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## Chapter 11 - Environment

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### Environmental Protection

The Republic of Marshall Island's Environmental Protection Authority (RMIEPA) was created throughout the islands by an Act in 1984. The EPA is responsible for preserving and improving the quality of the environment. It is an autonomous body and is regulated by a statutory board. This authority has broad general powers to regulate issues related to:

- *Primary and Secondary Drinking Water*
- *Pollutants*
- *Pesticides and Chemicals*
- *Waste*
- *Cultural and Heritage Protection*

The EPA's tasks include enforcement of environmental regulations concerning marine and fresh water quality standards, solid waste disposal, sewage systems, earthmoving, pesticides, hazardous/toxic materials and coastal erosion. At present, the EPA has a staff of 14 employees, headed by the General Manager. Two international volunteers, one each from Japan and Australia are also presently working with the organization. Two of the officials of EPA are stationed at the Ebeye sub office. The RMIEPA has working relationship with international organizations in the field of environment protection and bio-diversity. RMI has already ratified seven International Conventions and Protocols on environment and thus EPA was able to access 1.8 million US dollars from the GEF for implementation of these International Environment Conventions including the recent approval of \$340,000 for the Stockholm Convention. RMI continued to receive both technical and financial assistance from the South Pacific Regional Program particularly in institutional strengthening of the agency.

Structurally, the EPA is divided into the following divisions:

- *Water Quality Monitoring Laboratory Services*
- *Education, Information and Training*
- *Coastal Management and Geographical Information System*
- *Environmental Health and Sanitation*

Under water quality monitoring, the water quality of catchments, city water, ground water, drinking water in restaurants, processed water and coastal in Majuro and the outer islands is tested.

The sanitation division is responsible for public and private landfills and coordinates the activities of solid waste management with the Majuro Atoll local Government and Ministry of Public Works. Inspections of restaurants and hotels in Majuro are carried out to ensure hygienic conditions and quality catering of foods. The division is also responsible for the coordination of the inspection and assessment of the damage to the environment caused by ships that ran aground. The division also supervised the oil clean up activities of a Chinese fishing vessel that ran aground on Ujelang atoll. The Coastal Management Division continued to review and issue permits for earthmoving activities in Majuro for minor and major development projects. The

division is also responsible for the digital mapping of the conservation areas in Jaluit Atoll Lagoon.

The Education and Information Division is responsible for creating public awareness on the environmental issues that face the country. Publicity is done through the print media and as well as through a regular radio program. A quarterly newsletter is also produced where cooperation and help is solicited from the public to protect the environment.

The public is also approached at public gatherings, community assemblies and meetings. Schools are visited to present information to the teachers and the students on environmental issues. Under the International Waters Program, waste problems at the Jenrok area in Majuro have been attended to for the last two years. The traditional leaders, youth groups, local councilmen, and the businesses are involved for the implementation of this pilot project.

The following divisions/programmes/projects were stationed at the RMIEPA however were transferred to the newly created Office of Environmental Planning and Policy Coordination(OEPPC) under the Office of the President beginning late 2003 –2004:

- *Climate Change Convention: July 2003*
- Biosafety Project: September 2003
- Biodiversity Convention and Add on Project: April 2004
- International Waters Programme (IWP): April 2004

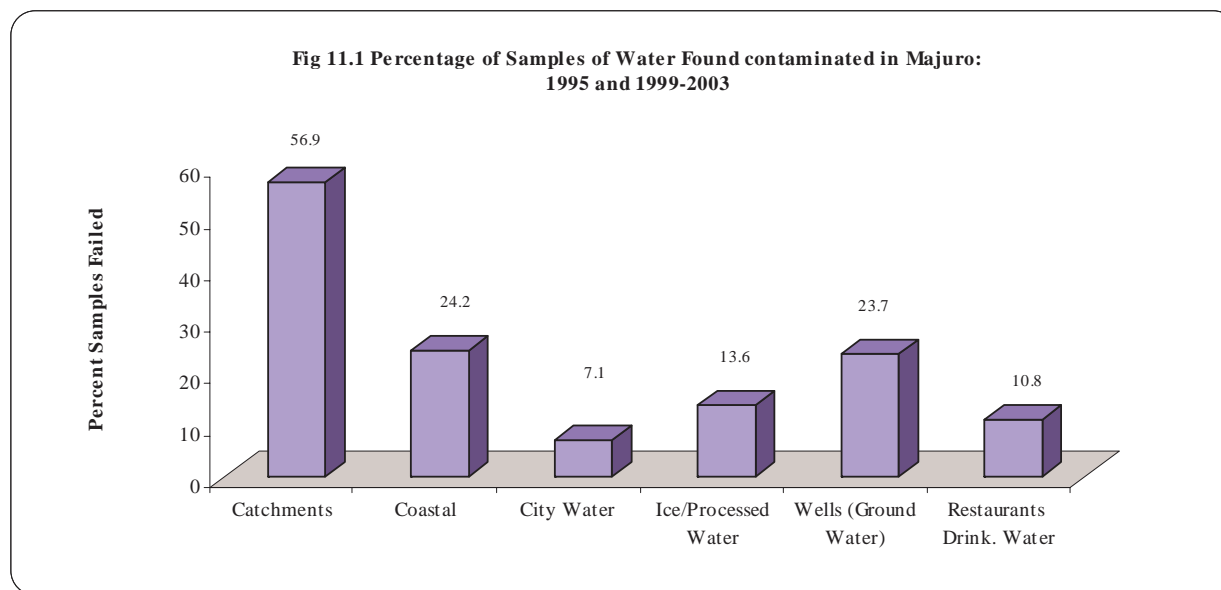
However, before the transfer of both climate change and Biodiversity, certain enabling activities took place. See below:

- From 1998-2001, the Pacific Islands Climate Change Activities Programme (PICCAP) was implemented in the region. The main activities included capacity building to understanding the United Nations Framework Convention on Climate Change (UNFCCC), education and awareness, stakeholder consultations, among others. As part of the RMI's obligations under the Convention, the Initial National Communication to the UNFCCC was prepared and submitted to the Conference of the Parties (COP5).
- Before the Biodiversity Convention was transferred to OEPPC, a regional biodiversity project in collaboration with UNDP with a budget of \$450,000 was implemented for 4 years (1997-2000). A national biodiversity strategy action plan was one of the products prepared under the project. Activities under the project led to the discovery of one new endemic mangrove species recently at Ae Mangrove forest. Such species are not known to grow any where in the Marshall Islands or nearby neighboring islands in Micronesia.

**Table 11.1 Water Quality Tested Under EPA by Area in RMI: 1995 and 1999-2003**

Area/Water Source	No. of Tests and No. Found Defective											
	1995		1999		2000		2001		2002		2003	
	No. Tested	No. contaminated	No. Tested	No. contaminated	No. Tested	No. contaminated	No. Tested	No. contaminated	No. Tested	No. contaminated	No. Tested	No. contaminated
<b>Majuro:-</b>												
Catchments	...	...	40	31	64	28	47	40	87	37	78	26
Coastal	...	...	171	6	27	27	0	0	0	0	85	34
City Water	...	...	2,009	151	1,091	44	2,234	100	270	35	812	154
Ice/Processed Water	...	...	11	2	7	4	15	6	24	1	212	10
Wells (Ground Water)	...	...	14	8	5	5	6	6	26	9	355	39
Restaurants Dr. Water	...	...	16	6	21	18	52	43	22	2	256	31
<b>Total</b>	...	...	<b>2,261</b>	<b>204</b>	<b>1,215</b>	<b>126</b>	<b>2,354</b>	<b>195</b>	<b>429</b>	<b>84</b>	<b>1,798</b>	<b>294</b>
<b>Outer Islands:-</b>												
Catchments	10	5	0	0	0	0	15	14	137	50	1,072	441
City Water (Ebeye)	0	0	0	0	0	0	5	1	0	0	63	18
Wells (Ground Water)	12	6	0	0	0	0	0	0	63	28	700	150
<b>Total</b>	<b>22</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>15</b>	<b>200</b>	<b>78</b>	<b>1,835</b>	<b>609</b>
<b>Grand Total</b>	<b>22</b>	<b>11</b>	<b>2,261</b>	<b>204</b>	<b>1,215</b>	<b>126</b>	<b>2,374</b>	<b>210</b>	<b>629</b>	<b>162</b>	<b>3,633</b>	<b>903</b>

Source: General Manager, RMI Environmental Protection Authority

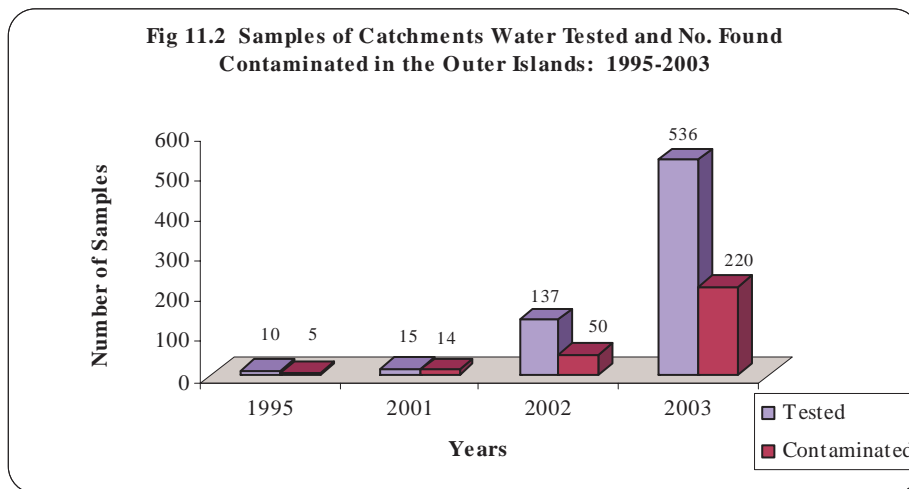


It is a matter of serious concern that 56.9 percent of the water samples of the catchments were not of proper quality. Even the city water and the processed water samples were contaminated to the extent of 7.1 percent and 13.6 percent of the samples tested. 10.8 percent of the water samples taken from the restaurants were also defective.

**Table 11.2 Testing of Quality of Catchments Water in different Outer Islands in RMI: 1995 and 2001-2003 (June)**

Outer Island	1995		2001		2002		2003	
	No. Tested	No. con-taminated	No. Tested	No. con-taminated	No. Tested	No. con-taminated	No. Tested	No. con-taminated
Arno	0	0	0	0	0	0	120	45
Jaluit	0	0	0	0	43	15	0	0
Kili	0	0	0	0	0	0	228	63
Likiep	0	0	0	0	0	0	90	35
Mili	0	0	0	0	0	0	98	77
Wotje	10	5	0	0	94	35	0	0
Lae	0	0	14	13	0	0	0	0
Namdrik	0	0	1	1	0	0	0	0
<b>Total</b>	<b>10</b>	<b>5</b>	<b>15</b>	<b>14</b>	<b>137</b>	<b>50</b>	<b>536</b>	<b>220</b>

Source: General Manager, RMI Environmental Protection Authority

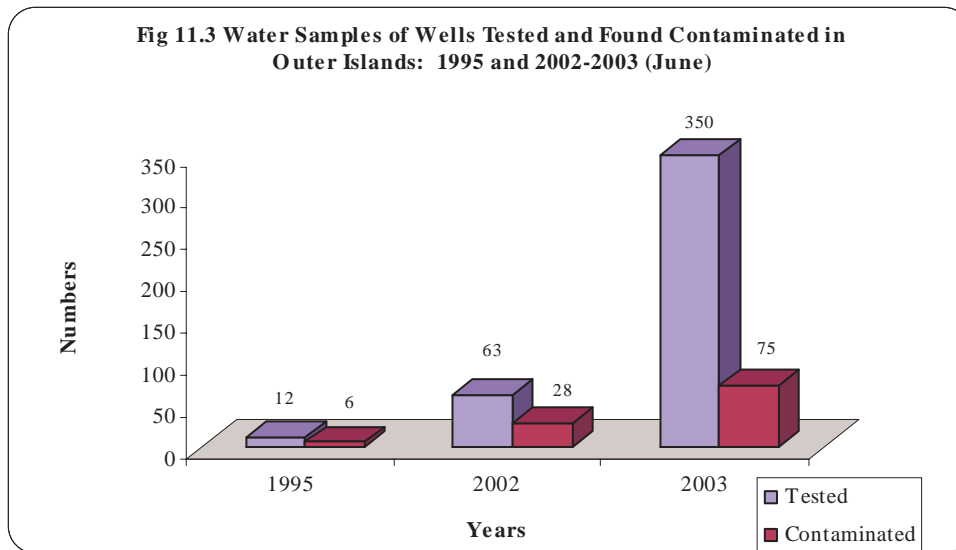


The quality of the catchments water was found contaminated in Lae and Namdrik where 13 out of 14 in Lae and 1 out of 1 sample were found defective in 2001. In Mili too, in 2003, out of 98 samples taken for testing, 77 were found contaminated.

**Table 11.3 Testing of Quality of Ground Water (Wells) in different Outer Islands  
in RMI: 1995 and 2002-2003 (June)**

Outer Island	1995		2002		2003	
	No. Tested	No. Defective	No. Tested	No. Defective	No. Tested	No. Defective
Arno	0	0	0	0	12	12
Jaluit	0	0	14	8	0	0
Kili	0	0	0	0	204	45
Likiep	0	0	0	0	80	13
Mili	0	0	0	0	54	5
Wotje	12	6	49	20	0	0
<b>Total</b>	<b>12</b>	<b>6</b>	<b>63</b>	<b>28</b>	<b>350</b>	<b>75</b>

Source: General Manager, RMI Environmental Protection Authority

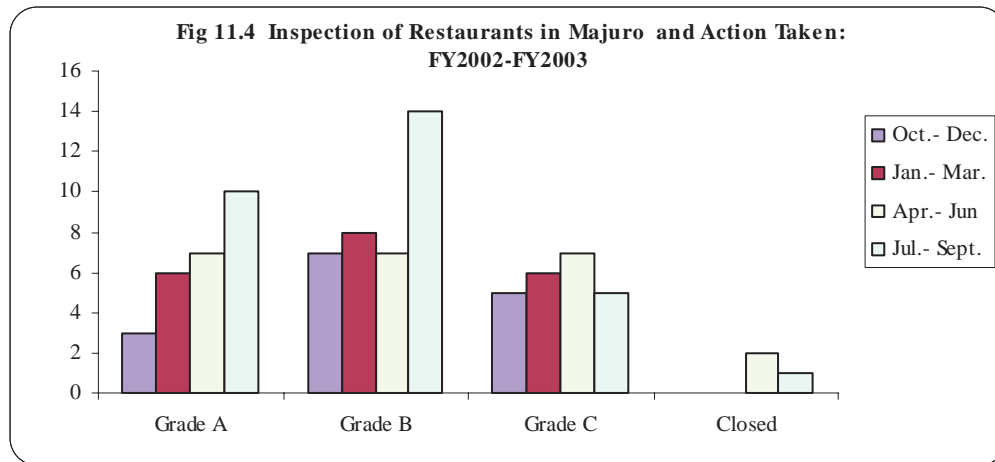


All the 12 samples of ground water tested for Arno were found contaminated. Jaluit was the next where 8 out of 14 were contaminated samples.

**Table 11.4 Restaurant Inspection in Majuro: FY2002-FY2003**

MONTH	Grade A	Grade B	Grade C	Closed	No. Inspected
Oct.- Dec.	3	7	5	0	15
Jan.- Mar.	6	8	6	0	20
Apr.- Jun	7	7	7	2	23
Jul.- Sept.	10	14	5	1	30
<b>Total</b>	<b>26</b>	<b>36</b>	<b>23</b>	<b>3</b>	<b>88</b>

Source: General Manager, RMI Environmental Protection Authority



**Table 11.5 Vessel Clearance and Fees Charged in Majuro by the EPA:  
2001-02 and 2002-03**

Month	FY2001-02		FY2002-03	
	# of Vessel	Cost(\$)	# of Vessel	Cost(\$)
October	38	1,775	16	500
Nov	40	2,300	9	300
Dec	8	875	47	1,475
Jan	15	1,500	37	1,225
Feb	37	1,325	23	825
March	7	325	12	400
April	21	875	4	150
May	36	1,250	1	25
June	35	1,225	6	200
July	21	625	13	525
Aug	21	675	5	125
Sep	19	700	9	275
<b>Total</b>	<b>298</b>	<b>13,450</b>	<b>182</b>	<b>6,025</b>

Source: General Manager, RMI Environmental Protection Authority

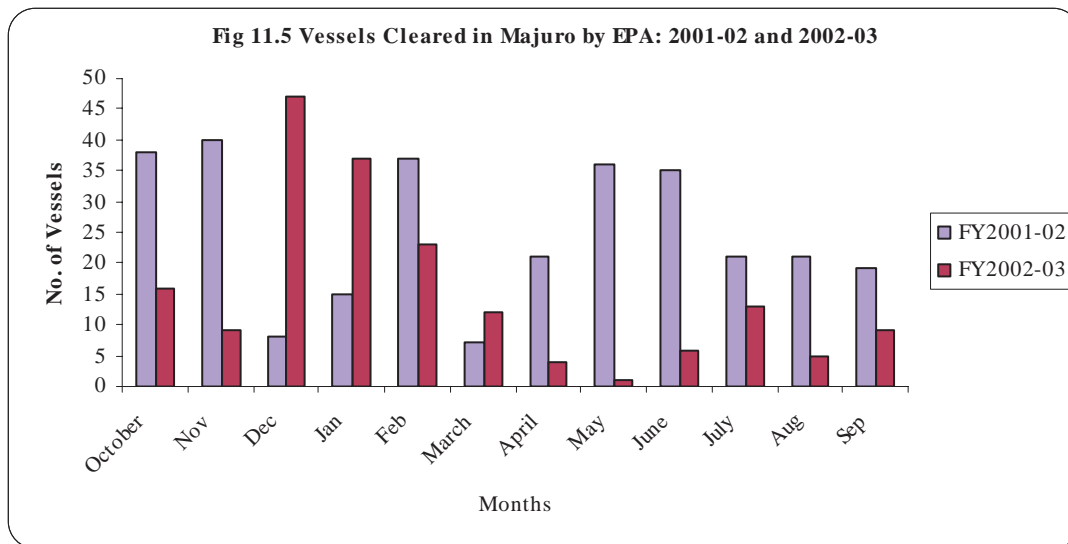


Table 11.6 Public Awareness Activities Undertaken by EPA: 2001-2003

Activity	2001						2002						2003					
	Number of Events			Total Attendance			Number of Events			Total Attendance			Number of Events			Total Attendance		
	Majuro	Outer Islands	Total	Majuro	Outer Islands	Total	Majuro	Outer Islands	Total	Majuro	Outer Islands	Total	Majuro	Outer Islands	Total	Majuro	Outer Islands	Total
Radio Program (once a week)	52	Same	52	General Public	Same	General Public	52	Same	52	General Public	Same	General Public	52	52	52	General Public	Same	General Public
Quarterly Newsletter	4	Same	4	General Public	Same	General Public	4	Same	4	General Public	Same	General Public	4	4	4	General Public	Same	General Public
<b>School Visits</b>																		
Elementary Schools	50	6	56	936	214	1,150	60	6	66	995	264	1,259	8	4	12	625	200	825
High Schools	6	2	8	680	442	1,122	6	2	8	700	500	1,200	1	1	2	200		200
SDA Job Fair	1	0	1	600	0	600	1	0	1	650	0	650	1	0	1	700		700
<b>Community Awareness</b>																		
Mayors Conference	1	0	1	32	0	32	1	0	1	32	0	32	1	0	1	32	0	32
WUTMI	1	0	1	132	0	132	1	0	1	140	0	140						
Church Youth	1	0	1	6,000	0	6,000	2	0	2	500	0	500	1	0	1	50		50
National Youth	1	0	1	34	0	34	0	0	0	0	0	0	1	0	1	40		40
Traditional Leaders	4	0	4	20	0	20	6	4	10	80	40	120	1	2	3	53		53
Community Meetings	4	0	4	400	0	400	6	2	8	600	60	660	3	4	7	95	230	325
<b>Annual Environmental Events</b>																		
Earth Day	1	0	1	300	0	300	0	0	0	0	0	0	0	0	0	0	0	0
Water Day	1	0	1	800	0	800	1	0	1	900	0	900	0	0	0	0	0	0

Source: General Manager, RMI Environmental Protection Authority