INTERNATIONAL CLIMATE INITIATIVE

On behalf of
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
of the Federal Republic of Germany

Regional project
Climate Protection through Forest Conservation
in Pacific Island Countries

Development of technical parameters for the integration of SFM and REDD+

-

Concept and work plan for the demonstration activities in Nakavu (Fiji)

December 2011

SPC Secretariat of the Pacific Community

Growing the Pacific. Growing our future together. L'Océanie, le terreau de notre avenir.
SPC Land Resources Division

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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Content

Summary

REDD+ (Reducing Emissions from Deforestation and Forest Degradation) is an emerging mechanism, designed to offer incentives to conserve and enhance forest carbon stocks in developing countries. Sustainable management of forests is an eligible activity under a REDD+ scheme, which includes sustainable logging practices (sustainable forest management, SFM) as well as conservation efforts. Through the long-term cooperation with GIZ in the forest sector, Fiji has the longest experience in SFM in the South Pacific. In addition, Fiji has the only existing and, by numerous surveys, well-documented demonstration area for natural forest management. The area was already established in the 1990s under the former bilateral GTZ-project. The current SPC/GIZ-Project *Climate protection through forest conservation in the Pacific Island Countries* intends to carry out investigations in the demonstration area in order to elaborate technical planning parameters for the development of a REDD+ strategy.

During a planning workshop (November 2011), the prepared project concept was jointly discussed with the relevant stakeholders (GIZ, SPC, FD incl. Research and Management Division, Nakavu forest owners) and modified where necessary. In a scheduled two-year project (starting January 2012) all SFM-relevant measures will be implemented in the demonstration area but under the extended perspective of REDD+. In particular, the development of carbon stock in dependence of different logging intensities (including unlogged compartments) carried out in the 1990s will be elaborated. Calculations will be conducted based on the collected data model. The results will contribute to the REDD+ development in Fiji and in other comparable countries of the South Pacific.

Zusammenfassung

REDD+ (Verringerung von Emissionen aus Entwaldung und zerstörerischer Waldnutzung) ist ein in der Entwicklung befindlicher Mechanismus, durch den Anreize geschaffen werden sollen, die Kohlenstoffvorräte in Wäldern in Entwicklungsländern zu erhalten und anzureichern. Erhaltung und nachhaltige Bewirtschaftung von Wäldern ist eine von fünf förderfähigen Maßnahmen, die unter dem REDD+ Mechanismus anerkannt werden. Darunter fällt auch das Prinzip der nachhaltigen Forstwirtschaft (sustainable forest management – SFM), nach dem die Holzernte unter Minimierung der Schäden für das Ökosystem durchgeführt wird. Im südpazifischen Raum hat die Republik Fidschi u.a. durch die langjährige Zusammenarbeit mit der GIZ im Forstsektor die längsten SFM Erfahrungen. Dazu besitzt Fidschi das einzige erhaltene und durch eine Vielzahl von Erhebungen hervorragend dokumentierte Demonstrationsgebiet für Naturwaldbewirtschaftung, das noch während der bilateralen GTZ-Aktivitäten der 1990er Jahre eingerichtet wurde. Das aktuelle SPC/GIZ-Projekt *Climate protection through forest conservation in the Pacific Island Countries* beabsichtigt in dem Demonstrationsgebiet Erhebungen durchzuführen, die zur Entwicklung von technischen Planungsparameter in die Entwicklung einer REDD+ Strategie einfließen sollen.

In einem Planungsworkshop (November 2011) wurde ein vorbereitetes Projektkonzept mit den relevanten Interessengruppen (GIZ, SPC, Forstverwaltung - insb. Forschungs- und Managementabteilungen, kommunale Waldbesitzer aus Nakavu) abgestimmt. In einem auf zwei Jahre terminierten Projekt (Beginn Januar 2012) ist nun vorgesehen, im Demonstrationsgebiet alle SFM-relevanten Maßnahmen durchzuführen und diese unter dem Blickwinkel von REDD+ zu erweitern. Dabei sollen insbesondere Kohlenstoffvorräte und deren zeitliche Entwicklung nach verschiedenen, in den 1990er Jahren durchgeführten, Nutzungsintensitäten (einschl. ungenutzter Flächen) ermittelt und darauf aufbauende Modellkalkulationen durchgeführt werden. Die Ergebnisse sollen einen Beitrag zur REDD+ Entwicklung in Fidschi und in vergleichbaren Ländern des Südpazifik leisten.

I. Introduction

I.1 SPC/GIZ Regional REDD+ Project and Objectives

To develop regional and national policies as well as institutional capacities for the implementation of REDD+, the Land Resources Division (LRD) of the Secretariat of the Pacific Community (SPC) receives support from Germany's International Climate Initiative (ICI)[1] for the regional project 'Climate protection through forest conservation in the Pacific Island Countries' (PIC)[2]. On the German site, the project partner for the implementation of the project is the *Deutsche Gesellschaft für internationale Zusammenarbeit* (GIZ)[3].

The overarching goal of the project is defined as: 'The conservation of forest ecosystems in the Pacific Islands Countries is supported in order to mitigate climate change and preserve biodiversity'.

The three specific objectives of the project are:

1. Regional REDD+ policy: The PIC have a joint, coherent regional framework for the implementation of REDD+;
2. REDD+ information and support platform: The implementation of REDD+ activities in the PIC is strengthened through the use of a regional and supra-regional information and support platform;
3. REDD+ readiness: Substantial REDD+ components are implemented in three countries leading to a complete REDD+ readiness in one country.

I.2 REDD+ and SFM Demonstration Activities

One out of five eligible activities under the REDD+ scheme is the sustainable management of forests which includes the implementation of logging practises following the criteria of sustainable forest management (SFM) [4]. Due to the fact that the only forest that has been managed in compliance with these criteria in the region stems from the former Fiji-German Forestry Project, the activity shall be demonstrated in the former NFMPP[5] area at Nakavu village in Fiji.

Within the frame of the project it is intended (a.o.) to develop technical parameters for the integration of SFM and REDD+. Therefore, the following tasks will be conducted in three consecutive steps:

Step 1:

a) Development of a preliminary concept on activities to demonstrate in the Nakavu pilot area;

[1] ICI is financing climate protection projects of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) in developing countries

[2] www.spc.int/lrd/index.php?option=com_content&view=article&id=818&Itemid=527

[3] German Development Cooperation; c.f. www.giz.de

[4] The five eligible activities under the REDD+ mechanism are: stopping deforestation, stopping degradation, conservation of forest carbon stocks, sustainable management of forest, and enhancement of carbon stocks (Article 70, Draft Decision [-/COP16] of the Ad-hoc Working Group on Long-term Cooperative Action (AWG-LCA)).

[5] During 1989 and 1994 one major activity under the Fiji-German Forestry Project was the development of SFM in the Natural Forest Management Pilot Project (NFMPP) at Nakavu village.

Step 2:

b) Discussing the concept and the activities with the responsible stakeholders during an inception workshop;
c) If necessary, modification of the concept according to the results of the discussions;

Step 3:

d) Preparation of the necessary field activities in close cooperation with SPC, Forestry Department, and the landowners of Nakavu;
e) Development of analysing procedures for the collected data;
f) Elaborating recommendations on national and regional implementation.

I.3 Inception Workshop

In October 2011 a draft project proposal (Task a) was prepared[6]. During the inception workshop (Task b) the proposal was discussed with the relevant stakeholders.

The workshop started on Nov. 16, 2011, with a presentation of the former NFMPP-activities[7] and an introduction to REDD+ and the climate-related projects in the Pacific, supported by GIZ[8]. Afterwards, the project proposal on the foreseen SFM REDD+ activities was introduced[6]. In total, 18 participants from Forestry Department[9], SPC, and GIZ as well as six representatives from Nakavu village took part in the workshop[10].

On the second day (Nov. 17) a field trip to the pilot area was conducted. Different treatments under SFM carried out some 20 years ago as well as conventionally logged and undisturbed compartments were visited. The aim of the field trip was a better understanding of the participants previously not involved in the SFM activities in Nakavu, especially also for the final concept discussion on the following day.

During the third day of the workshop (Nov. 18) the project proposal was jointly discussed and modified in several points (Task c)[11]. Finally, a work plan for the foreseen activities was elaborated and, activity-specific, from each stakeholder group responsible persons are named[12].

The final project concept follows in the second chapter of this report.

[6] Mussong, M.: Project Proposal: Development of Planning Parameters for the Integration of SFM under REDD+.
[7] Mussong, M.: The Natural Forest Management Pilot Project – A Historical Review.
[8] Hecht, B.: SPC/GIZ Project "Climate Protection through Forest Conservation in Pacific Island Countries".
[9] Ministry, DFO North, DFO West, Research Division, Management Division, Forest Training School
[10] The list of participants is attached as Annex
[11] Also the project title was slightly modified after discussion: most of the participants had the opinion that SFM should not be "integrated under" REDD+ but REDD+ contributes to SFM
[12] c.f. Table 1

II. Final Concept of the Project

II.1 Project Title

Development of technical parameters for the integration of SFM and REDD+

II.2 Description

1. Introduction

REDD+ activities are not limited to forest conservation measures only, but include sustainable forest management (SFM) as well[13]. Especially under the "second D" (avoided forest degradation), SFM can play an important role for climate change mitigation, biodiversity preservation, and socio-economic development[14].

Regarding SFM development, Fiji is a leading country in the South Pacific. To develop a SFM-system for natural forest, the Natural Forest Management Pilot Project (NFMPP) was launched already in 1989[15].

One major aspect of the project was a strong involvement of the local forest owners in all development and application steps. After identifying a pilot area at Nakavu village a (pre-harvest) inventory was carried out and a species-specific tree selection system for different logging intensities was developed[16,17,18]. From 1992 to 1994, the NFMPP-area was harvested according to reduced impact logging (RIL) standards and the project developed diameter limit tables (DLT)[19]. Due to the fact that for all measures scientific data were collected and permanent sample plots (PSP) for long-term observations were established and periodically re-measured, the NFMPP-area has evolved over the years into a unique data source[20].

However, SFM implies a re-logging in adequate felling cycles. Almost 20 years after the harvesting at least some of the NFMPP compartments seem to be ready for the second

[13] FCCC/CP/2007/6/Add.1,14 March2008;Decision 1/CP.13[BAP]

[14] see also: Putz, F.E. and Zuidema, P.A. 2008: REDD and reduced impact logging. ETFRN News 49, Wageningen.

[15] De Vletter, J., 1995: Natural Forest Management Pilot Project – Final Report. PGRFP: TR 14 (TR 27)

[16] Mussong, M., 1992: Fijian Landowner Tree Selection System (FTS). PGRFP: TR 9 (FGFP: TR 15).

[17] the original DLT was slightly modified after analyzing the results from the PHI from Drawa Block (De Vletter, J. and Mussong, M. 2001: Evaluation of Forest Inventory Data Collected in the Drawa Block. PGRFP: PHI.02.01)

[18] The basic “philosophy” behind the DLT is “to take a little bit from everything” and “always from the big end”, only. In concrete, this means that almost all tree species are qualified for harvesting but only the biggest trees of each species shall be cut. Thus, it is expected that the biodiversity as well as the forest structure is maintained (all species as well as big trees (e.g. Dakua with 1 m dbh) and seed trees are still found after the logging) which are two major preconditions for SFM (Mussong, M., 2008: Proposal for Pre-harvest Inventory and Silvicultural Prescriptions as Part of the Fiji Forest Harvesting Code of Practice. SPC/GTZ Pacific-German Regional Forestry Project (GTZ/GOPA/DFS 2008)).

[19] Due to comparison reasons a “conventional” logging (not RIL conform) took place in 2 out of 12 compartments, while in another 3 compartments no logging activities were carried out

[20] additional investigations were carried out e.g. on hurricane damage, mortality, regeneration, biodiversity (birds)

harvest[21]. Already 6 to 9 years after the first logging, two orientating investigations showed that in some compartments already up to 16 m³/ha could be harvested[22,23]. Providing a linear trend, today a harvest of 20 to 30 m³/ha is conceivable. Taking into account that the basic infrastructure (access and main road, river crossing, skid tracks, landings) is still in place and (with some maintenance) functioning, an economically sound second harvest seems to be possible.

According to the recently amended forest harvesting code (FFHCoP), the use of DLT for tree selection is a required obligation[24]. In spite of this requirement and the existing DLT-proposal[25], there is still a controversial discussion amongst the involved stakeholders about the concrete DLT-limits. A successful re-logging using the developed DLT will be a strong argument in the discussions. In case that the DLT might be dropped to low limits[26] the risk of forest degradation will rise dramatically.

Also for the development of strategic sustainability goals such as establishing a SFM-relevant annual allowable cut (AAC) for natural forests a second harvest will come up with helpful data.

Forest degradation (or even deforestation) due to unsustainably low DLT will be avoided. Indirectly, REDD+ implementation and activities will profit from a scientifically attended second harvest due to expected concrete figures, a.o. on carbon sequestration and carbon stock, biodiversity, and socio-economic development.

2. Objectives

The proposed second harvest of the NFMPP-area aims at the further development of SFM and REDD+ management tools, awareness creation, and capacity building:

Tactical and strategic tools and measures for the implementation of SFM will be elaborated, such as indicators of structural changes (species composition, diameter distribution, log quality), volume increment/carbon sequestration, annual allowable cut, wood/carbon stock, DLT, cost figures (rehabilitation costs for infrastructure, operational costs), income figures from jobs, royalties) etc. Also the testing of the relevance of a pre-harvest inventory (PHI)[27] as part of the management system will be taken into consideration[28].

[21] During the development phase the rotation period for the next harvesting was estimated to approx. 15 to 20 years for the preferred “medium logging” (ML: removal of approx. 30 % of the standing volume of trees 35 cm dbh and above)

[22] Elsner, K., 2001: Results of the 2nd tree selection in 4 compartments in the Natural Forest Management Pilot Project. PGRFP: TR 20 (TR 35).

[23] Hüttner, M., 2003: Results of the 2nd tree selection in 7 compartments in the Natural Forest Management Pilot Project. PGRFP: TS.0103).

[24] Government of Fiji, MoFF, 2010: Fiji Forest Harvesting Code of Practice. Suva, Fiji.

[25] which is not part of the FFHCoP

[26] As the trials in NFMPP (comp 3, 12) showed “conventional” logging with a uniform cutting limit of 35 cm dbh for all species leads to removals of up to 80% of the standing volume

[27] which is still controversial due to the relatively high costs

[28] Mussong, M., 2008: *Proposal for Pre-harvest Inventory and Silvicultural Prescriptions as Part of the Fiji Forest Harvesting Code of Practice*. SPC/GTZ Pacific-German Regional Forestry Project (GTZ/GOPA/DFS).

Parallel to the management aspects, an understanding of sustainability for all involved stakeholders will be promoted in a concrete case: only 18-20 years after the first harvesting a second harvesting operation will be carried out in the same area with the involvement of the same village (partly the same people), probably the same logging company, creating again jobs and income from the same forest resource, and maintaining again biodiversity and forest structure for further and sustainable harvests.

Due to the scientific attendance capacity building measures in all aspects of SFM and SFM-related activities for REDD+ will take place, especially for the Research and Management Divisions of the Forestry Department.

Taking into consideration that an economically sound SFM will avoid a change from forest to other (less sustainable) land uses, the improvement of each SFM element will support the development of the national REDD+ mechanism in Fiji (and as a model probably also in other Pacific countries). In addition, the involvement of landowning communities in carbon measuring/accounting will develop valuable experiences for the implementation of the national REDD+ strategy. Therefore, the outcome of the project will contribute to all three objectives of the regional climate protection project[29]: 1: Regional Pacific REDD+ policy; 2: REDD+ information and support platform; 3: REDD+ readiness.

3. Activities

The following list of activities is proposed for a comprehensive elaboration of the project goals. For all activities, scientific data collection, storage and analysis is required, which besides the forest stand related figures includes also time studies on work performance and costs calculations on all field activities. Under scientific supervision[30] a PhD-student will provide permanent support to the Forestry Department/Research Division in coordination of all relevant activities including field instructions, data analyses, and monthly and final reporting. The development of a carbon financing model (activity 17) will be kept as an option and will depend on the further REDD+ process during project period.

0. Preparatory work (literature review, interviews, work plan etc.)

1. Site inspection and mapping Nakavu, using GPS/GIS technology
   - clearing compartment boundaries
   - identifying unlogged areas and buffer strips within the logged compartments (comp. 8, 11, others?)
   - completing skid track mapping
   - preparing compartment maps

2. Socio-economic baseline study at Nakavu village

[29] A detailed description of the envisaged project results is given under: www.spc.int/lrd/index.php?option=com_content&view=article&id=818&Itemid=527

[30] Scientific supervision will be provided by Prof. Mussong, University for Sustainable Development, Eberswalde/Germany: www.hnee.de/Wald-und- Umwelt/Mitarbeiter/Professoren/-innen/Michael-Mussong/Prof.-Dr.-Dr.-h.c.-Michael-Mussong-E5278.htm

3. Maintenance of infrastructure (to be carried out in 2 phases)
   - phase 1: maintenance access and main road for off-road car accessibility
   - phase 2: maintenance road, main skid tracks, bridge, culverts, landing for truck accessibility

4. Pre-harvest inventory (for comparison purposes (1991-2012) and to investigate if PHI is necessary when using DLT). Will be carried out simultaneously with tree selection (c.f. 5)
   - opening base line and inventory lines (e.g. every 100 m)
   - establishing continuous inventory plots (10x20 m) along the line (conventional design) and adding carbon plots in the regeneration subplots (every fifth plot)
   - simulation of different PHI designs/intensities using prepared stock maps (see activity 5.)

5. Tree selection ("double" selection according to "old" (Nakavu 1992) and "new" (Fiji 2001) selection table). Will be carried out simultaneously with PHI (c.f. 4)
   - adaptation field forms and work procedure
   - full enumeration (>=30 cm dbh) in all compartments (stock maps) and tree selection (marking) in comp. 2, 4, 5, 7, 8, 10, 11
   - analyses: spec. composition (biodiversity), diameter frequencies, basal area, standing volume, volume increment, carbon storage, carbon sequestration, quality, removals etc.

6. Identifying logging company (due to awareness aspect if possible company from first logging)

7. Tactical planning (setting up logging plans)
   - separate for each compartment
   - jointly with landowner, logger, FD

8. Re-measurement of PSP with integration of carbon and (young) regeneration plots
   - in each compartment immediately before logging
   - adaptation of plot design
   - carrying out measurements
   - analysing increment and carbon stock

9. Logging operation (felling - scaling after felling – skidding - scaling at landing - cross-cutting)

10. Transport (scaling TPO - loading – transport to mill)

11. Post harvest assessment
   - according to official regulations (FFHCOP)
   - separate for each compartment

12. Preparing a long-term management plan for NFMPP-area

13. Model calculations (opportunity cots) for different management options (carbon, timber, environmental services – other land uses)

14. Scientific attendance

15. Monthly reports

16. Final analysis + report writing

Optional : 17. Developing a proposal for a carbon financing model

II.3 Responsibilities and Expected Outputs

Wherever possible and required all stakeholders shall be represented in the different project activities. The following Table 2 shows the responsible persons for each foreseen activity. Also the key outputs are summarized in the table.

No.	Activity	Key Outputs	Responsible
1	site inspection, boundary opening, mapping	boundaries opened, maps (compartment, whole area)	SRD (Rafael), MSD (Jo Wakolo), Mosese, Stephan
2	socio-economic base line study	information on change of socio-economic situation in Nakavu village	Christine, FD, Rafael , Stephan
3	maintenance of infrastructure	accessibility for off-road vehicles (phase1) full accessibility (phase 2)	Tevita, Mosese, Stephan (phase 2: logger)
4 + 5	PHI + tree selection	stock map for simulation, PHI-design (incl. regeneration, carbon), expected volume, carbon	SRD, MSD, DFO, Abe, Ameo, Stephan
6	identification of logger	logging agreement	DFO, Mosese, Stephan
7	tactical planning	harvesting plan	DFO, FTS, Ameo, SRD, logger, Stephan
8	re-measurement of PSP incl. new established + carbon plots	PSP data prior to logging	SRD, MSD (psp-team), Ameo, Stephan
9 + 10	logging + transport	selected compartments logged	DFO, (SRD), Ameo, logger, Stephan
11	post-harvest assessment	assessment done according to the Harvesting Code	DFO, SRD, Ameo, Stephan
12	NFMPP management planning	Strategic plan for further activities	FD, SRD, Mosese, Stephan,
13	model calculations	figures on volume, carbon, costs, etc.	SRD, Abe, landowner, Stephan (others)
14	scientific attendance	continuous scientific support	Michael
15	monthly reports	reports on project progress	Stephan, SRD
16	final analyses + report	final report	Stephan, Michael
Others	- if required: biodiversity assessment - carbon financing model development	Information on change of biodiversity under different treatments carbon financing proposal	Director Environment, National REDD Committee, USP (?), (?)

Tab. 1: Responsibilities and expected outputs of the project (abbreviations: DFO Divisional Forest Office, FTS Forestry Training School, MSD Management Division, SRD Silviculture Research Division)

II.4 Schedule

The duration of the project is estimated to approximately 2 years (Table 2). However, the weather conditions, especially during the logging will effect the required time. It is suggested to start in January 2012. Especially the required time for logging will depend on the number of compartments to log and the weather conditions. Therefore, the schedule of the second year is rather to understand as a rough estimate.

No.	ACTIVITY	MONTH												13-18	19-24
		1	2	3	4	5	6	7	8	9	10	11	12		
1	Site inspection and mapping														
2	Socio-economic baseline study														
3	Maintenance infrastructure														
4	PHI														
5	Tree selection														
6	Logger identification														
7	Tactical planning														
8	PSP re-measurement														
9	Logging														
10	Transport														
11	Post harvest assessment														
12	NFMPP management plan														
13	Model calculations														
14	Scientific attendance														
15	Monthly reports														
16	Final analysis + report writing														
17	optional: Carbon financing model														

Tab. 2: Project schedule

III. Literature

De Vletter, J., 1995: Natural Forest Management Pilot Project – Final Report. PGRFP: TR 14 (TR 27)

De Vletter, J. and Mussong, M. 2001: Evaluation of Forest Inventory Data Collected in the Drawa Block. PGRFP: PHI.02.01

Elsner, K., 2001: Results of the 2nd tree selection in 4 compartments in the Natural Forest Management Pilot Project. PGRFP: TR 20 (TR 35).

Government of Fiji, MoFF, 2010: Fiji Forest Harvesting Code of Practice. Suva, Fiji.

Hecht, B., 2011: SPC/GIZ Project "Climate Protection through Forest Conservation in Pacific Island Countries". Presentation at SFM REDD+ workshop in Suva, 16.11.2011.

Hüttner, M., 2003: Results of the 2nd tree selection in 7 compartments in the Natural Forest Management Pilot Project. PGRFP: TS.0103).

Mussong, M., 1992: Fijian Landowner Tree Selection System (FTS). PGRFP: TR 9 (FGFP: TR 15).

Mussong, M., 2008: *Proposal for Pre-harvest Inventory and Silvicultural Prescriptions as Part of the Fiji Forest Harvesting Code of Practice*. SPC/GTZ Pacific-German Regional Forestry Project (GTZ/GOPA/DFS).

Mussong, M., 2011: The Natural Forest Management Pilot Project – A Historical Review. Presentation at SFM REDD+ workshop in Suva, 16.11.2011.

Mussong, M., 2011: Project Proposal: Development of Planning Parameters for the Integration of SFM under REDD+. Presentation at SFM REDD+ workshop in Suva, 16.11.2011.

Putz, F.E. and Zuidema, P.A. 2008: REDD and reduced impact logging. ETFRN News 49, Wageningen.

SPC, 2011: www.spc.int/lrd/index.php?option=com_content&view=article&id=818&Itemid=527

UNFCCC, 2007: FCCC/CP/2007/6/Add.1,14 March2008;Decision 1/CP.13[BAP]: http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf

UNFCCC, 2010: Draft Decision [-/COP16] of the Ad-hoc Working Group on Long-term Cooperative Action (AWG-LCA)); Paragraph 70; .http://unfccc.int/resource/docs/2010/awglca13/eng/l07.pdf

IV. Annex

Workshop participants

giz SPC/GIZ REGIONAL PROGRAMME ON CLIMATE PROTECTION THROUGH FOREST CONSERVATION IN THE PACIFIC ISLANDS
Received on 16/11 Factually Correct
Account code 608910 Paid on 16/11
Arithmetically correct RR Debit/Credit DR
Entered Accounting 22/11/11 P

NAKAVU SFM REDD+ PROJECT PLANNING WORKSHOP

PARTICIPANTS LIST WED 16/11/11

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13. Manasa Luvunakoro	Forestry Training Centre	
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15. Ameo Matavutuka	Nakavu Landowners rep	AMEO. M.

16. Kasiyano Duaikoro 17.	Nakavu Landowners rep	
18. Sikeli Ralave 19.	Nakavu Landowners rep	
20. Mitieli Ninita 21.	Nakavu Landowners rep	
22. Esava Duasuva	Nakavu Landowners rep	
23. Karl-Peter Kirsch-Jung	Team Leader/Chief Advisor SPC/GIZ Climate Protection through Forest Conservation Project	
24. Bjoern Hecht	Advisor SPC/GIZ Climate Protection through Forest Conservation Project	
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26. Jalesi Mateboto	SPC	
27. Abe Hitofumi	SPC/JICA	
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