



## Guidance on Course Programs

Date	Prog. #	Program Title and Content / Text Materials (underlined)
	<b>A-03</b>	<b>Appropriate Technology (Dr. Kunitoshi Sakurai, JICA)</b> To make the waste management sustainable, it is extremely important to select and employ appropriate technology for a particular situation / country taking into account of social, technical and financial aspects. Advanced technology does not necessarily improve the situation in the long run. <u>1. Handouts attached</u>
Feb 17 (Tue)	<b>A-04</b>	<b>Waste Collection System (Dr. Kunitoshi Sakurai, JICA)</b> Collection and transportation of waste is generally the most expensive operation in the developing countries. Priority should be given to the improvement of efficiency and effectiveness of collection and transportation services. The objective of this program is to provide guidelines for the planning and control of collection and transportation. <u>1. Chapter 3, Part 2, Guides for Municipal Solid Waste Management in Pacific Island Countries, WHO, December 1996 (Healthy Cities – Healthy Islands Document Series No.6)</u>
	<b>A-05</b>	<b>Time &amp; Motion Study, Lecture (Dr. Kunitoshi Sakurai, JICA)</b> As one of effective tools to improve productivity of collection and transportation operation, Time & Motion Study is utilized. The participants will learn the basics of Time & Motion Study. <u>1. Handouts attached (A Time and Motion Study of Municipal Solid Waste Collection Systems – JICA)</u> <u>2. Annex 5, Guides for Municipal Solid Waste Management in Pacific Island Countries, WHO, December 1996 (Healthy Cities – Healthy Islands Document Series No.6)</u>
Feb 18 (Wed)	<b>C-01</b>	<b>Time &amp; Motion Study, Field Exercise (Dr. Kunitoshi Sakurai, JICA)</b> The participants will be divided into 3-4 groups and each group will follow a collection vehicle for observation and data collection. The purpose of the field trip is to learn how to take data at the field and to observe problem areas in the operation. <u>1. Data sheets, stop watch etc. to be distributed</u>
	<b>B-03</b>	<b>Time &amp; Motion Study, Analysis (Dr. Kunitoshi Sakurai, JICA)</b> In the class, each group will analyze the data collected at the field trip to propose changes for improving the collection and transportation operation. <u>1. Same as A-05</u>
	<b>B-04</b>	<b>Time &amp; Motion Study, Presentation (Dr. Kunitoshi Sakurai, JICA)</b> Each group will give a short presentation on the results of the analysis.
Feb 19 (Thu)	<b>A-06</b>	<b>Healthcare Waste Management in PICs (Dr. Hisashi Ogawa, WHO)</b> Healthcare waste includes both hazardous and non-hazardous components. The hazardous component must be handled and treated separately from other non-hazardous waste with special care and appropriate methods. Health and safety risks associated with healthcare waste depend on how well people can manage the hazardous component. Participants will learn about practical approach to developing a healthcare waste management system in PICs. <u>1. Safe management of waste from health-care activities, WHO, 1999</u> <u>2. Handouts attached</u>
	<b>B-06</b>	<b>Site Visit to Hospitals (Dr. Hisashi Ogawa, WHO / Mr. Amerika Siale, Ministry of Health)</b> Participants will visit hospitals in Apia to observe actual condition of healthcare





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March 2 (Tue)	A-13	<b>Sanitary Landfill (Dr. Yasushi Matsufuji, JICA)</b> Same as above
	A-14	<b>Case Studies on Upgrading Landfills (Mr. Shiro Amano, SPREP)</b> Samoa's open dump was upgraded to an acceptable level of sanitary landfill employing Fukuoka Method or semi-aerobic landfill system. This was the first time that Fukuoka method was applied in the Pacific island countries. Case studies on upgrading/improving existing landfills will be presented and discussed. <u>1. Fukuoka in the Pacific</u> <u>2. Handouts to be distributed in the class</u>
March 3 (Wed)	C-06	<b>Field Training (Dr. Yasushi Matsufuji, JICA / Mr. Shiro Amano , SPREP)</b> Field training on upgrading/improving existing dumpsites will be given at Tafaigata landfill site. Landfill equipment and local materials will be used to demonstrate how to install leachate collection pipe and gas venting pipe on site. <u>1. TBN</u>
	B-09	<b>Preparation for Landfill Action Plan (All Attendants)</b> Participants will work on drawing a plan to upgrade/improve an existing landfill in the home country.
March 4 (Thu)	B-10	<b>Landfill Action Plan Presentation (Dr. Yasushi Matsufuji, JICA / Mr. Shiro Amano, SPREP)</b> Participants are required to present his/her own action plan to upgrade/improve existing landfill.
	A-15	<b>Environmental Impact Assessment and Land Use Consideration (Mr. Matt McIntyre, SPREP)</b> Opening a new dumpsite/landfill or operating it will have adverse impact on the environment to some extent depending on the location, geological condition, size of the dumpsite/landfill and other conditions in and around the site. Participants will learn various aspects that affect the environment and how they can be minimized at the planning stage. <u>1. Handouts to be distributed in the class</u>
	B-11	<b>Paper Recycling 2 (Mr. Steven Percival, Tiapapata Art Centre)</b> Using recycled papers you produced during the first class, you will learn how to decorate and turn the used papers to beautiful handcraft papers. <u>1. No text to be used</u>
March 5 (Fri)	B-12	<b>Solid Waste Education in PICs (Ms Seema Deo / Mr. Frank Wickham, SPREP / JOCVs, JICA)</b> Participants will learn the importance of public participation and communication in solid waste management. Sharing experiences on awareness raising and education in different countries are also expected. Participants are encouraged to bring educational materials used in his/her country. <u>1. TBN</u>
	B-13	<b>Action Plan Guidance (Mr. Shiro Amano / Mr. Frank Wickham, SPREP)</b> Each participant will be asked to prepare his/her own action plan and present it at the class at the end of the course on March 8. Guidance for preparing an action plan and consultation will be given to participants. <u>1. Handouts attached</u>



## **List of Resource Persons**

### **Japan International Cooperation Agency (JICA)**

**Dr. Kunitoshi Sakurai**

Dean, Department of International Communication  
University of Okinawa, Japan

**Dr. Yasushi Matsufuji**

Professor, Department of Civil Engineering  
Fukuoka University, Japan

### **World Health Organization (WHO)**

**Dr. Hisashi Ogawa**

Regional Advisor in Environmental Health  
Western Pacific Regional Office, Philippines

### **South Pacific Regional Environment Programme (SPREP)**

**Mr. Frank Wickham**

Human Resource Development/Training Officer

**Ms Seema Deo**

Environmental Education and Awareness Officer

**Ms Matilda Tapusoa**

Information Technology Officer

**Mr. Takahiro Hori**

IT Volunteer-JOCV

**Mr. Shiro Amano (Workshop Organizer)**

Project Officer, Solid Waste and Landfill Management

**Dr. Frank Griffin**

Coordinator, Pollution Prevention

**Mr. Sefanaia Nawadra**

Marine Pollution Advisor

**Mr. Andrew Wright**

Project Manager, International Waters Programme (IWP)

**Mr. Samson Samasoni**

Community Communications Specialist, International Waters Programme (IWP)

**Mr. Matt McIntyre**

Environmental Assessment and Reporting Advisor

**Ms Saunoa Mata'u**

Program Assistant, Pollution Prevention

### **Ministry of Natural Resources and Environment**

**Mr. Faafetai Sagapolutele**

Principal Officer, PUMA

**Mr. Masayuki Shida**

JICA Senior Volunteer, PUMA

### **Ministry of Health**

**Mr. Amerika Siale**

Healthcare Waste Manager

### **Flower Growers Association (FGA)**

**Mr. Alexander Couper**

Consultant & Specialist

### **Tiapapata Art Centre (TAC)**

**Mr. Steven Percival**

Administrative Director