project Assistant</b> SPREP, Apia, Samoa Ph: (685) 21929 ext 324 F: (685) 20231 E: <a href="mailto:peuinap@sprep.org">peuinap@sprep.org</a>

---

**APPENDIX 3: MINUTES OF INCEPTION/PROJECT STEERING COMMITTEE MEETING**

**Day 1 : 20/11/13**

**Presenters:**

*SPREP*: David Haynes (DH) , Frank Griffin (FG), Lusiana Ralogaivau (LR) , Meapelo Maia (MM), Seema Deo (SD)

*UNEP*: Melanie Ashton (MA)

*FAO*: Richard Thompson (RT)

*AFD*: Karine de Fremont (KF) , AFD TA: Stanley Ebelewicz (SE)

*JICA*: Shiro Amano (SA)

*Macquarie University*: Cynthia Isley (CI)

*University of Queensland*: Jochen Muller (JM)

**Countries represented** : Cook Islands, Fiji, Federated States of Micronesia(FSM), Kiribati, Nauru, Palau, Papua New Guinea (PNG), Republic of Marshall Islands(RMI), Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu

Refer to Inception Report for Participant details.

**1.0 Welcome**

Opening Remarks from the following representative

UNEP (MA), SPREP (DH), FAO (RT) and AFD (KD).

All participants introduced themselves.

**2.0 Overview of Project**

The SPREP representative (DH) and the UNEP representative(MA) made a joint presentation on the Overview of project and objectives.

Key points discussed:

a) The aim of the meeting was addressed, that was to bring participants up to speed with project evolution, and to allow all countries to become fully conversant with the national commitment required to participate in the project.

b) Key project objectives - reducing uPOPs arising from poor waste management practices, hence meeting International Obligations for chemical management.

c) basis of formulation of the work plan and budget

d) brief on the project components, as stated below:

**Component.1** – regional uPOPs strategy would be similar to regional asbestos and E-waste strategies. This would then be included in a single regional waste management strategy, and with a model legislative element. It would also be linked with the national strategies, which should result in building donor confidence.

**Component.2** – involved training and awareness and was relayed to be an important component. Training had already started in 2011, under AFD and has been well received and useful. The piloting aspects of this component were also discussed: medical waste Kiribati; used oil re-use in Samoa; composting in Niue; and oil testing in RMI. Discussed as to how sites were chosen, with special linkages to priority needs submitted by countries. It

## PROJECT

was also highlighted that there were good synergies between EDF10 and GEF-PAS on medical waste.

**Component.3** –involved training on inventory, laboratory and customs on chemical management, thus, increasing the capacity of regional communities in the management of uPOPs.

**Component.4** – involved the setting up a used oil management system for the Pacific, where model systems were being set up. The three countries that would be involved in the development of the model systems were Fiji, Samoa and Vanuatu. The process entailed undertaking used oil audits in all PICs, cost benefit analysis, supply of waste oil equipments and regional model regulations.

**Component .5** – involved the development of project proposals, which were drawn up by the vocational trainees (Component 2), and implementation. The project would cost around USD5000 per project/country, for 4 years, and which had set criteria's for selection that linked to improving solid and hazardous waste management.

**Component .6-** involved the management of used pesticide containers, with emphasis on obtaining baseline information, and providing training in best practice, setting up a model policy and regulations, and pilot collection in Samoa, Tonga and Fiji, on triple rinsing.

**Component .7-** brief on the Project Management Unit, and their role as managers and providing technical assistance to the project.

Discussion:

**PNG representative:** sought clarification on the used oil component, and whether the adding of waste oil to the diesel fuel would contribute to the air pollution burden, and with that adding new POPs to the environment.

**SPREP representative (DH):** advised that if the engine had a catalytic converter and scrubber, theoretically, it should not produce dioxin emissions.

### 3.0 Component 1 – National uPOPs Strategy

The SPREP representative (FG) and UNEP/BRS representative (JA) made a collaborative presentation on the Development of the Regional uPOPs Strategy, with direct linkages to the National Implementation Plan for the Stockholm Convention.

The UNEP/BRS representative (JA) provided a brief on unintentional POPs, Dioxins, Furans, Polychlorinated Biphenyls, Hexachlorobenzene and other POPs as per Annex C of the Stockholm Convention on POPs).She stated that Dioxins and furans were measured indirectly through a Toolkit (2005), and through assessment of quantity which were then multiplied by the emission factor. She further advised that the new inventory of uPOPs would compare 2005 results with 2013 results, and for countries to note that there was a new toolkit in place, with a different emission factor, that is the 2013 version (<http://toolkit.pops.int>). She added that the NIPS UPDATE Project required baseline to be re-estimated/re-calculated, and further advised that inventories should be revised every four years.

## PROJECT

Discussion:

**PNG representative:** inquired on whether countries should concentrate on the priority POPs

**UNEP/BRS representative (Jacqueline Alvarez):** advised that a good start would be to focus on at least two priorities.

**PNG representative:** queried as to why there were more focus on controlling the chemicals, rather than building on technologies.

**UNEP/BRS representative :** advised that some countries were doing so, but there was also a need to define how one would minimize, and approaches could defer for different countries.

**University of Queensland representative :** inquired as to what the inventory stated as "the sources of dioxins"?

**PNG representative:** stated that there was too much focus on air, and there was a need to start making detections on soil.

**University of Queensland representative :** advised that one needed to test the air first before the soil.

**UNEP/BRS representative:** advised that it was good to detect the amount.

**SPREP representative(FG):** stated that some countries did not have any data, and could use the 2013 data as a baseline.

#### **4.0 Component 2 – Vocational training / Pilot Sites**

##### **4.1 Vocational Training**

**AFD Technical Assistant:** advised on the training currently being undertaken through the AFD funding, which would then be continued in 2015-2016 using the GEFPAS funding. He added that there were CDs available of the two vocational training modules - (waste management and landfill management). The Hazardous waste management, would then be added by FG. Training nominees were required to submit a project proposal, prior to the training. These were then worked on during the training, with the final proposal then submitted to SPREP for approval and funding. Module delivery dates in 2014: 3-14 Feb 2014 (Module 1); 7-18 July 2014 (Module 2).

Discussion:

**UNEP/BRS representative:** asked as to what was the modality for understanding how many train-the-trainers had occurred in each country?

**PNG representative:** asked as to how the training was connected with the training institutions? He added that although this was more relevant for train-the-trainers, PICs have had trainings going on in-country in similar areas, and whether invitations were sent to universities? He further advised that the training approach should be looked into and that there was a need to ensure it was well absorbed.

**UNEP representative:** questioned the eligibility criteria, which required holding a degree, and added that the training was intended for semi-skilled workers. She then questioned as to how the project measured how effective the trainings that had already taken place.



**Tonga representative:** stated that being a former participant, there were no modality for reporting back to SPREP on training activities undertaken at home. However, SPREP could use PIC Ministerial annual reports to gauge what training had been conducted.

**Samoa representative:** welcomed the partnership, however, stating that Samoa had a problem with the Globally Harmonized System (GHS). She then questioned as to how Samoa could synergize the relevant provisions of the three Conventions, which all have obligations to manage the life-cycle of chemicals, thus having a more holistic approach.

**SPREP representative(FG):** in response, stated that this was currently being addressed, for e.g. with Kiribati, they had started working towards synergizing the reporting requirements.

**UNEP/BRS representative:** sought clarification on the modules developed? She added that since there were new POPs with recycling provisions, how would they get incorporated into the training. JA then questioned as to whether the trainings were long-term, and if there were aspects of sustainability being adopted, with any modality for updating.

**AFD Technical Assistant:** in response, stated, that the modules were developed in 2012, and run for 2 weeks.

**SPREP representative(DH):** advised that SPREP would build on the hazardous waste in the uPOPs programme, and that the whole training concept involved local Universities for the purposes of ensuring that the courses were offered locally in the longer term. He further advised that the overlying concept of the current criteria set for participants was to train the trainers.

**Tonga representative:** stated that being a former participant, the material was applicable to waste management issues, and was broad and could be used to customize to any area of waste.

**SPREP representative (DH):** stated that the materials developed could now be used as a resource for the Pacific and globally.

**FAO representative:** inquired on whether there was a possibility of exploring synergies between component 2 and component 6, for example, awareness and training on triple rinsing and packaging waste. **SPREP representative (DH):** advised that this was possible.

**FAO representative:** stated that getting pesticides issues mainstreamed was important in breaking down silos of agriculture and environment. He added that the University of Cape Town currently runs a distance learning Diploma in Pesticide Risk Management that was widening its remit into other areas - there could be an opportunity for synergies in combining training materials (**contact:** Andrea Rather andrea.rother@uct.ac.za, Centre for Occupational and Environmental Health Research Cape town, South Africa). **AFD Technical Assistant:** indicated that review only occurred in response to feedbacks from participants.

**UNEP/BRS representative:** inquired on the possibility of adoption of the materials in other regions, and whether there were likely opportunities for doing training in other regions. **DH:** stated that manuals and CDs were public documents, and could be used by anyone. **SE:** added that to date, there had been queries on the adoption of these by Indonesia and Jamaica.

**FSM representative:** stated that the status of Waste Management in FSM was still at its initial stage, and training had been quite relevant. She added that it might be worth noting that there were a lot of trainings going on in-country, and countries were tied up with these.

**Nauru representative:** stated that there were too many trainings, and questioned whether there was a measure to gauge whether the training were effective?

**Tonga representative:** stated that the effectiveness of such trainings could be gauged using Ministerial annual reports, which should reflect the number of trainings held in country after the train the trainers.

## PROJECT

#### 4.2 Kiribati Pilot Project on Health Care Waste Management

The SPREP representative (FG) provided a brief on the pilot project outline of Kiribati

Key points discussed:

- Many expired pharmaceuticals on the island.
- Not enough fuel to operate the incinerator 24/7.
- Too much waste left un-separated, therefore over-loading the incinerator.

Discussion:

**Palau representative:** inquired on whether there were plans to monitor the emissions from the incinerator.

**SPREP representative(DH):** advised that there were no such plans under programme to do so, although temperature was monitored to ensure dioxin formation was minimized.

**Kiribati representative:** shared that the Health Department saw waste as an environment issue, and there was a need to change this perception.

#### 4.3 NIUE Pilot project on composting and waste segregation

The SPREP representative(LR) provided a brief on NIUE piloting.

Key points discussed:

- Niue to pilot composting and waste segregation, for the purposes of having an enhanced waste management system, thus contributing to reducing uPOPs.

Discussion:

**PNG representative:** stated that there was a need to get a regional incinerator and incinerate everything, instead of going on with this.

**Cook Islands representative:** stated that the region had tried to collaborate with Australia and NZ, but at the end of it, they have had to dump out asbestos at sea. Also added that the discussion of waste has been ongoing for a long time, with all options discussed, and it has been in a way that is most feasible for the Pacific.

**Samoa representative:** stated that there was a need to develop frameworks for Public Private Partnership (PPP) at the national level, and bring together key actors at the national level.

#### 4.4 JPRISM 3R PROJECT BRIEF

The JICA representative presented on the work of the J-PRISM project.

Key points discussed:

Special focus of the project were on the following:

- Return – recyclables and difficult waste and
- return organic waste to nature.

## PROJECT

The two "Returns", were then added to the 3Rs.

Discussion:

**SPREP representative (DH):** advised that the issue of solid waste management in atolls was extremely important. There funding allocation under the EDF10, and approximately 500K for better management of solid waste in atoll countries.

**Fiji representative:** commended JICA/JPRISM project, with the formulation of 3R Policy in place for Fiji which would contribute the increase in recycling rate for Fiji.

#### 4.5 Marshalls Island Oil Analysis project

The SPREP representative (FG) provided a brief on the project.

Key points discussed:

- Testing and identification of PCB-containing transformers if these are still present in RMI. Local advice and follow up missions will confirm this.

#### 4.6 Monitoring of Environmental Impacts of combustion of Used Oil

The University of Queensland representative (JM) provided a brief on the monitoring of environmental impacts of used oil.

Key points discussed:

- Man who made DDT got a Nobel Prize. Used to treat people at the end of the year as a de-lousing agent.
- Until the late 70's, dioxins were known to be by-products of organic processes. In late 70's, dioxins were detected in fly-ash from incinerators.
- Contaminants in used oil: chlorine, PCBs; chlorinated paraffins. Different types of fuels have different types of emissions.
- In FSM, Two mechanisms to remove pollutants: Catalytic oxidation (destroys gas phase), and absorption/scrubber (requires disposal somewhere else). Small amount – but not really if it is capturing significant emissions.
- Trying to answer the question of whether burning of waste oil as a fuel extender is a source of dioxins?

Project would entail collection of samples from stack and ambient air transect. Have different fuels going in. Sample collection would be carefully planned. In the end, the project hoped to:

- Analyze for particles and dioxin-like chemicals
- Determine emissions factors
- Contribute data to 'UNEP Toolkit'

Discussion:

**UNEP representative:** inquired on the number of sampling events and whether there was any testing undertaken at the incinerator.

#### 4.7 Fiji Air Quality Analysis project

The representative of Macquarie University (CI) presented on the project that was still under consideration by the Department of Environment, and that is, the air quality analysis of Fiji.

Key points discussed:

The project would entail undertaking continuous air samples for dioxins. This project is not part of the GEFPAS project, but has significant potential synergies.

Discussion:

**UNEP representative:** inquired if a report could be provided on dioxin results during the project. **Macquarie University representative :** advised that a report will be provided in this regard.

**SPREP representative (SD):** recommended that the project undertake some interviews on this as this was good for communications of POPs. She added that the student approach in sharing messages about POPs were more preferable as they were simple and easily understood.

#### 5.0 Component 3: Enhanced post-NIP

The SPREP representative (FG) provided a brief summary on the chemical training components, which were based on the needs raised by the countries.

Discussion:

**Cook Islands representative:** stated that there was a need to link with the training of Customs officers under the MP. SPREP had been unrepresented at SC/COP meetings, and recommended that since SPREP was doing the work, they should also be attending.

**SPREP representative (FG):** advised that SPREP was a Basel Regional Centre, however this was a perfect match. She added that there was a need for the role to be strengthened. For the chemical trainings/updates, there was a guidance already developed, hence this could be adopted to develop it.

**FAO representative:** stated that there were significant synergies with FAO's activities in the region and in other regions such as the Caribbean, particularly for sustainable chemicals management. He added that in the process of identifying the training needs, it would be important to maintain close liaison between FAO and SPREP to develop common training material.

## 6.0 Component 4: Waste oil Export and Reuse

AFD Technical Assistant provided a brief on the Waste Oil Export and Reuse which was already underway since 2011 through the AFD Project.

Key Points discussed:

- There are audits for oil in Fiji, Samoa and Vanuatu.
- Background paper on used oil stewardship system
- Cost benefit Analysis for Vanuatu Fiji and Samoa

Discussion:

**FAO representative:** stated that there was a synergy between Component 4 and component 6 and that both components will in all likelihood use Extended Producer Responsibility (EPR) legislation to require suppliers to fund the collection and disposal through the supply chain. He further advised that this could also apply to other waste streams such as tyres, and the component should work together with regards in developing a framework legislation that would support all the EPR obligations. He added that in larger countries, the most effective mechanism was to put the responsibility for running and funding the collection onto the suppliers, where government is left to monitor and regulate the scheme.

**AFD Technical Assistant :** welcomed this and stated that the stewardship system was an EPR system.

## 7.0 Component 5: National Technical Assistance for post-NIP activities

The AFD Technical Assistant provided a brief on the project proposals that were part of the outcome of the vocational trainings (Component 2) which supported this component. 5K x 14 = 70k per year for projects by training participants.

Discussion:

**PNG representative:** questioned whether the project proposals were sent to the focal point or institutions?

**AFD Technical Assistant:** stated that projects were submitted by the student/participant.

**SPREP representative (DH):** added that this was part of the course outline under component 2, with set criteria.

**Kiribati representative:** sought clarification on whether there was a deadline for this year's proposals.

**AFD Technical Assistant:** advised that there was still a chance to submit. He added that according to the project document, there were 28 participants expected per year, where only the best 14 project proposals (1 per country) were chosen.

## 8.0 Component 6: Improved Regional pesticide management

FAO representative presented on the FAO Component.(refer to Annex 4 for the presentation)

Key points discussed:

- Disposal component had already been addressed with co-finance – obsolete pesticides from Samoa have already been disposed of.

- Contaminated sites:

Baseline investigations into contaminated soils in Fiji, Niue and Tonga indicated levels less than NZ guidelines for intervention, so not considered a priority. However the risk to drinking water in Niue has not been assessed. Contaminated sites may be present in Solomon Islands and Yap.

Under the baseline M&E budget SPREP would assess the sites in Yap and Solomon Islands, and the well in Niue, to determine whether they were priorities for intervention.

However, if these sites were found not to represent a risk, the workshop agreed that the focus of the component should be redirected to building sustainable container management in Fiji, Samoa and Tonga.

## 9.0 Communications and Awareness (under Component 2)

The SPREP representative (SD) presented on communication tools that could be adopted by PICs when developing awareness packages for the project.

Key points discussed:

Examples of success stories such as "E-Waste Project" which involved training the media on E Wastes. Recommended a "Media Seminar for POPs".

Points to consider in terms of communication and awareness packages for POPs

Discussion:

**PNG representative:** stated that it might be worth having a "train the trainers" for Scientists - to become journalists. He added that there was a need to carefully consider the approach taken in awareness, especially in cases where it may contradict with food security, such as cases where plastic bag is being promoted to be contributing factor to POPs when burnt. He added that for such a case, there may not be trees available in certain areas, hence they will have to resort to burning plastics, in order to cook food. He concluded that it was therefore important to target issues rather than POPs on its own.

**SPREP representative (SD):** stated that it was important to always address an alternative, in any case.

PROJECT

---

**SPREP representative (FG):** added that there was a need to be cautious of messages that are promoted, and the need to have it packaged in such a way that for every issue, there is an option for it.

**Cook Islands representative:** shared that in the Cook Islands, aside from schools, community and private sector, they were also targeting government itself, who happened to contribute to 50% of POPs Pollution. He added that communities were always asking, "how about government?", so this is now in place.

**SPREP representative (SD):** welcomed the approach in tackling such an issue, and advised that in most cases, governments did contribute in many ways to pollution.

**University of Queensland representative:** stated that the media could also be a dangerous player in many cases, however, he shared the same sentiments that targeting issues rather than chemicals is important.

## 10.0 Steering Committee Meeting

The SPREP representatives provided a brief on work plan and budget, together with the proposed budgetary changes. (Refer to Annex 4)

Discussion:

**SPREP representative (DH):** stated that there were some reallocations made due to activities that have happened since 2011.

**PNG representative:** inquired as to whether the funds were reallocated to SPREP.

**SPREP representative (DH):** clarified that the funds would be reallocated to other priority project activities, not to SPREP.

**Fiji representative:** sought clarification on the recent advertisement for a local consultant for oil officer in Fiji.

**SPREP representative (DH):** advised that the AFD requirements would not allow a fulltime officer position, but only as a local consultant.

**Tonga representative:** stated that there was a need for countries to put in place legislations to cut back on waste oil.

**Samoa representative:** requested a budget allocation per country, and added that Samoa would not support the endorsement as they needed to re-look at their priorities.

**Nauru representative:** agreed with Samoa on the budget per country request, as it would help with the planning of yearly activities.

**SPREP representative (FG):** advised that countries must note that funds would not be channeled directly to countries, however, the allocated funds would be in the form of assistance to them via trainings, etc.

**Kiribati representative:** advised that Kiribati was keen to see the project have impacts on the ground.

**Cook Islands representative:** stated that the senior officials of each country were are aware of these programs, and had officially endorsed these at the recent SPREP meeting. Hence the participants should have noted all these before attending such meetings.

**SPREP representative (FG):** advised that countries would need to re-look at their priorities and provide the PMU with updates.

**SPREP representative (LR):** advised that the breakdown of budget which showed country assistance, was included in their folders and was also circulated before the workshop. She added that it was best to update the priorities based on the 2011 priorities that were set, instead of coming up with a whole new set of priorities. (refer to "GEFPAS POPS RELEASE REDUCTION REPORT - WORKSHOP REPORT, 2011")

Motion was finally moved to endorse the work plan and budget, with the revised changes, with no final objections. **Agreed by acclamation.**



**PROJECT MANAGEMENT RECOMMENDATIONS:**

- The linkages between the technical work under the used oil work (Component 4) and the Customs training (Component 2) need to be considered.
- The synergies between Component 4 and Component 6 on the EPR aspects will need to be addressed during the course of implementation.
- Although working with Green Customs and Regional Customs Orgs may not be possible, there was a need to draw on their resources for the development of Customs Training material.
- The possibility of EDF10 as co-finance for a new GEF VI project would need to be confirmed and formalized.
- The need to develop a modality in Component 2, for vocational course participants to report back to SPREP. This may be difficult, as stated, however it is essential for monitoring and evaluation purposes. Mentoring does not have to be face-to-face.
- Communication plans should have links to pilots and oil activities.
- Vocational training sessions should result in the creation of a trainer network, that communicates via email. It is facilitated by SPREP, with aims to share experience, maintain momentum etc.
- University of Queensland representative's (JM) work can contribute data to the 'UNEP Toolkit.' Please send as soon as available.
- UNEP and BRS to provide feedback on training package, and technical guidance tool kits, once developed.
- The Project Management Unit at SPREP to provide a breakdown per country on involvement/costs.





## GEPFAS POPs REDUCTION PROJECT

Output 2.4 - Pilot projects in selected countries.			
Activity 2.4.3	Niue composting/waste separation pilot	Case study report	GEFPAS PC, Project TA
Activity 2.4.4	Marshall Is PCB testing pilot	Costed disposal strategy	GEFPAS PC, Project TA
Activity 2.4.5	Kiribati HCWM pilot	Audit reports	GEFPAS PC, Project TA
Activity 2.4.6	Samoa used oil diesel extender project	Case study report	GEFPAS PC, Project TA
Activity 2.4.7	Pilot review and dissemination	Summary Report	GEFPAS PC, SPREP, PICs
<b>Output 2.5 - Broader awareness campaigns for the public and SMEs on best practices in waste separation, composting etc. Lessons learned and mentoring promoted</b>			
Activity 2.5.1	Proforma issued to PICs for awareness raising campaign fund requests	Proforma	GEFPAS PC
Activity 2.5.2	Awareness campaign annual action plans submitted (to include waste oil and linked to pilot activities)	Action plans	PIC Env Depts
Activity 2.5.3	Review, approval and transfer of funds for awareness campaigns	Funds transferred	GEFPAS PC
Activity 2.5.4	Awareness campaigns implemented	Campaign reports/results	GEFPAS PC, PIC Env Depts, NGOs
Activity 2.5.5	Bi-annual awareness newsletter compiled, sent to PICs and posted on SPREP website	Newsletter	GEFPAS PC, PIC Env Depts, NGOs
<b>Component 3: Enhanced post-NIP inventory stockpile management and safe disposal strategy for unwanted pesticides (including POPs) and school laboratory chemicals</b>			
<b>Output 3.1 - Enhanced inventory exercise and training in inventory development and sound chemicals management, and training in the local disposal of laboratory chemicals</b>			
Activity 3.1.1	Participating countries provide up-to-date copies of existing inventories, highlighting areas of concern and storage sites	Inventories and storage locations supplied	NFPs
Activity 3.1.2	Participating countries provide list of laboratories, as well as quick assessment of labs of most concern	Lists of labs	NFPs
Activity 3.1.3	Development of laboratory chemical management and disposal training manual and course presentation material	Final endorsed training materials	GEFPAS PC, SPREP
Activity 3.1.5	Technical guidance toolkit published	Published toolkit	GEFPAS PC
Activity 3.1.6	Training schedule agreed	Scheduled published	GEFPAS PC
Activity 3.1.7	Training undertaken	Training records	SPREP, GEFPAS PC, NFPs and regional consultants
Activity 3.1.8	PIC Action Plans developed, outlining specific chemical issues to be addressed and responsible entities	National Action Plans	NFPs and GEFPAS PC
Activity 3.1.9	PIC chemical storage sites listed on FAO GIS Database	Data univ ersally accessible via database	FAO
<b>Output 3.2 - Training of Customs Officers</b>			
Activity 3.2.1	Participating countries provide nominated trainees	List of nominated Customs Officers	NFPs and GEFPAS PC
Activity 3.2.2	Training manual developed (adopting Green customs and Regional Customs standards/manual)	Training manual	GEFPAS PC and Project TA
Activity 3.2.5	National training program schedule agreed	Training schedule available to PICs	GEFPAS PC and Customs Officers
Activity 3.2.6	National Customs training in each PIC	Training records	GEFPAS PC and Project TA

## GEPAS POPs REDUCTION PROJECT

<b>Output 3.3 - Development and implementation of a regional best practice manual to reduce chemical use and subsequent build up</b>			
Activity 3.3.1	Consultation with PICs on the development of manual and the content, using training feedback and national action plans		GEFPAS PC
Activity 3.3.2	Draft regional best practice manual	Draft document	GEFPAS PC and Project TA
Activity 3.3.3	Publication of final manual	Manual published	GEFPAS PC
<b>Output 3.4 - Draft design and estimated cost of a regional repackaging, collection, shipping and disposal activity</b>			
Activity 3.4.1	Development of draft cost estimate	Cost Estimate	GEFPAS PC and Project TA
Activity 3.4.2	PIC review	Draft document sent to PICs	NFPs
Activity 3.4.3	Final document approved in the form of PIF	PIF available	GEFPAS PC
Activity 3.4.4	Consultation with donors		GEFPAS PC
<b>Component 4: Waste Oil export and reuse in Polynesia and Micronesia</b>			
<b>Output 4.1 - Development of a strategy on the implementation of extended producer responsibility (EPR) systems for waste oil produced and distributed</b>			
Activity 4.1.1	Confirm country commitment, designated contact personnel, and a stakeholder liaison group for in-country implementation for Fiji, Samoa, and Vanuatu	Steering groups established	AFD TA
Activity 4.1.2	Formation of PPA Technical Working Group (2015 Annual Meeting)	TWG formed	PPA, AFD TA
Activity 4.1.6	Set up Used Oil Steering Committee (Samoa, Fiji and Vanuatu)	Meeting reports	AFD TA, PIC Env Depts
Activity 4.1.7	Establish Used Oil Steering Committees for the 11 PICs	Steering Committee report	AFD TA, SPREP, PIC Env Depts
Activity 4.1.8	Complete national oil audits and cost-benefit analyses for 11 PICs	CBA Final Reports	AFD TA, SPREP, PIC Env Depts
Activity 4.1.9	Development of national Oil Management Plans for 11 PICs	Final management Plans	AFD TA, SPREP, PIC Env Depts
Activity 4.1.10	Confirm country commitment, designated contact personnel, and a stakeholder liaison group for in-country implementation for 11 PICs	Steering group established	GEFPAS PC, SPREP
<b>Output 4.2- Waste oil collection, storage and export system developed and operational for eligible PICs</b>			
Activity 4.2.1	Training then implementation of waste oil audits in Fiji, Kiribati, Palau, PNG, Nauru, Solomon Islands and Tonga	Audit reports	AFD TA, audit consultant, PIC Env Depts
Activity 4.2.2	In-country assessments of interim storage needs in FSM and RMI, and the most appropriate export options for FSM, Palau and RMI	Agreed actions for each country	AFD TA, PIC Env Depts
Activity 4.2.3	Identify in-country requirements for a first oil shipment, obtain necessary supplies (drums or IBCs), confirm shipping company and shipping costs	Supplies purchased, cost confirmed	AFD TA, PIC Env Depts
Activity 4.2.4	Obtain formal agreement from Fletcher Steel to accept first shipments and necessary Waigani approvals (Depending on best option for usage)	Approvals gained	AFD TA, PIC Env Depts
Activity 4.2.5	First shipments are tested for PCBs and then shipped, with feedback provided to the AFD TA on any issues arising	Reports on shipment	AFD TA, PIC Env Depts
Activity 4.2.6	Support for further oil shipments from selected countries, depending on available funds	Further shipment	AFD TA, PIC Env Depts
Activity 4.2.8	Preparation of a handbook for oil exports under the Waigani Convention	Handbook distributed	Consultant, SPREP
Activity 4.2.9	Further national training/workshops on the Waigani Convention procedures, including use of the Handbook produced under activity 4.2.8 (run alongside Customs training in Component 3)	Workshop reports	SPREP
Activity 4.2.10	Preparation of Oil Management handbooks for power stations, oil companies and other large oil users, and vehicle workshops	Handbooks distributed	AFD TA, PPA Consultants

