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# **ECONOMIC SURVEYS**

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# **SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES 2013**

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## **PREFACE**

The report provides information on the Sewerage, Waste Management and Remediation Activities in 2013. The information was gathered from establishments that were engaged in activities of water supply and the collection, treatment and disposal of various forms of waste, such as solid or non-solid industrial or household waste as well as contaminated sites.

The important numbers presented are the macro-economic aggregates such as Gross Output, Intermediate Consumption, Value Added, Compensation of Employees, Consumption of Fixed Capital and Gross Fixed Capital Formation. These aggregates are combined with similar information on other industries to provide an estimate of GDP, which is a measure of our economy's side. Information made available in this report will allow us to work out the industry's contribution to the economy. Information contained in this report constitutes inputs to a national accounts system which basically provides a quantitative image of the whole economy.

Information on the Sewerage, Waste Management and Remediation industry would be useful to a good number of users, for instance the;

- 1) Economist who needs to analyze the supply and demand for such services.
- 2) Planner who uses the data to forecast the economy's performance.
- 3) Investor who wishes to have a closer look at opportunities available in this industry sector.

The cooperation of those who supplied the information presented in this report is hereby acknowledged. The Bureau of Statistics will continue to seek their support as we need to continually provide reliable statistics for evidence based planning. I also would like to thank the staffs who engaged in the conduct of the survey and the preparation of this report.



Epeli Waqavonovono  
**Government Statistician**

## **NOTES**

1 The interpretation of the symbols used in this report is as follows:

0 Nil or a figure less than half the given value

2 Total values are subject to rounding errors.

3 Key to Abbreviations:

BR	Business Register
CFC	Consumption of Fixed Capital
COE	Compensation of Employees
FBoS	Fiji Bureau of Statistics
FSIC	Fiji Standard Industrial Classification
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GO	Gross Output
IC	Intermediate Consumption
OS	Operating Surplus
SAS	Statistical Analysis System
VA	Value Added

4 VA in the report refers to Gross Value Added

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# 1 INTRODUCTION

## 1.1 History of Surveys undertaken

A brief description of previous studies done on this sector is given below in chronological order.

### **2002: Census of Other Community, Social and Personal Services**

Sewerage, waste management and remediation activities were covered under the scope of this survey that was conducted by the FBoS because of the need by its National Accounts Business Unit to re-base the constant price Gross Domestic product to 2002.

### **2003 – 2007: Manufacturing**

Recycling of metal waste and scrap activities were covered under the scope of the Manufacturing survey.

### **2008 and 2009: Census of Sewerage, Waste Management and Remediation**

Sewerage, waste management and remediation activities are produced annually on its own.

### **2010 and 2011: Census of Water Supply; Waste Management and Remediation**

This report contains the results of the survey carried out for the 2010 and 2011 Water supply; Sewerage, Waste Management and Remediation activities (refer 2.2 on Coverage and Scope) together with the relevant information on the industry.

### **2012 and 2013: Census of Sewerage, Waste Management and Remediation**

This report contains the results of the survey carried out for the 2012 and 2013 Sewerage, Waste Management and Remediation activities (refer 2.2 on Coverage and Scope) together with the relevant information on the industry.

## 1.2 Need for statistics relating to Sewerage, Waste Management and Remediation Services

Sewerage, waste management and remediation activities are an important economic activity, whether in terms of the sector to the Gross Domestic Product (GDP) or in terms of its share of total employment and Gross Fixed Capital Formation (GFCF).

Statistics on sewerage, waste management and remediation activities are therefore needed for the preparation of national accounts so that a meaningful study of the whole economy can be made. The data can also be used to construct the input-output table that shows the inter-connection of the sewerage, waste management and remediation activities with other industries. Policy makers too require the data for formulating sound economic and social policies. In addition, the establishments engaged in the sewerage, waste management and remediation activities find the data helpful in assessing the future directions of their business.

## **2. METHODOLOGY**

### **2.1 Legal Basis**

The surveys were conducted under the provisions of the Statistics Act (Cap 71). This Act protects the confidentiality of the information submitted by the establishment and stipulates the completion of the questionnaire as well.

### **2.2 Coverage and Scope**

The 2013 survey covered all establishments operating in the sewerage, waste management and remediation activities defined by the Fiji Standard Industrial Classification (FSIC) 2010 Section E. It is nevertheless possible that some small units not employing regular paid workers may have been omitted due to difficulties in identifying them, but the nature of such units do not affect the overall results in any significant way.

The businesses in sewerage, waste management and remediation activities are engaged in the collection, treatment supply and disposal of various forms of waste (refer Appendix II on Industrial Classification Used).

### **2.3 Statistical Unit**

The unit of reporting was the establishment (refer Appendix I on Concepts and Definitions). In cases where establishments operated more than one type of business, efforts were made to obtain accounts for each activity. Where this was not feasible, the establishment was classified according to the type of activity that brought in the most revenue.

### **2.4 The Frame**

The frame utilised to survey the establishments engaged in the sewerage, waste management and remediation activities in 2013 was the list of establishments maintained by the Fiji Bureau of Statistics (FBoS). This list is known as the Business Register (BR), which is kept updated on the basis of information supplied to the FBoS by the Fiji Revenue and Customs Authority, Registrar of Companies and the City and Town Councils.

### **2.5 Questionnaire Design**

Data were collected through a questionnaire designed to cover the activities of the sewerage, waste management and remediation industry. It sought information on the particulars of the establishment e.g type of organisation; income; expenditure; stocks; assets and employment (refer Appendix IV for Sample Questionnaire).

## **2.6 Data Collection and Survey Procedures**

The questionnaires were posted on 28<sup>th</sup> June, 2014 and replies were required within a month. Response by the due date was low; therefore personal visits to obtain the questionnaires were made to those establishments that did not respond.

Once the questionnaires were received in the office, scrutiny and editing of data contained in them followed. Errors and omissions if found, called for more correspondence, telephone calls or personal visits in an attempt to obtain complete and correctly filled up returns, which were then placed in files sorted by activity and passed on for data entry.

On completion of data entry, tables were run, data edited and analysed and reports written.

## **2.7 Data Processing**

Data was processed by FBoS' Information Technology Business Unit using Statistical Analysis System (SAS) software.

## **2.8 Reference Period**

The establishments contacted were to submit details for the calendar year 2013. Where the accounting year differed from the calendar year, establishments were asked to provide information for the accounting year that covered the major part of the calendar year 2013.

## **2.9 Non-responding Establishments**

All the establishments operating in the sewerage, waste management and remediation activities responded.

## **3. RESULTS**

All data contained in this report are in Fiji Dollars and in current prices.

All tables in this report contain data inclusive of estimates for non-response; exceptions are tables 1 to 5B and 8 to 10 that contains as per survey data.

Results of sub-classes [37001 and 38301] have been grouped together in order to protect the confidentiality of the information supplied by them.

### 3.1 The Survey Response

**Table 1: The Survey Response**

FSIC 2010		SURVEY FRAME	RETURNS RECEIVED	RESPONSE RATE %
SUB-CLASS	ACTIVITY			
37001	Sewerage	5	5	100
38301	Materials recovery			
	<b>TOTAL</b>	<b>5</b>	<b>5</b>	<b>100</b>

### 3.2 Legal Status of Establishments

**Table 2: Legal Status of Establishments**

FSIC 2010		Individual Ownership	Partnership	Private Limited Company	Public Limited Company	Government Owned Entities	Non-Profit Organisation	Total
SUB-CLASS	ACTIVITY							
37001	Sewerage	3	0	2	0	0	0	5
38301	Materials recovery							
	<b>TOTAL</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>

### 3.3 Ownership of Establishments

**Table 3: Ownership of Establishments**

FSIC 2010		FIJI OWNED	BRANCH OF AN OVERSEAS COMPANY	SUBSIDIARY OF AN OVERSEAS COMPANY	TOTAL
SUB-CLASS	ACTIVITY				
37001	Sewerage	4	0	1	5
38301	Materials recovery				
	<b>TOTAL</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>5</b>

### 3.4 Size of Establishments

**Table 4: Size of Establishments**

FSIC 2010		NUMBER OF PERSONS ENGAGED GROUPS						
SUB-CLASS	ACTIVITY	1-4	5-9	10-19	20-49	50-99	100+	Total
37001	Sewerage							
38301	Materials recovery	0	1	2	2	0	0	5
	<b>TOTAL</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>5</b>

### 3.5 Number of Persons Engaged as at 30 June 2013

**Table 5 A: Number of Persons Engaged**

FSIC 2010		WORKING WITH PAY		WORKING WITHOUT PAY		Total
		Local	Expatriates	Working proprietors	Unpaid family workers	
SUB-CLASS	ACTIVITY					
37001	Sewerage					
38301	Materials recovery	108	0	0	0	108
	<b>TOTAL</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>108</b>

**Table 5 B: Number of Persons Engaged by Gender**

FSIC 2010		Male	Female	Total
SUB-CLASS	ACTIVITY			
37001	Sewerage			
38301	Materials recovery	101	7	108
	<b>TOTAL</b>	<b>101</b>	<b>7</b>	<b>108</b>

### 3.6 Macroeconomic Aggregates

**Table 6: Macroeconomic Aggregates**

FSIC 2010		GO	IC	VA	COE	CFC	OS
SUB-CLASS	ACTIVITY						
37001	Sewerage						
38301	Material recovery	7,481,169	5,569,841	1,911,328	1,126,547	767,212	17,569
	<b>Total</b>	<b>7,481,169</b>	<b>5,569,841</b>	<b>1,911,328</b>	<b>1,126,547</b>	<b>767,212</b>	<b>17,569</b>

### 3.7 Gross Fixed Capital Formation

**Table 7: Gross Fixed Capital Formation**

TYPE OF CAPITAL FORMATION	FSIC 2010 SUB - CLASS	TOTAL
	37001/38301	
Land development and improvement	0	0
Buildings	0	0
Plant and machinery	1,784,706	1,784,706
Furniture, fixtures and office equipment	13,591	13,591
Transport vehicles and related equipment	0	0
Computer software	0	0
Water and distribution equipment	0	0
Sewerage equipment	0	0
Entertainment literary or artistic originals	0	0
Valuables	0	0
Others	0	0
<b>GRAND TOTAL</b>	<b>1,798,297</b>	<b>1,798,297</b>

### 3.8 Average Turnover per Establishment

**Table 8: Average Turnover per Establishment**

FSIC 2010		NUMBER OF ESTABLISHMENTS	TURNOVER (as per survey)	AVERAGE TURNOVER PER ESTABLISHMENT
SUB-CLASS	ACTIVITY		\$	\$
37001	Sewerage	5	7,185,049	1,437,010
38301	Materials recovery			
	<b>TOTAL</b>	<b>5</b>	<b>7,185,049</b>	<b>1,437,010</b>

### 3.9 Average Turnover per Paid Employee

**Table 9: Average Turnover per Paid Employee**

FSIC 2010		TURNOVER (as per survey)	PAID EMPLOYEE	AVERAGE TURNOVER PER PAID EMPLOYEE
SUB-CLASS	ACTIVITY	\$	NUMBER	\$
37001	Sewerage	7,185,049	108	66,528
38301	Materials recovery			
	<b>TOTAL</b>	<b>7,185,049</b>	<b>108</b>	<b>66,528</b>

### 3.10 Average Compensation of Employees per Paid Employee

**Table 10: Average Compensation of Employees per Paid Employee**

FSIC 2010		COMPENSATION OF EMPLOYEES (as per survey)	PAID EMPLOYEE	AVERAGE COMPESATION PER PAID EMPLOYEE
SUB-CLASS	ACTIVITY	\$	NUMBER	\$
37001	Sewerage	1,126,547	108	10,431
38301	Materials recovery			
<b>TOTAL</b>		<b>1,126,547</b>	<b>108</b>	<b>10,431</b>

### 3.11 2013 Results Compared with 2012 Results

**Table 11: 2013 Results compared with 2012 Results**

MACRO AGGREGATES	2012		2013		Percentage change
	\$	Aggregates expressed as % of GO	\$	Aggregates expressed as % of GO	
<b>GO</b>	7,971,464		7,481,169		-6.15
<b>IC</b>	5,523,103	69.29	5,569,841	74.45	0.85
<b>VA</b>	2,448,361	30.71	1,911,328	25.55	-21.93
<b>COE</b>	1,273,527	15.98	1,126,547	15.06	-11.54
<b>CFC</b>	632,920	7.94	767,212	10.26	21.22
<b>OS</b>	541,914	6.80	17,569	0.23	-96.76
<b>GFCF</b>	361,610		1,798,297		397.30
<b>NUMBER OF PERSONS ENGAGED</b>	144		108		-25.00

*Reference can be made to Appendix I for the Concepts and Definitions, Appendix II for the Industrial Classification Used and Appendix III for the Composition of Macroeconomic Aggregates and Appendix IV for Sample Questionnaire.*

## APPENDIX I

### CONCEPTS AND DEFINITIONS

All concepts and definitions used in this report are based upon the recommendations of the United Nations for their World Programme on Industrial Statistics. The major concepts and definitions and their treatment are briefly explained below.

***Compensation of Employees*** Includes payments, whether in cash or in kind, made by the employer during the inquiry period for the work done to all persons included in the count of employees. It includes all cash payments, commissions, bonuses, cost of living allowances and wages paid during periods of vacation and sick leave, contributions in respect of their social security and pension and payments in kind.

***Consumption of Fixed Capital*** In theory this is the value of the current replacement cost of fixed assets used up during the accounting period as a result of normal wear and tear. The consumption of fixed capital shown in this report is derived from the information supplied by the firm. This is expected to conform largely to the requirements of Income Tax Act.

***Employees*** This includes all persons who work in the establishment and receive regular pay and persons working away from the establishment when paid by and under the control of the establishment, including persons on sick leave, holiday or vacation. Also included are salaried managers, and directors of incorporated businesses except when paid solely for their attendance at board of directors meetings. This category excludes working proprietors and unpaid family workers.

***Establishment*** An establishment can be referred to as an enterprise that engages in one or predominantly one kind of economic activity, at or from one location, for which data are available or can be meaningfully compiled, that allow the calculation of the operating surplus.

***Fixed Assets*** Fixed assets include the value of all physical assets expected to have a productive life of more than one year and intended for use by the establishment. Included are major additions, alterations and improvements to existing fixed assets that extend their normal economic life or raise their productivity.

***Foreign Owned*** Subsidiary of an overseas company is always considered foreign owned, whereas a branch of an overseas company is only considered foreign owned if 51 per cent of its equity is held abroad.

***Government Owned Entities*** These include commercial companies and commercial statutory authorities either wholly owned by Government or in which the Government has a majority shareholding.

***Gross Fixed Capital Formation*** This is the outlay on new and second-hand durable goods less their sales plus their own account capital construction work done.



<b><i>Gross Output</i></b>	This is the gross value of all goods and services produced during the accounting period, the value of own account capital construction and other income.
<b><i>Intermediate Consumption</i></b>	Intermediate consumption consists of non-durable goods and services which have a lifetime of use of less than one year. Compensation of employees do not form part of intermediate consumption, but expenditure such as travelling expenses of management personnel are included. Intermediate consumption differs from total purchases of raw materials, fuels etc. by the amount of stock changes of such goods. Valuation of intermediate consumption is at purchasers' value i.e. it is inclusive of all costs incurred by producers in the acquisition of the required goods and services.
<b><i>Local Owned</i></b>	All companies with 51 per cent or more of its equity held in Fiji are considered locally owned.
<b><i>Operating Surplus</i></b>	This is the excess of value added by producers over compensation of employees, consumption of fixed capital and net indirect taxes.
<b><i>Payments in kind</i></b>	This is defined as the net cost to the employer of those goods and services furnished to employees free of charge or at markedly reduced cost that are clearly and primarily of benefit to the employees as consumers. The item includes food, beverages, clothing (except uniforms for civilians as these are not worn off-duty) and lodging etc.
<b><i>Persons Engaged</i></b>	This is defined as the total number of persons who worked in or for the establishment during the reference period, including working proprietors, active business partners, unpaid family workers and regular paid workers.
<b><i>Statistical Unit</i></b>	Statistical unit is the Unit for which information is collected.
<b><i>Unpaid Family Workers</i></b>	Unpaid family workers are persons living in the household of any of the proprietors of the owning establishment and working in the establishment without regular pay for at least one third of the working time normal to the establishment.
<b><i>Value Added</i></b>	Value added is the difference between the gross output and the intermediate consumption. It provides a useful way of measuring without duplication the economic importance of an industry or industrial sector.
<b><i>Working Proprietors</i></b>	Working proprietors are owners of establishments who are actively engaged in the work of the establishment. Excluded are silent or inactive partners.

## APPENDIX II

### INDUSTRIAL CLASSIFICATION USED

#### SECTION E: WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES

This section includes activities related to the management (including collection, treatment and disposal) of various forms of waste, such as solid or non-solid industrial or household waste, as well as contaminated sites. The output of the waste or sewage treatment process can either be disposed off or become an input into other production processes. Activities of water supply are also grouped in this section, since they are often carried out in connection with, or by units also engaged in, the treatment of sewage.

DIVISION	GROUP	CLASS	SUB-CLASS	DESCRIPTION
<b>36</b>				<b>WATER COLLECTION, TREATMENT AND SUPPLY</b>
	<b>360</b>	<b>3600</b>		<p><b>Water collection, treatment and supply</b></p> <p>This sub-class includes:</p> <ul style="list-style-type: none"> <li>-collection of water from rivers, lakes, wells etc., as well as rain water</li> <li>-purification of water for water supply purposes</li> <li>-treatment of water for industrial and other purposes</li> <li>-desalting of sea or ground water to produce water as the principal product of interest</li> <li>-distribution of water through mains, by trucks or other means for domestic and industrial needs</li> <li>-operation of irrigation canals</li> </ul> <p>This sub-class excludes:</p> <ul style="list-style-type: none"> <li>-operation of irrigation equipment e.g. sprinklers for agricultural purposes, see 01619</li> <li>-treatment of wastewater in order to prevent pollution, see 37001</li> </ul>
<b>37</b>				<b>SEWERAGE</b>
	<b>370</b>	<b>3700</b>		<p><b>Sewerage</b></p> <p>This sub-class includes:</p> <ul style="list-style-type: none"> <li>-operation of sewer systems or sewer treatment facilities</li> <li>-collecting and transporting of human or industrial wastewater from one or several users, as well as rain water by means of sewerage networks, collectors, tanks and other means of transport (sewage vehicles etc.)</li> <li>-emptying and cleaning of cesspools and septic tanks, sinks and pits from sewage; servicing of chemical toilets</li> <li>-treatment of wastewater (including human and industrial wastewater, water from swimming pools etc.) by means of physical, chemical and biological processes like dilution, screening, filtering, sedimentation etc.</li> <li>-maintenance and cleaning of sewers and drains, including sewer rodding</li> </ul>

DIVISION	GROUP	CLASS	SUB-CLASS	DESCRIPTION
38				<b>WASTE COLLECTION, TREATMENT AND DISPOSAL ACTIVITIES; MATERIALS RECOVERY</b>
	381	3810		<p><b>Collection of waste</b></p> <p>This sub-class includes collection of :</p> <ul style="list-style-type: none"> <li>-non-hazardous waste i.e. solid waste or garbage e.g. - recyclable materials, used cooking oils and fats, construction and demolition waste, debris such as brush and rubble, waste output of textile mills etc from within a local area such as public places, households and businesses by means of refuse bins, wheeled bins, containers etc.</li> <li>-hazardous waste i.e. the collection of solid and non-solid waste e.g. explosive, oxidizing, flammable, toxic, irritant, carcinogenic, corrosive, infectious and other substances and preparations harmful for human health and environment. It may also entail identification, treatment, packaging and labeling of waste for the purposes of transport.</li> </ul> <p>This sub-class excludes:</p> <ul style="list-style-type: none"> <li>-operation of landfills for the disposal of non-hazardous waste, see 38201</li> <li>-operation of facilities where commingled recoverable materials such as paper, plastics, etc. are sorted into distinct categories, see 38301</li> <li>-remediation and clean up of contaminated buildings, mine sites, soil, ground water, e.g. asbestos removal, see 39001</li> </ul>
	382	3820		<p><b>Waste treatment and disposal</b></p> <p>This sub-group includes the disposal and treatment prior to disposal of various forms of waste by different means, such as waste treatment of organic waste with the aim of disposal; treatment and disposal of toxic live or dead animals and other contaminated waste; treatment and disposal of transition radioactive waste from hospitals, etc.; dumping of refuse on land or in water; burial or ploughing-under of refuse; disposal of used goods such as refrigerators to eliminate harmful waste; disposal of waste by incineration or combustion with or without the resulting production of electricity.</p> <p>Included is also the generation of electricity resulting from waste incineration processes.</p> <p>This group excludes:</p> <ul style="list-style-type: none"> <li>-treatment and disposal of wastewater, see 37001</li> </ul>
	383	3830		<p><b>Materials recovery</b></p> <p>This sub-class includes:</p> <ul style="list-style-type: none"> <li>-processing of metal and non-metal waste and scrap and other articles into secondary raw materials, usually involving a mechanical or chemical transformation process</li> <li>-recovery of materials from waste streams in the form of: <ul style="list-style-type: none"> <li>▪ separating and sorting recoverable materials from non-hazardous waste streams (i.e. garbage)</li> </ul> </li> </ul>

DIVISION	GROUP	CLASS	SUB-CLASS	DESCRIPTION
				<ul style="list-style-type: none"> <li>▪ separating and sorting of commingled recoverable materials, such as paper, plastics, used beverage cans and metals, into distinct categories</li> </ul> <p>Examples of the mechanical or chemical transformation processes that are undertaken are:</p> <ul style="list-style-type: none"> <li>-mechanical crushing of metal waste such as used cars, washing machines, bikes etc. with subsequent sorting and separation</li> <li>-dismantling of automobiles, computers, televisions and other equipment for materials recovery</li> <li>-mechanical reduction of large iron pieces</li> <li>-shredding of metal waste, end-of-life vehicles etc.</li> <li>-other methods of mechanical treatment as cutting, pressing to reduce the volume</li> <li>-ship-breaking</li> <li>-reclaiming metals out of photographic waste, e.g. fixer solution or photographic films and paper</li> <li>-reclaiming of rubber such as used tires to produce secondary raw material</li> <li>-sorting and pelleting of plastics to produce secondary raw material for tubes, flower pots, pallets and the like</li> <li>-processing (cleaning, melting, grinding) of plastic or rubber waste to granulates</li> <li>-crushing, cleaning and sorting of glass</li> <li>-crushing, cleaning and sorting of other waste such as demolition waste to obtain secondary raw material</li> <li>-processing of used cooking oils and fats into secondary raw materials</li> <li>-processing of other food, beverage and tobacco waste and residual substances into secondary raw materials</li> </ul> <p>This sub-class excludes:</p> <ul style="list-style-type: none"> <li>-manufacture of new final products from (whether or not self-produced) secondary metal raw materials, such as spinning yarn from garnetted stock, making pulp from paper waste, retreading tyres or production of metal from metal scrap, see corresponding classes in section C (Manufacturing)</li> <li>-treatment and disposal of non-hazardous waste, see 38201</li> <li>-treatment of organic waste for disposal, see 38201</li> <li>-energy recovery from non-hazardous waste incineration processes, see 38201</li> <li>-disposal of used goods such as refrigerators to eliminate harmful waste, see 38201</li> <li>-treatment and disposal of transition radioactive waste from hospitals etc., see 38201</li> <li>-treatment and disposal of toxic, contaminated waste, see 38201</li> <li>-dismantling of automobiles, computers, televisions and other equipment to obtain and resell usable parts, see section G</li> <li>-wholesale of recoverable materials, see 46699</li> </ul>
<b>39</b>				<b>REMEDIATION ACTIVITIES AND OTHER WASTE MANAGEMENT SERVICES</b>
	<b>390</b>	<b>3900</b>		<b>Remediation activities and other waste management services</b> <p>This sub-class includes:</p> <ul style="list-style-type: none"> <li>-decontamination of soils and groundwater at the place of pollution,</li> </ul>

DIVISION	GROUP	CLASS	SUB-CLASS	DESCRIPTION
				<p>either in situ or ex situ, using e.g. mechanical, chemical or biological methods</p> <ul style="list-style-type: none"> <li>-decontamination of industrial plants or sites, including nuclear plants and sites</li> <li>-decontamination and cleaning up of surface water following accidental pollution, e.g. through collection of pollutants or through application of chemicals</li> <li>-cleaning up of oil spills and other pollutions on land, in surface water, in ocean and seas, including coastal areas</li> <li>-asbestos, lead paint, and other toxic material abatement</li> <li>-clearing of landmines and the like (including detonation)</li> <li>-other specialized pollution-control activities</li> </ul> <p>This sub-class excludes:</p> <ul style="list-style-type: none"> <li>-treatment and disposal of non-hazardous waste, see 38201</li> <li>-treatment and disposal of hazardous waste, see 38201</li> <li>-outdoor sweeping and watering of streets etc., see 81201</li> </ul>

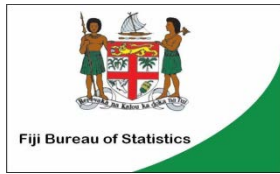
## APPENDIX III

### COMPOSITION OF MACROECONOMIC AGGREGATES 2012

**GROUP : 360 WATER SUPPLY**  
**: 370 SEWERAGE**  
**: 383 MATERIALS RECOVERY**

SUB-CLASS	37001/38301	GRAND TOTAL 37001/38301
<b><u>INCOME</u></b>		
<b>Primary Activity</b>	<b>7,185,049</b>	<b>7,185,049</b>
Revenue from sales and services	7,185,049	7,185,049
<b>Secondary Activity</b>	<b>296,120</b>	<b>296,120</b>
Subsidies received	0	0
Business insurance claims received	0	0
Rent received for the hiring of building	0	0
Receipts from industrial services rendered to others	0	0
Other income	296,120	296,120
Change in work in progress	0	0
<b>GROSS OUTPUT</b>	<b>7,481,169</b>	<b>7,481,169</b>
<b>MISCELLANEOUS INCOME</b>	<b>138,478</b>	<b>138,478</b>
Insurance claims received	0	0
Profit or Loss received from any other business in which you have an interest	0	0
Property income received		
Rent received from land	0	0
Interest received	0	0
Dividends received	0	0
Royalty received	0	0
Bad and doubtful debts recovered	0	0
Exchange gain	4,225	4,225
Gain on sales of fixed assets	124,962	124,962
VAT charged on goods and services provided	9,291	9,291
<b><u>TOTAL INCOME</u></b>	<b>7,619,647</b>	<b>7,619,647</b>
<b><u>EXPENDITURE</u></b>		
Purchases of materials for use in the business	1,245,076	1,245,076
Opening stock of materials, fuels suppliers and component	271,584	271,584
Less closing stock of materials, fuels, suppliers and component	368,395	368,395
Purchase of fuel, electricity and water	1,003,178	1,003,178
Petrol/Automotive diesel fuel	324,935	324,935

<b>SUB-CLASS</b>		
Industrial diesel fuel	530,215	530,215
Kerosene	0	0
Liquid petroleum gas	0	0
Electricity	146,522	146,522
Water	1,506	1,506
Repairs & maintenance on vehicles, buildings	810,450	810,450
Cartage and haulage expenses paid to other firms	0	0
Travel expenses	213,709	213,709
Value of contract and commission work done	502,314	502,314
Audit, accounting & legal fee	140,541	140,541
Advertising & promotion	8,635	8,635
Bank charges	31,973	31,973
Postage, telephone & telecommunications	69,263	69,263
Office stationery & supplies	13,108	13,108
Management & consultation fees	599,033	599,033
Rent paid for furniture, building, plant & machinery	743,754	743,754
Business insurance	154,907	154,907
Other expenditure	130,711	130,711
<b><i>INTERMEDIATE INPUT</i></b>	<b>5,569,841</b>	<b>5,569,841</b>
<b>MISCELLANEOUS EXPENDITURE</b>	<b>1,431,152</b>	<b>1,431,152</b>
Casualty insurance	0	0
Property income paid		
Rent paid for land	0	0
Interest paid	411,173	411,173
Dividend paid	1,000,000	1,000,000
Royalty paid	0	0
Bad & doubtful debts written off	0	0
Business licenses, rates on property paid to central or local government	7,261	7,261
TPAF levy	11,128	11,128
Exchange losses	1,590	1,590
Loss on sale of fixed assets	0	0
VAT paid on supplies of goods and services	0	0
<b><i>COMPENSATION OF EMPLOYEES</i></b>	<b>1,126,547</b>	<b>1,126,547</b>
Wages and salaries	1,050,626	1,050,626
FNPF	75,921	75,921
Payment in kind	0	0
<b><i>CONSUMPTION OF FIXED CAPITAL</i></b>	<b>767,212</b>	<b>767,212</b>
<b>TOTAL EXPENDITURE</b>	<b>8,894,752</b>	<b>8,894,752</b>



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CONFIDENTIAL

DESPATCHED: 30/06/2014

**2013 CENSUS OF WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES**

Tax Identification Number

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Please correct any errors appearing in this label

Dear Sir\Madam,

Enclosed are two copies of the 2013 Census of Water Supply; Sewerage, Waste Management and Remediation Activities questionnaire.

**COVERAGE AND SCOPE:** It covers all establishments engaged in Water Supply; Sewerage, Waste Management and Remediation Activities Industry classified under the Fiji Standard Industrial Classification 2010's Section E (refer note on page 2). If an establishment's Water Supply; Sewerage, Waste Management and Remediation Activities are combined with other types of businesses, you should report on the Water Supply; Sewerage, Waste Management and Remediation Activities side of the operations only.

**PURPOSE:** The census provides an important means of assessing the contribution this industry makes to the economy of Fiji, and indicates the changing composition and structure of the industry. The results of the Census are used by the Fiji Bureau of Statistics in the estimation of the National Income of Fiji and in the provision of other key indicators.

**REFERENCE PERIOD:** Reference period is the calendar year 2013. If your accounting year is different provide information approximating closest to the calendar year 2013. Limited liability companies are requested to submit a copy of their financial statements with the questionnaire.

**COMPULSORY REQUIREMENT:** The Census is conducted under the provisions of the Statistics Act 1961(Cap 71). In accordance with Section 8 subsection 2 of this Act you are required to fill in one copy of the questionnaire and return it to the undersigned on or before **30/07/14**. Failure to meet this deadline could result in legal action without further notice.

**CONFIDENTIALITY OF INFORMATION:** Information supplied will be used by the Department for the preparation of statistics. Any release of information will be in accordance with the Statistics Act and only persons authorised will have access to individual information.

**CONTACT PERSON FOR HELP AND ADVICE:** Ms Taloline Keleinvutoka on Ext.132 or email [talolinek@statsfiji.gov.fj](mailto:talolinek@statsfiji.gov.fj)

Epeli Waqavonovono  
Government Statistician



**NOTE:** Under the Fiji Standard Industrial Classification 2010's Section E Water Supply; Sewerage, Waste Management and Remediation Activities includes all units mainly engaged in water supply, sewage and refuse disposal

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### **ORGANISATIONAL STRUCTURE**

---

1 A business can have more than one establishment involved in similar or different activities at different locations. State the location, the type of activity engaged in and the Gross Turnover of each establishment during the year.

---

### **FORM OF OWNERSHIP**

---

- 4 (1) Fiji owned:  
This is an establishment operating in Fiji in which 51% or more equity is held locally.
- (2) Branch of an overseas company:  
This is an establishment operating in Fiji which is controlled by or supervised by an overseas head office and which is an integral part of the foreign parent organisation. Branch has no equity share capital.
- (3) Subsidiary of an overseas company:  
A company is a subsidiary of another if that other company owns this subsidiary wholly or holds more than half the nominal value of the equity share capital of this subsidiary company.

---

### **EQUITY PARTICIPATION**

---

5 Give the proportion of the share capital held by residents of Fiji. Equity share capital held by companies or individuals on behalf of residents of Fiji should also be included.

---

### **NATURE OF WORK**

---

6 In cases where establishments are involved in more than one activity at a single location, please state the major activity involved in.

---

### **OPERATING STATUS**

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7 If you are no longer in business, a **STATUTORY DECLARATION** must be attached to one copy of the questionnaire with the words "**CLOSED BUSINESS**" written across the questionnaire and returned to the Fiji Bureau of Statistics. The Statutory Declaration must be signed by a Magistrate or a Barrister\Solicitor, Justice of Peace or a member of the Notary Public acting on your behalf. The Statutory Declaration must state the name of the business, nature of its activity and the date on which it ceased operation. If your business operated for part of the year 2013 please provide information for the duration your business operated.

## QUESTIONNAIRE

All relevant questions must be answered with clear and correct figures. Estimates will be accepted where actual data are not available. Values, **excluding VAT**, are to be expressed in Fiji Dollars.

### **ORGANISATIONAL STRUCTURE**

<b>1</b>	Does this business operate at more than one location ?			
	Please tick the appropriate box:      No              Yes              If yes, please give details below:			
	NAME OF ESTABLISHMENT\BRANCH (1)	PHYSICAL LOCATION OF BUSINESS (2)	MAIN TYPE OF BUSINESS OR ACTIVITY (3)	GROSS TURNOVER (4)
	<b>Note:</b> This return is required for the addressed establishment only. In case this is not possible, a combined return with similar main activities may be submitted. If the information can not be provided on this basis, please state the reasons:			
	<b>Remark:</b> Please comment here to assist in the interpretation of data supplied:			

### **ACCOUNTING PERIOD**

<b>2</b>	Please state the accounting period: From \ \2012 To \ \2012
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### **LEGAL STATUS OF ORGANISATION**

		Please tick appropriate box			
<b>3</b>		Individual ownership	1	Partnership	2
	001	Co-operative	3	Private Limited Company	4
		Public Limited Company	5	Public or Statutory Body	6
		Non-Profit Organisation	7	Others (specify)	8

### **FORM OF OWNERSHIP**

		Please tick appropriate box			
<b>4</b>	002	Fiji owned	1	Branch of an overseas company	2
		Subsidiary of an overseas company	3	Others (specify)	4

### **EQUITY PARTICIPATION**

<b>5</b>	Please indicate in the appropriate box equity capital held by Fiji Citizens.			
	(a) As at end of 2012	%	(b) As at end of 2013	%

### **NATURE OF WORK**

<b>6</b>	Please give a brief description of the main activity of the establishment\s covered by this return:			
	003  FOR OFFICIAL USE ONLY			

### **OPERATING STATUS**

<b>7</b>	Please state whether the establishment in question (tick appropriate box)			
	Operated during the whole of the accounting period specified			1
	Operated during part of the accounting period specified (specify                      mths)			2
	Had not commenced business during the accounting period specified			3

8 **REVENUE FROM SALES AND SERVICES**

**SALES:** This should be the actual selling value net of any discount or rebates allowed to the buyer. Also include:

- (i) delivery charges and installation costs if borne by the seller, and
- (ii) Inter-branch transfers recorded at cost.

**Exclude VAT charged on goods and services provided.**

---

**OTHER INCOME**

---

- 10 a] Include all claims arising from business insurance. Examples of business insurances are insurance against the risk of buildings, properties and stocks. Exclude life, education or any other personal insurance.
- b] Include all claims arising from casualty insurance. Examples of casualty insurance are insurance against the risk of accidents and illness to employees. Claims for life, education or any other form of personal insurance are to be excluded.

### TURNOVER

8	TYPES OF INSTITUTIONS		VALUE (\$)
a]	<b>SEWAGE &amp; REFUSE DISPOSAL, SANITARY &amp; SIMILAR ACTIVITIES</b>	<b>004</b>	
	Frontlift revenue	005	
	Rearlift revenue	006	
	Marrel services	007	
	Skip services	008	
	Port-a-loo services	009	
	Bin service fees	010	
	Waste disposal liquid	011	
	Anti-litter patrol	012	
	Landfill management	013	
b]	<b>WATER SUPPLY</b>	<b>014</b>	
	Water Bills	015	
	New connection fees	016	
	Reconnection fees	017	
	Special reading fees	018	
	Meter testing fees	019	
	Other (specify)	020	
	<b>TOTAL [CODE 004 + 014]</b>	<b>021</b>	

### OTHER INCOME

			VALUE (\$)
9	Subsidies and grants received	022	
10	Insurance claims received: a] Business insurance claims received	023	
	b]Casualty insurance claims received	024	
12	Profit or loss received from any other business in which you have an interest	025	
13	Rent received for the hire of building	026	
14	Income from: a] Rent received from land	027	
	b] Interest received	028	
	c] Dividends received	029	
	d] Royalty received	030	
15	Bad and doubtful debts recovered	031	
16	Exchange gain	032	
17	Gain on sale of fixed assets	033	
18	Receipts from industrial services rendered to others eg repairs & maintenance	034	
19	Others (specify).	035	
	<b>Total other income</b>	<b>036</b>	
20	VAT charged on goods and services provided	037	
21	<b>GRAND TOTAL OF ALL INCOME RECEIVED (Codes 021+036+037)</b>	<b>038</b>	

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**PURCHASES OF MATERIALS DURING THE YEAR**

---

- 22 State in detail the total value of all purchases of materials and supplies for use in the operation of the business

**Exclude VAT paid on supplies of goods and services.**

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**FUEL, ELECTRICITY AND WATER**

---

- 27-30 Fuel purchased, other than fuel purchased for resale, including gasoline and other fuel for vehicle etc should be included.
- 31 This should include the cost of electricity purchased for lighting, air conditioning, refrigeration etc.

---

**OTHER EXPENDITURE**

---

- 33 Repairs and maintenance costs paid to other firms covers the total costs of current repair and maintenance service provided by such firms on repairs done on vehicles, building etc of the establishment. Current repair and maintenance carried out by an ancillary repair and maintenance unit which has been treated as an independent establishment should be included.
- 34 Cartage and haulage expense includes payment for the transportation of goods and materials within the country. It excludes cost of transport carried out by your own equipment and employees.
- 36 Contract and commission work done by other establishments on your materials covers payments made by the establishment for contract and commission work done on materials controlled by your establishment.
- 45 a) Include payment in respect of leased\rented land. If it is not possible to separate payments made for land from building, please include expenditure in Question 43.

**PURCHASES OF MATERIAL AND SUPPLIES**

Please state supplies purchased in connection with the operation of your business.		VALUE (\$)
22		039
23		040
24		041
25		042
26		043
<b>Total [Code 039 to 043]</b>		<b>044</b>

**FUEL, ELECTRICITY AND WATER**

Please state the expenditure incurred on fuel, electricity and water		VALUE (\$)
27	Petrol/Automotive diesel fuel	045
28	Industrial diesel fuel/Heavy fuel oil	046
29	Kerosene	047
30	Liquid petroleum gas	048
31	Electricity	049
32	Water	050
<b>Total [Code 045 to 050]</b>		<b>051</b>

**OTHER EXPENDITURE**

		VALUE (\$)
33	Repairs and maintenance paid for on vehicles, buildings etc to outside firms	052
34	Cartage and haulage expenses paid to other firms	053
35	Travel expenses (eg management, personal etc)	054
36	Value of contract and commission work done	055
37	Audit, accounting and legal fee	056
38	Advertising and promotion etc	057
39	Bank charges	058
40	Postage, telephone and telecommunication etc	059
41	Office stationery and supplies	060
42	Management and consultation fee	061
43	Rent paid for furniture, building, plant and machinery etc	062
44	Insurance paid: a) Business insurance	063
	b) Casualty insurance	064
45	Expenditure on: a) Rent paid for land	065
	b) Interest paid	066
	c) Dividends paid	067
	d) Royalty paid	068
46	Bad and doubtful debts written off	069
47	Business licenses, rates on property paid to central or local government etc	070
48	Fiji National Training Council Levy	071
49	Exchange losses	072
50	Fixed asset expenses: a) Loss on sale of fixed assets	073
	b) Depreciation claimed (to agree with question 60 (7))	074
51	All other costs and expenses	075
<b>Total other expenditure [Code 052 to 075 excluding 067]</b>		<b>076</b>

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**EMPLOYMENT AND COMPENSATION OF EMPLOYEES**

---

- 52 Please note that the information in respect of employment is for the last pay week in June 2013 but the rest of the question requires data for the appropriate accounting year.

Gross wages and salaries includes overtime, sick and holiday pay, bonuses, payments under piece rate schemes, all allowances, severance and redundancy pay, sales commissions paid to own employees and directors fee etc.

Payment in kind is the cost to the employer for providing employees with housing, transport, clothing, food, drinks, fuels, etc free of charge or at a reduced rate.

Operatives includes all employees directly engaged in the activity of the establishment, eg those in fabrication, processing, assembling, shop messengers, warehouse men, packers and repair men etc. Casual workers should also be included here.

Others includes administrators, technical and clerical personnel, eg salaried managers, clerks and typists etc.

Expatriates are non-Fiji citizens who stayed in Fiji to work.

Working proprietors include all individual proprietors and partners who are actively engaged in the work of the establishment. Silent or inactive partners should be excluded unless they participate actively in the work of the establishment.

Unpaid family workers include persons living in the household of any of the proprietors of the owning establishment and working in the establishment without regular pay for at least a third of the normal working hours of the establishment.

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**STOCKS**

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- 55 a) All trading stocks (stocks intended for resale) should be included. Stocks of capital goods intended for resale should also be included.
- b) This should include stocks of materials used by the business in its operations.

---

**NET EARNINGS AND TAXES PAID**

---

- 56 This is the net profit of your establishment\enterprise from the profit and loss account. The following method would enable you to check if all the information from the trading, profit and loss account have been entered onto the questionnaire:

	Income [ Code 038 + 099 ]	\$
less	Expenditure [ Code 088 – 102 ]	\$
equals	Profit (+)\Loss (-) [Code 106]	\$

**EMPLOYMENT AND COMPENSATION OF EMPLOYEES**

52		NUMBER EMPLOYEE D (1)	GROSS WAGES AND SALARIES PAID (2)	EMPLOYER'S CONTRIBU. TO FNPf (3)	PAYMEN T IN KIND (4)
a]	Fiji citizens	077			
b]	Expatriates	081			
	<b>Total</b>	085			
c]	Working without pay	089			
	i] Working proprietors	090			
	ii] Unpaid family workers	091			
	<b>Total</b>	092			
d]	From the total number in employment given in code 092, please state:				
	Total Males	093	Total Females	094	

53	VAT paid on supplies of goods and services	095	
----	--	-----	--

54	GRAND TOTAL OF ALL EXPENDITURE INCURRED [Codes 044 +051 +076 + 085 (2, 3, 4) + 095]	096	\$
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**STOCKS - 2009**

55	Please give the value of stocks held by your establishment		VALUE OF STOCKS (\$)		
			OPENING (1)	CLOSING (2)	CHANGE (2)-(1)=(3)
a]	Stock of finished goods bought for sale	097			
b]	Materials, fuel, supplies and components	100			
	<b>Total</b>	103			

**NET EARNINGS AND TAXES PAID**

			Amount (\$)
56	Net profit\loss of your establishment\enterprise. If this does not agree with question 57, please give reasons_____	106	
57	Taxable income of your establishment\enterprise	107	
58	Amount, if any, of previous year losses that was deducted before arriving at the taxable income	108	
59	Amount of Fiji Income Tax paid\payable by your establishment\enterprise.	109	



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**FIXED CAPITAL ASSETS**

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60      Please ensure that:      The value given for depreciation should agree with the value given in question 50 b].

**FIXED CAPITAL ASSETS**

60		VALUE (\$)							
		Opening book value	Purchase of new and second hand assets at cost		Land Development and Improvement	Own Account Constructions	Sales of Capital assets	Depreciation	Closing Book value
			locally	from abroad					
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
a]	Land	110							
b]	Buildings	118							
c]	Plant and machinery	126							
d]	Furniture, fixtures and office equipment	134							
e]	Transport vehicles and related equipment	142							
f]	Computer Software	150							
g]	Entertainment, literary or artistic originals	158							
h]	Valuables	166							
i]	Others(specify) _____ _____ _____	174							
	Total	182							

Signature of person completing the questionnaire: \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

Telephone No \_\_\_\_\_ Fax No \_\_\_\_\_

Email \_\_\_\_\_

If Chartered Account in private practice, please place a tick in the box

**THANK YOU FOR COMPLETING THE QUESTIONNAIRE**