

**United Nations Development Programme**  
**Country: Fiji**  
**Project Document**

**Project Title**

Creation of a Deposit & Refund Beverage Container Recycling System in Fiji

**UNDAF Outcome(s):**

The mainstreaming of environmental sustainability and sustainable energy into regional and national policies, planning frameworks and programmes; and Pacific communities sustainably using their environment, natural resources and cultural heritage.

**Expected CP Outcome(s):**

Environmental sustainability and sustainable energy are mainstreamed into regional and national policies, planning frameworks, and programmes; and Fiji communities effectively manage and sustainably use their environment, as well as natural and cultural resources.

**Expected Output(s):**

Policy, legislative and management frameworks developed and strengthened capacity at all levels improves implementation of environment programmes, conservation, sustainable use and equitable sharing of benefits from natural resources, including biodiversity, fisheries (marine and freshwater), and the promotion of sustainable renewable energy.

**Implementing Partner:**

Fiji Department of Environment

**Responsible Parties:**

UNDP Fiji Multi-Country Office

**Brief Description**

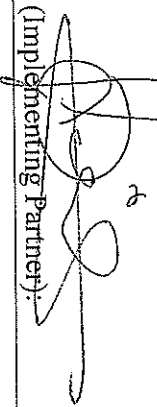
Fiji consumes some 50 million beverage containers per annum. These items are in very large part easily recyclable and can be recovered from the waste stream. Currently the vast majority either go to landfill – at a cost to local government – are burnt in small fires, or become litter with associated pollution impacts. Deposit & refund recycling systems, using Container Deposit Legislation (CDL) have been successfully used in other Pacific Island Countries faced with similar problems, and are also widely used in the Pacific Rim to address waste resource recovery. CDL uses Extended Producer Responsibility (EPR) economic tools to maintain a dollar value of the waste to assist recovery. A Feasibility Study has determined that the best model to enact is that where the local beverage industry operates the logistics of the system through a Managing Agency, as seen in South Australia and British Columbia, Canada, and consistent with Stakeholder Consultations conducted by the Department of the Environment in 2004, and during the preparatory phase of this project. This study has also determined that a regulation under the existing Environment Management Act 2005 can provide the necessary legal framework. The project will assist the Department of Environment to: (i) establish a Project Management Unit to manage the day-to-day project activities; (ii) develop the required regulation (iii) conduct an advocacy programme to inform of the deposit and refund recycling system; and (iv) seek further funding to set up the Managing Agency which operates the deposit & refund system. Processing for export of recycled materials is done by existing companies through contract with the Managing Agency. The Managing Agency is expected to be set-up within an existing industry and financially self sufficient.

Programme Period:	2008 - 2012
Key Result Area (Strategic Plan):	Environment and Sustainable Development
Atlas Award ID:	Phase I: 00062401
Start date:	February 2010
End Date	February 2011
LPAC Meeting Dates	December 2009
Implementing Partner:	Fiji Department of Environment

2010 AWP budget:	US\$100,000
Total resources required:	US\$100,000
Total allocated resources:	US\$100,000
• Regular	_____
• Other:	_____
◦ Donor	_____
◦ Donor	_____
◦ Donor	_____
◦ Government	_____
Unfunded budget:	_____
In-kind Contributions	_____

Agreed by Coordinating Agency:

Date:



Agreed by (Implementing Partner):

Date:

1/4/10

Agreed by UNDP:



Date:

1/1/10

## I. SITUATION ANALYSIS

The Fiji Government has identified in their National Solid Waste Management Strategy for Fiji 2008 – 2010, Part Two, specific policies to improve the current situation of poor waste collection and low resource recovery from the waste stream. Those policy areas are enumerated as: sound legislation & regulation enforcement; efficient pricing using economic instruments; waste minimization; improving final disposal; monitoring and litter control; use of economic incentives. These policies are intended to move Fiji from an over-reliance on dumping wastes and littering to a position where it will adopt best practise for sustainable waste management.

Due to rapid urbanisation and urban population growth, there is an increase of waste outputs, which in turn causes adverse effects on the Fijian environment and economy. The generation and disposal of waste has direct and indirect linkages to human development. The Fiji Government has identified that waste represents mismanaged money in terms of both the original cost of the materials and the costs of disposal, as well as the loss in potential value of the material as a reusable resource. A large quantity of easily recyclable material can be extracted from the waste stream, using a Container Deposit Legislation (CDL) system, which attaches a value to the waste items through a deposit and refund mechanism. These systems have proved very successful in recovering easily recyclable beverage containers in many parts of the world, including in the Pacific Islands. There are approximately 50 million beverage containers used in Fiji each year to which this system could be applied.

New regulations pertaining to waste disposal and recycling were introduced into Fiji at the start of 2009. Part 7 of the Environment Management (Waste Disposal and Recycling) Regulations stipulate that facilities that import or manufacture plastic bottles must hold a plastic bottle permit. It is a condition of every plastic bottle permit that the permit holder will, separately or jointly with other holders of plastic bottle permits, maintain one or more plastic bottle collection centres for collection of used plastic bottles from consumers or retailers. Regulation 31 (4) of the Waste Disposal and Recycling Regulations states that holders of plastic bottle permits should endeavour to establish a system of cash payments for the return of bottles for recycling. It would be far more efficient, and a fairer system, if all beverage containers were treated in the same way, as whilst two thirds of beverage containers are plastic bottles, inclusion of the aluminium cans also prevalent would allow creation of a system that was more commercially viable as a stand-alone system, due to their relative high value. The system proposed for Fiji and implemented by this project would follow the main elements of the design that used in British Columbia, Canada, and would be entirely industry- run, with the Department of Environment providing the necessary regulatory oversight.

The Department of Environment held two consultation rounds with the recycling and beverage industry in 2004 in an attempt to get agreement on introducing container deposit legislation. The industry made a detailed joint written submission indicating strong preference for any deposit & refund recycling system to be industry operated and managed. There exists in Fiji a private deposit/refund system run by the Fosters Pacific brewery to recover their beer bottles for refilling. This system works very well, and as a result, it is rare to see local beer bottles as litter, as the bottles have a monetary value. Until the mid 1990s, soft drinks in Fiji came in glass bottles, and were returned through payment of a refund, for refilling. The current beer bottle system provides a clear example, and proof of concept, for this proposal, as it is a private sector operated deposit & refund recovery system, whilst showing that overall concept is imbedded in the culture of Fiji.

Currently in Fiji, Coca Cola Amatil Ltd. and Natural Waters of Fiji Ltd. (Fiji Water) accept PET plastic bottles for recycling, and pay cash for the bottles, but the value offered is low, and recovery rates are around 30% of their local consumption. Only the most disadvantaged seek out PET bottles, for example at Lautoka dumpsite, where scavengers can access the dump (unlike Naboro near Suva), a small team of women works in the most unhealthy conditions to sort through piles of garbage and pick out plastic bottles and aluminium cans. In Kiribati, after the introduction of CDL, similar people shifted their efforts to public places and roadsides to collect discarded cans and bottles, and the value of their collections was approximately five times as valuable after the introduction of CDL, allowing these people to move their livelihoods away from dumpsites.

An Economic Analysis of the impact of the 50 million beverage containers not currently covered by a deposit & refund system was conducted, and indicates that significant costs are incurred through collection at municipal household waste pick up, and in landfill costs. For the Suva conurbation, where actual cost estimates can be derived from hard numbers, it is estimated that the cost of collecting and dumping the used beverage containers is approximately \$130,000 per annum spread across all the councils. In addition, the landfill space is worth between \$58,000 – \$95,000 per year, depending on the values used for landfill costs for Naboro landfill from government studies. The value of recyclable materials lost to landfill has been estimated at between one half and over one million dollars per annum (depending on the commodity prices, which give the lower range in the current - early 2009 - unstable situation of all commodity markets). The Economic Analysis referred to is provided as an attachment.

#### ***Association with the UNDAF and CPAP***

The United Nations Development Assistance Framework (UNDAF) for the Pacific Sub-region 2008 – 2012 documents a Key Outcome for the Pacific as being “the mainstreaming of environmental sustainability and sustainable energy into regional and national policies, planning frameworks and programmes. The Multi-Country Programme Document 2008-2012 identified a desired outcome of the Sustainable Environmental Management section to support capacity of environmental services for protection of marine, land and water resources. One of the corresponding indicators was that self-sustaining solid waste management systems be established and operational. The introduction of a CDL recycling system is in line with mainstreaming environmental sustainability into national policies. This project is in line with MDG 7 which is: ‘Ensure Environmental Sustainability’, for it recovers what would otherwise be waste, and does so through creating a commercially self-sustaining model by creating the legislative framework to allow this to take place.

The Country Programme Action Plan (CPAP) has four strategic management areas, of which this project comes under #4: Environment and Sustainable Management. The CPAP states at 2.6: “Competing demands on the environment and differentiated impacts of climate change, waste management and poor natural resource management pose significant challenges to Fiji.” 4.6 also notes “*Improved access to resources that support livelihood options will be strengthened through UNDP support in convening new partnerships with potential donors, the private sector and effective community participation, towards climate change adaptation and waste management recycling facility initiatives that will potentially be the highlight of Fiji Government / UNDP collaboration during this programming period.*” The CPAP also specifically seeks to “adopt a more ***Strategic and targeted focus*** on key outcomes to ***maximise impact.***” (document emphasis). Further: “Clear programme objectives, realistic targets, measurable indicators....” This project has very clear outcomes and measurable indicators, for the recovery rate of beverage containers, as a percentage of all beverages sold in Fiji, will be a simple piece of information to determine from the deposit and refund payments. The quantity of waste potentially diverted from landfill, the cost

savings of doing so, and the avoided greenhouse gas emissions achieved through recycling are all easily determined for this project.

This project will also contribute to poverty reduction, and thus two of the Millennium Development Goals, as not only does it contribute to environmental sustainability, but it also has potential to reduce poverty through supporting creation of employment opportunities at the lowest skill levels of the community, and income generation through partnerships with the private sector, as envisaged in the CPAP at point 4.3. A significant impact of CDL in other Pacific Island countries has been cash finding its way to women with no separate income as they comprise a clear majority of the people who turn in cans and bottles for refunds.

#### ***Previous work by UNDP in the Pacific Islands on beverage container recycling systems***

The UN is a significant global player on environmental issues, and has comparative advantages in its global technical expertise, knowledge of innovative approaches, and global standards to support its environmental work in the Pacific. UNDP has previously assisted Kiribati and FSM, through provision of Technical Assistance and project funding, to establish commercially self-sustaining recycling operations financed through the CDL system during the previous programming cycle, which are still operating successfully. The project that created the Kiribati system was financed through its implementation stage by UNDP and part of the project specification was to produce a model that could be used in other Pacific Island Countries (PICs). To date, this model has been replicated in Kosrae and Yap, FSM. Interest has also been expressed from the governments and/or private sectors in Vanuatu and the Republic of Marshall Islands.

## III. STRATEGY

### *Rationale for System Structure*

Container deposit systems operate in a variety of ways, and this can be found as two main types: those where government plays a logistical or implementing role, and those where government has no role save to pass legislation and regulate. In recent years, New South Wales, Western Australia, and New Zealand have looked at the potential to introduce deposit & refund recycling of beverage containers, and in all three instances these detailed studies have recommended an industry run system. Given that a great amount of relevant work is available to draw upon, and that the local beverage industry seeks to play a central role in any recycling system, as explicitly stated during previous rounds of industry consultation conducted in 2004 with the Department of Environment on this issue, and especially, given that there is already a very successful example of an industry run system in Fiji in the Fosters Pacific brewery, the deposit & refund recycling of beverage containers system implemented will be based on an industry run design. Further rationale for this design is detailed in the Preparatory Assistance Project Brief. The design developed for Fiji draws in particular on aspects of the British Columbia system, which is widely accepted to be a very good system and delivers particularly high recovery rates.

### *System Design*

The Managing Agency is a Producer Responsibility Organisation which holds the deposits, pays out the refunds, and also interacts with the beverage producers and importers and the recycled material processors. The legislation can set the requirement that all first level sellers of beverages (producer or importer) need a permit to do so, and a condition of that permit is that they have a Product Stewardship Plan in place that requires a minimum deposit to be paid, and refunds to be paid out. This is similar to the provisions of the existing Plastic Bottle Permit under the regulations. The system will work through the Managing Agency taking on the responsibility to operate the recovery system; drinks producers and importers will have an Appointment Agreement with the Managing Agency. The existing Fosters Pacific Brewery bottle recovery system can be accommodated under this arrangement at no change to the current arrangement, as they will fulfil the requirements already, can file their own Product Stewardship Plan based on their existing system, and so will not be required to participate with the Managing Agency. The Preparatory Assistance has conducted an Economic Analysis that clearly shows that it would be much more expensive for a local beverage producer or importer to set up their own recovery system rather than participate in a collective system. The largest industry producers of drinks have been directly consulted on this point and clearly understand the advantages of cooperating under a single Managing Agency structure.

The Managing Agency will be a small administrative group, comprising three to four employees. The legal structure would be of a non-profit nature, that of a 'company limited by guarantee' (the local equivalent to a 'Non-Profit'), with a board comprising local beverage and recycling industry, along with perhaps a representative from the Consumer Council or similar. With a governing body representing different interests, this should result in sound governance. The Managing Agency can be self-financing through use of unredeemed deposits: these are deposits that are paid into the revolving fund, but do not get paid out as that particular beverage container is not presented for refund – typically going to landfill. Where the system recovers 90% of beverage containers available for refund in Fiji, there would be approximately \$460,000 available per annum to operate the Managing Agency, which is something around 2 to 3 times the estimated funding requirement. Excess funds in the first year or so will be required to build capital strength in the revolving fund; subsequently, where excess unredeemed deposits are accumulating, the Managing Agency Board will be expected to direct that they be spent on anti-litter campaigns of similar work to promote improved waste management and recycling. The legal structure of the Managing Agency will

prevent any distribution of 'profits' occurring. This point deals with a weakness in some overseas deposit and refund recycling systems where a perverse incentive can exist to avoid recovering beverage containers where someone can profit from the unredeemed deposits.

The industry participants will be expected to collaborate, along with the potential to enforce deposit payments by the regulation, to ensure that 'free riders' cannot operate at the other participants' expense. Potential 'Free Riders' are likely to be small scale importers, and provision can be made to ensure that deposits are paid at import of beverages covered by the legislation. It is important to note at this point that this is not a point-of-sale system; the deposits are collected at the time of production or import of beverages.

Some deposit & refund beverage container recycling systems require that retailers of beverages must also pay out refunds, or that a collection point must be available within a certain distance of any store that sells beverages, or else those stores must pay out refunds. To keep the system simple in Fiji these requirements do not need to be put in place. The Fosters Pacific beer bottle collection has a demonstrated ability to recover beer bottles even from outer islands, and this model should be followed to avoid disruption to retailers. Retailers can be collectors, should they desire, but there is no need for compulsion on this point. Return of beverage containers will operate through a separate recovery system, and it is highly likely that existing beer bottle collectors will immediately add PET, aluminium cans and other glass bottles to their collection rounds, as they will gain a 'Handling Fee' from each unit. The Managing Agency would licence a small number of suitable equipped recycling companies, who will pay out the final refunds, and only those recyclers will be the end processors who can claim against the revolving fund holding the deposits. Handling fees to collectors lower down the chain will work in a similar way as the existing beer bottle system works.

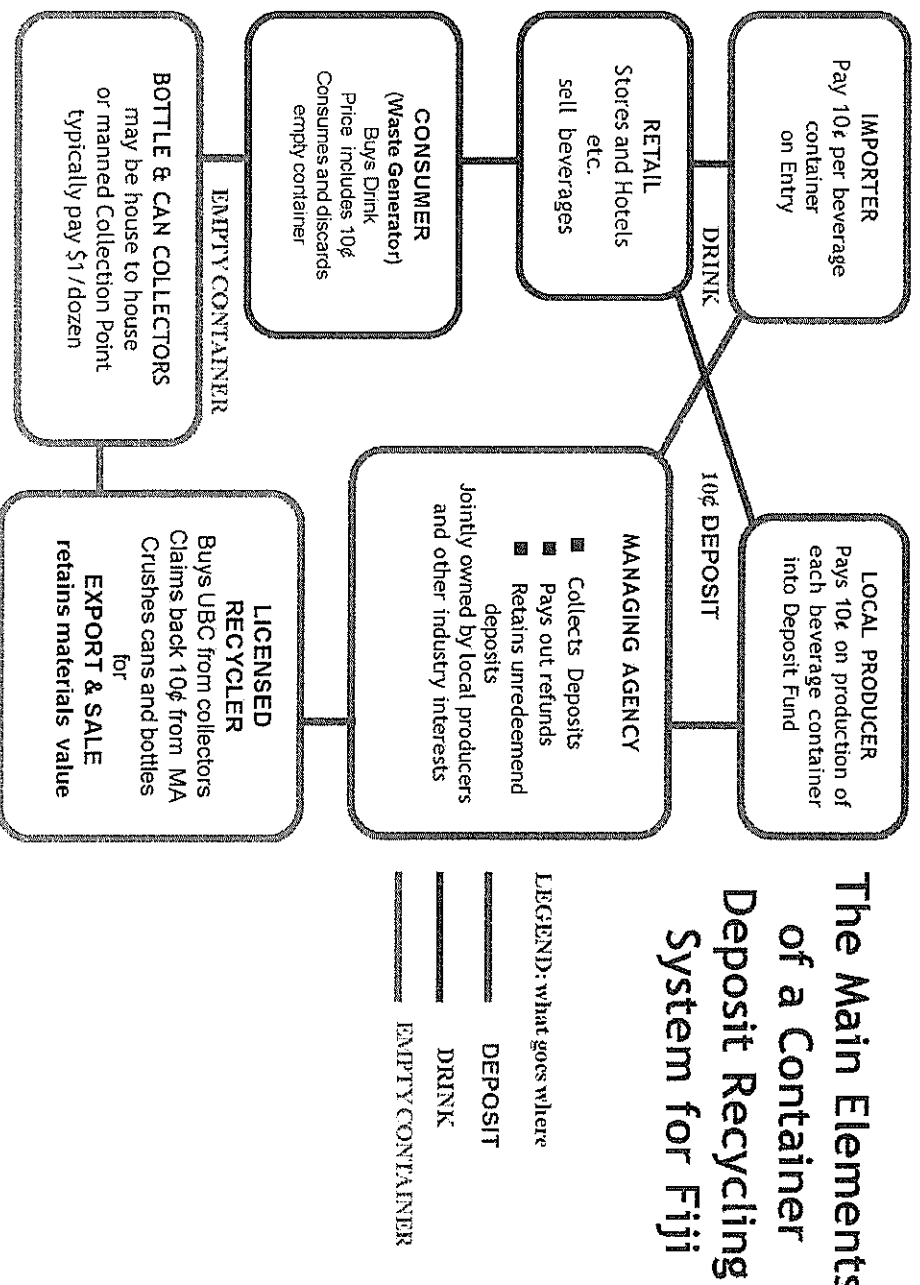


Figure 1: Industry operated deposit & refund recycling system to recover Used Beverage Containers (UBC)

***Phase I: Establishment of Project Management Unit, Advocacy programme, and Container Deposit Regulation***

**Establishment of Project Management Unit (PMU)**

With the model proposed, the Department of Environment will establish a PMU to oversee the drafting and passage of Container Deposit Regulation, undertake an advocacy programme through a Communications Strategy and assist with establishment of Phase II (Managing Agency). In Phase II, the Department of Environment would assume the role of regulator based on lessons learned from the operation of Naboro Landfill. The department would participate in overseeing the Project at the Project Board level.

**Advocacy programme**

There is tremendous potential to use the public attention generated by the implementation of refunds on cans and bottles in Fiji to aggressively address littering behaviour and poor waste management practises amongst the general public. This strategy worked very well in Kiribati, and provided major benefits. An extensive campaign Communications Strategy (Annex I) has been developed alongside this Project Document. This advocacy programme will have the potential to make a major impact on Fiji, and also draw public attention to the extensive work of the Department of Environment and UNDP in improving people's lives in Fiji in a very practical way, as every advert would carry a Department of Environment and UNDP logo. This work is explained in considerable detail in the Communications Strategy. A skilled social marketing communications specialist would be crucial; the campaign would need to be innovative to encourage all Fiji residents to improve behaviour towards waste management.

**Legal Framework: Container Deposit Regulation**

Much of the powers required setting up a deposit & refund beverage container recycling system in Fiji are contained in the existing regulations, but only applied to plastic bottles. A legal opinion obtained through the Environmental Law Association of Fiji (Annex II) found that the powers required for putting in place regulations to set up the system described above can be done under the existing Environment Management Act 2005. The ideal course would be to amend Part 7 of the existing regulations which deals only with plastic bottles and replace it with provisions that cover all beverage containers. The first task of the project will be to draft suitable wording for the new Part 7 and ensure that the governmental processes are followed through and that the statute becomes law. Actual implementation of the measure will need to wait until the Managing Agency is sufficiently developed to collect funds and pay out refunds. Implementing the legal framework is consistent with the CPAP outcome: Environmental sustainability and sustainable energy are mainstreamed into regional and national policies, planning frameworks and programmes.

***Phase II of the Project***

An Implementation Plan (attached) has been produced which provides considerable detail concerning the individual activities required, and the coordination of those activities. In addition, a comprehensive Communications Strategy has been developed which also contains considerable detail concerning media outlets and costs in Fiji, as well as an analysis of the potential means of broadcasting the public awareness message to be promoted in Phase II. Detailed legal analysis has been conducted on the current legislative framework, and two separate legal opinions sought to ensure that the legal strategy outlined below is based on sound and valid principles of law. In addition, the detailed Economic Analysis, referred to above, provides the foundation of determining the number of beverage containers affected by the proposed system, the financial flows expected through the revolving fund holding deposits and paying out refunds. This analysis also looked at the economic benefits through reduced waste collection and landfilling costs, and some analysis of



the employment impacts of introducing the system. That analysis also determined the sensitivity of the results produced to initial assumptions. These documents should be consulted in order to further illuminate the strategy provided below. The results of these studies have been presented to key industry players both in public consultations and in individual meetings.

#### ***Partnership with Private Sector to form the Managing Agency***

One clear obstacle for the private sector to setting up such a system as described would be the initial financing, coordination, and setting up of the Managing Agency. This will involve locating premises for an office, office equipment, a legal structure and constitution, formation of a Board of Directors governance structure, and hiring and training staff. The project will facilitate all these processes, through a strategy of the Project Management Unit taking on the role of the Managing Agency until such time as the funding in the Managing Agency has developed to allow self-financing and handover by the PMU. This is expected to take place after about six months of operation of the revolving fund, funded through the mechanism of unredeemed deposits described above.

This approach will result in a far more efficient use of resources, as project activities do not need to be duplicated by the Managing Agency whilst the project is running. If the industry is required to pay the cost of setting up the Managing Agency, this will be a very complex process to apportion fairly and develop successfully. The project will act, through the NGO partner, as a neutral entity that can set up the Managing Agency, and ensure that commercially sensitive data is kept confidential (such as production sales data), and also ensure that the Managing Agency has a fair and equitable legal constitution that is not dominated by any single industry partner or group of interests. It is very important that the private sector participants – who are competitors in the market place – have confidence in the integrity of the initial set-up of the Managing Agency. At the legal formulation and registration of the Managing Agency, it will be given a suitable name, for example 'Recycle Fiji'.

This approach will make the setting up of the Managing Agency a process that will be far more likely to be accepted by the local beverage industry, as they will not have to put time, effort and resources into doing this themselves, especially when they have no expertise in this area. Ownership of any office equipment acquired by the project will pass to the Managing Agency. This strategy of the Project Management Unit handing over to the Managing Agency, will be potentially the greatest incentive to get the local industry to willingly participate in the setting up of a deposit & refund beverage container recycling system in Fiji. The strategy outlined also provides for a very clear exit strategy for the project right from the start. There is no need for the project to invest in large capital equipment for recyclables processing or collection, as these functions will be conducted by existing companies who already have the equipment in Fiji, under contractual arrangements with the Managing Agency. There exists in Fiji at least two large functioning balers, each of which could individually process the entire annual output of PET bottles and aluminium cans for export. These balers are in private ownership and would remain so; the current owners would expect to be key stakeholders in the Managing Agency.

#### ***Potential to generate gender neutral income, employment and poverty alleviation***

Experience elsewhere in the Pacific Islands, specifically in Kiribati and Kosrae, FSM, clearly shows that economic benefits flow to those in the community with the lowest incomes. Currently, scavengers can be found in some dumps (e.g. Lautoka) collecting plastic bottles and cans. These people would shift to public areas to collect discarded bottles and cans, and the value of their collections would increase by a factor of about five times, from about 1.8¢ each today for a PET bottle delivered to an existing recycler, to 10¢ each. Women will gain in particular as they recover the UBC from household and community wastes streams where they remain in the home; also,

community groups seeking to fundraise may ask for cans and bottles from their constituents rather than cash. Jobs on bottle collector trucks and stationary collection points will be created as approximately 45 million used beverage containers will be recovered per year at 90% recovery. All these jobs are of a low skilled, low education level, can be filled by men and women, and will be available to the lowest income earning sector.

**Key Observation**

The proposed project is fully in line with Fiji's national development objectives, as provided in the National Solid Waste Management Strategy at Part Two: Policies; and through Fiji's pursuit of improving natural resource management and promoting environmental sustainability. A deposit & refund beverage recycling system could be implemented through an amendment to Part 7 of the Environment Management (Waste Disposal and Recycling) Regulations and would strengthen the existing regulations by covering all beverage containers. The existing regulations as written are potentially hard to enforce, and only recently became law (January 2009). The system proposed would divert significant quantities of waste away from landfill, create employment for the lowest income sectors, create economic activity associated through collection and export of the materials, and can be operated entirely by the private sector.

**Links to the CP and UNDAF**

This is consistent with the UNDAF at 'Equitable economic growth and poverty reduction', and further as this extract from the UNDAF below indicates, through sustainable development that increases partnership with private sector whilst generating sustainable outcomes for women and the lowest income sectors.

<p>... (b) Private sector          (i) Private sector (including services) and investment (Economic Growth, Investment, private sector participation, and contribution to development (Economic Growth), Sustainable Development)</p> <p><b>Millennium Development Goals:</b>          1. Eradicate extreme poverty and hunger          8. Develop a global partnership for development</p> <p><b>UNDAF Outcome 1:</b>          Pacific island countries develop and implement evidence-based, regional, pro-poor and National Sustainable Development Strategies (NSDS) to address population, poverty and economic exclusion issues, stimulate equitable growth, create economic opportunities and qualify employment, and promote sustainable livelihoods.</p>
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Fig 2. UNDAF Outcomes. Source: UNDAF for the Pacific Sub-region, 2008 – 2012, page 11

### III. ANNUAL WORK PLANS: 2009 - 2010

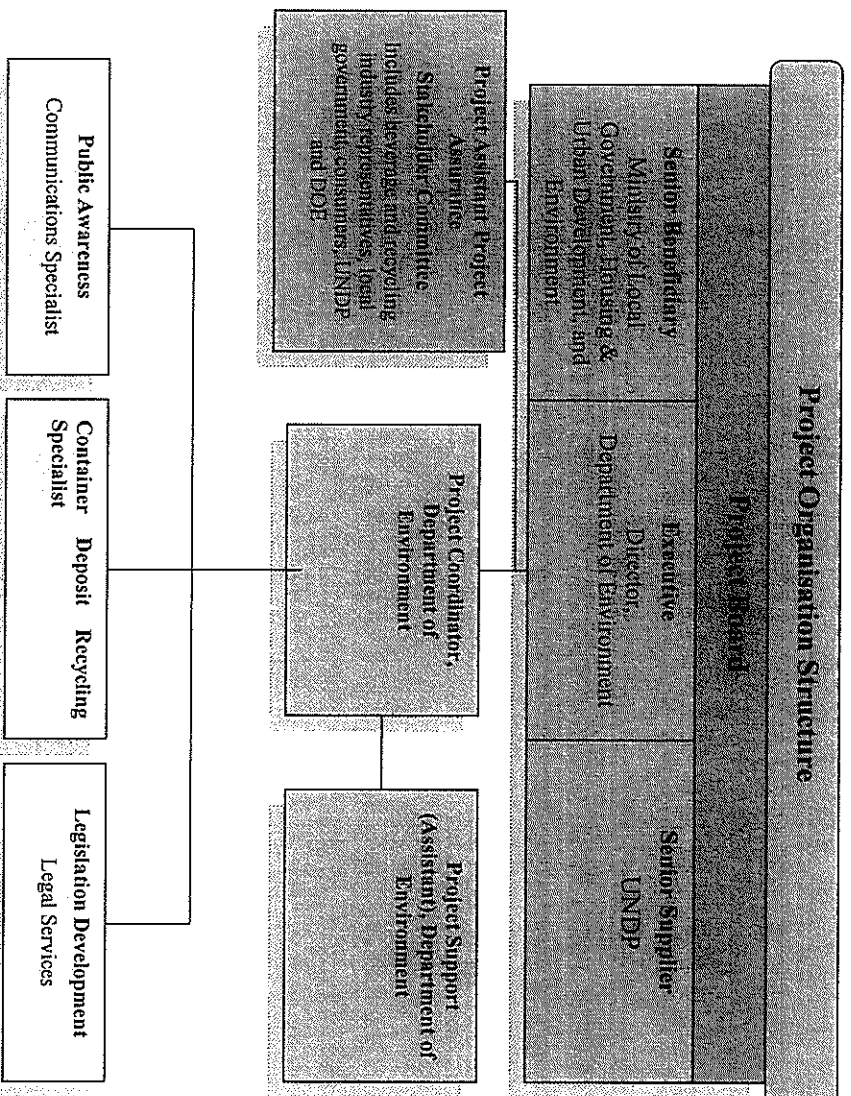
#### PHASE I: 2010 - 2011

EXPECTED OUTPUTS	PLANNED ACTIVITIES	2010				2011	RESPONSIBLE PARTY	PLANNED BUDGET	
		Q1	Q2	Q3	Q4	Q1		Budget Description	Amount US\$
<b>Output 1</b> <i>Establish Project Management Unit (PMU) to manage and coordinate Phase I</i> Indicators: Project Management Unit operational. Target: PMU operational by 4 <sup>th</sup> Quarter 2009	1.1. Recruit PMU staff (Coordinator and Assistant). Advertise posts, shortlist candidates, interview and appoint	X	X				Department of Environment	72000	1,000
	1.2. Set-up office within Department of Environment. Procure office equipment and supplies		X				Department of Environment	722000	3,000
	1.3. Salaries: - Coordinator - Assistant		X	X	X	X	Department of Environment	71400	25,000 12,500
	1.4. Travel costs		X	X	X	X	Department of Environment	71600	5,000
<b>Sub-total</b>									<b>46,500</b>
<b>Output 2</b> <i>Formulate and institute legal framework for industry operated deposit &amp; refund beverage container recycling system.</i> Indicators: Regulation passed by Cabinet; regulation gazetted; commencement date confirmed. Target: Container Deposit Regulation in force by 4 <sup>th</sup> quarter 2010	2.1 Draft Container Deposit Regulation		X	X	X	X	Dept of Environment, Legal specialist	74100	10,000
	2.2 Container deposit Regulation - present to Cabinet for passage - Gazette Regulation - Regulation into force		X	X		X	Office of the Attorney General Department of Environment, UNDP Fiji MCO, CDR Specialist,	In-kind	In-kind
	2.3 Container deposit recycling specialist for all aspects of beverage container recycling implementation as required	X	X	X	X	X	Department of Environment, UNDP Fiji MCO, NGO Partner	71200 71600	10,000 5,000
<b>Sub-total</b>									<b>25,000</b>

<b>Output 3</b> <i>Provide stakeholders with information concerning introduction of CDL recycling system and set-up Managing Agency</i> <b>Indicators:</b> information materials generated and distributed <b>Targets:</b> Beverage producers and importers; bottle collectors, recycling companies, community groups; later, all beverage consumers.	3.1 Draw up contact list and details for all potential stakeholders and provide information packs as follows: - Inform all local beverage producers & importers of reporting requirements, - Inform bottle collectors & small recyclers and community groups			X	X	X	Department of Environment	72400 74200 74500	3,000 3,000 1,000
	3.2 Develop and produce public materials for distribution via stakeholder networks. - Draw up flyers - print and distribute for redistribution			X	X	X	Department of Environment	74200	3,000
	3.3 Draft advertisements for print media - Public announcements regarding deposits & refunds - generate press releases and news items around the theme			X	X	X	Department of Environment	74200 72400	3,000 2,000
	3.4 Engage in stakeholder consultations to: - Discuss and agree on possible Managing Agency (MA) arrangements - Hand-over from PMU to MA					X	Department of Environment	72000 71400	3,500 10,000
<b>Sub-total</b>									<b>28,500</b>
<b>TOTAL PHASE I</b>									<b>\$100,000</b>

#### IV. MANAGEMENT ARRANGEMENTS

The project will be nationally implemented by the Department of Environment, responsible for day-to-day management of the project and ensure that PMU staff are fulfilling their correct functions as detailed in this project document. The Department of Environment will advise and guide the PMU and ensure that quarterly reports and other reporting requirements are fulfilled to schedule, and provide employment contracts and operating procedures, both financial and personnel. A crucial step of the project – the exit strategy - is agreeing on the Managing Agency that will take on board responsibilities handed over by the Project Management Unit. The Project Management structure is shown below:



#### Description of Management Structure

As illustrated above, a Project Board will be responsible for making executive management decisions for the project and will comprise of the Director of the Department of Environment as the Executive to chair the group, the UNDP as Senior Supplier to provide guidance on the technical feasibility of the project, and representatives from the Ministry of Local Government, Housing & Urban Development, and Environment as the Senior Beneficiary to ensure the realisation of project benefits from the beneficiaries' viewpoint. This group shall provide guidance to the Project Management Unit, when needed, including project revisions. Reviews by this group to ensure quality programming is undertaken are to be made at designated decision points during the running of the project, or as necessary when raised by the Project Manager or Project Board. This group is consulted by the Project Manager for decisions when project tolerances have been exceeded.

The Department of Environment will be the implementing partner for the project and will have responsibility for facilitating project coordination with other relevant departments. The Department of Environment will ensure the timely and effective delivery of project outputs and the proper use of project resources.

### *Project Management*

The Project Manager position in the Project Management Unit (PMU) will ensure that day-to-day operations of the project are being implemented consistent with the project document. He or she will be responsible to the Director of Department of Environment. The Director will ensure that the project is executed following financial and personnel systems that have previously been audited, and are acceptable to UNDP. The Director will be responsible to ensure that project reporting procedures are completed to UNDP reporting schedules, and that the project is executed consistent with the Executing Entity Agreement attached at Annex II.

### *Project Support*

Technical Support will be provided to the project through engagement of a Container Deposit Recycling Specialist, who will report to the Department of Environment and will advise on all aspects of project implementation, in particular the introduction of the Container Deposit Regulation, the setting up and operation of the revolving fund, arrangements between the beverage producers, Managing Agency, and the recycling processors, and requirements to ensure that all stakeholders are adequately informed of the new recycling system, and their participation in that system.

### *Exit Strategy*

Once it has been clearly determined by the Department of Environment, in consultation with the Managing Agency Board and the Project Board, that the Managing Agency is ready to be financially self-supporting through the accumulation of excess unredemmed deposits in the revolving fund – greater than an amount to be considered prudent reserves for normal operations), the PMU will hand over operation of the Managing Agency to the Managing Agency Board.

The Managing Agency Board of Directors will be required to hire staff for the Managing Agency. At this time the project will hand over operations to the staff hired by the Managing Agency. Provision has been made in the budget and work plans to allow for some overlap (a maximum of three months) so that project staff can train new Managing Agency Staff where this is required to ensure smooth operation of the revolving fund. Once the Managing Agency is operating in a self-sufficient manner, the PMU can be wound up, and final reporting processes completed.

### *Regulatory Role for Department of Environment*

Upon completion of Phase I and successful handing over of PMU to Managing Agency, the role of the Department of Environment remains that of regulator, and not direct day-to-day implementer. Where the DOE is expected to participate in some other way in any deposit & refund beverage container recycling system, the situation is likely to result, sooner or later, in a conflict of interest, and then problems may result. DOE has indicated that this is the preferred mode as a result of their experience with the operation of Naboro Landfill; in management of the landfill their rôle is both regulator and manager of the landfill contract, and this can create some undesirable situations. A short study has been conducted on this point and is provided to this project document as an attachment. As a result of this experience, DOE would prefer that their participation stays as a purely regulatory role, whilst participating at an oversight level as part of the Project Board.

### *Financial Arrangements*

The Project will be implemented by the Department of Environment (DOE) with overall responsibility for project execution and project deliverables and accountability to Government and UNDP.

Funds provided by UNDP will be placed in a development fund account held by the Ministry of Finance.

The Department of Environment will provide advice, professional assistance, and direction wherever the project interacts with any government activities. The project will be Nationally Executed (NEX) by the National Government of Fiji through the Department of Environment.

The DOE will maintain a role on the Project Board, and the focal point of contact will be the Principal Environment Officer for the Department of Environment. The Department of Environment will:

- Be responsible for the financial control of the project through the national implementation modality of UNDP.
- Sign-off on all budget and work-plan revisions;
- Work with the project and assume responsibility for entering into necessary work arrangements with other national, state and regional organisations for efficient and effective project implementation;
- Support the project by providing guidance and authority to engage services consistent with the objectives of the project;
- Receive advances from UNDP equivalent to the Financial Requests filed quarterly consistent with the needs of the project as indicated in the quarterly work plans provided; and
- Forward financial advances received from UNDP to the PMU consistent with Financial Requests received from the PMU.

Funds will be released quarterly to the Fiji Ministry of Finance, and at that time the Department of Environment will write a memo to the Ministry of Finance advising them of the project to which those funds are dedicated. The Ministry of Finance will then issue a Department Warrant and release the funds to the Department of Environment.

The Ministry of Finance will be responsible for the initial warrant and disbursement of funds in accordance with the work plans and project document. Further cash advances will be contingent upon timely reporting of expenditure by the PMU through the Department of Environment to the UNDP Fiji MCO.

## V. MONITORING FRAMEWORK AND EVALUATION

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the project will be monitored through the following:

### Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
- An Issue Log shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (see annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Project Progress Reports (PPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- a project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-Learned Report at the end of the project
- a Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

### Annually

- **Annual Review Report.** An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
- **Annual Project Review.** Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.



## VI. QUALITY MANAGEMENT FOR PROJECT ACTIVITY RESULTS

### PHASE I

<b>OUTPUT 1:</b> Establish Project Management Unit (PMU) to manage and coordinate Phase I.			
<b>Activity Results 1</b> (Atlas Activity ID)	Recruit PMU staff, set-up office, signing of contracts		Start Date: February 2010 End Date: February 2011
<b>Purpose</b>	To establish a PMU for overall management and coordination of Phase I activities		
<b>Description</b>	Planned actions are outlined in the AWP and include recruitment of PMU staff, office set-up and associated travel.		
<b>Quality Criteria</b>	<b>Quality Method</b>	<b>Date of Assessment</b>	
Draft ToRs for Coordinator and Assistant posts	ToRs finalized and advertised through Public Service Commission	February 2010	
Applicants shortlisted, interviewed and PMU staff appointed	Interview Report, signed contracts	February 2010	
Request for purchase of office equipment and supplies	Office equipment and supplies procured	February 2010	

<b>OUTPUT 2:</b> Formulate and institute legal framework for industry operated Container Deposit Legislated recycling system.			
<b>Activity Results 2</b> (Atlas Activity ID)	Create Container Deposit Legislation in Fiji		Start Date: February 2010 End Date: February 2011
<b>Purpose</b>	Regulation to create container deposit system for all beverage containers to be operated by private sector. Provide Technical Assistance to the project.		
<b>Description</b>	Planned actions are outlined in the AWP and include drafting a new regulation to replace Part 7 of existing Waste Disposal and Recycling Regulations, and promulgation by Dept. of Environment.		
<b>Quality Criteria</b>	<b>Quality Method</b>	<b>Date of Assessment</b>	
Draft regulation using legal services and TA	Draft regulation provided to DOE	April 2010	
Regulation passed by Cabinet	Cabinet Minute	October 2010	
regulation gazetted	Government Gazette	November 2010	
Commencement date confirmed.	Publication of amended regulations	December 2010	
Ongoing provision of Technical Assistance	Project Management evaluation, regular mission reports	December 2010	

**OUTPUT 3:** Provide stakeholders with information concerning introduction of CDL recycling system and set-up Managing Agency

Activity Result 3 (Atlas Activity ID)	Industry participants informed and participating in CDL system and Managing Agency established within industry	Start Date: July 2010 End Date: February 2011
Purpose	Inform stakeholders and general public about new recycling system; provide avenues of support to industry transition.	
Description	Planned actions are outlined in the AWP and include information materials generated and distributed through bottle and can collection networks for recycling; and industry channels for beverage producers.	
Quality Criteria	Quality Method	Date of Assessment
Public materials created for distribution	Information packs & flyers distributed	July 2010
Beverage producers and importers	All producers identified, listed and contacted regularly	July 2010
Bottle collectors, recycling companies, scavengers, waste collectors, community groups seeking to fundraise	As many participants of these classes identified and contacted and listed, and contacted with information	September 2010
All beverage consumers	Widespread public information campaign in national media	September 2010
Stakeholders agreement on Managing Agency	Managing Agency established and hand-over from PMU completed	January 2011

## VII. LEGAL CONTEXT

The project document shall be the instrument envisaged in the Supplemental Provisions to the Project Document (Standard Agreement on Operational Assistance between The United Nations and the Government of Fiji, dated 30 October 1970), attached hereto.

Consistent with the above Supplemental Provisions, the responsibility for the safety and security of the executing agency and its personnel and property, and of UNDP's property in the executing agency's custody, rests with the executing agency.

The executing agency shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the executing agency's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The executing agency agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA [or other appropriate governing agreement] and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document".

## VIII. ANNEXES

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**Annex I: Risk Analysis:** An assessment of risks that may affect the project .

**Annex II: Terms of Reference for Key Positions:** Project Coordinator, Container Deposit Recycling Specialist, Administrative Officer, Managing Agency Advisory Board.

**Annex III: Definition for Management Arrangements**

**Attachments:**

In addition, the following documents are provided were produced as part of the Project Preparatory Assistance, and are provided on an accompanying CD, and should be consulted for more detailed information on certain aspects and illumination of references found in this project Document:

1. **Implementation Plan for the Creation of a Deposit & Refund Beverage Container Recycling System in Fiji;**
2. **The Economic Analysis of the Impacts of Container Deposit Legislation in Fiji;**
3. **Summary of Estimated Economic Impacts of Introducing CDL in Fiji;**
4. **A Determination of the Need for New Legislation for CDL in Fiji;**
5. **A Independent Legal Opinion Concerning the requirement for new legislation to implement Container Deposit Legislation in Fiji;**
6. **Comparative Study of Management arrangements for the Naboro Landfill and those proposed for this project;**
7. **Project Management Options;**
8. **Detailed Presentation to Beverage and Recycling Industry Stakeholders;**
9. **Project Brief of January 2009;**
10. **The Utility of Conducting a Pilot Project in Suva City Council Area in order to Test a Container Deposit Recycling system in Fiji;**
11. **A selection of reports relating to Container Deposit Recycling Systems from the Pacific Region;**
12. **List of other reports and documents relating to recycling in the Pacific Islands;**

**Annex I: Risk Analysis**

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Financial	Project Document Stage: 23 / 02 / 09	Insufficient funds are secured by UNDP to fund project	<p><u>Impact:</u> Additional source of funding will need to be sourced, resulting in a delay in commencement / delivery or abandonment of project. Rated 5.</p> <p><u>Probability:</u> Dependent upon resources committed to by UNDP and contributions by other partners, including industry. Rated 4.</p> <p><u>Counter Measures:</u> Phase approach as currently undertaken through Phase I.</p>	<p>UNDP Environment Unit currently campaigning for TRAC funds.</p> <p>One industry organisation had verbally committed funds in 2008. Additional industry contribution will be sort.</p>	November 2010	UNDP / DoE
	Financial	Project Document Stage: 23 / 02 / 09	Value of aluminium and PET drops	<p><u>Impact:</u> The value at export becomes too low for the recycler to commercially export materials. Such a situation would result in the collapse of the recycling industry in Fiji.</p> <p><u>Probability:</u> The resource market is highly variable at present. The value of aluminium and PET has dropped significantly in the later half of 2008, but it is not known whether prices will continue to fall or rise. Rated 3.</p> <p><u>Counter Measures:</u> The refund value of the beverage containers should allow for a handling fee to be high enough so that this situation would only occur in a general economic collapse. Managing Agency has opportunity to manipulate this situation to avoid difficulties in foreseeable circumstances.</p>	As raw resources become more expensive to obtain, prices of recycled aluminium and PET will increase. The reason for recent drop in value is not related to availability of resources. Situation closely tied to World economic crisis		Managing Agency

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Financial	Project Document Stage: 23 / 02 / 09	Not enough money remains in the revolving fund to meet operational expenses	<p><u>Impact:</u> The project will require an injection of funds from either government or aid donors. Rated 5.</p> <p><u>Probability:</u> The handling fees alone should be sufficient to make the system self sustainable.</p> <p><u>Counter Measures:</u> Refund value to be worked out on the street, but should be sufficient to allow system to be self-sustainable, regardless of value of aluminium cans and PET bottles. Deposit rate should be set at 10¢</p>	Based on recovery high recovery rate of 90% of all beverage containers, at 10¢ deposit, the system should generate around \$450,000/yr in unredeemed deposits, of which a maximum of \$200,000/yr would be needed to operate the Managing Agency. Lower recovery rates result in more unredeemed deposit funds available.		Managing Agency
	Financial	Project Document Stage: 23 / 02 / 09	Refund is too low to encourage people to recycle	<p><u>Impact:</u> 90% return rate is not achieved, cash in revolving fund builds up and recyclables being deposited in landfill or littered does not decrease significantly. Rated 4.</p> <p><u>Probability:</u> Highly unlikely given potential for low income earners to make additional money and for groups to fundraise. Rated 2.</p> <p><u>Counter Measures:</u> If a 90% return is not achieved, then the additional funds in the revolving fund will be used for advertising to promote refund system, to raise public awareness of potential to earn extra cash. Cash refund level is based on Fiji Bitter bottle refund, which has proved very successful in Fiji.</p>	Proposed refund is the same as the Fiji Bitter bottle refund. High return rate of Fiji Bitter bottle currently experienced.		Managing Agency

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Financial	Project Document Stage: 23 / 02 / 09	Unredeemed deposits accumulate in excess to what is required to operate system	<p><u>Impact:</u> More cash in revolving fund than required to operate the recycling system. Rated 1.</p> <p><u>Probability:</u> Dependent upon rate of return of aluminium cans and PET bottles, income from sale of recyclable materials and operating expenses. Rated 2.</p> <p><u>Counter Measures:</u> The legal set-up of the managing agency will specify that once funds in the revolving fund exceed a certain amount of money, then any excess should be spent on advertising or a system of small community grants concerning either recycling or of waste or environmental issues in general.</p>	Unknown at present.		DoE
	Financial	Project Document Stage: 23 / 02 / 09	Consumers buy less drinks	<p><u>Impact:</u> Industry will lose money. General health of Fijians will improve due to less soft drink consumption, relating in less health expenses to the Government. Rated 3.</p> <p><u>Probability:</u> Economic analysis has indicated that likely amount of money that each person will have less available to buy drinks is within variation shown annually in beverage consumption rates over the last 15 years. Rated 2.</p> <p><u>Counter Measures:</u> Industry to promote return of recyclable materials to ensure extra cash is returned to consumers, giving them more money, possibly to buy more beverages.</p>	Unknown at present, however price increases of 10¢ are thought unlikely to deter people from drastically changing their beverage consumption patterns.		Industry

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Financial	Project Document Stage: 23 / 02 / 09	Industry refuses to pay additional 10c per can / bottle due to initial high costs and deeply depressed economic conditions prevailing in Fiji.	<p><u>Impact:</u> Economic collapse. Rated 4.</p> <p><u>Probability:</u> Any company that cannot afford initially to pay the deposit is not in an economically viable position anyway. Possible given current economic crisis. Rated 3.</p> <p><u>Counter Measures:</u> Industry will have to revert to existing plastic bottle permits, which will end up costing them more money in the long run.</p>	Industry asking for incentives, such as reduction in import duty on selected items, to offset initial costs of paying deposits.		UNDP / DoE
	Financial	Project Document Stage: 2 / 03 / 09 Alice Leney (PA )	Collapse in value of USD compared to FJD	<p><u>Impact:</u> budget severely constrained for local purchases and employee costs.</p> <p><u>Probability:</u> Quite possible, USD has increased in value by 60% over last six months, and world economy is highly unstable; US economy in melt down.</p> <p><u>Counter Measures:</u> Budget has been developed accordingly.</p>	US Dollar very strong, budget is very good under current exchange rates.		UNDP
	Operational	Project Document Stage: 23 / 02 / 09	It is not easy enough for people to recycle	<p><u>Impact:</u> 90% return rate is not achieved, cash in revolving fund builds up and recyclables being deposited in landfill or littered does not decrease significantly. Rated 4.</p> <p><u>Probability:</u> Unlikely due to proposed system being similar to existing Fiji Bitter bottle collection system, which works effectively. Rated 1.</p> <p><u>Counter Measures:</u> During implementation, the effectiveness of using the Fiji Bitter bottle collection system will be assessed and reviewed if the desired return rate is not achieved.</p>	Fiji Bitter bottle collection system has been studied and found to work very effectively at present and the same is expected of the aluminium can and PET bottle collection. Marginal cost to bottle collectors of picking up other cans and bottles very low as uses identical routes already travelled.		Managing Agency



ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Operational	Project Document Stage: 23 / 02 / 09	Fiji Bitter bottle trucks will not collect aluminium cans or PET bottles	<p><u>Impact:</u> A new method of collection will need to be devised, which will delay implementation and add considerable cost to the operating costs. Rated 5.</p> <p><u>Probability:</u> Would not be logical, since the Fiji Bitter bottles, aluminium cans and PET bottles would be worth the same amount of money. Large bags could be tied to back of trucks, making collection easy. However, would result in less room for collection of bottles on truck. Rated 3.</p> <p><u>Counter Measures:</u> Wide advertising that aluminium cans and PET bottles are worth the same amount of money as the Fiji Bitter bottles, so that bottle collectors do not have preference for only Fiji Bitter bottles.</p>	Fiji Bitter bottle collectors in the past have refused to collect aluminium cans and PET bottles, however this was when the value of the cans and bottles were significantly lower than the value of the Fiji Bitter bottles. The arrangement on the back of the trucks would need to be altered, however this should not be a problem. Project can provide some initial assistance through provision of wool sacks to bottle collectors to kick-start system.		Managing Agency

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Operational	Project Document Stage: 23/02/09	Refunded aluminium cans and PET bottles are re-sold back to the Managing Agency	<p><u>Impact:</u> Two refunds are paid out on an item that only one deposit was paid, resulting in a decrease in funds in the revolving fund. Rated 4.</p> <p><u>Probability:</u> Possible if the refunds system is not well managed. Systems must be in place so that refunds are only paid out once and only when bottles and cans are baled straight away to remove possibility of leaking of those cans and bottles out for potential refund collection again. Rated 2.</p> <p><u>Counter Measures:</u> The system set up in Kosrae and Kiribati works very well and there is no chance of 'double-dipping' into the revolving fund. This same method of assurance will be employed here.</p>	The system for payment of refunds should be set out in the legal rules associated with the system to ensure no 'double-dipping' into the revolving funds. A wealth of overseas experience of monitoring CDL systems to draw on to assist development of auditing procedures		Managing Agency

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Strategic	Project Document Stage: 23/02/09	Consumers not aware of new recycling system and do not return aluminium cans or PET bottles to collectors	<p><u>Impact:</u> Deposits are paid at import / manufacture, however no refunds are paid out. Cash in revolving fund builds up and recyclables being deposited in landfill or littered does not decrease significantly. Rated 5.</p> <p><u>Probability:</u> Project implementation includes a considerable public awareness campaign. It is also in the interest of industry to promote the system because then their products will effectively cost less if they claim their refunds. Rated 2.</p> <p><u>Counter Measures:</u> The Fiji Bitter bottle collection system is not advertised anywhere, however it works quite effectively. A public awareness campaign is planned at project start-up, and any build up of funds in the revolving fund once the system is operational can be used for further awareness building.</p>	Effectiveness of public awareness campaign should be evaluated, so that future campaigns can utilise most effective methods (eg, radio, tv, newspaper, billboards, posters in shops, etc)		Managing Agency
	Strategic	Project Document Stage: 23/02/09	Public becomes aware of introduction of CDL a long time before the regulations take effect and start stockpiling cans and bottles for refunds	<p><u>Impact:</u> Cash flow problem at commencement of CDL refund payments. Rated 2.</p> <p><u>Probability:</u> Bound to happen to some extent, but may not be widespread. Rated 3.</p> <p><u>Counter Measures:</u> Constrain refund system in early stages to effectively limit refunds. Require deposits to be paid one to two months in advance of refund payments commencing in order to capitalise the revolving fund.</p>	Some hotels already have a stockpile of aluminium cans and PET bottles, because it is too expensive for them to transport to the mainland to go to landfill. Recently introduced CDL in similar sized country – Hawaii – can provide useful experience.		UNDP

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Organisational	Project Document Stage: 23/02/09	Government does not support the establishment of a new independent management agency	<p><u>Impact:</u> Government insists that existing mechanisms (such as the Environment Trust Account, FIRCA etc) are utilised as the managing agency. Project gains Government support but loses the faith of industry. Potential resource issues keeping the managing agency within the Government and also conflict of interest when regulating. Rated 4.</p> <p><u>Probability:</u> Department of Environment has expressed their support for an independent managing agency, however opinions of other Departments and Ministries not yet known. Rated 3.</p> <p><u>Counter Measures:</u> The PA phase has undertaken a comparative analysis of different managing agency options, resulting in the proposed outcome. Other options can be explored further if Government desires; or do not proceed with project.</p>	Will be gauged at LPAC. Stakeholder participation in government run system likely to be very low and difficult. Strong perception of such a system being revenue raising. Ownership of unredeemed deposits creates perverse incentives in the system. Implementation will be difficult, considerable danger of systematic failure if payments from deposit fund are too slow to match return rates and cause cash-flow problems at recyclers.		UNDP/DoE

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Organisational	Project Document Stage: 23/02/09	Industry does not support implementation of CDL	<p><u>Impact:</u> Regulator will have problems with industry paying their deposits. Difficulty in creating sufficient cooperation between Industry participants to form Board of Managing Agency. Rated 2.</p> <p><u>Probability:</u> Industry will be vocal against implementation to start with, but it is of their benefit to be supportive once regulations are enforced. Rated 2.</p> <p><u>Counter Measures:</u> Industry has been involved in the development of the EA project document. Incentives such as reduced duty will be researched to use as 'carrots'. Project Manager to ensure ongoing regular consultation with key industry partners right from commencement of project. TA to assist DOE in aggressively implementing existing Part 7 of the Regulation requiring all PET manufactures to set up recycling systems.</p>	Recent roundtable discussions and subsequent one-on-one meetings have shown that industry is accepting that CDL implementation is imminent and they are currently asking for incentives to lessen their perceived burden.		UNDP / DoE

ID	Type	Date Identified; Author	Description	Comments (Impact, Probability, Frequency, Counter Measures)	Status	Status Change Date	Owner
	Regulatory	Project Document Stage: 23 / 02 / 09	Government does not proceed, or delays occur, with passage of regulation through required processes.	<p><u>Impact:</u> Delay in creating legal framework for CDL or project will not be able to be implemented. Rated 5.</p> <p><u>Probability:</u> Unknown due to political instability at present. The interim government is still passing regulations, including environmental regulations, indicating that they would be amenable to the new regulation. However, a six months delay is noted in passage of a simple amendment to existing waste disposal regulations. Rated 3.</p> <p><u>Counter Measures:</u> As part of the PA, a legislation review has been undertaken by the Environmental Law Association to identify the best option for implementation. A Cabinet Paper has been be drafted to brief Cabinet on the project. All possible legal drafting work should be outsourced. Create Go / No Go decision point in project planning. Proceed with creation of Managing Agency but slow staff hiring schedules.</p>	Unknown		DoE
	Regulatory	Project Document Stage: 23 / 02 / 09	Delays in forming Managing Agency and passage of legislation delay commencement of public awareness campaign.	<p><u>Impact:</u> Development of public campaign materials stalled. Rated 1.</p> <p><u>Probability:</u> As above. Rated 3.</p> <p><u>Counter Measures:</u> Continue with Public awareness materials development, but mindful that awareness campaign could be run as a standalone campaign if CDL is not implemented.</p>	Unknown. Need for wide environmental campaigning on several issues.		