



The Tutu Rural Training Centre

LESSONS IN NON-FORMAL ADULT EDUCATION FOR SELF EMPLOYED IN AGRICULTURE



Prepared by: Andrew McGregor, Livai Tora with Geoff Bamford and Kalara McGregor

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Contents

Acknowledgements.....	viii
Acronyms.....	ix
Executive Summary.....	x
Reasons for the study	x
Why the Tutu experience is important	x
Approaches to training youth for farming in the Pacific islands	xi
The Tutu Rural Training Centre	xi
The impact of the TRTC.....	xii
Key principles and lessons learnt.....	xiii
Purpose and focus of training.....	xiii
Trainee selection	xiii
Approach to training and course content	xiii
Management and staffing.....	xiii
Growth, sustainability and accountability.....	xiv
Recommendations for future sustainability	xiv
Replicating the TRTC model in Fiji and elsewhere.....	xv
Establishing a pilot ‘Tutu type’ agricultural training scheme at Navuso.....	xv
Chapter 1: Socio economic context: why rural training is Important	1
The growth and formal employment opportunities in the Pacific island countries	1
Recent growth performance for the region	1
Recent growth performance of Fiji	1
School leavers and employment creation	2
An overview of Fiji’s agriculture sector	2
Subsistence	2
Sugar - hitherto the mainstay of the economy	3
Copra – the traditional crop of the other islands	3
Livelihood opportunities in the agricultural sector	5
Commercial agriculture opportunities for Pacific island small holders	6
Performance to date in the commercialization of agriculture on village land.....	7
An analysis of the barriers and obstacles that youth face in this field of agricultural and rural livelihoods: the case of Fiji.....	8
The social structure of the Fijian village and access to land.....	8
The disincentive of the dependency syndrome.....	9
Pacific Youth in Agriculture Strategy 2011 to 2015	10
Chapter 2: Rural training in the Pacific	12
The traditional approach to training for farming	12
Rural training/vocational centres in Melanesia: A summary of the current situation	14
PNG	14
Solomon Islands	14

Vanuatu.....	15
Chapter 3: The Tutu Rural Training Centre: An “experiment” in non-formal rural education.....	16
The origins of the TRTC.....	16
The mission statement of the TRTC	16
An evaluation of the current TRTC courses.....	16
The early TRTC courses.....	18
The current set of TRTC courses	19
The evolutionary process	19
The Young Farmers Course (YFC).....	20
The current YFC case studies: what the field interviews reveal on success factors.....	30
The Young Farmers Course 2 (YFC)	32
The Farming Couples Course	33
Young Single Women’s Course (YSWC).....	36
Parents Course	38
Village courses.....	38
A consolidation of the TRTC programmes.....	39
Organisation structure and staffing	40
How the TRTC is financed.....	42
Income and expenditure	42
The role of the Fiji Government in financing Tutu.....	43
Aid donors.....	44
Self-funding: a small part of Tutu’s revenue	45
An absence of fees.....	46
Costs contained through volunteers and dedicated staff	46
Financial management	46
The role of the partners.....	47
The church.....	47
The community and province.....	47
The government.....	47
Aid donors.....	48
A summary of the overall impact of the TRTC	48
Impact on agricultural and rural development.....	48
The return on government and donor investment	49
The key principles of the Tutu model and lessons learnt from four decades of experience.....	50
The training is for self-employment using the participants own resources - it is not training for wage employment	51
This is not a programme for “dropouts” from formal education	51
The focus audience is 19 to 23 year olds who live in their own village	51
The course entry requirements must be specific, quantifiable and demanding	52
The programme is not a substitute for formal agricultural training.....	52
The training centre serves a specific geographic region	52
Training must be in the local vernacular	52
The course requires regular oscillation between the trainee’s home farm and the training centre.....	52

Management is at the core of Tutu courses	53
An intensive and prolonged extension effort required from staff	53
The successful management of a rural training centre requires a high level of expertise.	54
Staff should be selected on the basis of a proven track record in using their own resources	57
Management needs to be participatory in nature	58
Farming enterprises for the trainees need to be based on crops that have well-established marketing systems	58
The courses need to provides the mechanism to accumulate investment capital.....	58
The rural training centre needs to be a partnership between the sponsor, community and government	58
Fees should not be charged	59
Parental involvement	59
Start small and evolve	59
There should be sufficient flexibility to respond to needs of constituents	59
The demand for courses is a source of inbuilt accountability	59
The Centre needs have a local focus but with an international character	59
Identified weaknesses of the TRTC	60
A high degree of key person dependency	60
Insecurity of tenure.....	60
Insecurity of funding	60
High dependency on two crops – <i>yaqona</i> and <i>dalo</i>	61
Chapter 4: Recommendations for the future sustainability of the TRTC	62
Course content	62
Promoting more sustainable agricultural practices and appropriate diversification.....	62
The promotion of handicraft raw materials as a cropping enterprise, particularly for women	64
Teaching a wider range of skills for the enhancement of village life	64
Governance and organization	64
Tenancy arrangements	65
Funding.....	66
Tutu income generation enterprises	66
Taking full advantage of Tutu's drying facilities	66
Selling electricity to a future Taveuni grid	68
Certification of training.....	70
Chapter 5: Applying the principles of Tutu in Fiji and elsewhere in Pacific islands.....	72
What the TRTC is and what it is not	72
Applying the lessons and underlying principles of the TRTC.....	72
Expanding and replicating the Tutu model in Fiji	73
Expanding the TRTC	73
Replicating the TRTC in Fiji	73
Replicating the TRTC outside Fiji.....	78
St Martin's in the Solomon Islands: Lessons Learnt in Trying to Replicate the Tutu Model in Melanesia	78
Bibliography	80
Annex 1: TRTC Trainee Data Base (1973-2011)	82
Table 1: Volunteer and Comprehensive Courses (1973-1982) Database	82

Table 2: Young Farmers Courses (1983-2011) Database	93
Table 3: 1985 Young Farmers Course (Graduating 1988)	94
Table 4: 1987 Young Farmers Course (Graduating 1991)	95
Table 5: 1991 Young Farmers Course (Graduating 1995)	96
Table 6: Young Farmers Course 1995 (Graduating 1999)	97
Table 7: Young Farmers Course 1999 (Graduating 2003)	98
Table 8: Young Farmers Course 2003 (graduating 2007)	100
Table 9: Young Farmers Course 2007 (graduating 2011)	102
Table 10: Young Farmers Course 2007 (graduating 2011)	104
Table 11: Married Farming Couples Course	105
Table 12: Young Single Women's Course	119
Annex 2: Detailed case studies of TRTC Course participants	124
Table 1: Current Young Farmers Course	124
Table 2: Former Young Farmers Course participants	131
Table 3: Former Married Farming Course Participants	141
Table 4: Former Single women's Course Participants	151
Annex 3: A sample extract of the data base on YFC applicants	155
Annex 4: A recommended package of practices for growing solo sunrise papaya at Tutu Taveuni	156
Annex 5: Small scale hydroelectric power at the Tutu Rural Training Centre - an instrument for revenue generation and rural development	160
Introduction	160
TRTC's potential for revenue generation	160
TRTC Micro hydro scheme - surplus power and options for utilisation	160
Promoting electrification for rural development: a case study of Taveuni	168
Electricity supply in Fiji	168
Modern energy services: a key input into the development of rural livelihoods	169
Why small-scale hydropower for Taveuni?	171
Approaches to facilitate electrification for rural enterprise development	175
Initial identification of a potential project for donor funding: applying a systematic approach	175
Carbon markets	178
References	183

Tables

Table 1: Growth rates (%) in real GDP for selected Pacific island countries	1
Table 2: Fiji macroeconomic indicators	1
Table 3: Fiji School Leavers, 2004 to 2009*	2
Table 4: Fiji taro exports 2005 to 2009 (tonnes)*	5
Table 5: Application and acceptance rates the Tutu Young Farmers Course	24
Table 6: The involvement of Tutu Young Farmers Course in farming	25
Table 7: Fiji Wages Council prescribed minimum wage rates for various industry sectors	27
Table 8: A profile of the participants of the first Young Farmers Course	28
Table 9: The TRTC income and expenditure for the years ending 31 st December 2008 to 2009*	42

Table 10: Course expenses for the years ending 31 st December 2008 to 2009*	43
Table 11: TRTC operating grants received from the Fiji Gov: 1972 to 2010.....	44
Table 12 TRTC summary income sources for 2008-09*	46
Table 13: A breakdown of the numbers completing TRTC courses (1969 to 2011)	48
Table 14: Benefits compare with cost of AusAID's infrastructure Investment TRTC.....	50
Table 15: Tutu staff and their background.....	55

Figures

Figure 1: Fiji sugar exports, 1993 to 2008*	3
Figure 2: Fiji coconut oil exports, 1993 to 2008*	4
Figure 3: The value of Fiji horticultural exports, 1997 to 2008 (FJD)*	5
Figure 4: The typical “invisible cycle” of life of Fiji village youth	9
Figure 5: The sites of TRTC Study interviews	17
Figure 6: The overview organisational structure of the Tutu Training Centre Taveuni.....	41
Figure 7: The organisation structure for the TRTC Courses	42

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Acronyms

ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
ALP	Alternative Livelihoods Project (ADB)
CTA	Certificate of Tropical Agriculture
DoE	Fiji Department of Energy
FAO	Food and Agriculture Organisation of the United Nations
FCA	Fiji College of Agriculture
FEA	Fiji Electricity Authority
FIT	Fiji Institute of Technology
FPP	Fiji Papaya Project
FNTC	Fiji National Training Council
FTIB	Fiji Trade and Investment Board
IRR	internal rate of return
FCC	Married Couples Course
FNU	Fiji National University
MNP	Fiji Ministry of National Planning
NMA	National Marketing Authority
NSFS	Navuso Student Farmer Scheme
PPA	Power Purchasing Agreement
PSC	Fiji Public Service Commission
PICs	Pacific Island Countries
ROI	Rural and Outer Islands Project (ADB)
SMRT	St. Martin's Rural Training Centre
SIARTC	Solomon Islands Association of Rural Training Centres
SPC	Secretariat of the Pacific Community
TC	Tropical Cyclone
TOM	Tutu Oscillation Model
TRTC	Tutu Rural Training Centre
USP	University of the South Pacific
VDRTCA	Vanuatu Development and Rural Training Centre Association
VNTC	Vanuatu National Training Council
VRTCs	Vocational Rural Training Centres (Solomon Islands)
VTC	Vocational Training Centres
YFC	Young Farmers Course
YSWC	Young Single Women's Course

All currencies are in Fijian dollars unless otherwise specified.

Exchange rates per unit of foreign currency (mid-market rate Oct 25th, 2010)

	USD	AUD	NZD
FJD	0.537	0.550	0.717

Source: Universal Currency Converter

Executive Summary

Reasons for the study

The study is the result of request from the Fiji Ministry of Primary Industries (MPI) to the Food and Agricultural Organisation of the United Nations (FAO). There were a number of reasons behind this request:

- The Tutu Rural Training Centre (TRTC) on Taveuni has been in operation for over 40 years. Thus, the Centre was keen to have a comprehensive document produced that described the achievements over that period and what the lessons learnt were with respect to non-formal adult education for self-employment in agriculture;
- The Fiji Ministry of Primary Industries (MPI) was anxious to have a detailed analysis of the lessons learnt from the TRTC to determine the opportunities and requirements to extend the “Tutu model” elsewhere in Fiji; and
- The long experience of the TRTC in training for self-employment in agriculture has attracted considerable attention in other Pacific Island Countries (PICs), particularly in Melanesia. Thus, there was a broader regional interest in relevance and applicability of the “Tutu model” to other countries.

Why the Tutu experience is important

Youth unemployment together with the creation of worthwhile rural livelihoods has emerged for decades as major intractable problems Fiji and the Pacific islands countries. For Fiji, more than 10,000 new jobs annually need to be created in the private sector if all new job seekers are to find employment. Only about half that number is being absorbed by the private sector.

Rural areas, despite outmigration, continue to be home for about half of Fiji’s population though, this is declining. Fiji’s key exports are rural based, providing the greatest potential for future development and prosperity, particularly in the agriculture, forestry, fisheries and tourism sectors.

To-date, Pacific island small holders have not been particularly successful in their efforts to commercialise agriculture on traditional land. This is reflected in the fact that despite identified market opportunities, PICs have not been a part of the global horticulture revolution.

Some of the factors contributing to the relatively poor overall performance of Pacific island smallholders have been related to marketing. Factors include:

- an absence of infrastructure that provides economic access to markets;
- the lack of air and sea freight capacity to target markets at reasonably competitive freight rates;
- inadequate private sector marketing capability; and
- the inability to resolve phytosanitary and other market-access issues.

Beyond marketing, there are also factors that impair the willingness and ability of village-based farmers to invest the effort and financial resources required for the production of commercial agricultural products. Youth, the target of rural training programmes, face particular problems in establishing and sustaining a farming business on their own village land. The focus of the Tutu Rural Training Centre (TRTC) is on addressing these problems.

Effective training in agriculture is perhaps the most difficult training task. It has been taught at varying scales in schools and other institutions by churches and government throughout the Pacific for more than a century. Success has been limited and the reasons many, such as the most innovative and intelligent youth tend to leave rural areas; the returns from agriculture have been low; isolation can be boring; land tenure and certain social practices greatly constrain action and innovation. Moreover, the western-derived education system instils in young people certain aspirations that can only be realised in urban areas. There is need for rural youth, to have the skills, motivation and

access to their own resources to be able to generate worthwhile livelihoods. It is in this context that TRTC experience is so relevant.

Approaches to training youth for farming in the Pacific islands

The approach for training youth for farming usually falls into one of three broad categories:

- institutional training approach(away from a typical farm situation);
- ‘on-farm’ approach (farming carried out at the trainee’s own home or work place); and
- comprehensive schemes (training involving both institutional and ‘on-farm’ elements).

The TRTC falls into the third category.

In the PICs, the institutional approach has traditionally been adopted. This approach has been found to be seriously wanting, primarily because it does not meet the needs and aspiration of young people wishing to become farmers. Specifically, these needs are:

- an appropriate set of skills;
- the right attitude to develop farming as a business;
- unconstrained access to land for farming;
- capital to develop a farm and to provide independent housing for a young family; and
- follow-up assistance and advice after the completion of the course.

Because the institutional approach generally does not meet these needs, very few of the graduates go on to become successful farmers.

The Tutu Rural Training Centre

The TRTC was established by the Society of Mary on Taveuni in 1969. The mission statement of Centre is ‘to provide a place/presence in which the people of Cakaudrove are empowered to become more autonomous and take charge of their lives in a rapidly changing world’. Over the years, the TRTC has been flexible and, to some degree, experimental in its approach to rural training. This has enabled the Centre to make changes in its efforts to develop more effective programmes to prepare for rural self-employment. The courses on offer today at the TRTC have evolved significantly from the original courses. The five courses now offered are the Young Farmers; Married Couples; Young Single Women; Parents and Village Courses.

The aim of the Young Farmers Course (YFC) that was first introduced in 1983 is “to help form and train young single men from the province of Cakaudrove to be autonomous, responsible and mature young adults who are principled decision-makers, able to take control of their own lives and choose freely to live as farmers on their own land, accept their call to be of the village and be able to live in the service of others in their society”.

The main features of the four-year course are:

- entry selection criteria that provide proof of aptitude for farming and access to their own land;
- trainees are allocated two acres at Tutu for their exclusive use during the duration of the course;
- a supervised work plan and programme in the trainees home village;
- a focus on each trainee, developing a five-year plan to be implemented at the completion of the TRTC course;
- an emphasis on crops that are already part of village agriculture;
- a compulsory saving system to raise capital for reinvestment in the home, farm and house;
- intensive follow-up of the trainees; and

- encouragement of parents/community support.

A total of 27 years of data was collected for the Tutu Young Farmers Course. The following conclusions can be drawn on the impact of the course:

- an exceptional high demand for the course and a low participant dropout rate;
- virtually all participants return to farm their own land;
- the relatively high income earned from farming by ex-YFC participants;
- the sustainability of the benefits accruing to ex-YFC participants;
- considerable investment in housing and farm development from Tutu savings; and
- the absence of the need for credit for farm development and housing.

The case study interviews with ex-Young Farmers identified the key elements that made the Tutu approach work. These were: access to land, family support, human development, time management, staff visitations and spiritual guidance.

The first Married Couples Course (FCC) was offered in 1972. The aim of FCC is to assist and train farming couples to joyfully accept their call as rural farming families in their village situation.

The key themes of the six-month FCC are:

- farming as an enterprise;
- other practical skills for modern village living;
- modern village community living; and
- the human person and human relationships.

By concentrating on the farm household unit, the FCC has perhaps been the most successful of the TRTC courses.

The case study interviews with ex-FCC participants identified the key elements that made the Tutu approach work for them. These were: Human development; spousal relationship; time management; developing parenting skills; and assistance with micro enterprises to supplement family income.

In 1995, a six-month course, specific to the needs of young single women was introduced. The Young Single Women's Course (YSWC) was mainly in response to requests from parents who had particular concerns about the welfare of single women living in the village. The YSWC has probably been the least successful of the Tutu courses in terms of overall impact. This is reflected in the relatively low level of demand for this course, relative to the Young Farmer and Married Couples Courses. This is most likely a measure of the dearth of opportunities available for young single women in a village situation. In keeping with all Tutu courses, the YSWC needs to adjust to changing circumstances of the time and the demand and needs of the Tutu constituents.

In 1985, the TRTC established a parent's course, to support the YFC and YSWC. The parents come to Tutu for one week. The Parents Course is part of an ongoing programme to link the trainees and their training to their home village. The Parents course has been an important part of reconnecting the foundation between the parents and their children.

From the outset, the TRTC has been a partnership between the church (The Catholic Church - Society of Mary), the community and province of Cakaudrove, the Fiji Government and aid donors. Without the active participation of all these partners, it is unlikely that the TRTC could have survived, let alone prospered.

The impact of the TRTC

The TRTC has had a major impact on the people of the province of Cakaudrove. Nearly 2,000 young people have completed the various courses on offer over the last 42 years. Most of the graduates from courses returned to productive lives, earning a livelihood from the farming of their own land.

The economic impact is most readily quantifiable with respect to the Young Farmers course. Estimated total annual income earned by the Young Farmers who graduated in 2007 and 2011 is \$1.27 million. Had it not been for Tutu, these young people would have largely been underemployed in the village or would have migrated to the urban areas with limited employment prospects. To annual income earned by the latest sets of Young Farmers has to be added the income earned by previous groups of Young Farmers and the income earned by the over 500 Married Farming Couples and 300 Young Single Women. Thus, a government investment of a little more than \$4 million over 35 years is now generating additional rural income in excess of this amount annually. It would be difficult to identify investments in rural development that would provide such a high rate of return on public funds.

Key principles and lessons learnt

The Tutu 'experiment' has been highly successful in equipping young people to be successful farmers on their own land. The experience of Tutu has shown that that rural youth can earn good livelihoods from the farming of their own land. The key principles and lessons learnt from this study in the achievement of this outcome are listed below. They are grouped under a number of broad categories: the purpose and focus of training; trainee selection; approach to training and course content; management and staffing; growth, sustainability and accountability.

Purpose and focus of training

- The training is for self employment, using the participants own resources - it is not training for wage employment
- This is not a programme for "dropouts" from formal education
- The programme is not a substitute for formal agricultural training – which also needs to be substantially improved
- The focus audience is 19 to 23 year olds who live in their own village

Trainee selection

- The training centre must have specific and demanding course entry requirements that demonstrate the participant's access to land and commitment to being a farmer
- Admission fees should not be charged – there needs to be a significant contribution in kind/voluntary work

Approach to training and course content

- Management is at the core of Tutu courses
- The training centre needs to serve a specific geographic region
- Farming enterprises for the trainees need to be based on crops that have well established marketing systems in place
- The courses need to provide the mechanism to accumulate investment capital
- The training requires regular oscillation between the trainees home farm and the training centre
- Training must be in the local vernacular
- An intensive and prolonged extension effort required from staff to support the training
- Parental involvement in the training is essential
- The Centre has an important role to play in facilitating the trainees' access to their own land

Management and staffing

- The successful management of a rural training centre requires a high level of expertise. Such expertise is not readily available and would likely need to be acquired on the job
- Staff should be selected on the basis of a proven track record in using their own resources

- Management needs to be highly participatory and responsive to needs of the constituents

Growth, sustainability and accountability

- The training programme needs to start small and evolve in response to needs of the rural community
- The rural training centre needs to be a partnership between the sponsor, community and government
- There should be sufficient flexibility to respond to needs of constituents – there needs to be a freedom to innovate
- The demand for courses is the main source of inbuilt accountability
- The Centre must have a local focus but with an international character

Recommendations for future sustainability

Despite the remarkable success of the TRTC over more than 30 years, there are inherent weaknesses and fragilities that need now to be resolved if this success is to be maintained into the future. These weaknesses revolve around a high degree of key person dependency and insecurity of tenure and funding.

The discussion and recommendations on future sustainability cover the areas of: course content; governance and organization; tenancy arrangements; funding and income earning opportunities.

The courses at the TRTC have evolved over time in response to changing needs of Tutu constituents. Tutu management needs to ensure that this continues to be the case into the future. Adjustments to the Young Single Women's Course are seen as a priority. There is a need to introduce more income-generating activities for women.

TRTC risks could be reduced through promoting more sustainable agriculture practices and appropriate diversification. Three examples discussed in this report are: improving soil fertility, introducing agro-forestry into the cropping systems and promoting handicraft raw material production as an enterprise.

The non-formal nature of the management structure and style has served Tutu well. However, it is now necessary to introduce a greater degree of formality into Tutu's management structure and governance arrangements. It would be desirable to establish a Trust Board to provide ongoing oversight of the management of the TRTC. The proposed Trust Board would be charged with:

- the retention and development of the special Marist character of the Centre;
- strategic planning for the future direction of the Centre;
- the appointment of the Director/Principal;
- the financial viability of the operation through grants, profits and fund raising; and
- the careful management of assets.

The TRTC currently has insecurity of land tenure. It is recommended that the use of the land at Tutu by the TRTC be protected through a 10-year rolling lease. The concept is that a 10-year lease would initially be issued by the Society of Mary to the TRTC, after which 10-years notice would have to be given if the land is required by the land owner. At the end of each year, if no notice is given, the TRTC have 10 years remaining on the lease.

Ongoing financial support from government is necessary and inevitable. However, risks have been identified with a dependency on a high level of government funding. In recent years, various donors have also made an important contribution to Tutu funding – often making up for shortfalls in the government's contribution. However, donor funding is generally even less reliable than that of government.

There is a need to increase Tutu's level of financial self sufficiency to the extent of feasible and without distracting from Tutu's core training function. It is suggested that an increased level of financial self-sufficiency for Tutu could be achieved in two broad areas: the establishment of a trust fund to help fund Tutu's operations; and Tutu income generation.

TRTC has access to a substantial area of high quality land. This offers income earning opportunities that do not distract from Tutu's core training function. Examples of such income earning enterprises are: increased value-added from *yaqona* sales; fruit drying; and producing quality papaya for the Taveuni tourist market. Selling Tutu's surplus power to a future Taveuni grid is identified and discussed as another worthwhile income generating activity. The opportunities for Tutu to play a role in facilitating rural electrification are also discussed.

Replicating the TRTC model in Fiji and elsewhere

There is considerable interest in replicating the TRTC model in Fiji and elsewhere in the Pacific islands. This interest is driven by two factors:

- The strong felt need for rural youth to become involved in agriculture
- The perception that Tutu has been successful, where most rural training institutions have failed.

These lessons and principles gleaned from the Tutu experience should be taken into consideration even in situations where it is not feasible to adopt a full 'Tutu type' programme. Before considering replication, it is important to understand what the TRTC is and what it is not. Tutu is:

- **not** a training programme for 'dropouts' from formal education;
- **not** a training programme for wage employment;
- **not** a training programme for people without access to their own land;
- **not** a substitute for formal technical training in agriculture;
- **not** suitable for national coverage; and
- **not** amenable to external certification and accreditation.

On the other hand, Tutu:

- **is** a non-formal adult education training centre for a specific geographical area;
- **is** a training centre for rural self-employment, using the participants own resources;
- **is** a management training centre that provides flexible and innovative courses that meet the needs of rural people;
- **is** a partnership between the sponsor, community and government; and
- **is** locally focused but with an international character.

Establishing a pilot 'Tutu type' agricultural training scheme at Navuso

It is anticipated that a substantial amount of aid funding will become available to establish a major agricultural training centre at Navuso. Based on the lessons learnt from this study, it would not be realistic or wise to use such a large amount funding to solely establish a 'Tutu type' agricultural training scheme at Navuso. The main reasons are:

- The training programme needs to start small and evolve in line with staff capability of the centre and in response to needs of the rural community
- The Tutu model is not applicable to a national training programme - a successful 'Tutu type' training course requires regular oscillation between the trainee's home farm and the training centre
- A Tutu type training programme is not substitute for formal agricultural training

There is a need to substantially up-skill Fiji's agricultural professionals in the area of extension, research and related technical fields. The injection of a substantial amount of aid funding provides the opportunity to provide such training.

Much of the aid funding at Navuso would go into infrastructure, such as access roads, water supply and buildings. With these overheads covered, there would be scope for developing a complementary 'Tutu type' pilot scheme. The following recommendations are made on how such a scheme might be established, operate and develop:

- establish a small pilot scheme with an initial intake of no more than 15 trainees;
- the pilot scheme be under the auspices of the Methodist Church;
- trainees should be drawn from the surrounding provinces of Naitasiri, Tailevu and Namosi;
- adopt the same selection criteria as the Tutu Young Farmers Course;
- fees should not be charged but significant in-kind contributions required;
- the pilot scheme centre should be located somewhat away from the main Navuso complex;
- the main Navuso complex to provide formal agricultural training;
- The crops likely to be grown by the young farmers trainees are *yaqona*, taro and other root crops, pineapples and vegetables;
- a parents' course should be established from the outset;
- other courses should only be established once the pilot scheme has proven itself;
- aid funds would be used to build supporting infrastructure for the pilot scheme; and
- on-going funding of operating costs will be required.

It is now up to various stakeholders to decide how they wish to proceed in terms of the rehabilitation and development of agricultural training at Navuso.

The growth and formal employment opportunities in the Pacific island countries

Recent growth performance for the region

The overall growth performance of the region measured in GDP terms has been deficient (Table 1). In all countries, economic activity is focused largely in urban centres and enclaves thus, the benefits of growth are not being equally shared in rural areas where the vast majority of people live. Particularly disadvantaged are people living on outer islands, more remote interior locations and atoll micro states. The countries are all highly vulnerable to commodity price fluctuations due to a heavy reliance on primary exports, weather-related shocks and, in some cases, internal political unrest.

Table 1: Growth rates (%) in real GDP for selected Pacific island countries

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	av 98- 08	av 04- 08
Fiji	1.3	8.8	-1.7	2	3.2	1.1	5.2	0.6	3.4	-6.6	0.2	1.75	0.56
Kiribati	10.6	-1	5.7	-3.8	7.1	3.3	-0.7	0	3.2	-0.5	3.4	2.73	1.08
PNG	4.7	10.1	-9.8	0	2	4.4	0.6	3.9	2.3	4.1	7.2	2.95	3.62
Samoa	0.8	2.4	2.2	3.3	8.2	3.2	4.8	5.4	1	6.4	-3.4	3.43	2.84
Solomon Islands	3.2	-1.6	-14.2	-8	-2.8	6.5	8	5	6.1	10.7	6.7	1.96	7.3
Tonga	3.5	2.3	5.4	7.2	1.4	3.4	2.6	-3	3	0.2	0.7	2.67	0.7
Vanuatu	8.6	4.3	-3.2	2.7	-2.6	-7.4	3.2	5.5	6.5	7.4	6.8	2.2	5.88

Source: Asian Development Bank 2009

Recent growth performance of Fiji

The performance of Fiji's economy since independence has been sluggish and unstable (table 2). Periods of modest growth have been punctuated by coups and economic contraction.

Table 2: Fiji macroeconomic indicators

	1971-86	1987-90	1991-99	2000	2001-05	2006-08
Average annual real GDP growth (%)	4.14	- 0.94	2.76	-1.66	2.45	-1.0
Average annual Inflation rate (%)	3.53	6.56	3.7	3.0	2.82	5.0
Unemployment rate (%)	8.9	7.5	6.4	7.6	8.2	8.6

Source: Mahadevan (2009) Reserve Bank of Fiji, Quarterly Review (Various Issues)

There has been rising unemployment, an increasing number of people living in squatter settlements and deepening poverty. High rates of emigration have resulted in a serious loss of valuable skills, experience and expertise. Increased Government debt with higher payments for interest has pre-empted funds for vitally needed infrastructure.

The high rates of out migration from rural areas adversely effects the source communities and brings with it attendant urban, environmental and social problems of poverty, over-taxed infrastructure, congestion, pollution, crime and political instability. Rapid urbanisation has brought with it health problems associated with poor housing, sanitation, overcrowding and poor diet.

Rural areas, despite outmigration, continue to be home for about half of Fiji's population, though this is declining. Fiji's key exports are rural-based, providing the greatest potential for future development and prosperity, particularly in the tourism, agriculture, forestry and fisheries sectors.

School leavers and employment creation

According to data supplied by Fiji's Ministry of National Planning (MNP), Fiji's average labour force over the period 2000 to 2008 was 318,789. Over the same period, the average number employed was 296,000, yielding an average employment deficit of 23,000.

The MNP estimates the annual number of new job seekers (school leavers, University and tertiary institution graduates and laid off workers) at 17,000. In 2009, the number of school leavers was 15,734, down from a peak of 20,509 in 2005 (table 3). According to Fiji Islands Bureau of Statistics, average immigration over the period 2002 to 2008 was 5,700. Thus, to absorb all job seekers into the labour force, an additional 11,000 new jobs need be created annually. Over the period 2002 to 2006, the average recruitment of the Public Service Commission (PSC) was around 1,000 annually (Per. Comm. MNP). In recent years, PSC recruitments have fallen somewhat in the face of government austerity measures. Thus, somewhat more than 10,000 new jobs annually would need to be created in the private sector if all new job seekers are to find employment. Only about half that number is being absorbed by the private sector as measured by newspaper and website vacancies in recent years (Per. Comm. MNP).

An overview of Fiji's agriculture sector

Until recently, GDP contribution and the foreign exchange earnings of the agricultural sector have remained fairly constant. However, it is now beginning to decline in line with contracting of the sugar sector. Agriculture remains the main source of employment, although agricultural workers are frequently under-employed. Despite substantial government and aid expenditure in various agricultural development projects, the overall pattern of production has changed little. Sugar cane production and subsistence remain the dominant activities in the agricultural sector. Farming systems and the crops grown have not changed over the last two decades.

Subsistence

The contribution of subsistence production to GDP is similar to that of sugar (average of 40 per cent of total agricultural GDP at current prices (Fiji Islands Bureau of Statistics)). Sugar's share of GDP has been falling over the last few years and can be expected to continue to fall.

Table 3: Fiji School Leavers, 2004 to 2009*

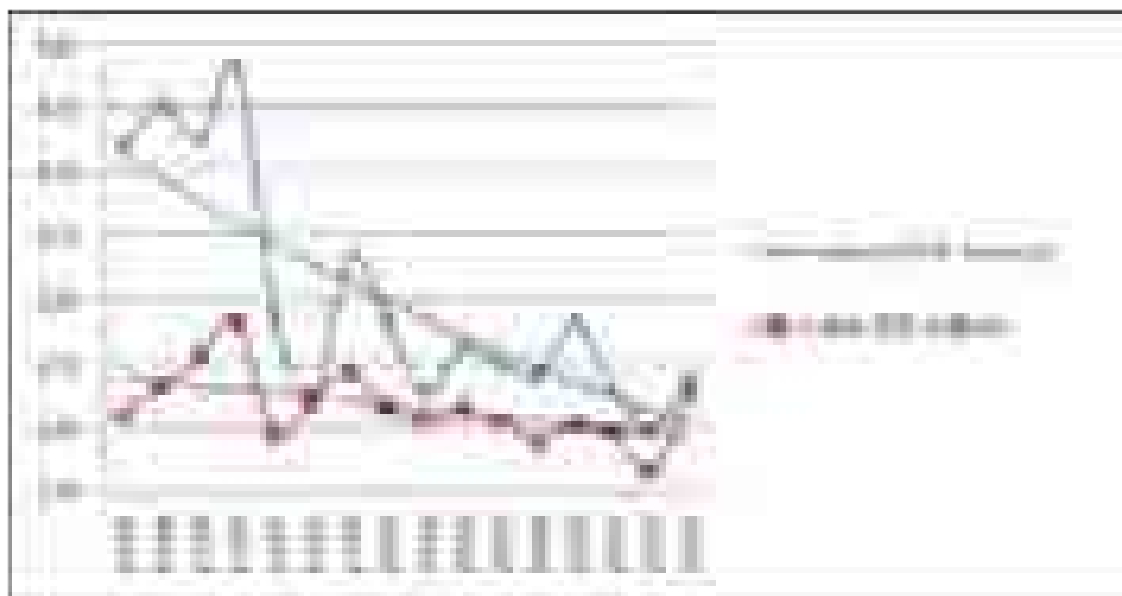
	2004	2005	2006	2007	2008	2009
Class 1	1,669	965	421	527	439	442
Class 2		1,262			426	
Class 3			391	1,179		553
Class 4	47					
Class 5	861	180		111	367	705
Class 6	2,609	2,818	3,029	1,713	1,935	2,402
Class 7	997	665	573	522		
Form 1	106	160	355			
Form 2						
Form 3	1,513	2,037	1,500	867	830	1,764
Form 4	1,139	1,751	1,758	2,444	1,378	83
Form 5	438	1,353	1,414	1,496		2,759
Form 6-7	8,448	9,318	7,725	7,526	9,201	7,026
Total	17,827	20,509	17,166	16,385	14,572	15,734

* Data supplied by the Ministry of Education and the Ministry of National Planning

Sugar - hitherto the mainstay of the economy

The last few years have seen a steep decline in size of the sugar industry (figure 1). This has been the result of non-renewal of significant percentage of leases over the period 2000 to 2005; a substantial deterioration in the performance of the milling sector; and since 2006, the decline in preferential prices received for sugar sold to the European Union (EU)¹. The loss of the sugar industry has serious consequences for the economy and income distribution of Fiji. Cane occupies over 50 per cent of arable land. The industry directly employs 13 per cent of the labour force, contributes around 9 per cent of GDP and generates some 25 per cent of total domestic exports (Mahadevan 2009). The recent surge in world market sugar prices has, to some extent, temporarily cushioned the impact of the decline in EU price. However, the combination of low productivity and low prices means that many farmers are earning negative returns from growing sugar cane. The milling of sugar cane is an activity with high overhead fixed costs. Thus, as the volume of cane milled continues to fall, the average milling costs has increased sharply, resulting in substantial and increasing losses to the Fiji Sugar Corporation.

Figure 1: Fiji sugar exports, 1993 to 2008*



* Source: Fiji Islands Bureau of Statistics

Copra – the traditional crop of the other islands

Copra, the traditional cash crop of Eastern Vanua Levu and the outer islands, has been in decline for the last three decades (Figure 2). Much of the total area under coconuts has been abandoned and there has been virtually no replanting. World prices for coconut oil were unfavourable on average, and the financial viability of the sector has relied on the intervention price mechanism supported by government. In export earnings, the last decade has seen the copra industry surpassed by ginger, kava and taro. A number of attempts to diversify have been made, but with little success. The occasional improvement in copra prices (e.g. 1995, 1999, 2005 and 2008) has led to short-term upturns in production with producers having an incentive to gather more of the nuts available.

¹ The successive cuts in the prices paid by the EU for ACP sugar sold under the Sugar Protocol of the Lome Convention have been: 2007 5.1%; 2008 9.2%; 2009 21.7%

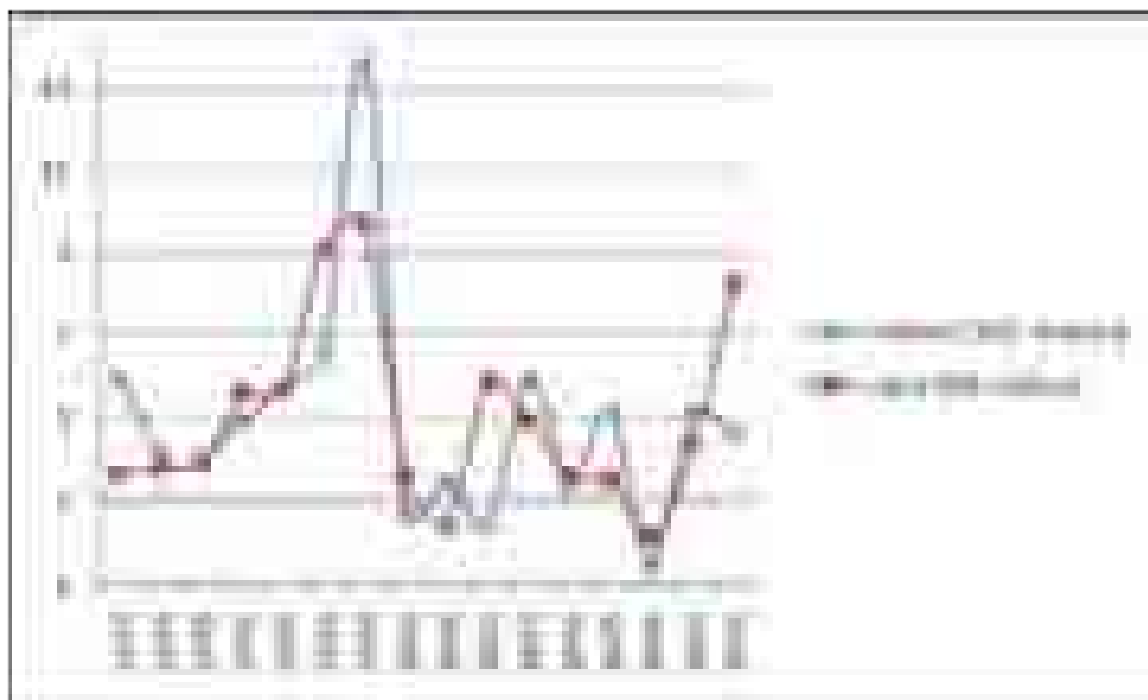
At its peak in the 1960s, the industry was producing around 40,000 tonnes of copra annually. In the early 1990s, production fell below 10,000 tonnes. Copra earnings now range from \$4 to \$8m annually, which represents less than 1 per cent of the value of total exports. Yet, a significant number of rural households with few alternatives continue to earn a meagre income from copra. The last Agricultural Census (1999) showed that 57,000 rural households earn some income from copra. Approximately half of Fiji's copra comes from village farmers with the balance coming from mostly run down estates that have little to distinguish them from small farmers. In most years, a government subsidy is required to keep the majority of these growers in production.

Horticulture – the growing segment of Fiji's export agriculture

This entirely smallholder-based sub-sector includes ginger, tropical fruit, root crops and vegetables. Export horticulture is now, after years of disappointment, the fastest growing part of Fiji's agriculture sector. This sub-sector is dominated by root crops (taro, cassava, ginger and kava), the total export value of which reached \$38million in 2008. The value of these exports is plotted in Figure 3. Taro (*dalo*) and kava (*yaqona*) have been the mainstay crops for the Tutu Rural Training Centre.

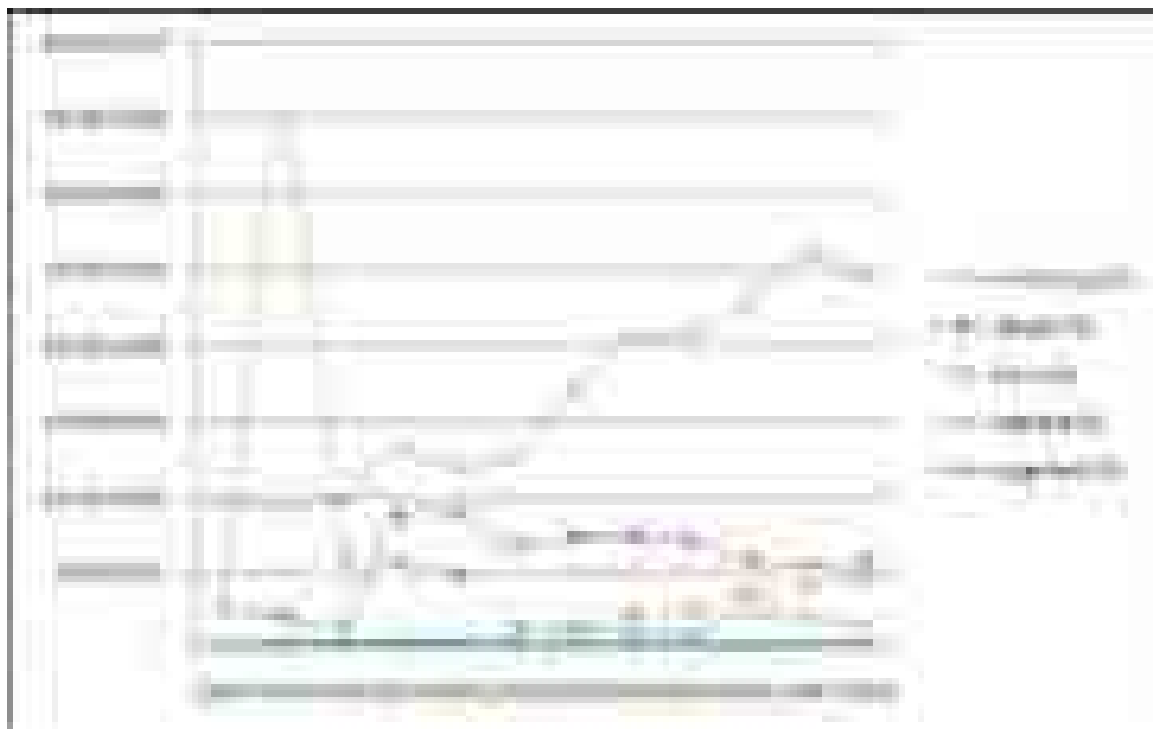
Taro is now Fiji's largest agricultural export after sugar. Fiji's annual taro export volume over the last few years has hovered around 10,000 tonnes, with about 65 going to New Zealand and the balance to Australia and the USA. The annual value of Fiji's taro exports during the same period was \$19 to 20 million, with the New Zealand market making up 55 per cent of the total annual value (Table 4). However, further growth in this industry is constrained by major production, quality and market access issues (see McGregor et.al 2010).

Figure 2: Fiji coconut oil exports, 1993 to 2008*



* Source: Fiji Islands Bureau of Statistics

Figure 3: The value of Fiji horticultural exports, 1997 to 2008 (FJD)*



*Source: The Fiji Island Bureau of Statistics

Table 4: Fiji taro exports 2005 to 2009 (tonnes)*

	2005	2006	2007	2008	2009
NZ	6,302	6,974	7,469	6,842	6,169
Australia	1,878	2,703	2,390	2,264	1,969
US (Mainland)	1,720	1,722	1,677	1,531	1,080
US (Hawaii)			162	51	210
Other	59	35	196	106	54
Total	9,959	11,434	11,894	10,794	9,482

* Source: SPC Pacific Islands Trade Database

In 1998, there was a euphoria in some quarters that the illusive replacement for sugar had been found when kava export earnings jumped from \$ 3 million in 1997 to \$35 million in 2008. The kava boom was short lived, with the value exports plummeting to less than \$2 million over the next few years and now stands at around \$5 million.

The continued growth in niche horticultural exports has confirmed the competitive advantage in this area of Fiji's agriculture, albeit nowhere near sufficient to offset the demise of the sugar industry.

Livelihood opportunities in the agricultural sector

The vast majority of Pacific Island people live in rural villages, securing their subsistence and any cash income from traditional land and marine resources. For example, Papua New Guinea's 2000 National Census showed that 4.2 million people (81 per cent of the population) lived in rural villages. Only Rwanda, Bhutan, Nepal and Uganda have a greater portion of people living in rural areas (Bourke and Harwood 2009). The first responsibility of the small farmer in the Pacific is to secure food for the family. Subsistence food production in traditional farming systems together with subsistence and artisanal fishing continues to be the basis of food security in the region and provides resilience

against external shocks, either economic (price spikes, global recession) or natural (cyclones, floods, droughts, pests and diseases etc.)(Rogers 2010).

Pacific island countries have proven to be usually robust and productive in the face of adversity. These farming systems have generally provided a high level of food security and been the 'hidden strength' of these otherwise structurally weak economies. McGregor *et al* (2009) have highlighted evidence of the importance of traditional smallholder farming systems in safeguarding food security and maintaining economic stability which include:

- A rapid recovery of the Samoan economy, following successive natural (cyclones) and biological (taro leaf blight) disasters with other traditional crops filling the void
- The remarkable turnaround of the Fijian economy, following the devastating 100-year drought of 1997/98
- A tempering of the humanitarian disaster associated with the ethnic conflict in Solomon Islands and the civil war in Bougainville
- The production response of PNG root crop growers to the sharp increase in imported grain prices, following depreciation of the kina in 1994

A key challenge for the region is developing pathways for commercialisation of traditional farming systems, which allow increased cash-generating opportunities for rural households and economic growth, without sacrificing family and community cohesion, environmental sustainability and ultimately, food security. Such pathways for commercialization are described in a recent set of agricultural growth case studies conducted by the Food and Agriculture Organisation of the United Nations (FAO) for Samoa, Tonga and Vanuatu (Rogers (ed.) 2010). These studies identified a number of benefits to small farmers when the commercial crop is part of, or can be easily integrated into traditional farming systems. The training and facilitating of youth to become effectively involved in agriculture is a part of that process.

Commercial agriculture opportunities for Pacific island small holders

For most PICs, agriculture still provides the best opportunities for generating broadly based worthwhile livelihood opportunities beyond mere subsistence and self sufficiency. Particular areas of opportunities are identified as:

- supplying increasing urban, enclave and tourism markets;
- increasing tree crop commodity exports; and
- exporting to Pacific island and Asian community markets in Pacific Rim markets

Supplying increasing urban, enclave and tourism markets

Rapid urbanisation has created immense problems and challenges. However, it has also resulted in a large and undersupplied market for traditional staples and other food products. An indication of the extent that urban populations are undersupplied with traditional staples can be seen from a comparison of per capita consumption in urban and rural areas. For example, in PNG, annual per capita consumption of sweet potato in rural highland areas approaches 450 kgs, compared with only around 30kgs in urban areas (Gibson 2001 p, 89). Here, an increase in urban sweet potato consumption of only 20 kg per person a year would represent an extra market of 20 000 tonnes. No root crop export market could go close to matching this.

Fiji, Vanuatu, Cook Islands and Samoa have significant tourism industries. Fiji leads the way with annual tourist arrivals now exceeding 500,000. Tourism can provide a substantial market for locally grown produce and marine products and packaged value-added products. Some simple calculations show the extent that the Fiji tourism market is undersupplied. Around 500 000 tourists arrive annually and stay an average of eight days. If the average tourist consumes three papaya, two mangoes and one pineapple during a stay, the tourist market amounts to some 750 tonnes of papaya, 400 tonnes of mango and 400 tonnes of pineapple. These volumes are substantially larger than those expected for export markets, at least in the medium term. These products, in turn, contribute to the value of the tourism product. However, tourism in the Pacific islands remains essentially an enclave industry with respect to the purchase of local produce.

Increasing tree crop commodity exports

The countries of western Melanesia remain competitive producers of traditional tree crops. This competitiveness is demonstrated in the remarkable recovery of the Solomon Islands copra and cocoa industries since 2002. In Melanesia, there remains considerable scope for enhancing the contribution of these industries to broadly based rural livelihoods by increasing productivity and improving quality.

Exporting to Pacific island and Asian community markets in Pacific Rim markets

New Zealand, Australia and the west coast of the United States have large and increasing Pacific island and Asian populations that offer a significant market for a range of horticultural products, including roots crops. A fivefold increase in total exports is feasible without saturating the market (ADB 2005).

Performance to date in the commercialization of agriculture on village land

Despite some exceptions, such as the PNG coffee industry, Pacific island small holders have not been particularly successful, in their efforts to commercialization of agriculture on traditional land. This is reflected in the fact that despite identified market opportunities, PICs have not been a part of the global horticulture revolution (McGregor 2007). The total value of PIC non-commodity agricultural exports to all markets in 2005 was around AUD 65 million. To put this in perspective, the region's total exports to Australia in that year stood at around AUD 2,640 million.

This poor export performance is particularly disappointing considering:

- these are agriculturally based economies;
- highly suitable agro-ecological conditions can often be found (e.g. the Highlands of PNG for temperate fruit, vegetables and floriculture products and western Viti Levu for tropical fruit);
- the impressive global growth performance by developing countries in the export of horticultural and other high value agricultural products; and
- the comparative advantage often identified in the production and export of these products (ADB 1985, ADB 1997, ADB 2004, AusAID 2006)

Some of the factors contributing to this relatively overall poor performance have been marketing related, such as:

- absence of infrastructure that provides economic access to an international airport or seaport;
- the availability of air and sea freight capacity to target markets at reasonably competitive freight rates;
- inadequate private sector marketing capability; and
- the inability to resolve phytosanitary and other market access issues.

However, there are also factors that impair on the willingness and ability of village-based farmers to invest the effort and financial resources required for the production of commercial agricultural products. Duncan and Sing (2009) in their analysis of agricultural policy making in Fiji note:

Most Fijian villagers have semi-subsistence livelihoods, producing a surplus for sale to meet education and health expenses, as well as purchases of food and other expenses such as social and cultural obligations and entertainment. There has been a large focus by successive governments and by the Agriculture Department on improving agricultural productivity in this sector and on increasing its commercialisation. These endeavours have however, had very limited success (p, 169).

They point to the difficulty experienced by traders and processors in ensuring the continuity and the quality of supplies from village farmers. The key issues identified are:

- the lack of respect for contracts
- the viability of indigenous farming businesses, especially businesses established within the village, being constrained by the prevalence of social and cultural obligations. Social obligations and pressures can be a

major disincentive as it limits the ability of the farm household to enjoy the fruits of their labour and financial investment

- the inability to raise investment capital

Youth, the target of rural training programmes, face particular problems in establishing and sustaining a farming business on their own village land. The focus of Tutu Rural Training Centre is on the addressing of these problems.

An analysis of the barriers and obstacles that youth face in this field of agricultural and rural livelihoods: the case of Fiji

The social structure of the Fijian village and access to land

Traditionally, each Fijian villager is born into a role in the family unit or *tokatoka*. Each village will have several *tokatoka* which are part of one clan or *mataqali*. Several *mataqali* will make up the larger tribe or *yavusa*. The legal land holding unit is usually the *mataqali* (an extended family unit, usually made up of several more closely related family groups, known as *tokatoka*, living together in villages and cultivating well-defined land areas), although depending on the custom of a particular area, the land holding unit can be the *yavusa* (a group of *mataqali* with the same traditional head) or the *tokatoka*.

Living within this social structure comes with responsibilities. Traditional and cultural obligations are a way of life in a traditional village setting. It is an accepted role that is instilled from a young age and is passed on from one generation to another. This can hinder individual income generation and entrepreneurship, especially if you live in the confines of a village environment. As Low et.al (1984) note, "Pacific social systems were designed in such a way that the older generation effectively exploit the young, who have little alternative than to be submissive. Now, they can escape and they do. Moreover, the western-derived education system instils in young people certain aspirations that can only be realized in town" (p, 2). Parents tend to see the obtaining of paid employment as a measure of their children's success and those that stay in the village as "dropouts" and failures. This is particularly true for daughters who stay in the village. These young people tend to have low self esteem and are generally considered by their parents as a "flop". A key component of the TRTC approach is to change parents' mind set. They are brought around to seeing their children earning a good livelihood from their own resources as a highly successful outcome.

Professor Cyril Belshaw (1964) in his book, "Under the Ivi Tree: Society and Economic Growth in Rural Fiji", analyses the difficulties faced in enterprise development and income generation in a Fijian village situation. The introduction to his concluding chapter aptly captures the paradox of the village environment:

By now the pleasant, unhurried, utopian world of chapter one is so far away from the reader who has persisted to this point will have forgotten its existence. Reminded of it, he will see that of the world-famous smile of the Fijian is the brave face of a man whose problems seem insurmountable, who hides his fears and insecurities behind the pleasant demands of hospitality. The apparent happy-go-lucky qualities of the village Fijian are emphatically not, to my way of thinking, the infantile or irresponsible retreat into the dream world. The laughter is that of men and women who try to keep values in perspective, who cannot afford to psychologically dwell solely on the stresses of their condition, and who seek the compensation of ritual and emotive states which, for a while, can channel and control their thought, making it possible to a little later grapple afresh with unresolved dilemmas (p 269).

The notion that all members of a clan have access to land often doesn't hold. In a typical village setting, land is owned by clan members and not by any individual. This gives rise to conflicts where individuals wishing to pursue income earning agricultural endeavours are hindered by the view that the rewards will be shared among clan members. This perception hampers the participation of youth in agriculture. Land may be abundant. However, for a young person to pursue their dreams, they will require the consent of the clan members. Traditional protocol dictates that land may be passed from one generation to another. However, this is passed on through the head of the clan, only after his or her death. This is in conflict with the need for the long-term security needed for investment in land if it is to be used for income-generating purposes and not just subsistence. Use of *mataqali* land for commercial farming depends heavily on the current village leadership. As the head of the clan, he or she has the sole authority to support long-term ventures. This may be put to the test when leadership changes hands at the death of the clan head. As village boundaries expand and the number of the clan members increases, the issue of long-term

tenure on their own *mataqali* land gets further strained. So often the aspirations of the younger generation are based on the assumption that land is available for one's personal use. Yet, they can find themselves waiting in line until the older generation moves on.

It is within this social and cultural context that the TRTC works to facilitate young farmers having access to their own land from which they can generate an income for themselves and their family. The TRTC tries to break the cycle of disincentive by investing considerable effort into creating parental and community support for its young trainees.

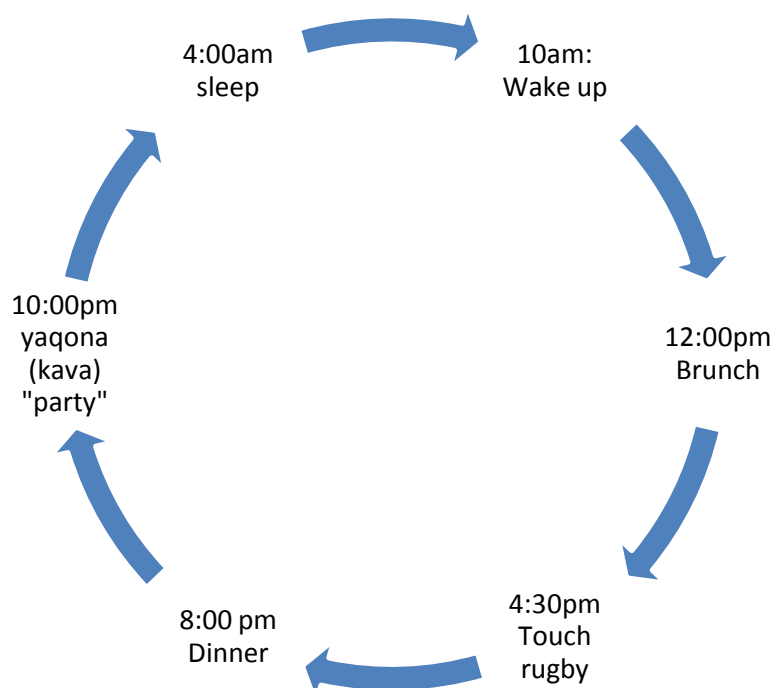
The disincentive of the dependency syndrome

The dependency syndrome among village folk is part of the traditional way of life. Being born and bred in a communal setting where food and wealth is shared gives rise to over reliance on others and to higher authority. Dependency is such that you do not need a plantation or source of income to survive. This need is fulfilled by villagers or members of the clan. Everyone is dependent on others for survival. Attempting to be independent in the confines of a village setting can be perceived as not being ethical.

The “invisible cycle” of life for youth in today’s Fijian village

Superimposed on this traditional structure of a typical Fiji village has emerged a more recent “invisible cycle of life” for many village youth. A stylized depiction of this cycle is depicted in figure 4. The cycle is portrayed as a continuous sequence of stages, tasks and events that young people grow accustomed to. The key elements of this daily routine are afternoon touch rugby games, involving large numbers of participants followed by an extended “grog” (kava – *yaqona* drinking) session. The participants sleep late and arise late – with little interest in allocating significant labour inputs into agricultural production. The consensus amongst TRTC staff is that the cycle exists in every village and that school leavers are the most dominant participating group. School leavers adapt quickly and experience a period of contentment. This daily life cycle compounds the difficulty faced by a young person using their own land resources to generate a worthwhile income for themselves and their family.

Figure 4: The typical “invisible cycle” of life of Fiji village youth



Some parents take drastic measures to try and break the cycle, usually to no avail and suffer the consequences of rebellion. Other parents take the option of sending their children to the urban centres to seek employment opportunities. Many do not find employment – but few return to the village. TRTC has successfully been able to break this cycle that has compromised the development of productive young people in the village. Spiritual guidance, self discipline and time management are just a few tools that the TRTC uses to try and counter the magnetism of peer pressure that surround them.

Father McVerry, Tutu's long standing Principal notes that:

The starting point for all participants is to recognize and accept the communal cultural background of our audience. Ownership is in the hands of the community (administered through chiefs or elders). The modern urban world of individual paid employment is in stark opposition to many of these community cultural values. The rapid changes in the socio-economic, cultural, social, and religious lives of rural people today is reflected in the religious chaos of fundamentalist sect groups, political upheavals, etc. People are confused and traditional boundaries blurred. A majority flee to the urban world even if they have no qualifications, and become squatters to avoid the frustrations of the village situation in this time of rapid change.

Our challenge is to work with those who are left behind and who prepared to commit themselves to using their land resources as means of improving and developing themselves and quality of life. Therefore, we are working in the area of change, tension between the development of the individual and his communal obligations.

Pacific Youth in Agriculture Strategy 2011 to 2015

An initiative by the Pacific Agriculture and Forestry Policy Network, in partnership with the Secretariat of the Pacific Community's (SPC) Human Development Programme, developed a "Pacific Youth in Agriculture Strategy". The Strategy was in response to a call by Pacific Ministers of Agriculture in 2008 to "explore ways in which more young people could be supported to take up careers in Agriculture" (SPC 2010). The purpose of the Strategy "was to recommend actions and initiatives that stakeholders can pursue to encourage the active engagement of youth in agriculture across the region and the development of young agricultural entrepreneurs". The expectation is that this strategy will be adapted at the national level to begin the process of implementing the recommendations that are relevant in their specific context.

The Strategy team conducted a survey on the attitudes of rural youth to agriculture. The survey highlighted three particular areas:

- the financial barriers of youth participating in agriculture
- the influence of the church
- support from parents and family

These findings are summarized below:

Financial barriers to youth participating in Agriculture – "ready, willing and unable"

It is often envisaged that youth are the backbone of society and are the "future" leaders. However, poverty can narrow ones sense of the future and make planning seem pointless. Since the majority of rural youths dwell in the traditional villagers and live among the impoverished in society it is understandable that access to credit from development and financial banks is limited.

Young men and women are often disheartened at the prospect of accessing credit as financial institutions. Most do not meet the requisites to even apply for a loan. This is seen as a stumbling block for young entrepreneurs in accessing capital for viable projects. The ability of youths to maintain expectations disappear as financial barriers become a reality.

The Youth in Agriculture Strategy offers little in the way of practical solutions to the seemingly intractable constraint of financing the involvement of youth in commercial agriculture. TRTC presents a practical solution to the problem which is not based on credit. Most Tutu graduates have not found it necessary to seek loans from banks or micro finance schemes. Thanks to the application of an effective compulsory saving scheme, the Tutu Young Farmers have been able to build a substantial house and invest in agricultural enterprises on their own land. This, they have been able to do with being encumbered by any debt obligations.

Influence from the Church

A number of church denominations have historically played the lead role in rural youth training. This is likely to continue to be the case. The Agriculture in Youth Strategy sees the church as having a lead role in the decision making process of youth in the village. The Strategy Report notes "Many young people identified the importance of

spiritual guidance in their development and thus, the need for the church to play a lead role in influencing their behaviour and linking their engagement in agricultural activities to their personal development and empowerment.” The Church can and does play a very positive role in encouraging and facilitating youth involvement in agriculture. However, the influence of the Church can also be quite negative. In Fiji, the church has encompassed the very essence of traditional Fijian way of life. The order of the week revolves around church activities. Village folk are obliged to respond to these ideologies and, in the process, are distracted from matters concerning youth participation in agricultural enterprises. A void can be created that leads to frustration, confusion and instability among village youth.

Support from parents and family

The Youth in Agriculture Strategy emphasizes the support of the family as being of paramount importance. Youth are actively engaged in family livelihood activities. However, young people interviewed indicated that they often felt let down when “not praised for their tireless efforts”. This low recognition results in low morale and peer pressure toward groups where they feel a sense of understanding and belonging. The survey indicated that rural-based youths were facing a dilemma as they tried to play their role of assisting the family. The proceeds of their hard work were being controlled by their parents. At this critical stage of their lives, young people are very vulnerable to outside forces that influence their choice of direction.

Pacific Youth in Agriculture Strategy Component 1 (Enabling Environment – Families and Community Structures) states “Parents and communities must ensure that there are ways for young people to express their views and their needs, within the family environment and at a community level, ensuring that the different needs of young women and men and young people with disabilities are catered for. Parents and communities must ensure that the young women and men have access to land, credit and enterprise development training to help them become successful agricultural entrepreneurs. “The focus of Tutu Rural Training Centre is very much about this **Enabling Environment – Families and Community Structures**.

Chapter 2: Rural training in the Pacific

In the introduction to the first comprehensive study of the Tutu Rural Training Centre, Low with McVerry and Crocombe (1984), note:

Effective training in agriculture is perhaps the most difficult training task. It has been taught at schools and other institutions by churches and government, small-scale and large scale throughout the Pacific this century. Success has been very limited and the reasons many. The most innovative and intelligent youth tend to leave rural areas, the prices for tropical produce have been low, isolation can be boring, land tenure and certain social practices greatly constrain action and innovation, and Pacific social systems were designed in such a way that the older generation effectively exploit the young, who have little alternative than to be submissive. Now, they can escape and they do. Moreover, the western-derived education system instils in young people certain aspirations that can only be realized in town (p, 2).

Little has changed in the intervening decades. There is however, now a greater need than ever for rural youth to have the skills, motivation and access to their own resources to be able to generate worthwhile livelihoods. It is in this context that Tutu experience is so relevant.

The traditional approach to training for farming

Bamford (1972) classifies the approach for training youth for farming into three broad categories (p, 6):

- **Institutional training approach** which essentially takes place away from a typical farm situation
- **“On-farm” approach** where the farming is carried out at the trainee’s own home or work place
- **Comprehensive schemes** in which the training involves both institutional and “on-farm” elements. The TRTC falls into the third category

In the Pacific islands, it is the institutional approach for training youth for farming that has traditionally been adopted. There was a major push toward institutional training during the 1960s and 70s, particularly in Melanesia. This approach has been found to be seriously wanting. Bamford (1986) presents case studies of 10 Rural Training Centres for training youth for farming in the Pacific². Of these, eight adopted an institutional training approach. The exceptions were the Tutu Young Farmers Course and YMCA Mobile vocational Training Programme in Fiji.

The institutional approach to training young farmers fits into three different categories, as listed by Bamford:

- Courses that are part of the formal education system and thus, “in-school” youth. In Fiji, there was a big push to agricultural training as part of the curriculum in junior secondary schools in rural areas
- Courses which follow on from formal education and thus, serve school leavers. The Fiji College of Agriculture, USP School of Agriculture and now the Fiji National University fit into this category
- Courses for “out-of-school” youth. Fiji’s Navuso Agricultural School in Fiji would largely fit into this category

² The case studies were:

- St Martins Rural Training Centre, Solomon Islands
- Fualu Rural Training Centre, Tonga
- Navuso Student Farmer Scheme, Fiji
- St. Patricks Agricultural School, PNG
- Yangpela Didiman Village Motivation Course, PNG
- Village Development Centre, Popondetta, PNG
- Maria Kwin Senta, PNG
- Rattan Furniture Training and Production Programme, Vanuatu
- YMCA Mobile Training Programme, Fiji

Geoff Bamford³, in presentation to a Tutu staff workshop held in October 2010, listed the characteristics of traditional agriculture training institutions:

- Set up to cater with “dropouts” from the formal education system – the catchment of students perceived by the community, including parents, to be at the bottom of the achievement hierarchy
- The course tends to be two to three years in duration
- A lot of emphasis on theory and class room work – with some practical work in school gardens. The standard curriculum covers: agriculture; woodwork and mechanics; book keeping; life skills (domestic science); school English; school mathematics
- The language of instruction is usually in English
- The students are drawn from all over the country
- The students are fee-paying and also usually contribute some work in kind
- Formal examinations are part of the system
- Certificates are awarded on graduation, with upgrading often obtained through external certification
- There is a tendency to move toward national curriculum and national certification
- There tends to be no follow-up after graduation due to the graduates being widely dispersed

Bamford’s assessment of these rural training institutions is that they have not been successful because they do not meet the needs and aspiration of young people wishing to become farmers. Specifically, he identifies these needs as:

- an appropriate set of skills;
- the right attitude to develop farming as a business;
- unconstrained access to land for farming;
- capital for farm development and to provide independent housing for a young family; and
- follow up assistance and advice after graduation.

Because the training provided does not meet these needs, very few of the graduates go on to become successful farmers.

After Bamford’s presentation, workshop participants were divided into four groups to discuss and respond to his presentation on traditional agricultural training in Fiji and the Pacific. Some of the pertinent comments of the various groups included:

Group 1: Village parents see training in agriculture as the last resort for their children. In training for self employment, there is no need for a certificate – proof of the value of the training is in the self-employment achieved. The importance in of moulding potential – this is not achieved with traditional agricultural training. Staff need to be creative in changing the mindset of young people and their parents.

Group 2: There needs to be a break between students leaving school and entering a rural training centre. Examinations can be counterproductive in training people for rural self employment.

Group 3: The curriculum comes from outside and does not meet the needs of the trainees for self-employment in their own village situation. It is important to teach in the vernacular and not in English. The vernacular signals the environment to which the trainee will return for self-employment, using their own resources. English signals that the future opportunities will be in wage employment.

³ Geoff Bamford was a former Principal of Navuso Agricultural College in Fiji and then Agricultural Educational Advisor to the Government of Fiji followed by many years as the ILO/UNDP Regional Advisor on Rural Training in the Pacific.

Group 4: The problem of securing “qualified” trainers for training for self-employment — the trainers required are those who have been successful farmers on their own land. Such people are not found in formal agricultural training institutions.

Rural training/vocational centres in Melanesia: A summary of the current situation⁴

There are a large number of rural training/vocational centres in PNG, Solomon Islands and Vanuatu. Bamford reports:

PNG

In 2005, there were 125 registered Vocational Training Centres (VTC) of which, 108 were operational. The VTCs are mostly located in rural areas. At that time, there were 25,000 enrolments, with priority given to 8th Grade leavers. Most took students straight out of school – although some required a minimum two years out of school.

The length of courses ranges from one to three years to short courses from one day to three months. Examples of courses include:

- One-year skill development for 8th grade school leavers who have been out of school for two years. The skill development courses are three levels (some had a core of academic courses that allowed progression into secondary schools and others provided vocational skills)
- One day to three months community-driven courses provided by the Centre for members of the community
- One to four-week courses for out of school youth provided by extension and community outreach programmes

For long-term courses, there is a common curriculum covering agriculture, trade skills, home craft and business skills. Little consideration is given to local community needs in the long courses. In 2005, there were around 1400 instructors at the PNG VTCs⁵. However, many do not have teaching qualifications. Trade instructors are required to have five years trade experience. An in-service Diploma is offered in Vocational Education and Training.

All the VTCs charge tuition fees. A standard annual fee is \$1,200 which includes board. The National Government meets instructors’ salaries. Some provincial governments also provide financial assistance.

In the 1980s, a World Bank-funded project attempted to develop an outreach project for the RTC’s. However, this terminated after four years due to management problems.

Solomon Islands

In 2010, there were 34 Vocational Rural Training Centres (VRTCs) mostly operated by the churches – 60 Community Based Centres (CBC) operated by local communities. There were 2,000 plus enrolments in 2010. Completion of primary school is required as an entry requirement. The St Martin’s RTC is the only Centre that has endeavoured to adopt a Tutu approach, with the focus of the training being on farm management.

Most of the VRTC’s provide two to three year courses. The courses cover agriculture, trade skills (carpentry and mechanics) – some of the VRTC’s also have courses in English and Mathematics. Centres run by the Churches also include religious study courses. A formal approach has now been adopted with the curriculum developed externally by the Ministry of Education under an EU-funded project. The Trainees can sit for a basic trade test in some skills. The CBC’s offer a range of short and long-term courses. The CBC’s operate at a lower skill level.

Many instructors are RTC graduates. A two-year instructor training course is now available through the Rural Vocation Teachers College in Western Province. Short in-service on Centre Management courses are also offered for Centre principals.

All the RTC’s charge fees with an annual fee rate of SBD\$800. Since 2000, overseas aid has enabled the Government to meet the cost of instructors’ salaries and to provide the Centres with annual grant, according to enrolments. Since

⁴ This summary was prepared by Geoff Bamford as an input into this study

⁵ No information was available on the gender breakdown of the instructors

2002, the European Union has provided significant funding to the RTC through the national Solomon Islands Association of Rural Training Centres (SIARTC). The EU has also provided funding to SIARTC itself.

Vanuatu

In 2009, there were 49 Rural Training Centres⁶, of which 38 were operational. At that time, there were 560 enrolments. Completion of primary school was required for entry. The courses are of two to three years duration. The priority courses are building construction, mechanics and small business. There are also courses in agriculture, tourism and hospitality and information and computer technology. In 2009, there were 128 instructors at the RTCs – of which 93 were male and 35 female. In service training is provided by 10 Master Trainers, appointed by the various Provinces. Sixteen of the RTCs are registered with the Vanuatu National Training Council. Curriculum development is undertaken by the Vanuatu Development and Rural Training Centre Association (VDRTCA) with moves to have all curricula accredited to the Vanuatu National Training Council (VNTC) and to have the certificates recognized nationally.

All the Vanuatu Centres charge fees. To date, there has been no government financial support to the Centres. There has however, been considerable donor financial support through NZ Aid and Oxfam NZ.

⁶ This does not include the recently established Vanuatu Agricultural College located outside Luganville, Santo. The College was established with Chinese aid is run by the Department of Agriculture.

Chapter 3: The Tutu Rural Training Centre: An “experiment” in non-formal rural education

The origins of the TRTC

The TRTC traces its origins to a Sydney monastery that ran a Marist Brothers training course for Pacific islanders. In 1969 the Brothers training course was transferred from Sydney to Taveuni. The Society of Mary in the Province of Oceania owned 480 hectare freehold estate at Tutu on the island of Taveuni. The Brothers came from the eight Pacific regions in which the Society was involved. The Brothers were given one year of religious training followed by a year of technical training in agriculture, carpentry and related subjects. At the same time, non-formal adult education training courses were developed for lay people from the province of Cakaudrove, which became the Tutu Rural Training Centre (TRTC). The two programmes (the Formation Centre for Marist Brothers and TRTC) have, from the outset, run in parallel but as separate entities.

Fr. Michael Bransfield s.m. set up Tutu in collaboration with Brother Kevin Foote s.m. Fr. Michael McVerry s.m. joined the staff from the Solomon Islands in 1972 and assumed leadership until 1975 when he returned to the Solomons. He was assigned back to Tutu in 1982 and has remained as Principal to this day.

Volunteers came from villages throughout Cakaudrove to help build the first buildings and hydro at TRTC. These volunteers were provided with meals and accommodation but received no wages. Repayment of the contribution of the first volunteers remains a central part of the Tutu philosophy of providing the people of Cakaudrove with a rural training centre, free of tuition fees. Brother Eremondo who was at Tutu in these formative years noted in an interview for this study: “The struggle that the volunteers from the Province faced during the establishment of Tutu should not be overlooked. Youths from all age groups gave up their time and effort to establish Tutu under very difficult circumstances”.

The TRTC from the outset has been a three way partnership between the Society of Mary, the community of the Cakaudrove province and the Fiji Government. The Society of Mary provided highly productive land and the leadership of exceptional priests and brothers. The Community provided voluntary labour to build the Centre and has given ongoing support. The Fiji Government has provided substantial financial support for the initial establishment of the Centre and ongoing operations. The financial support of government has been subsequently supplemented by the support of aid donors. Government officers, particularly from the Ministry of Agriculture, have provided complementary teaching services.

Over the years, the TRTC has been flexible and, to some degree, experimental in its approach to rural training. This has enabled the Centre to make changes in its efforts to develop more effective programmes to prepare youth for rural self employment. The first courses established were the Tutu Volunteers Course and the Comprehensive Course. The object of both courses was to prepare students for life in rural villages. The results were disappointing, in terms of the numbers returning to farm their own village. The courses on offer today at the TRTC have evolved significantly from the original courses.

The mission statement of the TRTC

The aim of the Marist Training Centre in Tutu is to provide a place/presence in which the people of Cakaudrove are empowered to become more autonomous and take charge of their lives in a rapidly changing world. It involves a transformation and a reciprocal outreach to the peoples of the Pacific.

An evaluation of the current TRTC courses

To undertake a quantitative objective evaluation of the various courses, the study team worked with Tutu staff and former students to compile a comprehensive database of current and former students. The database contains the following information on the trainees:

- village and tikina
- prior formal education
- religion

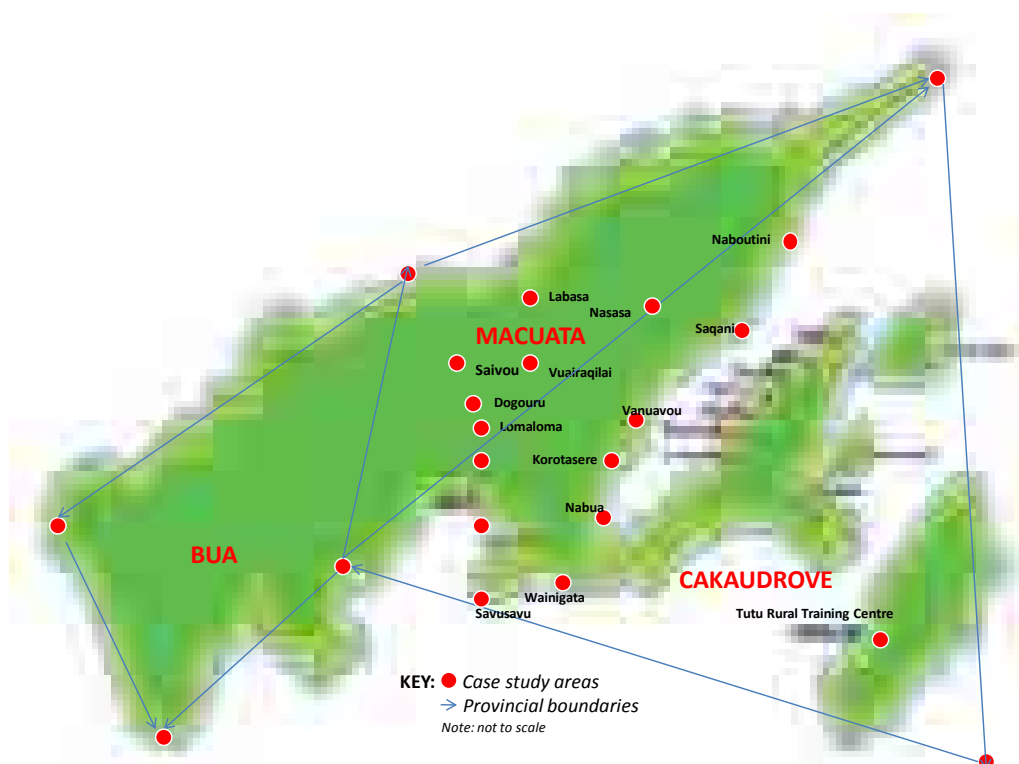
- marital status
- location of current residence
- whether they have built a house
- whether they are farming on *mataqali* land
- estimated current number of *dalo* and *yaqona* plants (a proxy for current level of commercial farming activity)
- other income earning enterprises

Over a period of 40-years, nearly 2,000 young people have been through the various TRTC courses. This does not include the some 30,000 people who undertaken the shorter duration village courses. Thus, the compilation of a comprehensive database represented a daunting labour intensive task. Thanks to the effort of the Tutu staff, major progress has been made in the compilation of such a database. There is now sufficient data available to undertake worthwhile quantitative analysis. The completion and ongoing maintenance of the database has now been integrated into the staff work programme. The database, as it stands, is presented in annex 1.

To complement the information obtained from the database, intensive field interviews with participants were conducted during November 2010. The maps below show the sites visited for interviews (Figure 5). The sample of interviews included: 14 from the present Young Farmers Course; 26 Young Farmers Course graduates; 15 Married Couple Course graduates; and five Single Women Course graduates. The results of these interviews are present in annex 2.

Figure 5: The sites of TRTC Study interviews





The early TRTC courses

Over the years, the TRTC has been flexible and, to some degree, experimental in its approach to rural training. This has enabled the Centre to make changes in its efforts to develop more effective programmes to prepare for rural self employment. The first courses established were the Tutu Volunteers Course and the Comprehensive Course. The objective of both courses was to prepare students for life in rural villages. The results were disappointing in terms of the numbers that were returning to farm their own village. The courses on offer today at the TRTC have evolved significantly from the original courses.

Volunteers courses

The Volunteers course had two versions: Volunteers Course 1 and Volunteers Course 2. Running in parallel to Volunteer Course 1 was a comprehensive course. All three courses focused on young men (18 years +) recruited from Cakaudrove province.

The Volunteers Course 1 was a two year course and involved the establishment of the plantation (planting coconuts and building roads) and building the training centre. There was also theory and workshop classes (carpentry and mechanics) held one day per week. The participants were also allocated time to work on their 0.2 ha gardens where they earned cash income.

The volunteers were free to leave the course when they felt they had sufficient training to meet their needs. Bamford (1984) reports that most opted to stay until the end of the second year however, very few of the graduates returned to farm on their own village land.

The Comprehensive Course ran in parallel to Volunteer Course 1. This was during a time of rapid growth in junior secondary schools in rural areas. Most of the graduates from these schools found it difficult to find wage employment and were not able to meet the entry requirements of tertiary education. It was to meet the needs of the students from the junior secondary schools that the TRTC introduced its Comprehensive course.

Entrants to the Comprehensive course had to be at least 18 years old and received 10 years of formal schooling. Students in the Comprehensive course received a broader and higher formal level of training than those in the Volunteer course. Within the Comprehensive course, the 'oscillation principle' was introduced. Initially the course was designed to be a four-year programme, with periods of three to four weeks at the centre, alternating with periods working on projects in the village. At the centre, students were given theoretical instruction in agriculture,

farm economics, co-operatives, youth leadership and English. As with the Volunteers course, the students were free to leave when they felt their needs were met. However, Bamford (1984) reports that the numbers leaving the course was high (50 per cent) and therefore, it was decided to reduce the course to two years. The course was assessed at the time as being generally unsuccessful. The motivation of the trainees to enter farming was low and the home project period was not being used effectively. Staff supervision of the projects was also proving difficult to maintain at a satisfactory level. Thus, the comprehensive course was terminated and a second version of the Volunteers course was introduced.

Volunteers Course 2 was a two-year course that incorporated lessons learnt from the Volunteer 1 and Comprehensive course. From the first Volunteers course, it was found that the trainees had developed confidence and self-disciplined work habits from the time they spent at the TRTC. Thus, the first year of Volunteers 2 was entirely centre-based and covered instruction in agriculture, building, mechanics and book-keeping. As with the Volunteers 1 course, the trainees had their own plot land and undertook 'voluntary' work for the Centre. The 'oscillation principle' between the centre and the trainees' farms that was first introduced with the Comprehensive course, was retained in Volunteers 2. The trainees alternated with one month at the centre and one month in their village farming project. At the centre, there was an emphasis on agriculture, carpentry and mechanics. There was a high completion rate for this second volunteer's course, with most completing the two years. The carpentry and mechanics courses on offer were a particular attraction to the trainees. However, it became apparent that there was an over emphasis on these skills at the expense of the agricultural skills that would provide livelihoods for trainees on their own village land. Again, few of the graduates returned home to farm their own land. Thus, it was decided that there should be a change of emphasis in the training toward establishing agricultural enterprises on their own land, supplemented by carpentry and mechanical skills. With this in mind, the Volunteers Course 2 was modified to become the **Tutu Young Farmers Course**.

Eleven Volunteer and Comprehensive courses were held that involved 292 participants, most of whom completed the course. The most important finding that can be drawn from the compiled database is that a high proportion of the early trainees did eventually return to farm their *mataqali* land (see Annex 1, table 1). This is particularly true for the volunteer courses – but holds for some of the early comprehensive courses for which data is available. This is seen as quite remarkable, given that most received this training some 35 years ago. This is also contrary to earlier assessments of these courses that indicated that most did not return their own land.

The current set of TRTC courses

The evolutionary process

Over the 40 years of the TRTC's existence, its courses have evolved in response to the changing needs of rural Cakaudrove. The process is summed up by Samuela Vanini (1999) in his evaluation of the Young Farmers course.

In the earlier years, training was relative to the physical capabilities of the Marist Training Centre to provide training at any particular time. Volunteers from the Province of Cakaudrove were trained in house construction in the early 1970s, which was associated with building the Centre itself. The Comprehensive course that followed was needed to polish the participants' technical and engineering skills. European estates were flourishing in Cakaudrove at the time, and the income base was copra, cocoa and cattle. Courses for women were offered for them to meet the pressures they experienced in their life as wife and mothers of estate labourers.

The Training Centre was therefore, constantly reminded, from its beginning, of the continuous shift in the participants needs, brought about by the impact of rapid social, economic and political changes that directly affect the lives of rural village Cakaudrove village communities, including their youth population. As a result, the Centre now has an unbroken experience in responding to different training needs of different sectors over the years, with experience that enabled the Centre to develop its own management and technical capabilities in this area of community service (p, 3).

In the 40 years since the TRTC was established, the economy of rural Cakaudrove has changed greatly. The estate sector has virtually disappeared. Copra has dwindled to a minor industry and cocoa no longer exists (see Chapter 1). *Yaqona* and *dalo* now offer good-income earning opportunities for small holder village agriculture. Tourism has seen major growth in parts of Cakaudrove and provides strong competition for labour in these locations. The unrelenting out migration of youth and, in particular, young single women to urban areas and to tourism enclaves has changed the demographic structure of most villages. Declining yields of village agriculture is becoming an increasingly

important issue to contend with. The course offered by the TRTC is constantly being adjusted to reflect the changing needs of Cakaudrove village communities. Tutu's Mission Statement guides this evolutionary process.

The promotion of autonomy is at the core of the TRTC programmes. However, Tutu has been careful to implant the traditional roles of each young farmer and his obligation to fulfil their role to their people (the *Vanua*). Using the rugby analogy of 'reverse pass,' the courses advocate a share of the individual farmer proceeds being given to their family to maintain a sense of balance. This gesture guarantees flexibility from the family and maintains a very important link. This is a fundamental role that maintains and strengthens the bond between the village and the TRTC participants.

The Young Farmers Course (YFC)

Evolving out of the Volunteer and Comprehensive courses has been the Young Farmers Course. In February 1983, the first Kevin Young Farmers Course commenced, with an intake of 15 trainees for a four-year programme. The course was named after Brother Kevin Foote S.M., a joint founder of the TRTC.

The aim of the Young Farmers Course was established at that time and has remained unchanged.

The Aim of the Young Farmers Course

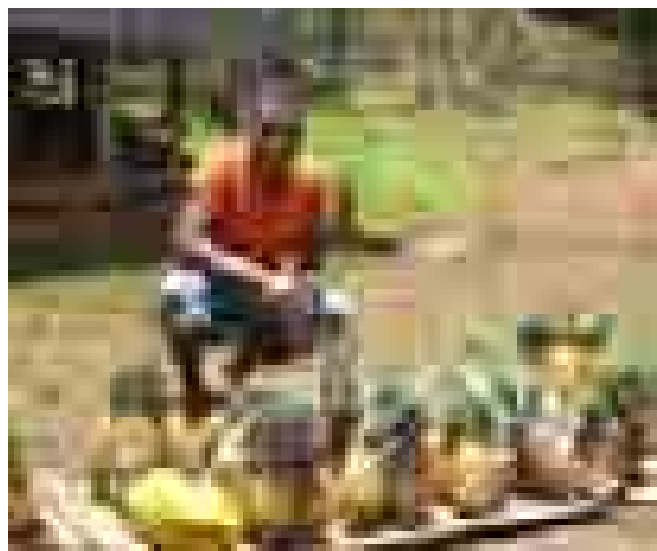
To help form and train young single men from the Province of Cakaudrove to be autonomous, responsible and mature young adults, who are principle-led decisionmakers, who are able to take control of their own lives and choosing freely to live as farmers on their own land, accept their call to be of the village, and be able to live in the service of others in their society.



Members of the 2011 intake of Young Farmers planting their *dalo* gardens at Tutu



Rumisa Farmers Club from Qelenei, Taveuni. The members are made up of ex-Tutu Young farmers and village youth.



Kitione Ligavala of Saiviou, Seaqaqa, Macuata, an ex-KYF graduate 2007, selling pineapples on the roadside to supplement his taro and kava crops

A shift toward human development for successful self-employment back in the village

As with the previous courses, the intake was initially restricted to young men from the Cakaudrove province. This was modified for the 2008 intake which included trainees from the adjacent provinces of Bua and Macuata.

The YFC retained the following specific objectives:

- increasing agricultural knowledge and skills required to intensify both subsistence and commercial production;
- providing basic carpentry skills for furniture-making, tool maintenance; and
- providing basic mechanical skills needed to maintain small engine equipment.

The emphasis of the YFC shifted toward human development and self-empowerment to equip the trainees for successful self-employment within the realities of a village environment. The trainees are taught to be disciplined, independent and self-sufficient, while still positively contributing to village life.

The YFC course identified a weakness in Fijian village society where school dropouts are left to fend for themselves without any sense of direction and trust. These young men are at the stage of their lives where the right decisions may determine the direction of their future. The YFC aims to equip these young men with the mindset and skills to be able to prosper within the realities of rural life. Fr McVerry, the Tutu Principal, notes:

- as the young men become more aware of the wonderful resources available to them in their land and taste some of the fruits as they have through sale of dalo from their individual farms here in Tutu, they have become more committed, enthusiastic and open to the skills required to go beyond subsistent farming and become semi-commercial farmers. The actual handling and budgeting of their own money at this stage is an important facet of their growing in autonomy.

With the YFC, there was a return to the oscillation principle between the trainees' home village and the training centre. Oscillation commences from the outset, starting with five weeks at the Centre and five weeks at home in the first year – with the periods of supervised farming at home being increased during succeeding years. It is through this oscillation that these young men begin to realize the difference between living in a communal setting and living a life of autonomy where initiative and effort are not stifled by the village lifestyle. Fr McVerry believes 'the oscillation of participants between the traditional village life and the centre remain one of the most telling factors and is an inbuilt evaluator in terms of relevance of our practices.' It is in this oscillation that the core of the TRTC success would appear to lie.

Why the oscillation principle is fundamental to the Tutu model: Fr Michael Mc Verry s.m.

What happens in the students' home situation is the ultimate value of the courses. It is fairly easy to do things at Tutu but it is not easy to follow through at home alone. Tutu is an oasis free from some of the traditional, socio economic pressures. The currents of the tide are going in their favour. At home they are often going against the tide. For example, at Tutu they do not drink *yaqona* during the week and so they wake up early, fit and ready for action. Prayers are said in common, sports activities together are in the timetable which supports the aim of the course. At Tutu, they experience a sense of support and belonging to the group - a deep cultural need.

At home, their autonomy is tested. They are challenged to make their own programmes and set their own work targets and, in general, take responsibility. They are also confronted by others to answer questions about what they are learning and doing at Tutu which leads them to articulate these things and so grow in ownership of truths and practices. If Tutu is like a nursery, then the village situation is the plants having to survive and grow out in the sun and rain and so harden up. Many, perhaps the majority of the young farmers have a group they lead, share timetable with, camp together and help the others set their targets, etc.

Rural adults are not used to learning in a highly regimented situation and so five weeks is the length that they respond to. There is a limit to the intellectual ability to pay attention in class. Similarly, five weeks at home is long enough to maintain their gardens, obtain finance to cover course travel and other personal expenses.

For youth (young farmers and young single women), it also means that, if they initially fail in their home period and targets, they are able to come back and re-evaluate with staff on a personal level, then have another attempt in five-weeks time. In learning from past mistakes, Young Farmers go through this process twenty times in their four-year course and so many who initially do not cope well alone, are able to finally get on top of it. Staff accompaniment during preparation and goal setting for the home period and similarly in the re-evaluation on return is essential.

It also gives staff the opportunity to visit the participants during their home period and see, experience and reflect with them on obstacles and difficulties. In the case of the youth, staff are able to encourage parents who co-operate with the participants programme and confront parents who are un-cooperative.

Correspondingly, this kind of visitation variously consoles, challenges and confronts staff with on site evaluation on how the course is working. Sometimes the participants need to change; sometimes the course needs to change to be more effective. This is how the courses at Tutu have come into their present format.

For the Young Farmers, they are able to actually establish themselves during the course, by building their own houses, making their own furniture and buying farming and household equipment, etc. At the end of the course, there is no major change of direction and the young farmers simply carry on with what they have already been doing. Their course is actually living out a five-year plan that Tutu has drawn out for them, including the years prior coming to Tutu, and they leave with own five-year plan they have clearly articulated and has been accepted by their parents.

The major innovations in the YFC

A number of major practical innovations were introduced into the YFC to ensure trainees returned to farm their own land at the completion of the course. These are listed as follows:

- **The introduction of a new selection system that required proof of aptitude farming and access to their own land.** Applicants were visited in their own villages on a number of occasions prior to selection. They were required to have written evidence that village land was available for their unimpeded use. They were required to demonstrate their willingness to use this land by having planted 500 *yaqona* plants (or equivalent), now increased to 1,000 plants, prior to entering the course

- **Each trainee was allocated 2 acres (0.8ha) at Tutu for their exclusive use during the duration of the course**
- **A specified weekly work programme was enacted at Tutu.** This involved three days working on individual blocks or in classroom or in workshop training; one day community work for the centre in lieu of payment of fees; one day paid plantation work⁷. Half of the trainees' wages is used for the purchase of their food. The Young Farmers arrange for the purchase of the food and the centre supplies a cook
- **A planned and supervised work programme in the trainees home village.** The work programme of the trainees back at the home village that mirrors that at the training centre. This involves:
 - 3 days, working on the trainees own farm
 - 1 day of village community work
 - 1 day, working with the family to assist with subsistence and cash crop production
- **A focus on each trainee, developing a five-year plan to be implemented at the completion of the TRTC course**
- **An emphasis on crops that are already part of village agriculture.** These crops are now principally *dalo* and *yaqona*. Both crops are already well known to the Young Farmers – they have established markets and marketing systems in place. The trainees don't need to be taught the technical aspects of growing *dalo* and *yaqona*. What they are taught is how to manage their resources (land, labour and financial resources through saving) to obtain a good livelihood for themselves and their families. With the emphasis on well-established crops, there is no need for the Centre to become involved in marketing and all the associated risks that entails. Instead, the trainees are taught how the existing marketing system functions and how to deal with middlemen and traders

In the past, YF courses have been involved in the promotion of new diversification crops. Vanilla was such an example for the 1987 YFC. All the trainees in this course established vanilla plots at their home farms and received curing training at the TRTC. Unfortunately, a sustainable vanilla marketing system did not materialise, resulting in disillusionment amongst the trainees

- **A compulsory saving system to raise capital for reinvestment in the home farm and house.** All income received from the sale of produce from the trainees' Tutu blocks is deposited in saving accounts to be invested in building a house and in the development of the home farm. All account withdrawals require the approval of the Principal who, since 1992, is a signatory to the individual savings accounts
- **More intensive follow-up of the trainees.** Staff regularly visit the trainees home farms during the course and after graduation to provide technical assistance and moral support
- **Encouragement of parents/community support.** Efforts to gain parental and community support commences in the application stage with village visitations. This has been supplemented by a parent's course of one week per year at the Centre. Parents are able to see firsthand what their sons were learning and doing at Tutu. The course provides an opportunity to discuss problems back in the village that already exist, or are likely to arise, in operating the trainees farm back in the village

Who have been the Young Farmers Trainees

Since 1983, there have been eight Young Farmers Courses offered through which 259 trainees completed the full course. The database being prepared by the Tutu staff provides a profile of these trainees and what they have been able to accomplish since their time at TRTC. These profiles are presented in annex 1. Additional data is available on trainee savings and housing withdrawals for the last three TYF courses.

The average age of the trainees entering the YFC has been 20.1 years – the recently completed YFC had an average age of 21.8 years. Approximately 84 per cent of the trainees have been Catholics – with most of the remainder Methodists. There appears to be no overt bias toward Catholics participating in TRTC Programmes. There are strict rules against students changing their religion during their time at Tutu. All the YFC trainees have been indigenous Fijians. This is not surprising, given the Tutu programmes' focus on encouraging Fijian villages to use their own land

⁷ for the initial course, this was mainly cutting copra – and later cocoa, now providing labour for the centre's taro and *yaqona*

for commercial farming. For this reason, the courses are conducted in the vernacular (the Cakaudrove Fijian dialect). Virtually all trainees have come from the province of Cakaudrove.⁸

Overall, Fiji has a higher level of literacy and numeracy than other Pacific island countries. Trainees entering the YFC can usually read and write in the Fijian language and have basic numeracy skills. However, very few have completed formal high school. From the current group of 48 Young Farmers, 11 (23 per cent) have only a primary school education. Of the remainder, 17 (35 per cent) have completed less than four years of high school education and only one had completed six years. The formal education level of current Young Farmers is somewhat higher than that of their counterparts three decades ago. This is not surprising given the proliferation in junior secondary schools that has occurred in the rural areas of Fiji over the intervening years.

Conclusions drawn from eight Young Farmers Courses

From the 27 years of collected YFC data (annex 1, table 1), the following conclusions can be drawn on the impact of the course:

- an exceptional high demand for the course and a low participant drop-out rate
- virtually all participants return to farm their own land
- the relatively high income earned from farming by ex-YFC participants
- the sustainability of the benefits accruing to ex-YFC participants
- considerable investment in housing and farm development from Tutu savings
- the absence of the need for credit for farm development and housing

These conclusions are discussed below.

Exceptionally high demand for the Young Farmers course and a low dropout rate

Table 5 compares the application numbers with the numbers accepted for the various YFCs.

No formal certificate is issued at the completion of the YFC that offers the prospect of wage employment. Thus, if the Cakaudrove village community did not see the course to be of considerable value, few would apply for admission and plant the required 1,000 *yaqona* plants. The reality is that the YFC has been heavily oversubscribed.

Table 5: Application and acceptance rates the Tutu Young Farmers Course

Commencing Year	Number of applicants	Number commencing	Number completing
1983	15	15	14
1984	116	25	10
1987		25	21
1991		28	21
1995	120	32	17
1999		54	41
2003	286 plus	53	38
2007	378	48	33
2011	239 plus		
Total		280	195

The fact that there are so many applicants, willing to make a significant investment of effort is a strong measure of the success of the Tutu Programme. The majority of applicants will not come to Tutu as Young Farmers, but they are

⁸ The 2007 Young Farmer intake saw 4 trainees from the adjacent province of Macuata.

still considered as products of the Tutu process. The aim is that young people will invest their energies in farming and the prospect of coming to Tutu is an encouraging and motivating factor. The benefits from Tutu's Young Farmer Programme thus, extend well beyond those who eventually participate and attend the course.

The reputation of a training programme that does not offer a marketable diploma or certification must be earned in the demanding arena of self-employment. Tutu's reputation for excellence has been hard earned for a period of over 30 years. However, this reputation could be quickly lost if it was perceived as not delivering remunerative self-employment to its participants. In a situation where the Tutu constituents can quickly 'vote with their feet,' courses need to be flexible and evolve with trainee needs.

In most of the courses, 70 per cent to 75 per cent of those entering, complete it. This is a reflection of the high perceived value of the course by the trainees. A further incentive for trainees to remain in the course is that 50 per cent of the estimated value of their *yaqona* crop planted at Tutu is forfeited if they leave without good reason before the YFC is completed. The one exception to the YFC high completion rate was the 1995 to 1999 Course. The database highlighted that only 18 of the original list of 38 participants completed the Course. This exception to the norm is explained by Fr. McVerry: "There were some names there that have been taken out. They were accepted for the Course but did not turn up. Others were those that left during this course as a result of discouragement from the big cyclone that hit them". There was a similar cyclone event with the YFC group in April 2010. However, all of this group stayed the distance and graduated in April 2011. The class of 2011 benefited from TRTC's investment in expanded hydroelectric-powered drying facilities. This enabled the Young Farmers to salvage a high percentage of the *yaqona* planted on their TRTC blocks.

The high rate of return to farming on the trainees own land

The stand out performance indicator for the TRTC programmes is the exceptionally high rate at which graduates have returned to farm their own village land. Virtually all those who completed the YFC are still involved in farming their own land as their primary source of income. Since 1983, 224 young men have completed the Young Farmers Course (table 6). Of these, 206 (92 per cent) are still farming as their source of livelihood, of which 200 (89 per cent) are farming their own *mataqali* land.

Table 6: The involvement of Tutu Young Farmers Course in farming

Young Farmer Course	Number completing course	Number involved in farming for income	Percentage of graduates now involved in farming for income	Number involved in farming for income on their own mataqali land	Percentage of graduates now involved in farming for income on their own mataqali land	Number deceased
2007-2011	48	48	100%	46	96%	0
2003-2007	38	37	97%	35	92%	1
1999-2003	47	40	85%	40	85%	1
1995-1999	19	16	84%	16	84%	1
1991-1995	15	13	87%	11	73%	1
1987-1991	17	15	88%	15	88%	1
1985-1988	26	23	88%	23	88%	0
1983-1986	14	14	100%	14	100%	0
Total	224	206	92%	200	89%	5

The consistent and exceptionally high return rate to farming is what makes the TRTC stand out, in comparison to other farmer training programmes in Fiji and other Pacific islands. In this respect, it is useful to make a comparison with the Navuso Agricultural School, operated by the Methodist Church. In the 1970s, Navuso was regarded as the premier farmer training institution in the Pacific islands. The best return rate to farming achieved by the much acclaimed Navuso Student Farmer Scheme was some 50 per cent return of its graduates to farming. Bamford (2001), the former Navuso Principal, noted:

For its first 70 years, the primary aim of the Navuso Agricultural School was to provide young men with knowledge and skills needed for farming. Its success in reaching this objective varied over time. It had considerable success in its early years but by the late 50s and early 60s, it was becoming apparent that very few (about 10 per cent) were returning to farming after completing their course. Thus, in 1961 the Student Farmer Scheme was established in an effort to increase

the number returning to farm their land. An evaluation of the Scheme in 1971 showed that more than 50 per cent were now doing this, while another 25 per cent were employed in agriculture or related fields (p. 3).

In 2001, Bamford undertook an assessment of the renamed Navuso Agriculture College. At that time, none of the graduates returned to farming. A similar situation prevails for the Ministry of Agriculture's Fiji College of Agriculture where very few graduates become involved in farming, let alone the farming of their own land.

The relatively high income earned by Tutu graduates farming their own land

Beyond returning to farm their own land, most TRTC graduates are able to earn exceptionally good livelihoods in doing so. This performance is counter to the perception of most village youth and their parents, that a worthwhile livelihood is only achievable through wage employment.

Annex 1, table 1 shows the annual income earning capacity of the current group of Young Farmers who will graduate in July 2011. Estimates are based on *dalo* and *yaqona* and other enterprises they have established on their home farms. The table estimates their annual income, if they maintain their current level of planting. The highest estimated annual income is \$97,000, with the average estimated income for the group being around \$28,000. This is comprised of an average income for *dalo* of \$10,500 and \$16,500 from *yaqona* – other activities contribute on estimated average of \$550.

Figures for the 2011 graduates probably over estimate the longer term annual income that will be earned by the YFC graduates. The annual income estimates for the group that graduated in 2007 (table 1, annex). The estimated earnings of the 2007 graduating class are significantly lower than the 2011 cohort. The highest annual income earned by this group is \$55,000, with the average annual income being around \$11,000. The 2007 group is probably a better reflection of the long-term income that ex-YFC trainees can expect to earn. This later group has had four years to adjust from the youthful enthusiasm that has been harnessed by participating in the YFC to realities of married life and demands of Fijian village life. Yet, these more conservative income estimates of the 2007 graduates are well in excess of what could possibly be earned in formal wage employment if such jobs could be obtained. Furthermore, the income earned is many times higher than that earned by most households in rural Cakaudrove.

To put the Tutu Young Farmers income earnings into perspective requires a comparison with parameters such as:

- prevailing wage rates in the formal sector;
- poverty line estimates; and
- prevailing incomes in Cakaudrove and in the adjacent provinces of Bua and Macuata.

Table 7, show the minimum formal wage rates for various sectors. Most of the Tutu Young Farmers graduates earn incomes well above the minimum wage in all the formal employment sectors. Unlike their urban counterparts, these rural households, grow and catch much of their food, in addition to the cash income earned farming.

It is important to note that the ex-Tutu trainees are earning income in a region that has been described as one of the most impoverished in Fiji (ADB 2005):

A survey sponsored by the Asian Development Bank in preparation for the proposed Rural and Outer-island (ROI) that the island of Vanua Levu had an estimated dependency ratio (percentage of the population 15 years and less and over 65) of 78 per cent, compared to a national dependency ratio of 59 per cent. This suggests a high level of migration for education and work as people enter the economically active age groups, with no indication of any significant later return. The outmigration has been by far the greatest amongst young women, which has serious social implications. The Asian Development Bank (ADB) survey found the cash incomes per working age household are very low. Cash income for the average working age person surveyed on "Vanua Levu was about \$490 per year whilst the Viti Levu rural areas are 34 per cent better off. Almost none are rich and most can be considered poor." In the face of this poverty and out-migration it is ironic that this region is richly endowed with agricultural land and other natural resources. Significantly, the graduates of Tutu's various training programmes have been able to utilise these resources for the economic well-being of their families.

Recently, the Ministry of National Planning used the 2008 to 2009 Household Income and Expenditure Survey (HIES) to prepare a Report on Poverty and Household Incomes in Fiji. The average rural household income stood at \$11,608 in 2008, whilst the average urban household income stood at \$23,036. The 2008-09 HIES urban figures indicate that each urban adult needs \$46.54 per week (or \$2,420 per annum) to cater for one's food and non-food basic needs. For rural households, the amount required for each adult is \$41.15 (or \$2,139 per annum). On this basis, it was

estimated that 43 per cent of all rural households lived in poverty — with the figure for the Northern Division being 51 per cent. For urban areas, it was estimated that 19 per cent of the population live in poverty. For the urban areas in the Northern Division the figure climbs to 38 per cent. The Tutu database shows that very few of the YFC graduates earn an income from farming that is below the poverty line. This is before any account is taken of the substantial value of their own food that they grow and catch and any income earning enterprise of the farmer's wife.

Table 7: Fiji Wages Council prescribed minimum wage rates for various industry sectors

Employment sector	Prescribed minimum wage rate (\$/hour)	Annual wage equivalent (\$)
Printing Industry		
- Learner	\$2.20 for a 45 hr week	5,148
- Others	\$2.65	6,201
Security Industry	\$2.00 for 48 hr week	4,992
Building, Civil and Electrical Engineering	\$3.70 for 45 hr week	8,658
- Foreman	\$3.20	7,488
-Leading Hand	\$2.68	6,271
-General Tradesman	\$2.55	5,967
-Unskilled Workers	\$2.90	6,786
- Driver Light Goods		
Manufacturing Industry	\$2.50 for 48 hours	6,240
Hotel and Catering Industry		
- Barman	\$2.65 for 48hr week	6,614
- Cook	\$2.70	6,739
- General Worker	\$2.50	6,240
Garment Industry		
- Learners	\$1.50 for 45 hr week	3,774
- Others	\$1.78	4,165
Wholesale and Retail Industry		
- Cashier	\$2.50 for 45 hr week	5,850
- Packer	\$2.40	5,616
- Sales Assistant	\$2.50	5,850

Source: Fr Kevin Barr (2009)

The sustainability of the benefits accruing to the YFC graduates

Not only do a high percentage of YFC graduates return to farming their own land, but most participate in commercial agriculture for the remainder of their working life. Table 8 presents a profile of the 14 graduates from the first YFC in 1986. Nearly 25 years on, all but one of the graduates from the class of 1986 are still involved in farming for their livelihood. Furthermore, several can be classified as large farmers with substantial plantings of *dalo* and *yaqona*.

It has been observed over the years that most YFC graduates go through a period of 'adjustment and disillusionment' soon after they get married, start to raise a family and enter the routine of a self-employed farmers on their own land. There can be a significant fall in their farm productivity during this period. However, most effectively work their way through this adjustment period and are able to restore and expand their agricultural productivity. The ongoing extension outreach programme is seen as a key factor in helping the young graduates through this 'adjustment and disillusionment' phase. Another important factor has been the introduction in 1982 of the Married Couples Course.

Table 8: A profile of the participants of the first Young Farmers Course

1983 Course, Graduation 1986														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Pelasio	Manaseva	Y	25	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1500	750	
2	Saimone	Turagavou	Y	21	Drekeniwai, Navatu		Catholic	Y	Village	Y		1500	1500	
3	Pita	Sereki	Y	19	Wai, Wainikeli		Methodist	Y	town	Y	Y			
4	Petero	Radua	Y	21	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1500	1500	
5	Iakobo	Railotu	Y	21	Lavena, Wainikeli		Catholic	Y	Village	N	Y	1500	750	
6	Maikeli	Seru	Y	23	Drekeniwai, Navatu		Methodist	Y	Village			1500	750	
7	Atonio	Togamaivei	Y	24	Togo, Qamea		Methodist	Y	Village			1500	750	
8	Donato	Bati	Y	23	Korovou, Wainikeli		Catholic	Y	Village	Y	Y	1500	750	
9	Amato	Lagilagi	Y	24	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1500	750	
10	Ioawane	Vakaruru	Y	23	Vidawa, Wainikeli		Catholic	Y	Village	Y	Y	1500	750	copra; fishing
11	Penitoma	Lakaba	Y	18	Korovou, Wainikeli		Catholic	Y	Village	Y	Y	1500	1500	
12	Silivetera	Talemaisuv	Y	22	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1500	1500	
13	Joe	Vulea	Y	21	Qila, Cakaudrove		Catholic	Y	Village			7000	1500	
14	Lui	Lala	Y	19	Vuna, Vuna		Catholic	Y	Village			7000	1500	

Accumulated savings to build a substantial house

Most young farmers use a part of their savings to employ carpenters to build a house on their own *mataqali* land when they graduate. This house is largely financed by savings accumulated from the sale of *dalo* from their TRTC block. At the end of December 2010, 27 of 48 of the current YFC trainees had completed their house. For this purpose, they have withdrawn a total in excess of \$53,553 from their savings (annex 1, table 1). The pictures below show the houses of current young farmers, the building of which were financed with their saving at Tutu.



A selection of houses financed by Young Farmers, built during their time at Tutu

A further 14 had commenced building their house on their own land and withdrew \$18,794 from their TRTC savings account for this purpose. It is expected that these houses will be complete when their TRTC *yaqona* is harvested just prior to their graduation. For the 37 Young Farmers who completed their course in 2007, 34 have been able to finance the building of a house on their own land. They utilised over \$150,000 in savings from their Tutu *dalo* blocks for this purpose. These funds were supplemented with income earned with the sale of *yaqona* from their own land.

The house design of choice has been a two-storey house, either besser block or timber construction. The suggested rationale for this choice is that it allows for the separation between nuclear family activities and communal obligations. For Tutu Young Farmers having their own substantial house on their own land is seen as fundamental to returning to self-employment through farming. The building of the house features as a core component in the trainees' 5-year plans. The building of the trainees' house is closely linked to the compulsory scheme that was first introduced for the 1987 Young Farmer intake. This first group had access to the funds in their own bank accounts. The new experience of ready access to cash proved too much to handle for the young trainees. Much of the savings was spent on alcohol consumption at the weekend, which undermined the overall performance of this group. As a result, a more paternalistic system was introduced for the 1992 intake. With the agreement of the group, the Tutu Principal became a signatory to the trainees' accounts. The Principal would only approve the withdrawal of funds for building of the trainees' houses. Each subsequent Young Farmer group included this clause in their constitution, which is agreed upon by all trainees at the beginning of the course. Most trainees have successfully built their house on their own land. At the end of the course, nearly all have significant savings left in their accounts (an average of around \$1,300 – annex 1, table 13). To these savings, they add the lump sum from harvest of around 1,000 fully mature *yaqona* plants from their TRTC block. Each plant has an estimated value of \$50. According to Tutu staff, by this stage the young farmers have developed sufficient maturity and self discipline to utilise the large injection of funds as a basis for building a life for a new family and as a self-employed farmer on their own land.

No need for credit to finance housing and farm development

The lack of access to credit and other financial services is often cited as a major constraint to agricultural development in Fiji. The recently endorsed “Pacific Youth in Agriculture Strategy” identified the lack of access to credit as one of the major constraints to youth participation in agriculture. The findings of the Asian Development Bank team that prepared the Alternative Livelihoods Project (ALP) is typical of the analysis of this constraint.

Rural households, who do not grow sugar cane, are largely denied access to basic financial services and even for cane farmers, the formal market sector has increasingly limited service to richer farmers. The urban-based banking sector has failed the rural areas in general and has especially failed those in remoter areas in traditional, indigenous Fijian villages - even amongst cane farmers, indigenous Fijian farmers are 60 per cent more likely to be deprived of access to formal banking services. This market failure poses a major constraint to any livelihood activity based on agricultural diversification, off farm livelihoods or small and micro enterprise development. Over half of surveyed Fijian farmers cite access to financial services — credit and savings — as a principal constraint on development (Lincoln International 2003 p, 8).



Field interview of a 2011 YFC graduate

The Tutu Young Farmers face no such constraint. One of the graduates from the last two TYF courses have found it necessary to seek loan finance from commercial banks, the Fiji Development Bank, or high interest micro finance providers. The compulsory saving scheme has effectively enabled the graduates to build a substantial house on their customary land and invest in significant agricultural enterprises, without being encumbered by debt obligations.

The current YFC case studies: what the field interviews reveal on success factors

Intensive interviews were conducted with 14 current YFC participants and 26 former YFC participants. These interviews were conducted by a Youth in Agriculture Specialist Livai Tora in their respective village situation. Interview findings are summarised below and presented in detail in annex 2, tables 1 and 2.

Current Young Farmers Course participant case studies

The common themes of the 14 field interviews with the current Young Farmers Course trainees were:

- spiritual guidance;
- human development;
- family support;
- time management;
- access to land;
- the oscillation process; and
- the type of support provided by staff and the mechanisms by which it is delivered;

Spiritual guidance

There was a consensus among the Young Farmers that they would not be able to understand the concepts that Tutu was trying to instil in them, without some form of spirituality in their lives. Spiritual development laid the foundation for establishing a bond which linked them to the land and providing a sense of hope and purpose. Often, during times of hardship and obscurity, these young farmers would seek divine intervention that would help them carry on, regardless of the task ahead. This gave them some form of positive reinforcement and lifted their spirits.

Human development

Most of the Young Farmers interviewed agreed that this component of the programme gave them a realisation of their purpose in life. Understanding human relations, leadership attributes and life management skills were instilled gradually during the course. Gaining a full appreciation of the significance of their individual lives was seen as the breakthrough to starting the transformation process. One-on-one sessions with staff played a critical role in determining the weaknesses and strength of the Young Farmer.

Inevitably, these concepts were constantly tested during their time in the village. The Young Farmers admitted that it was difficult in a village situation where the temptation to fall back into village culture was ever present. Detaching from the family to practice a life of autonomy was seen as a daring move. However, Tutu has been careful to implant the traditional roles of each young farmer and his obligation to fulfil his role to the *Vanua*. This is embodied in the “reverse pass” concept promoted at Tutu. According to this concept, the Young Farmer gives a share of the proceeds of his farm to his parents to maintain a sense of balance. This gesture guarantees flexibility from the family and maintains a very important link that strengthens the bond between the village and the Young Farmer.

Family support

In the drive for autonomy, family support is a critical element. Detaching from the comfort of the family, the Young Farmer is encouraged to pursue his dreams independently. However, this move is the direct result of unconditional support from family members, particularly parents. It is the responsibility of the family to encourage and facilitate the process. These preconditions for success listed by the Young Farmers interviewed include access to land, flexibility with traditional and cultural obligations and constant moral support.

Time Management

‘Time management’ is listed by Young Farmers as a critical skill taught at Tutu. Prior to coming to Tutu, they had no such concept of time. Time was of no consequence - such is the reality in the village. They now see the value of using time wisely.

Support from staff during the period on their home farms is vital to instilling the concept of time management. The Young Farmers agreed that it was very easy to get distracted during village functions and social gatherings. The time that was allocated for work on the farm was usually put aside to accommodate the need to be present and also to actively contribute or participate in village functions. Tutu is not opposed to allocating the necessary time to meet traditional obligations, provided the lost time is made up on the home farm on a different day.

Access to land

Tutu has been successful in developing proactive approaches to sensitive issues such as accessing land for the Young Farmer. There was a consensus among the Young Farmers that the facilitation of access to their *mataqali* land was a critical factor in the success of Tutu. Insecurity will always be an obstacle to the Young Farmer’s progress, without Tutu playing this facilitating role.

Oscillation principle

The YFC consists of five weeks at Tutu and five weeks at their home farms. This strategy serves as a vehicle that promotes productivity and enhances the skills of the Young Farmers who are tasked to practice what they have learnt.

The oscillation model generates confidence in the Young Farmers and constantly renews their enthusiasm. The process empowers the Young Farmers to manage their own affairs at their home farm. During their time in the village, they are left to make good managerial decisions and solve problems as they arise. The Young Farmers interviewed talked about the valuable lessons from mistakes made in the process. These mistakes are common but are rectified and usually not repeated. Staff visitation is a much anticipated event where they display the fruits of their labour. The feedback from these visitations is always encouraging.

Ex-Young Farmers Case Studies: what the field interviews reveal on success factors

The ex-Young Farmers were more familiar with the reality of life back in the village. All the men interviewed had houses built in their own village or on the outskirts of the village on *mataqali* land. Most were married and have children. The majority had been through a period of ‘adjustment and disillusionment’ for a year or more after getting married and moving back to the village after graduating from Tutu. This affected work on their farms and resulted in not meeting their monthly and annual targets. The visitations by Tutu staff assisted the young farming couple through this adjustment period.

The case study interviews with ex-Young Farmers identified the key elements that made the Tutu approach work. The list was similar to that identified by the current Young Farmer case studies: access to land, family support, human development, time management, staff visitations and spiritual guidance. Some of the key points that came out of the interviews with ex-Young Farmers are presented below.

Access to land

Unconditional access to land is an absolute necessary condition that must be resolved up-front. Without long-term security of tenure, the mechanics of the Tutu approach cannot function. Trainees and parents are well informed of the risks involved if the subject of access to land is not explicitly addressed from the outset. Since land is a culturally sensitive issue and Tutu staff follow strict traditional protocol. Village elders and clan members are informed of the purpose of the strategy upon which they are embarking. The reception from the elders of the clan is usually encouraging. In some cases, there are periods of silence as the elders contemplate their decision. The elders are sometimes sceptical of the idea to surrender a piece of land to a young man who has not proven his worth in the village. It is a time of intense lobbying which cannot be hurried. Once an agreement has been established, both parties sign a document that formalises the agreement.

Human development

Tutu courses spend a lot of time dealing with human development. Participants agreed that this was a critical element that provided them with a sense of purpose and direction. Without first understanding themselves and the environment they were brought up in, they would have no idea of the direction they were taking. The ex-Young Farmers saw human development as moral understanding, personality issues, social issues, identity formation and conceptual understanding.

Family support

Family support extends to the whole village. According to the interviewed participants, family support had to be unconditional. Detaching from the family cycle for a more autonomous life needs the encouragement and blessings of the family. Participants had to be constantly motivated and, at times, forced to keep focus on the task at hand. The extra push from the family was necessary as peer pressure sometimes took its toll on participants.

Time management

Participants agreed that time was precious and, if managed constructively, would give them a significant edge over other villagers. There was a consensus that time was slow in the village and everyone went along at their own pace and stride. There was no sense of urgency to finish off one task and begin with another.

Spiritual guidance

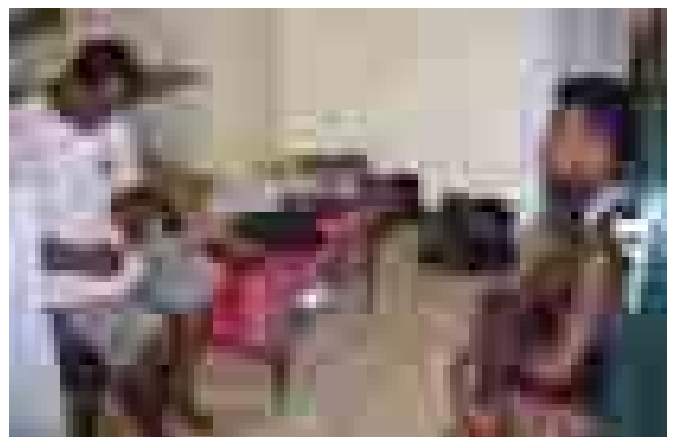
All the participants pointed to divine intervention as a major factor in their success at Tutu. By humbling themselves, they were able to experience a life of fulfilment and purpose. Being at the age where peer pressure was rife, they considered the spiritual component of the course to have kept them from straying. It connected them to their land and gave them a deeper understanding of its value.

Staff visitations

In times of despair and anxiety, the visitations of staff proved essential to staying the course. The realities of life in the village are challenging, particularly in the first few years after graduating from Tutu. For the newly married farmer, visitations by Tutu staff were critical. Tutu staff regard these follow-up visitations as one of the most important parts of their job. In these visits, staff review the graduates five-year plans and discuss issues that have slowed them down. The process continues until the ex-participant is well established on his farm. The follow-up phase is time consuming as Tutu staff visit each participant in his own village. Without this follow-up, the ex-participants agreed that the process would be incomplete.

The Young Farmers Course 2 (YFC2)

Tutu's contribution to introducing youth to agriculture extends well beyond the trainees who actually attend Tutu. The group of young farmers who apply for entry into the Tutu Young Farmers Course constitute a course in their own right. It is now called the Young Farmers Course 2 (YFC2)



Neori the KYF coordinator interviews a prospective young farmer for the 2011 intake

Annex 3 provides an extract from the database that is being compiled for the prospective young farmers that are due to enter Tutu in August 2011. Approximately 250 prospective trainees have applied for this course of which less than a quarter will actually enter the YFC proper. This entire YFC2 group are visited regularly by Tutu staff. The 2010 TRTC Report describes the nature of the extension provided to this group of pre-entrants.

This extension work takes the form of advice and encouragement and personal interest in assisting them as they strive to have 1,000 *yagona* plants growing by the end of 2010 when final selection will be made for the 50 acceptances for 2011. Many of them are accompanied by the present Group One Young Farmers and follow the targets and timetables, etc. used by the present Young Farmers (Marist Training Centre 2010).

The TRTC Principal, Fr McVerry considers the YFC2 to be, in a sense, one of the best courses on offer, although most of these young men never come to Tutu. He notes “It gives young village men high motivation, invests their energy in farming and even if they never come to Tutu, they are left with a very significant investment. We will keep contact with many and use those accepted to come to Tutu to help those not accepted in management skills”. He further notes that “many young men have previously been quite involved in marijuana but, the realistic and practical opening of the door to achieving their hidden hopes and dreams through farming as a business has empowered most of them to break from compensating for their frustrations by the use of marijuana. They value the opportunity to be treated as young adult people and respond positively to the challenge of taking charge of their own lives. Because all have planted a minimum of 1,000 *yagona* on their home farm in the village prior to entry, they are quite motivated by the prospect of good financial rewards.”



The Farming Couples Course

Young Farmers usually get married soon after graduation. It was found that many of these couples faced adjustment problems when the wife had not been part of the Tutu experience. In response, it was decided to introduce a six-month Farming Couples Course (FCC).

The first FCC was offered in 1972. The target group were farming couples from the Cakaudrove Province and not necessarily those in leadership. The couples have to have been married for at least four years, have their own house, and farm their own land. Applications are received two years in advance of entry. As with the other courses, there are no fees – couples contribute in kind through volunteer work and work in the community garden. Two couples share a house, accompanied by their children and they are required to live on \$10/day.

Farming Couple Course Graduates with their three-Year plan (their “Graduation Certificate”



Julian and Kesaia Bibi of Togaveti, Vaturova, Cakaudrove went through the Married Couples’ Course in 2008

The course description describes the aim of the Married Couples Course: ‘to assist and train farming couples to joyfully accept their call as rural farming families in their village situation.’ To achieve this aim, the course endeavours to heighten the awareness, motivation and skills of married people to make better use of their resources to enhance their livelihoods. In the early years of the FCC, the emphasis was on spousal relationship. However, in common with all Tutu courses, the FCC has evolved over time. There is now increased emphasis on management of the farm household. Human development sessions play a key role in guiding participants’ management skills for modern village life.

The course is comprised of three terms with five-week oscillation between the centre and the couples’ home village. The men undertake modules dealing with topics such as sawmilling and engine repair and maintenance and the women

undertake courses related to their own income-generating projects such as mat weaving and tapa printing. The couple jointly undertake courses on human relationship skills, budgeting and money management. A particular emphasis is on the preparation of their three-year plan – which the couples prepare jointly. This plan is regarded as the participants' 'graduation certificate.'

The key themes of the current FCC are:

- **Farming as an enterprise.** This involves the introduction of practices which will help farmers shape their perceptions of themselves and their home farm as a source of income. Specifically, the course includes such things as preparing a farm map, farm planning steps, preparing a business plan, planting records and targets (daily, weekly and monthly), keeping income and expenses records, programmes and timetables, management of outside labour, and financial planning skills. They receive instruction on soils, crop and animal husbandry, use of fertiliser and agro chemicals. Theory is interspersed with practical training sessions on Tutu land and on their own home farms. This culminates in the preparation of their three-year plan. The participants plant and market vegetables to pay for materials used in the course
- **Other practical skills for modern village living.** These skills include: maintenance of small machines, making their own furniture and clothes, sawmilling, cooking, nutrition, handicrafts, interior decorating, domestic budgeting and leadership
- **Modern village community living.** This involves imparting and understanding the myths and realities of modern village life. This is seen as a transforming process, involving a planned lifestyle and a joyful acceptance to be of the village
- **The human person and human relationships.** This includes marriage relationships communication and parenting

There have been 41 Married Couples Courses offered since 1973. A total of 536 couples have been through the course of which all but two returned to farming on their own village land. While this course tends to receive less attention than the YFC, Low et al. 1984, describe this course as the most important breakthrough at Tutu. In the view of the current Tutu Principal, the Farming Couples Course is the most important and most successful of the courses offered by Tutu because it concentrates on the farm household unit. To a large extent, the Young Farmer and Farming Couples courses are now closely inter-connected. It is common for graduates of the YFC to return some years later with their wives to participate in Farming Couples course.

In total, over 1,000 individuals have completed the six-month Married Farming Couples course, compared with the 224 young men completing the four-year Young Farmers course. In this sense, the Married Farming Couples course has been more cost-effective. However, it is hard to separate the various TRTC courses as they function as an integrated package.

Up until 1994, the MMC was offered on an annual basis. However, an annual frequency was found to be too demanding in terms of the Tutu staff resources. The course is now offered every second year with the intake restricted to 12 farming couples.

Data on the ten married couples who completed the FCC in December 2010 is presented in Annex 1, table 3. Some data on previous courses is also presented in this annex.⁹

Interviews were conducted with 22 married farming couples that had completed the course. The interviews revealed a common theme of success factors that underpin the 'Tutu formula'. Specifically:

- human development
- spousal relationship
- time management
- developing parenting skills
- assistance with micro enterprises to supplement family income

⁹ At the time of completion of this report, the database was still under construction,

These factors are summarised below and presented in annex 2, table 3.

Human development

The consensus was that the human development sessions were the most valuable. The aim of these sessions was to leverage participants to take charge of their own lives and reconnect to their marriage vows. All the participants that were interviewed indicated that this process has been a turning point in their lives.

Spousal relationship

Prior to coming to Tutu, many of the couples found it difficult to communicate with each other. Most found the period after the novelty of marriage had worn off, with neither party prepared to compromise. The addition of children into the equation was making the relationship more strenuous. As a consequence, the children and the farming business tended to suffer. The participants in the FCC went through a process of soul searching and bonding. The task to figuring out their own problems proved a difficult task for couples who have lived in the village all their lives. Intense sessions with experienced staff who related their own experience with participants gave a sense of hope and direction. Participants observed how the staff couples interacted and saw how they used communication tools, such as a daily exchange of letters. They saw improvements in their farm business as a result of a better relationship and communications.

Time management

Participants admitted that it was difficult to engage in productive enterprises without time management skills. This valuable tool was envisaged by staff as a means to control and meet their daily and weekly targets. Prior to their time at Tutu, time was not considered an issue for the participants. Village activities commonly began in the later part of the morning when the sun was more intense. Long kava sessions in the evenings, ending at odd hours of the morning were standard. This lifestyle suppresses the productivity of the young men and women. Tutu had now instilled a sense of self discipline, with time management transformed into a priority. Most believe they have been able to generally hold to this once they returned to the village, although the participants acknowledged that a degree of flexibility is necessary.

Micro enterprise and money management

The enterprise and money management components of the programme work hand in hand. The men are encouraged to work on their plantations while the women are provided with skills to supplement the family income. Farm income tends to come in lump sums at intervals during the year. The income for the women's home business was seen as more continuous – helping to make ends meet on a short-term basis. Generally, children's school fees, uniforms, books and pocket money were met through proceeds from her small business. Foodstuffs and other domestic essentials also tended to be paid from her small business. The women interviewed indicated a sense of satisfaction that they are able to contribute financially to the welfare of the family.

In the Married Farming Couples case study 7 (annex 2, table 3), the couple explains the challenges they face in the village when children are sent on behalf of elder relatives to acquire goods and other materials on credit. This is the dilemma most couples face. In the village, 'no man is an Island'. It is not in their culture to say no, especially in a village environment where everyone is related and being prudent about your business ethics is seen as an error in judgment. Traditional culture dictates that wealth is meant to be shared and those who do not comply, suffer consequences of being 'outcast'. Support received for family functions will be reflected on how they treat their relatives. As case study 5 reveals, Tutu staff visitations help couples maintain a sense of balance in meeting their obligations and to maintain important village links.

This is in contrast to the couple in Case study 13 where the husband, of Indian decent, has been able to excel since he is not obliged to meet frequent obligations apart from those of his immediate family and the church. Again, culture plays a big role in inhibiting the development of the young couples. What Tutu has enabled these couples to do is to achieve a better balance between meeting village obligations and the welfare of their own family.

Young Single Women's Course (YSWC)

In 1995, a six-month course specific to the needs of Young Single Women was introduced. The YSWC was mainly in response to requests from parents, who had particular concerns about the welfare of single women living in the village. The outmigration of young single women from the village is significantly higher than that of young single men. This is partly the result of the lack of income earning opportunities for young women in the village, relative to that of men and the income earning opportunities for women outside the village, particularly in the tourism sector. This imbalance in village demographics is creating serious social problems for village life. At the six-month YSWC programme, the participants are not trained in skills for employment in towns and tourism centres but are equipped with the skills and qualities to help them be financially independent, using the resources available to them and to manage the contradictions of living in rural communities (Vave and Rigamoto



Teresia Alena: Waica , Somosomo, Cakaudrove Single women's course 2006, sewing is her main source of income

2009).

The training programme consists of three 10-week terms – each divided between five weeks at the TRTC and five weeks back in their home village situation. The application of the oscillation principle, as with all Tutu courses, enables the participants to practice at home what they have learnt at Tutu. The participants are empowered to discern their natural talents, which they are encouraged to utilise on an income-generating project. The most common projects involve print and dressmaking and agriculture. Participants are taught sewing, home furnishing, screen printing, baking, cooking and vegetable farming skills. The course has as its focus, human formation with an emphasis on autonomy.

All the YSWC participants grow vegetables which they sell in the market. The proceeds from these sales go into their savings account. The average amount saved for the 2009 course was \$334. They are taught to keep simple records of income and expenses. By the end of the course, most have freed themselves of financial dependency from their parents and have developed their own three-year plan. As with all courses, the YSWC participants at the beginning of the course establish *vaka rau tudi* (rules for living together). A common resolution of the young women is not to ask their parents for any money for the six-months of the course. This test of independence is strongly adhered to.

The young women are selected from different backgrounds but need to have spent at least three years in the village before they can be considered for selection. Educational backgrounds varied from Class 6 to Form 5, with some having business and computer training. The time in the village allows the young women to reflect and re-evaluate their life in a village setting. This period has been observed as a period of low self-esteem and low morale. Selection for the YSWC, as with the Young Farmers Course is based on objective criteria. To be selected for the YSWC, a young woman is required to plant at least 100 *voivoi*¹⁰ (pandanus) plants, or there equivalent, in her home village. As with the Young Farmers, meeting this entry requirement demonstrates an aptitude to income generation in a village environment and access to land.

Even prior to the actual selection of YSWC participants, considerable extension effort is devoted to identifying suitable income-generating projects that align a young woman's talent with desire and realistic opportunities. Tutu staff report that success of the YSWC participants is very much predicated on getting the alignment between talent, desire and opportunity right.

The YSWC is offered less frequently than the other courses – currently a six-month course every four years. The feeling of Tutu staff is that it has been relatively the least successful of the Tutu courses in terms of overall impact. While the demand for the YSWC exceeds the places available, it is relatively less than that for the Young Farmer and Married Couples Courses. The demand for the Young Women's Course is often driven by the parents, rather than the

¹⁰ *Voivoi* is the raw material used in mat weaving. It can either be sold as a raw material or used in the women's own mat weaving enterprise.

young women themselves. This is probably a measure of the dearth of opportunities available for young single women in a village situation. The YSWC is currently under review to make it more responsive to the income-generating needs of its constituents. Some recommendations are made in Chapter 5 on new or expanded enterprise opportunities for young women.

Yet, despite the difficult circumstances faced by young women while living in the village situation, the YSWC course has been able to achieve a great deal. Fusi Vave and Marieta Rigamoto (2009) undertook a detailed review of the Young Single Women's Course. Their report notes:

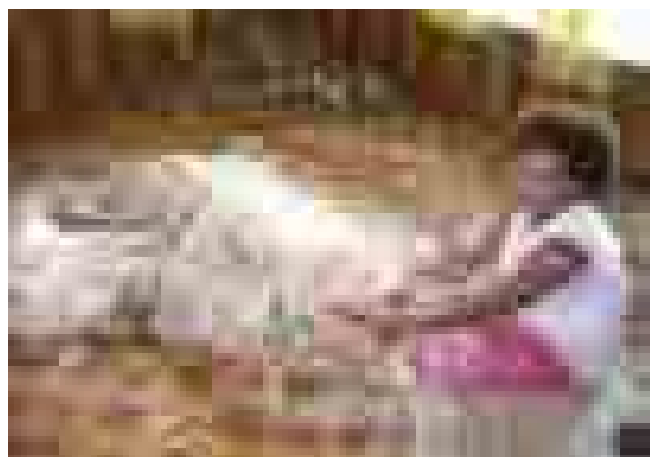
We found in our investigation that the YSWC has become a process of self realization, liberation, autonomy and transformation for young women who have been oppressed, either through societal attitudes or dysfunctional families, or an education system that did not recognise their special needs and in due course, became a vehicle of oppression rather than liberation.

The course at Tutu is, for the greater part, experimental which we consider to be a suitable methodology for learning that challenges the core values of the learner, the staff and the community. It is also an effective method of penetrating human defence mechanisms that keep the oppressed powerless and prevent the liberation process becoming a reality (p, 4).

In undertaking their study, Vave and Rigamoto lamented the lack of data to undertake an objective analysis of the performance of the trainees who completed the YSWC. They noted that:

Apart from a few articles on former students, we were not able to view any formal records kept by the Centre, such as case and tracer studies, statistical trends and measures of success/performance benchmarks of part participants, to demonstrate the success or effectiveness of the YSWC and the sustainable effects of the training when they return to their effective communities (Vave and Rigamoto p, 4).

The problem of the lack of data to undertake an objective quantitative analysis was encountered at the commencement of this FAO-sponsored study. Thanks to a concerted effort from Tutu staff, significant progress has now been made in establishing a comprehensive database of Tutu graduates that will be maintained on an ongoing basis. The YSWC database as it stood at the end of November 2011 is presented in table 15, annex 1.



Mat weaving, one of the more popular enterprises adopted by the YSWC participants

In the absence of any statistical data at the time of their study of the YSWC, Vave and Rigamoto concluded:

The demand for the course always exceeds the places available. The respect and trust with which the centre is regarded in the communities we visited, the positive change perceived by the parents and the community in the lives of the trainees after the YSWC, their ability to achieve individual targets, and acquire assets such as savings, gas stoves and sewing machines are, in our view, concrete evidence of the positive impact of the YSWC on the trainees (p, 4).

Overall, the role and influence of women at Tutu is seen to be stronger than that of men. This role and impact is through the combined impact of Married Farming Couples Course, the YSWC, Parents Course and female members of staff. Fr. McVerry attributes this to a number of factors:

- enthusiasm;
- money management skills;
- creativity; and
- a more open attitude to change and freedom to come into the modern world.

Parents Course

Parental support plays an important role in the participants' journey to successful independent livelihoods. There are significant barriers of perception that parents need to overcome. Rural parents tend to perceive paid employment as a measure of their children's success. Those that stay in the village are seen as 'dropouts' and failures. This is a particular perception of the parents for their daughters, who stay in the village. These young people tend to have low self-esteem and are generally considered by their parents as having not succeeded. Parents' mindsets have to change to be convinced that earning a good livelihood from their own resources is a highly successful outcome.

In 1985, the TRTC established a Parents course to support the YFC and YSWC. The parents come to Tutu for one week. For the YWC, it is scheduled at the end of the course. For the YFC, the Parents course is held when the trainees have completed their Five-Year Plan. The Parents course is part of an ongoing programme to link the trainees and their training to their home village. During this period, the parents see firsthand what their sons and daughters are learning and discuss problems that exist or may arise in the future with the establishment of their enterprises back in their village situation. Tutu staff indicated that the Parents Course has been an important part of reconstructing and reconnecting the foundation between the parents and their children.

Prior to the YFC graduation, a special parents' session is held at which the trainees present their five-year Plan. At the session, trainees share their plans with their parents and discuss their expectations and experiences. The discussion of autonomy is a central theme. The issue of what the children owe their parents is dealt with in this course. The aim is to take duty out of the relationship and to give freedom to the relationship. As part of the course, a reconciliation ceremony meal is held. In the case of the YFC, the father will spend up to three days on his son's farm.

A similar parents' session is held at the end of the YSWC course. The content of these sessions is described in the Report on the Marist Training Centre 2010:

Apart from dealing with generation gap problems and communication skills between parents and young women, the course focused on how parents could support young women in their future growth and, in particular, their income-generating projects. Each participant had an in-depth session with her parents, presenting detailed budgets and plans for the next three years.

Tutu takes on the role of facilitator and has brainstorm sessions with participants and their parents to see where the problems are and how they can be resolved in the interest of the participants. A major obstacle to overcome is the perception of parents that their children are obliged and indebted to them. Staff at Tutu have intensive sessions with the parents, stressing the importance of strict parenting and constant moral support. Once this barrier is overcome, support from the outside is complete and Tutu staff can proceed freely to develop and enhance the lives of the participants. A formal Memorandum of Understanding (MOU) is signed and agreed upon to officially acknowledge the support from the parents and provide long-term security to land currently being used by either their sons or daughters.

Village courses

A village course programme was introduced in 1972, as part of an international programme initiated in Latin America. The weekend courses cover a range of topics, including marriage, leadership and village relationships in the context of socioeconomic and religious changes in Fiji. The emphasis of the course is on communication skills and encouraging married couples to work as a unit. The course is run by five staff couples supported by other volunteer couples. The village courses have been extended well beyond the Tutu catchment of Cakaudrove, with courses offered throughout Vanua Levu and extending to the provinces of Naitasiri, Namosi and Rewa. Tutu staff and graduates have participated in these courses in other Pacific islands, including Tonga and the Solomon Islands. Since their inception, over 30,000 adults have participated in the TRTC village courses. Tutu staff feel that the village courses have provided important links to the community that have contributed positively to recruitment for the long term courses and reinforced their subsequent impact on village life.

Prior to the YFC graduation, a special parents' session is held at which the trainee presents their Five-Year Plan to their parents. The Parents Course provides parents with a wider perspective of where the course fits in. There, trainees share their plans with their parents and discuss and share their expectation and experiences. The discussion of autonomy is a central theme. The issue of what the children owe their parents is dealt with in this course. The aim

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A consolidation of the TRTC programmes

In 2007, the TRTC developed a five-year programme to substantially consolidate its rural training and extension programme. This was based on a thorough training needs assessment and a review of the non-formal adult education learning approach used for delivering this programme. The consolidation programme had four interrelated components:

- Human resource development within the province of Cakaudrove and expanding into the adjacent provinces of Bua and Macuata. Participants are expected to acquire the knowledge and ability to establish their farming activities as a business. The particular focus is on youth utilising their own land resources to create sustainable livelihoods. More people are increasingly being provided access to Tutu's programmes and a strengthened volunteer network will encourage greater community participation in programme activities.
- Capacity building of the TRTC to enable the centre to effectively expand its training and extension services. The recent focus has been on the capacity of Tutu staff and the community (volunteer) representatives to provide extension and monitoring services. The village volunteers have undertaken a course that deals with issues of leadership and human relationships. For staff, it has been to increase their capacity to provide extension and monitoring services and a number of short-term training programmes have been held in financial management, training the trainer as well as technical courses (such as hydro electrical systems, installation and use of new equipment). To increase the capacity of village volunteers, courses that deal with issues of leadership and human relationships have been held. These courses, which have bettered the capacity of volunteers to undertake training in their local communities, remain on going.
- Infrastructure development and equipment to enable the TRTC to be more efficient in the provision of expanded training and extension services. This included power (increased hydro electric generating capacity), water, roads and drainage infrastructure; farm equipment (tractor and ancillary equipment), vehicles to support improved outreach services; electrical drier capacity and the upgrading of technical and accommodation facilities.
- Programme management support to manage inputs and activities and to achieve the programme in a timely and efficient manner, consistent with donor requirements and the Centre's programme budget

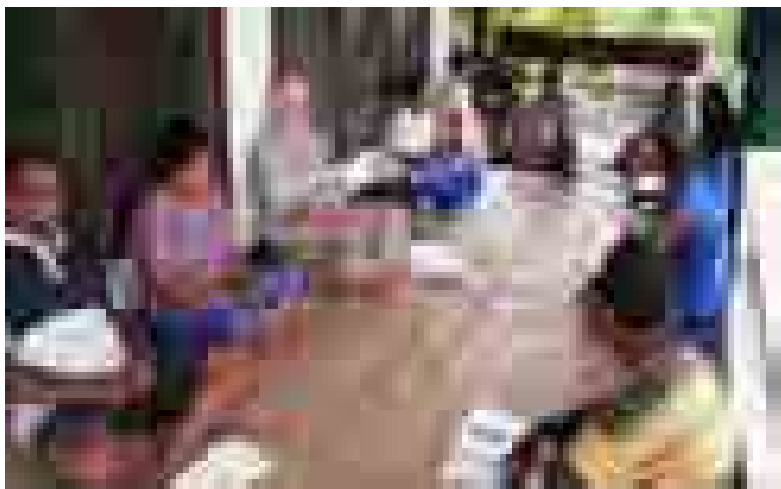
The total cost of the expansion programme was \$ 3.92 million. The implementing partners providing financial support were:

- Fiji Ministry of Agriculture committed to provide \$1.94 million in core funding for the human resource development component
- Katholische Zentralstelle für Entwicklungshilfe.V./Misereor (German Catholic NGO) provided \$1.51 million to support capacity building and hydro electricity extension
- CARITAS Australia provided \$51,000 to support human resource development
- Marist Mission Centre (Asia/Pacific) provided \$12,500 to support the expansion of the village courses outside Cakaudrove province
- Tutu alumni contributed their time, particularly to the operation of the village courses

- AusAID provided infrastructure (roading) and equipment (tractor) to support the viability of an expanded Young Farmers Course (\$98,000)

Organisation structure and staffing

The overarching organisation structure of the TRTC is presented in Figure 6. The Tutu Training Centre Taveuni comes under the auspices of the Oceania Marist Province based in Suva. Tutu has two separate training entities – the Marist Formation Centre and Tutu Rural Training Centre. The Marist Formation Centre is a religious order training centre, servicing the Pacific islands region. It is financially and administratively separate from the Tutu Rural Training Centre.



A weekly management team meeting at the TRTC

At the head of the TRTC is the Principal. Fr Michael McVerry s.m. has been Principal since 1982, having previously served as Principal between 1972 and 1975. The Principal is responsible for the management of the TRTC courses and oversight on the Oceania Farm. The Oceania Farm operates as a separate financial entity with its own manager. The TRTC has 16 fulltime staff members. The Oceania Farm has a farm manager and employs eight fulltime staff and uses the labour of the YFC one day a week, during their time at Tutu.

Figure 6, shows the current organisation structure of the TRTC Courses. The Principal is assisted by a lay Deputy Principal Alekesio Tatini and by two Marist Priests – Fr. Donato Kivi s.m. and Fr. Rafa s.m. There are four separate sections, each of which is managed by a Director. These are:

- The Young Farmers programme (Naisavere) – Uliano Samunaka & Alosio Neori (assistant)
- Married Couples and Young Women programme (Naqumu) – Serenia Madigibuli
- Finance and Administration - Alanieta Tatini
- Technical (Garage, Cabinet Making and General Maintenance) – Suia Fia

This group constitutes the management team.

All members of the staff have come through the system and are graduates of Tutu courses. All have a proven track record of success in self-employment in their own village environment, thus providing excellent role models and mentors for the trainees.

The Tutu staff receive relatively low wages, considering their high level of competence and experience. The Directors are paid \$140/week. In addition, they are provided with good quality housing and receive free electricity. They are also given access to land at Tutu to grow their own food and earn supplementary income from the sale of cash crops.

The Principal's management style has been inclusive and participatory in nature. Weekly management team meetings are held. Through consultations, meetings and workshops, every effort is made to get the views of staff at all levels. However, there is no doubt that the positive impact of the leadership of Fr McVerry s.m. has been considerable and a measure of key person-dependency is apparent. A major challenge facing Tutu is to establish a management structure that is effective for the future and that no longer depends on the current Principal.

Figure 6: The overview organisational structure of the Tutu Training Centre Taveuni

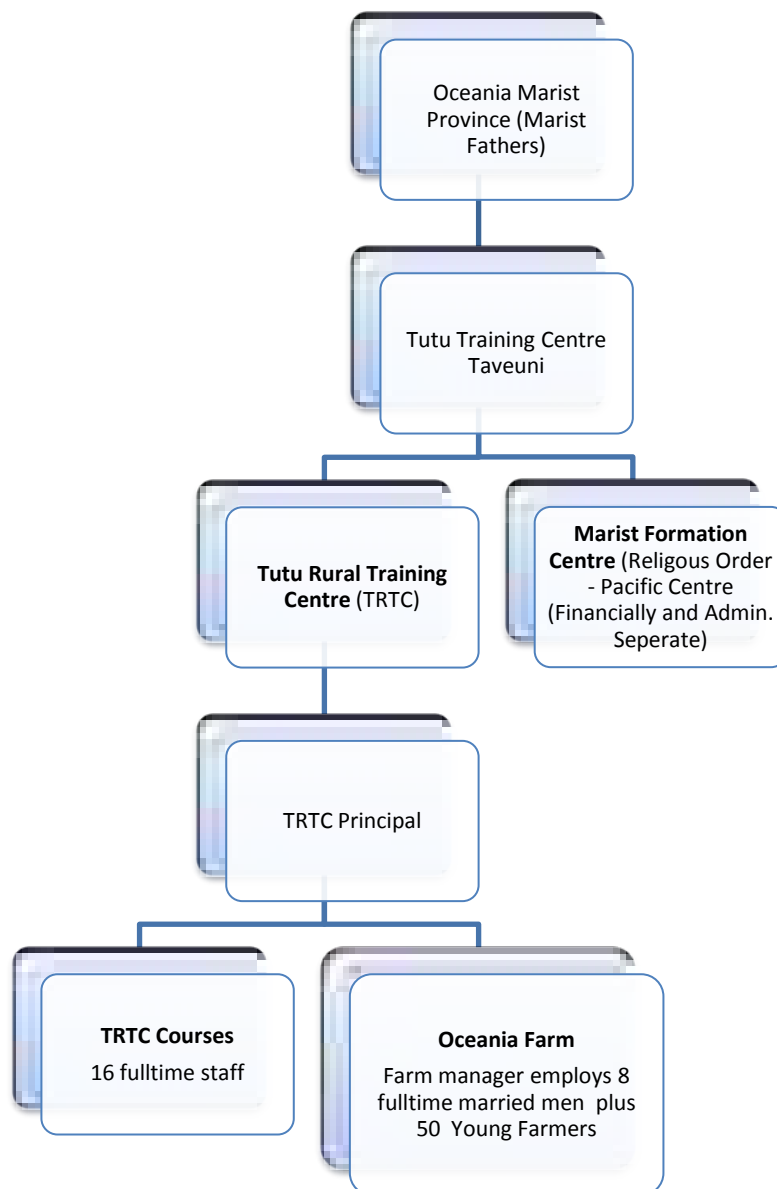
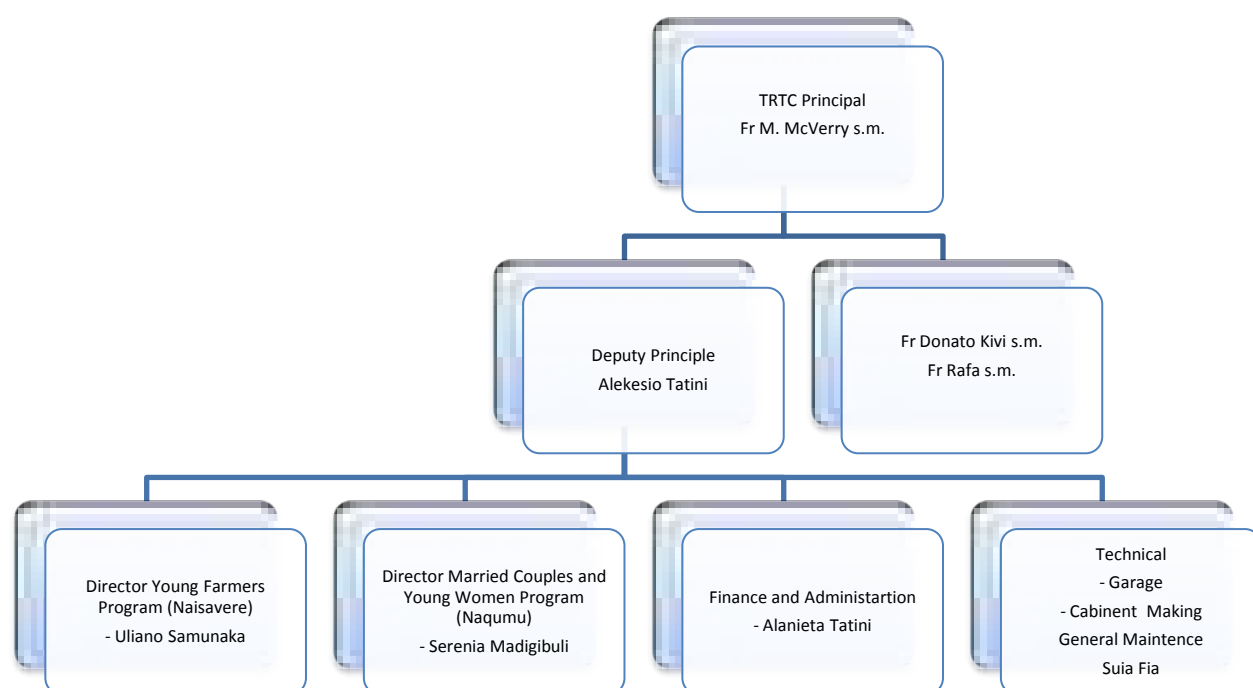


Figure 7: The organisation structure for the TRTC Courses



How the TRTC is financed

Income and expenditure

Income and expenditure for the two years ending 31st December 2009 are presented in table 9. The specific expenses relating to the courses over the same period are presented in table 10.

Table 9: The TRTC income and expenditure for the years ending 31st December 2008 to 2009*

	2009	2008
INCOME		
Grants for courses	388,000	387,985
Other grants	185,548	756,610
Sale of produce from Oceania Farm	36,910	55,674
Workshop income	6,616	35,046
Interest received	4,483	2,710
Investment income	12,048	13,451
Other income	36,365	39,409
Exchange gains	88,265	0
TOTAL INCOME	758,235	1,290,885
EXPENSES		
Courses	329,870	297,965
Capacity improvement	203,005	74,862
Workshops	46,380	31,646
Produce expenses	39,026	32,127
Administration	110,185	118,971
Loss on sale of assets	21,398	0
Exchange losses (unrealized)	0	21,645

TOTAL EXPENSES	749,864	577,216
NET INCOME (EXPENSE) FOR YEAR	\$8,371	\$713,669

* Source: TRTC Audited Accounts

Table 10: Course expenses for the years ending 31st December 2008 to 2009*

	2009	2008
Extension and visitation	14,247	15,120
Student travel	1,201	3,029
Schools supplies	2,940	1,490
Medical	1,161	1,222
Sports and recreation	4,158	1,814
Office	4,230	1,466
Fuel/lighting	2,678	2,581
Practical/handicraft	7,492	1,811
General maintenance	2,433	3,188
Building maintenance	29	335
Equipment maintenance	4,646	342
Provisions/food	45,195	22,260
Use of vehicle	1,052	105
Sub-total	91,462	54,763
Wages/salaries	205,915	199,690
Course specific expenses	297,377	254,453
Audit fee	3,120	2,080
General course overheads	29,373	41,432
TOTAL COURSE EXPENSES	329,870	297,965

* Source: TRTC Audited Accounts

A number of important highlights can be gleaned from the income and expenditure statements. These include:

- Tutu's operating costs are relatively low, considering the nature and number of courses on offer and number of staff employed (there are currently 33 full-time staff employed at the TRTC)
- The high percentage of Tutu's revenue that comes from external grants – 76 per cent in 2009
- Wages and salaries make up, by far, the largest share of course expenses – 62 per cent in 2009
- The substantial cost of extension and visitations – 16 per cent of non-labour operating costs in 2009
- The relatively low energy cost for running the Centre

The role of the Fiji Government in financing Tutu

The courses offered by TRTC have been largely financed by grants from the Fiji Government. Government grants that have been received over 38 years, commencing in 1972 are presented in table 11. The total value of this support has been \$3,913,996. On occasion, aid donors have made up for unexpected short falls. The \$138,000 received by the TRTC in 2008 from AusAID was such an occurrence. In that year, there was an unexpected duty imposed on machinery imported for the hydro expansion¹¹ combined with a substantial cut in the TRTC budget allocation from

¹¹ A prior written commitment was obtained from the Fiji Government to allow equipment related to the hydro project to be imported duty free as part of its rural electrification strategy. The Ministry of Finance reneged on this commitment. Tutu was required to pay duty of \$ 70,000 to secure the release of the equipment and another equivalent amount is still outstanding to the Fiji Inland Revenue and Customs Authority.

the Ministry of Agriculture¹². There were also substantial cuts in funding in 1987, 1988 and 1989, following the military coup. On these occasions, there was no aid funding available to fill the gap and staff had to go without pay for extended periods to ensure that committed courses were delivered.

Aid donors

As a matter of general policy, the TRTC has tried to avoid using aid funding for the funding of its core courses. However, the centre has proven very effective in securing donor funding for capital investments and for course development. Tutu's ability to secure such aid is a measure of Centre's proven track record, its accountability and the persuasiveness of Fr McVerry in presenting the Tutu case for support. Not surprisingly, Catholic donor agencies such as Caritas Australia and Misereor from Germany have been the main financial contributors. Over time, there have been contributions from a range of other agencies such as AusAID, Canadian Aid, the Foundation of the People from the South Pacific, New Zealand Rotarians and Freedom from Hunger. In 2006, the ADB was to become a major financial contributor to Tutu as part of its Rural and Outer-island Project (ROI). Regrettably, the ROI Project was subsequently cancelled.

Table 11: TRTC operating grants received from the Fiji Gov: 1972 to 2010

	Min. of Agriculture	Min of Youth and Sports	Total Gov. Grant
1972	\$9,900		\$9,900
1973	\$10,000		\$10,000
1974	\$15,000		\$15,000
1975	\$15,000		\$15,000
1976	\$15,000		\$15,000
1977	\$29,500		\$29,500
1978	\$29,500		\$29,500
1979	\$36,805		\$36,805
1980	\$39,297		\$39,297
1981	\$40,720		\$40,720
1982	\$40,720		\$40,720
1983	\$41,750		\$41,750
1984	\$41,750		\$41,750
1985	\$41,750		\$41,750
1986	\$46,750		\$46,750
1987	\$34,793		\$34,793
1988	\$34,200		\$34,200
1989	\$31,200		\$31,200
1990	\$65,000		\$65,000
1991	\$78,000		\$78,000
1992	\$81,600		\$81,600
1993	\$30,000	\$39,000	\$69,000
1994	\$70,000	\$50,000	\$120,000
1995	\$60,000	\$20,000	\$80,000
1996	\$60,000	\$40,000	\$100,000

¹² In 2005, the Ministry of Agriculture requested Tutu to expand its operations beyond its traditional area of Cakaudrove, into adjoining Bua and Macuatu provinces. After much discussion, and with some reluctance, Tutu agreed to this request on the understanding that the incremental funding for this expansion would come from the ADB's Rural and Outer-island Project. The ROI Project was subsequently cancelled and there was a cut in Government's 2008 allocation to the TRTC. Tutu, however, was left with commitments to students and their families that it had to honour, with less funds than it previously had to implement this expanded programme. An allocation of \$138,000 bridged the gap in 2008 and similar allocation from Caritas (Australia) covered the shortfall in 2009. In 2010, there was a restoration in the TRTC budget and no further donor funding was required to run the committed core programme.

1997	\$60,000	\$60,000	\$120,000
1998	\$60,000	\$60,000	\$120,000
1999	\$59,950	\$70,000	\$129,950
2000		\$112,500	\$112,500
2001		\$57,500	\$112,500
2002		\$158,080	\$158,080
2003		\$138,240	\$138,240
2004		\$138,000	\$138,000
2005		\$135,000	\$135,000
2006	\$384,491		\$384,491
2007	\$368,000		\$368,000
2008	\$250,000		\$250,000
2009	\$250,000		\$250,000
2010	\$350,000		\$350,000
Total	\$2,780,676	\$1,078,320	\$3,913,996

The most significant donor contributions in recent times have been:

- In 2007, AusAID provided \$98,000 to expand the Young Farmers by providing infrastructure and equipment
- Katholische Zentralstelle für Entwicklungshilfe.V./Misereor (German Catholic NGO) provided \$1.32 million for hydro electricity extension
- In 2009, Misereor provided \$185,548 for course development and capacity development
- In 2009, Caritas Australia provided \$138,000 in bridging finance for shortfall in government funding

Self-funding: a small part of Tutu's revenue

The TRTC has been able to raise some of their own funds from various sources — the sale of produce from Oceania Farm, interest and investment income.

The audited accounts show that the sale of produce from Oceania Farm was \$55,674 in 2008 and \$36,910 in 2009. In the early years, farm income was largely from the sale of copra. Since the early 1980s, the copra industry has virtually disappeared from Taveuni and is now largely confined to mainland Cakaudrove. In the 1980s, Tutu was at the forefront of planting cocoa on Taveuni. Unfortunately, the cocoa industry failed due to the mismanagement of the parastatal marketing monopoly the National Marketing Authority (NMA). In more recent times, farm income has been from the sale of *dalo* and, in particular, *yaqona*. The accounts show that produce expenses in 2009 were \$39,026, indicating a small loss of around \$2,000. In 2008, produce expenses were \$32,127, indicating a book net profit to the farm of \$23,547. Oceania Farm is integrated closely into the operations of the training centre thus it is difficult to access what its actual profitability is. However, at best, it contributes modestly to the net income stream of the TRTC. There is some scope to increase the revenue derived from the farm. Some recommendations made in this study include the development of a seedling enterprise to supply local farmers and production of high quality papaya and other fruit to supply to Taveuni tourism sector. Longer term agro forestry opportunities have also been identified.

Interest and investment income currently amounts to \$16,500 annually and come from both domestic and offshore (Australia) sources. Investments are made through the Marist Missions of the Pacific based in Sydney, and are currently held in a balanced mix of on-call fixed interest funds and property unit funds. The TRTC 2009, audited accounts note: "The purpose of the Sydney investments is to act as both a bridge and a back-up in times of financial insecurity. The Pacific is a graveyard of rural training centres, and Marist Training Centre is not immune from the same fragility". The scope for increasing this source of income is explored in the recommendations. Other sources of income are also discussed. A promising income opportunity is to sell surplus electricity to Taveuni grid in the near future.

A summary break down of income sources between self-funding, Fiji government funding and donor funding for 2008 and 2009 is presented in table 12. In those years, less than 15 per cent of TRTC income was derived from its own sources.

Table 12 TRTC summary income sources for 2008-09*

	2008	2009
Tutu self-funding	146,290 (11.3%)	96,422 (14.3%)
Fiji Government funds	250,000 (19.3%)	250,000 (37.3%)
Donor funds	894,595 (69.3%)	323,548 (48.2%)
Total	1,290,885	669,970

*percentage of total income presented in parenthesis

An absence of fees

A substantial source of revenue for most educational institutions is the fees paid by the students or their sponsors. As a matter of policy, no fees are charged for any of the Tutu courses. The reason for this policy is to not create a financial barrier to entry but to remove an element of obligation between Tutu trainees and their parents.

The policy of not charging fees results in the TRTC foregoing substantial direct revenue. However, the Tutu trainees make a substantial contribution in kind to the cost of operating the centre. Trainees in all resident courses contribute one day a week in community labour to the Centre. In addition, Young Farmers provide one day's labour for the Oceania Farm, for which they receive \$10/day to pay for their food. It is unlikely that the Oceania Farm could be financially viable, growing labour intensive crops such as *dalo* and *yagona*, without this substantial pool of low cost and highly motivated labour.

Costs contained through volunteers and dedicated staff

Tutu's relatively low level of financial self-sufficiency understates the high degree of self-reliance and cost containment that has been achieved through volunteers and in-kind contributions. It was volunteer labour from the Province of Cakaudrove that originally built the Centre and its roading infrastructure. All resident trainees continue to provide the Centre with a day of volunteer work per week.

For most training centres, the cost of staff is by far the largest cost element. The TRTC has a total wages bill of the Centre of little more than \$200,000 for a staff of around 30. This is remarkably low, considering the calibre of staff. At present, there are three Marist Priests and one Brother on the TRTC staff who are not paid a wage. The section heads are paid \$140/week, plus good quality housing and free electricity. Staff are also given access to land at Tutu to grow their own food and earn supplementary income from the sale of cash crops. These wages are well below what equivalent management positions would earn in the government and private sector. In addition, the Tutu staff work considerably longer hours. These staff could, and most did, earn considerably more as commercial farmers on their own land. The expectation is that the section heads will be returning to farming their own land when they leave Tutu. All the section heads are Tutu graduates and have a strong association with the Church. These factors generate a high degree of motivation and commitment and substantial financial sacrifice. This sacrifice included working without wages for several years when funding was severely cut after in the 1987 Coup. Staff competence and motivation are important considerations in looking at the prospect of replicating the Tutu model elsewhere.

Financial management

A major component of Tutu Courses has been principles and practices of money management. The trainees are taught financial planning, budgeting and record keeping and, above all, integrity in dealing with money. The same principles are apparent in Tutu's own financial management, which has been a matter of leading by example. In recent years, the TRTC accounts are audited by M.K. James FCA(UK) a New Zealand-based auditor. Grants from government and donors are acquitted in a timely fashion and to their satisfaction.

The role of the partners

From the outset, the TRTC has been a partnership between the Church (The Catholic Church — Society of Mary), the Community and Province of Cakaudrove, the Fiji Government and Aid Donors. Without the active participation of all these partners, it is unlikely that the TRTC could have survived, let alone prospered. This role played by the various partners needs to be taken into account in any efforts to replicate the Tutu model elsewhere in Fiji or in other Pacific islands.

The church

The prime mover for the establishment of the TRTC and its subsequent development has been the Society of Mary. The Society of Mary has served as trustees and provided a substantial area of fertile land upon which the Centre is located. The Society of Mary has provided exceptional leaders of the calibre of Br. Kevin Foote s.m. and Fr. Micheal McVerry s.m. Coming under the auspices of the Church has provided a high level of motivation and dedication to service which would be unlikely if Tutu was a government or a private secular training institution.

The community and province

The Community and the Province have been closely associated with the TRTC from its inception. Community volunteers have played a key role in the building of the Centre and the Centre continues to enjoy strong community support. In particular Tutu, alumni essentially run the village course programme.

Community support is not restricted to the Catholic population. Tutu courses have always been open to all religious denominations and ethnic groups. A sizeable minority of the trainees have been non-Catholics. There are strict rules in place that prohibit students changing their region while at Tutu. The only restriction in place is that the instruction be in the vernacular (Fijian) – which is the lingua franca of the Cakaudrove Province. The reason for this is that the training provided needs to be associated with returning to the village for self-employment and not wage employment in urban areas.

The government

Core funding to meet the operating costs of the courses on offer has been provided by the Fiji Government from the outset. In most years, this financial support has come through the Ministry of Agriculture although for 1993 to 2003 funds, were also channelled through the Ministry of Youth (table 17). The Government also provided some initial capital funding for buildings. Fiji's first Prime Minister, Ratu Sir Kamasese Mara, also provided Tutu an initial grant of \$5,000 to enable the Centre to "experiment" with innovative programmes. Hence, the name — the Tutu Experiment — was coined. Overtime, the government operating grant has generally steadily increased and more than kept up with the rate of inflation. However, in some years there have been sharp cut backs in government funding, which have usually coincided with budget difficulties faced by the government. In such years (1987, 1988, 1993, 1994, 2000 and 2008), Tutu faced a challenge in meeting its commitment to existing programmes. Tutu has always been able to meet these commitments, thanks to the sacrifices made by its staff.

The Government, in addition to providing financial assistance for the operation of the core programme, has assisted in the delivery of courses. The Taveuni-based Agricultural Officer has usually been responsible for the classroom component of agriculture courses for the YFC and FCC. Local nursing sisters, cooperative officers, police officers have all contributed as resource people for various courses.

The establishment and ongoing operations on the TRTC would not have been possible without the substantial financial support and other assistance from Government. The continuation of such support will be necessary for the foreseeable future. The financial support by Government seems to have been largely non-conditional, in terms of the courses on offer and how they are delivered. However, in 2005, the TRTC did agree to the Government's request to expand its operations in the adjacent provinces of Bua and Macuata as part of the ADB's ROI Project. The ADB Project subsequently did not materialize and the additional funding promised to Tutu was not fully forthcoming.

It is recognized that ongoing financial support from government is necessary and inevitable. However, there are risks associated with such funding. Long-term planning is made difficult when the budget is allocated on an annual basis in Government's national budget. The national budget situation can lead to unforeseen cut backs and allocations that can be at the whim of the Ministry of Finance at the time. Fiji's medium to long-term fiscal position is not

particularly encouraging. Thus, there is a need to increase Tutu's level of financial self-sufficiency to the extent feasible.

Aid donors

Aid donors have been an indispensable part of the partnership. As a matter of general policy, the TRTC has tried to avoid using aid funding for the funding of its core courses. However, the Centre has proven very effective in securing donor funding for capital investments and for course development. From time to time, it has been necessary to fall back on aid donors to make up for the shortfall in government core funding. The most substantial aid-funded capital investment has been the upgrading of the mini-hydro facility – with \$1.51 million provided by the German NGO KZE/Misereor.

It can be expected that Tutu will continue to rely, for the foreseeable future, on donor assistance for the larger capital and infrastructure development and course development and staff upgrading. Ad hoc use of donor funds to make up for shortfalls in government core funding should be avoided, if at all possible by increasing financial self-sufficiency and through the establishment of a reserve "rainy day" fund.

A summary of the overall impact of the TRTC

Since the TRTC was created in 1969, the TRTC has had a major impact on the people of the Province of Cakaudrove. Nearly 2,000 young people have completed the various courses on offer over the last 42 years. The breakdown of these numbers is present in table 13.

Table 13: A breakdown of the numbers completing TRTC courses (1969 to 2011)

The Volunteers and Comprehensive Courses	292
Kevin Young Farmers Course	280
Young Farmers Course 2 (participated in the Young Farmers Course selection process for > 2 years without attending Tutu)	approx 500
Farming Couples Course	536
Young Single Women's Course	236
Total	approx 1,840

Most of the graduates from courses returned to productive lives earning a livelihood from the farming of their own land. In addition, around 25,000 adults have attended shorter village courses throughout Fiji.

Impact on agricultural and rural development

The TRTC has had a major impact on agricultural and rural development in the Province of Cakaudrove. This impact is most readily quantifiable with respect to the Farmers Course. Most of these graduates were found to have returned to farm their own land and to generally earn incomes in excess of what they might expect to have obtained from wage employment, if such jobs could be secured. These impressive results have been achieved in an outer-island region that is considered statistically to be amongst the most impoverished with high rates of outmigration.

The direct benefits of the TRTC have been largely confined to the Province of Cakaudrove. These benefits are now spilling over into areas of the adjacent provinces of Bua and Macuata. Tutu's prime objective is to train people to return home to farm their own land. The TRTC has been highly successful in achieving this objective. Had the TRTC not existed, a high percentage of these 1,000 or so young men who participated in the programmes would have likely joined the outmigration from the Province with little prospect of securing worthwhile formal employment in urban areas. There are significant social and economic costs to the Fijian economy associated with this outmigration.

The return on government and donor investment

Fiji Government and donor support has been critical for the continued operations of the TRTC. Since its inception, Tutu has received of some \$4 million in government grants and around \$2 million in donor funding. These funding agencies have obtained an exceptionally good return on their investment.

It is estimated that the annual income earned by the 68 Young Farmers who graduated in 2007 and those that will graduate in 2011 will be \$1.27 million. Had it not been for Tutu, these Young Farmers would have been largely under-employed in the village or would have migrated to the urban areas with limited employment prospects. To annual income earned by the latest sets of Young Farmers has to be added the income earned by previous groups of Young Farmers and the income earned by the over 500 Married Farming Couples and 300 Young Single Women. There are also significant multipliers at play here with other rural people associated with the Tutu courses. Of particular note here are the other young men who have been involved with the Young Farmers Course, without formally attending the course (designated as the Young Farmers 2 Course). Thus, a government investment of a little more than \$4 million over 35 years is now generating an equivalent amount annually. It would be difficult to identify investments in rural development that would provide such a high rate of return on public funds.

In 2007, AusAID provided Tutu with \$97,000 to invest in infrastructure (access roading and a tractor) to expand the Young Farmer Programme. AusAID's Independent Completion Report (ICR), prepared in 2010, evaluated the economic returns from this specific grant made to Tutu. Extracts from this ICR are presented below (AusAID 2010):

On the 25th of August 2007, a new intake of 46 rural youth entered the four-year TRTC Young Farmers Programme. Each was allocated a two-acre block on which they planted yaqona and dalo. The income earned from these blocks is used to pay their expenses at Tutu and finance their future investment in housing and commercial agriculture back in their own village. Had AusAID not made the investment in roading, there would have only been sufficient land available to support an intake of only 29 Young Farmers. The expanded intake enabled Tutu, for the first time, to include Young Farmers from adjacent Provinces of Bua and Macuata. The AusAID-funded acquisition of a new tractor and ancillary equipment enabled all 46 Young Farmer blocks to operate significantly more efficiently (lower cost and more savings accumulated for the Young Farmers).

Over a four-year period, the direct benefits of AusAID's \$ 97,000 investment have been estimated and are listed as follows:

- An additional 17 Young Farmers planted 1,000 *yaqona* plants each as an investment crop to finance the development of their own village farm and housing. At four-year maturity, these are valued at approximately \$60/plant. Due to the damage caused by Tropical Cyclone (TC) Tomas, approximately 10 per cent of these *yaqona* plants were totally lost through landslides and rot. Another 10 per cent had to be pulled at two and half-year maturity — valued originally at \$25/plant — but with the market flood resulting from many farmers pulling, a more accurate estimate is \$15/plant. Thus, the total value of the *yaqona* harvested from the 48 Young Farmer blocks is **\$ 255,000**
- The Young Farmers plant dalo as a medium term cash flow crop. Each young farmer over a four-year period plants around 3,000 dalo plants, with an average estimated value of \$1.50/plant. Thus, the additional 17 Young Farmers that have resulted from the AusAID assistance will have earned an estimated amount around \$76,500,000 from dalo. This estimate takes into account the adverse impact of TC Tomas
- It is estimated that the remaining 29 Young Farmers would have lost approximately 10 per cent of their *yaqona* plants as a result of TC Tomas, if they did not have new tractor trailer to immediately transport harvested roots to the TRTC drying facility. The total estimated loss at \$15/plant is \$43,500. This represents a direct benefit for AusAID's investment. In addition, the new tractor allowed 16,000 kasa (*yaqona* planting materials) to be saved and planted in six different nurseries
- Following TC Tomas, it was necessary to immediately harvest all four and five-month old dalo. Approximately 7,000 dalo tubers were harvested for immediate sale, to a value of \$ 7,000. This was only possible because of the new tractor and road up-grading and is thus, a direct benefit from the AusAID investment

- The new tractor has been able to reduce operating costs (repair and maintenance, tractor and truck hire) and increase labour productivity. The annual cost savings are estimated at \$ 40,000 per annum

In 2011, there will be a new intake of a similar number of Young Farmers, to that of 2007. Each will have a two acre block that will have been fallow for at least four-years or is new land that was made available by the access roading provided by the AusAID roading. A similar stream of benefits to those described above will accrue to this future intake. To ensure that the level of benefits is maintained, it will be necessary to incur some additional cost, in terms of the repair and maintenance of the assets provided by AusAID.

Table 14 summarises the direct benefits accruing over a nine-year period from AusAID investment in infrastructure at the TRTC. Over the nine years, there is an estimated direct benefit, to some 90 Young Farmers of \$ 3.4 million. This large benefit stems from an initial AusAID investment of only \$ 97,000 and an ongoing expenditure on infrastructure repair and maintenance of \$ 20,000 from year four, onwards. This investment is projected to generate an exceptionally high internal rate of return (IRR) of 345 per cent — with already half these benefits already realised.

Table 14: Benefits compare with cost of AusAID's infrastructure Investment TRTC

Year	1	2	3	4	5	6	7	8	9	Total
Benefits										
<u>Income earned by the extra 17 young farmers</u>										
income from yaqona				714,000						
income from dalo		250,000	250,000	200,000	250,000	250,000	250,000	200,000	250,000	1,900,000
<u>Income from the core 29 young farmers</u>										
income from yaqona salvaged after TC Tomas				435,000						435,000
income from dalo salvaged after TC Tomas				70,000						70,000
Annual operating cost savings		40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	320,000
Total benefits		290,000	290,000	1,459,000	290,000	290,000	290,000	240,000	290,000	3,439,000
Costs										
Tractor and ancillary equipment	80,000									-
Access roading	17,000									-
Repair and maintenance				20,000	20,000	20,000	20,000	20,000	20,000	120,000
Total costs	97,000	0	0	20,000	20,000	20,000	20,000	20,000	20,000	120,000
B-C	-97,000	290,000	290,000	1,439,000	270,000	270,000	270,000	220,000	270,000	3,319,000
IRR	345%									

Large further benefits accrue well into the future when most of these young farmers return to a life time of farming their own land.

The key principles of the Tutu model and lessons learnt from four decades of experience

The discussion and analysis above has shown the Tutu “experiment” has been highly successful in equipping young people to be prosperous farmers on their own land. Youth unemployment together with the creation of worthwhile rural livelihoods has emerged for decades as major intractable problems in Fiji and the Pacific islands countries. For this reason, there has been keen interest in expanding and replicating the Tutu model. Thus, it is important to inform decision-makers and donors of the key principles of the Tutu model and the lessons learnt from over 30 years of experience in its application.

The key principles and lessons learnt that have been gleaned from this study are listed and summarized below:

- The training is for self employment, using the participants own resources - it is not training for wage employment
- This is not a programme for dropouts from formal education
- The focus audience is 19 to 23 year olds who live in their own village
- The course entry requirements must be specific and demanding
- The programme is not a substitute for formal agricultural training – which also needs to be substantially improved in Fiji and other Pacific islands
- Management is at the core of Tutu courses
- An intensive and prolonged extension and follow-up effort is required from staff to support the training

- The successful management of a rural training centre requires a high level of expertise
- Staff should be selected on the basis of a proven track record in using their own resources
- Management needs to be highly participatory
- The training centre needs to serve a specific geographic region
- The course requires regular oscillation between students home farm and the training centre
- Training must be in the local vernacular
- Farming enterprises for the trainees need to be based on crops that have well established marketing systems in place
- The courses need to provide a mechanism to accumulate savings for investment
- The rural training centre needs to be a partnership between the sponsor, community and government
- In lieu of fees, there should be a significant contribution in kind/voluntary work
- Parental participation in the training programme is essential
- The training programme needs to start small and evolve with staff capability and in response to needs of the rural community
- There should be sufficient flexibility to respond to needs of constituents
- There needs to be the freedom to innovate
- The demand for courses is the main source of inbuilt accountability
- The Centre must have a local focus but with an international character

The training is for self-employment using the participants own resources - it is not training for wage employment

The TRTC is quite different from most other education institutions, operating in Fiji and other Pacific islands. High schools, colleges and universities are formal educational institutions that offer a curriculum (usually externally approved) and provide a certificate/diploma/degree, indicating achievement for those who have successfully completed the programme. Success at such institutions is measured through exams and other such measures. The certificate is used to secure a formal wage-earning employment or to obtain entry into other education institutions. The TRTC does not do this. It is a non-formal training institution which trains young people for self-employment, using their own resources. The minimum requirements for entry are high but are not based on formal educational qualifications. The trainees are not required to pass formal examinations and they do receive a certificate at the completion of the course. The non-formal nature of the training makes accreditation difficult through conventional accreditation systems and standards.

This is not a programme for “dropouts” from formal education

Most rural training centres in the region have been designed for “dropouts” from the formal education system that have not been able to secure wage employment. This is not the case with Tutu which is designed to make young Fijians successful farmers of their own land. Most entrants into Tutu do have a relatively low level of formal education achievement. Thus, prior to their entry to Tutu, they would usually be perceived as “dropouts” by their family and village. However, being at Tutu is now increasingly being perceived as prestigious, particularly amongst the trainees themselves. No doubt a contributing factor to this prestige has been the demonstration effect of the Young Farmers having their own high quality house in their home village and having substantial bank balances at the completion of the course. In no sense can Tutu be considered a second best education option given the comparison of the income earning of Tutu graduates compared with their counterparts in wage employment. It provides a different education option.

The focus audience is 19 to 23 year olds who live in their own village

Tutu is about the formation of character – it is within this age category that this is best achieved. These trainees still have youthful enthusiasm but have experienced the tribulations of village life. It is required that entrants into the Tutu training programme must have spent at least the last two years living in the village. Tutu does not cater for

unemployed youth from urban areas who wish to return to live in rural areas. This group have particular needs – but this is not provided by Tutu.

The course entry requirements must be specific, quantifiable and demanding

Entry into Tutu is not based on formal education qualifications. Nevertheless, the requirements to enter a Tutu course are demanding and are very specific and quantifiable. To gain entry into the YFC, a village youth needs to have planted at least 1,000 *yaqona* plants (or equivalent). The quantifiable and transparent criteria demonstrate two main factors that are critical for success at Tutu. These are: 1) access to land on which to plant; and, 2) commitment to be a farmer.

The programme is not a substitute for formal agricultural training

Tutu is a provider of non-formal adult education for a specific target group. It should not be seen as a substitute for more formal agricultural education. There is a need to significantly improve the skills of agricultural extension and research officers. To do this, formal agricultural colleges and training institutions need to be upgraded.

The training centre serves a specific geographic region

Rural training centres are often national centres that accept students from the entire country. Tutu is not a national centre. Until very recently, it only served the Province of Cakaudrove where it is located. The Tutu catchment has been extended to parts of the adjacent provinces of Bua and Macauata – which are culturally and agronomically similar. The reason for the narrow geographic focus is to ensure that most trainees return to farm their own land. The narrow geographic focus allows for:

- the environment and the crops at the training centre needing to be similar to what the trainees have come from and will return to;
- frequent and cost-effective oscillation between the training centre and the trainees home farm;
- frequent and cost-effective contact with the trainees prior to their selection and arrival at the training centre; and
- frequent and cost-effective follow-up with the trainees during the course and after they have completed their course.

Training must be in the local vernacular

Tutu's training (both verbal and written) is presented in the vernacular (Fijian in the Cakaudrove dialect). This sets Tutu apart from most rural training centres in the Pacific, where most instruction tends to be in English. Most Tutu trainees, unlike rural dwellers in other Pacific islands, are reasonably literate in English, thanks to Fiji's formal school system. However, the reason for TRTC's instruction being in the vernacular is that the training provided needs to be associated with returning to the village for self-employment and not wage employment in urban areas.

The course requires regular oscillation between the trainee's home farm and the training centre

"What happens in their home situation is the ultimate value of the course!" The regular oscillation between the trainee's home farm and the training centre is a key necessary component of the Tutu model. Oscillation allows the trainee to put into practice and to test the principles they learn at the training centre on an ongoing basis. The adjustments that need to be made in the trainee's life style back in the village are made in an incremental manageable manner. As a result of oscillation during the course, the young farmer is able to make a relatively seamless transition from life as a Tutu trainee to a self-employed village-based farmer. As Fr. McVerry notes:

For the young farmers, they are able to actually establish themselves during the course, e.g. build their own houses, make their own furniture, buy farming and household equipment, etc., so that at the end of the course, there is no major change of direction but to simply carry on with what they have already been doing. Their course is actually living out a five-year plan that Tutu has drawn out for them, including the years prior coming to Tutu, and they leave with own five-year plan that they have clearly articulated and has been accepted by their parents (CF parents course).

They receive guidance and encouragement in this adjustment process from Tutu staff. Again noting Fr McVerry:

It gives staff the opportunity to visit the participants during their home period and see, experience and reflect with them on obstacles and difficulties. In the case of the youth, staff is able to encourage parents who co-operate with the participants programme and confront parents who are un-cooperative.

They also receive positive peer support from the trainees who are facing the same set of challenges. Many of these trainees will have had their house constructed in the village prior to the completion of the course. This contrast to the situation faced by trainees from more conventional rural training centres who only try to return to their village situation to farm at the completion of the course. All at once, they face the simultaneous challenge of adjustment back to village life and applying their newly acquired skills from the training centre. Not least of the challenges, is to obtain the necessary access to land for their farming enterprise and obtaining the full support of their parents. They are required to do this in isolation without the support of the training centre and probably without any accumulated financial assets. The magnitude of this challenge can be overwhelming and, unlike Tutu, there is usually no second chance for failure. If the farming enterprise is not established as expected – the ex-trainee either succumbs to the routine of village life or leaves or seeks wage employment elsewhere. The situation for the Tutu trainee is quite different as explained by Fr. McVerry:

For youth (young farmers and young single women), it also means that, if they initially fail in their home period and targets etc., they are able to come back: re-evaluate with staff on a personal level, then have another crack in five weeks time. In learning from past mistakes, Young Farmers go through this process twenty times in their four-year course and so many who initially do not cope well alone, are able to finally get on top of it.

The application of the oscillation principle is a necessary requirement for the application of the Tutu model. However, oscillation does bring with it disadvantages and limitations that those wishing to apply the Tutu model elsewhere need to be aware of. Some of these disadvantages and limitations the Tutu staff have articulated include:

- The established discipline and flow of the course is interrupted and has to be re-established when the trainees return from their time in the village
- Problems, hurts, disillusionments' suffered during the village situation come back with the trainees as baggage that remains a negative distraction, unless debriefed properly by staff
- Frequent return to the home village brings with it significant financial cost for trainees in terms of meeting travel costs. This is another reason why the Tutu model can only be applied within the confines of a limited geographical area
- Extended absences from the Centre limits the types of projects that trainees can undertake at the Centre. Small livestock (poultry and piggery) and vegetable growing projects tend not to be feasible because they require constant attention. In the past, Tutu Young Farmers had piggery and poultry projects that were looked after by staff in absence of the trainees. This proved too demanding, in terms of staff time and these projects have now been dropped
- Similarly, the crops grown at the home farm have to be those that are not unduly impacted by extended periods of absence

Perhaps the biggest constraint to applying the oscillation principle is that it requires dedicated and highly skilled staff. Staff are required to be frequently away from their own families and spend long working hours in village-based consultations. Most civil servants and college graduates are likely to be reluctant to take on such work.

Management is at the core of Tutu courses

Management is seen as central to successful self-employment, using your own resources. Hence, management, in all its facets, is at the core of Tutu courses. For those in wage employment in the formal sector, knowledge of management is useful but not essential.

An intensive and prolonged extension effort required from staff. Tutu training is particularly labour-intensive, in terms of staff time, both at Tutu and back at the trainee's home farm. In the case of the YFC, this extension begins several years before the participant enters Tutu, covers the time they are at Tutu, and extends for years after the Young Farmer has completed the course. A particular location is visited three times a year by staff. The programme for each visit involves:

- a visit to the trainees plantation – where a count will be made of the crops in the ground;
- a discussion with the trainees parents;
- a meeting with the head of the *mataqali* (land holding unit);
- coaching of young people who have applied for entry to Tutu; and
- indentifying changes that have to be made at Tutu to make the courses more responsive to the needs of young people living in the village.

The staff intensive needs of the extension programme mean that the staff trainee ratio at Tutu is much higher than that of formal education institutions. The TRTC currently has 33 staff members, of which 16 are fulltime staff members – with around 40 to 60 trainees participating in courses at one time. Furthermore, Tutu staff tend to work long hours - not being constrained by civil service or unionized wage worker regulations and attitudes.

The successful management of a rural training centre requires a high level of expertise.

The success of Tutu can, in no small measure be attributed to the high calibre of the staff and the exceptional leadership of members of the Society of Mary such as Br. Kevin Foote and Fr. Michael McVerry. Much of the necessary management skills have been learnt on the job – initially as Tutu trainees, then as successful farmers in their own right and subsequently through a formation process as Tutu staff. The core training course for Tutu staff is the Married Farming Couples Course.

The 'role' of staff in Tutu is not that of teacher, trainer, technician, etc. but to be a "formator". Forming people in attitudes, values, and practices for management skills required for self-employment. There are some technical people on the staff e.g. cabinet maker, mechanic, book keeper, etc. but, by and large, the various people required for technical input come from outside Tutu. For example, training in the technical aspects of agriculture is provided by the Ministry of Agriculture staff on Taveuni and mechanical theory is provided by an instructor from the Nadave Training Centre on Viti Levu. The key people in Tutu are referred to as the 'core' staff. They work daily alongside the participants as formators.

An adult education methodology is used in the formation process which involves a paradigm shift in the approach to training. The process is led by the core staff to which participants grow to respect and trust, largely through the extension process. On the participants' home farms, the participants are in charge of the process and the staff are the uncertain ones. This builds an openness for change and enables traditional farmers to change their habits and attitudes which requires enormous dedication on the part of the staff. All attitudinal change is slow, particularly in rural areas and the same staff who must relate with young people must also be able to engender the trust of the old people whose support is also required for people working communally-owned land.

Initially, Tutu-employed staff were chosen from Tutu course participants who had no qualifications, simply because the Centre could not afford to employ people with formal qualifications. However, as Fr. McVerry relates:

We soon learned that these people were far more effective than the so-called qualified people who often lacked rapport and credibility in their own persons. Rural people are, in general, often suspicious of people who come with theoretical answers and proposals but are more accepting of other farmers who have done it themselves and can talk with integrity from experience.

A formal education would not be sufficient to equip people to manage a rural training centre such as Tutu. Formal education can however, provide valuable complementary skills in areas such as agriculture and engineering. These skills are also provided through external short-term training courses.

Table 15 lists the 33 Tutu staff members and shows their period of service at Tutu, position and role, level of formal education, further training received and work experience. A feature is the long period that the core staff have been with Tutu.

Table 15: Tutu staff and their background

Name	Years of Service	Position/Role	Formal Education Level	Further Training Received	Work Experience
Fr Michael McVerry	1972-1975,1982-	Principal	Th.M. UC Berkeley		Solomons (7 yrs) Tutu (36 yrs)
Alekesio Tatini	1976 -	Deputy Principal, Administration	Form 3	- F.I.T.1984-1988 Animal & Farm Husbandry In Service at Koronivia (1977) - Disaster Risk And Reductions Philippines - Climate change, small business course	Tutu mechanic instructor (18yrs) Tutu Farm manager-(12yrs) Vice president of Taveuni Rural Youth Council (3yrs)
Alanieta Tatini	1993 -	Financial Administrator	Form 6	- Leadership course, - Sales & shop management - Home Economics (cooking & baking)	Hotel office work for (3yrs) Tutu (13 yrs)
Fr Donato Kivi s.m.	January,2010	Course Staff	Form 6	- B.Th, - Automotive engineering F.I.T certificate, and Trades Cert.FNTC - Private Pilot license.	Tutu (1 yr)
Br Sairusi Nabuli s.m.	1974-1980; 2007 -	Maintenance	Form 3	- General maintenance on small business. - Plumbing, electrical, carpentry	Tutu, School, Parish (35 yrs)
Atonio Viliame Dakuwaqa	1999-	Carpentry workshop tutor	F.I.T.- first line supervision	- Small business development	J.S. Hills -5yrs Tutu (12yrs)
Osea Natavaya	1999-	Mechanic	Form 5	Mechanical engineering, Six month course	Mechanics and electrical wiring (36yrs)
Iowane Lasaga	2006-	Course Coordinator	Form 5	- Formation through relationship (6 month course), - Small business course, - Village course, - Agri business course	Tutu (5 yrs)
Lusiana Elisabeta Lasaga	2006	course coordinator	Form 6	-SPC-Training of Trainers. -Small business studies(micro finance) - Village course, - - Leading through Relationship course	Tutu (5 yrs)
Semi Yalewanirabe	2005	Tractor driver course Staff	Form 6	- Village course, - Agri business training,	Tutu (5 yrs)

				- Small business studies - Soil testing training	
Sisilia Boteidavetalevu Yalewanirabe	2005	course Staff	Form 6	- Village course, - Married Couples course, - Small business course - SPC (Training of Trainers)	5 yrs-Training centre 4yrs –Tourism Industry
Farasiko Ramasi	August,2010	course Staff	Form 6	-Village course, -Leading Through Relationship, - Small business course, - Small machine repair	
Maria Iosefo Ramasi	August,2010 -	course Staff	Form 6	- Small business(micro finance), - Village course, - Leading Through Relationship	
Samuela Naka	1994 -	Director of Young Farmers Course	Form 4	(six month course, - Small business course, -Village course	Tutu (17yrs)
Ilisabeta Moa Bosco	3 rd Jan,2009	Accounts clerk	F.I.T.	- Micro finance course, - - Village course	Tourism Industry (12yrs) Tutu (2yrs)
Ioani Bosco	April,2010	Farm Hand	Form 5	Village course	Farmer
Serenia Madigibuli	August,1987	Director of Adult Education Centre, Naqumu	Form 6 Nursing	-Non Formal Education –USP -Married couples course -Ministry of Women courses - SPC Training of Trainers	Nursing (2 yrs) Tutu (24 yrs)
Iowane Madigibuli	August 1987	Course Staff	Class 8	-Married course -Leadership course	Telecommunications (cable) (3 yrs) Tutu (24 yrs)
Alusio Neori Tikoinasova	2003 -	Course Staff	class 8	-Young Farmers course, - Married Couple course -Asia-Pacific Youth Development seminar -Caritas Australia climate change training. -Agri business course. -CEFE-Based New business course -Enterprise Development Workshop For	Tutu (8yrs)

				Indigenous Young People. - Vehicle & Generator Servicing workshop	
Lusia Bale	June 1999	Cook	Form 5	- Village course - Baking, cooking, sewing, screen printing course.	Tutu (4 yrs) clerk (Parish) Shop Assistant (3 yrs)
Suia Fiafia	1997	Head of Electrical and Technical Department	Primary		Plumbing and Hand Carpenter
Kusitina Bautarua	2005-	Housekeeping/ cook	Form 4	- Village course - Baking/cooking class	Tutu (6 yrs)
Josefa Nagi	1995	Farm Hand	Form 6	Married couple course	Tutu (16 yrs)
Farasiko Jese	1995	Farm Hand	Form 6	-Leadership Training. -Village course -six month course & small machine mechanic	Tutu (15 yrs) security officer
Erenimo Tui	1991-2000 2003-2011	Farm Manager	Form 1	Village course	Tutu (20 yrs) Plumber Instructor
Saimoni Dausiga	1995-	Farm Hand	Form 3		12 yrs - P&T 4 yrs –Hospital staff 16 yrs-Training centre
Mereseini Kilai	2010-	Farm Hand	Class 8	Village course	1yr –Training centre
Makarita Raluve	2010-	Farm Hand	Form 4	-Young Women course -six month course -Family Planning course, Parenting	1 yr – Training centre
Mikaele Cicila	2010-	Farm Hand	F.I.T.	- Village course - Mechanical Training (F.I.T.&TPAF)	4 yrs –Mechanic Tutu (1 yr)
Litiana Lebanaivalu	2010-	Farm Hand	Form 6	Village course	Tutu (1 yr) Sales assistance
Marie Sinie Taylor	2001-	Housekeeping/ cook		Village course Baking/cooking course	Tutu (10 yrs)
Waisea Turaga Makarita Low	2009 - 2009 -	Farm Hand Farm Hand	Form 3 Form 3		

Staff should be selected on the basis of a proven track record in using their own resources

All Tutu staff were chosen on the basis of a proven track record in using their own resources. Most are graduates of the Tutu system. It is expected that most, if not all will return to farming their own land when they have completed their service at Tutu. Thus, these staff are ideally placed to be role models for the village youth they seek to mentor and mould. Few have academic qualifications – although most have been exposed to a variety of short-

term externally run courses (table 15). Thus, potential issues could arise in the future if these qualifications are not recognized should conventional accreditation standards be applied to Tutu.

Management needs to be participatory in nature

The leadership of the Tutu Principal, Fr McVerry s.m., over the last 28 years has, no doubt, been a key factor in the success of Tutu. His success raises the issue of key-person dependency, which Tutu now must deal with in the interest of sustainability. However, this succession will be made easier by the Principal's participatory management style. There are weekly management meetings with the section heads – where their input into decision-making is actively sought and obtained. The views of staff at all levels and trainees are also actively solicited. This participatory management style has contributed to Tutu's flexibility and responsiveness to the changing needs of its constituents. It also means that the Centre is well-equipped to cope with the Principal's prolonged absence as in 2008 and 2009, for medical reasons.

Farming enterprises for the trainees need to be based on crops that have well-established marketing systems

In recent decades the enterprise mix for the YFC and FCC have been *dalo* and *yaqona* – with *dalo* being the emphasis on Taveuni and *yaqona* on mainland Cakaudrove. Both crops have well-established private sector marketing systems. The Tutu trainees and graduates can always find a market for their production at the prevailing market price. Thus, Tutu Centre can avoid the pitfall of being responsible for marketing. In the past, Tutu has promoted products (cocoa and vanilla) that, at the time, did not have well-established marketing systems. The Short Report for 1983 notes for the Young Farmers Course:

Projects established in recent years include cocoa, vanilla goats and yaqona. All of these are maintained by students and continue to show a lot of promise. In particular, vanilla is doing very well. We remained concerned about processing and marketing for next year.

Important lessons have been learnt from this unfortunate cocoa and vanilla episode. The marketing of cocoa, at the time, was the sole responsibility of parastatal marketing monopoly, National Marketing Authority (NMA). The NMA failed, leaving farmers with product that could not be sold at economically remunerative prices. When the NMA was finally closed, there was no market. Vanilla was keenly promoted by the Ministry of Agriculture as a high-value diversification crop however, there was little technical knowledge available on processing requirements to pass on to farmers. The private sector marketing involvement was deficient with insufficient working capital and inadequate market linkages. As a result, the Tutu Young Farmer projects, built around cocoa and vanilla failed through no fault of their own. This failure led to disillusionment with farming as a business and with the Tutu system. The database shows that subsequently, thanks to their training at Tutu, many have been able to get back on their feet as *dalo* and *yaqona* growers.

Both cocoa and vanilla are agronomically well-suited to many areas on mainland Cakaudrove. Competent private sector marketing entities have evolved for both crops. Thus mature ex-Tutu trainees could well-consider re-establishing cocoa and vanilla ventures. However, until these industries are well-established, they are not crops upon which to base youth training programmes. Youth programmes need to be based on crops that have well-established and proven marketing systems in place.

The courses need to provide the mechanism to accumulate investment capital

A major constraint faced by farmers wishing to develop commercial agriculture on custom land is lack of capital – both investment and working capital. The banking system (commercial or the Development Bank) will not provide loan finance because of the absence of tradable security. The compulsory saving system established by Tutu overcomes this constraint. Prior to graduation, Young Farmers are able to establish substantial farming enterprises and a house on their own land, and are unencumbered by debt (even if loan finance was available). An important lesson learnt at Tutu is that a somewhat paternalistic approach needs to be taken to the use of the students own funds during the training programme.

The rural training centre needs to be a partnership between the sponsor, community and government

Tutu could not have succeeded unless it was a partnership between the sponsor (the Society of Mary), the community (the Province and people of Cakaudrove) and the Fiji Government. The Society of Mary, apart from

providing a sizable amount of high quality land, supplied the people with the enthusiasm and the long-term commitment to establish and run the centre. It is unlikely this could be achieved by the government or through a secular training NGO. To deal with culturally sensitive issues such as land and village governance, the wider community needs to assume a degree of ownership of the Centre. It is unlikely that a rural training centre could ever be financially self-sufficient, thus the support of government and other donors is critical. Furthermore, the programmes of the Centre cannot be in conflict with rural development policies and programmes of the government. The “three legged stool” analogy applies to partnership between these three entities - remove one element and the stool collapses.

Fees should not be charged

In contrast to most training centres, Tutu does not charge fees. This removes a major barrier to entry for low income rural households and removes the obligation factor between the trainee and his or her parents. This does not mean that the trainees don’t make a major contribution to the up-keep of the centre. This is however, done in kind through significant labour contributions to the maintenance of the Centre and its income-earning enterprises.

Parental involvement

A feature of the Tutu Young Farmer and Single Women Courses is the involvement of the parents, via a parents’ course. Parental support and encouragement is seen as essential if the trainees are to make the transition to successful independent farmers. Parents play a key role in providing these young farmers with access to land.

Start small and evolve

Tutu started in 1973 with a single course (Volunteer Course) involving 25 participants. In the intervening 38 years, the portfolio of courses has evolved to six. Some courses (Married Couples and Young Single Women) are now offered less frequently than in the past as adjustments have been made to match course demand to delivery capability. Any new rural training centre wishing to emulate the Tutu model would need to take care not initially over-extend itself and try to deliver beyond its capability.

There should be sufficient flexibility to respond to needs of constituents

Fiji’s first Prime Minister Ratu Sir Kamasese Mara provided Tutu an initial grant of \$5,000 to enable the Centre to “experiment” with innovative programmes. Thus, from the outset, Tutu has had an ethos of innovation and experimentation to meet the needs of the Centre’s constituents. Tutu’s innovations have been based on the systematic incorporation of lessons learned. The process has been informed by close consultation with the Centres’ rural clients and through Tutu’s participatory management style. Fr. McVerry talks about the critical role staff visitations play in the process.

Correspondingly, this kind of visitation variously consoles, challenges and confronts staff with on-site evaluation on how the course is working. Sometimes the participants need to change; sometimes the course needs to change to be more effective. This is how the courses at Tutu have come into their present format.

Examples of flexibility could include, extending or cutting short a particular course due to unforeseen circumstances such as a major cyclone. Such pragmatism would not be possible in more formal training programmes which have fixed curriculums and issue certificates of achievement which may be subject to external accreditation.

The demand for courses is a source of inbuilt accountability

The more flexible nature of the Tutu programme without formal exams and achievement certificates does not mean that it lacks accountability. Quite the contrary, there is a high degree of built-in accountability through the demand for the courses. Applications for the courses would soon dry up if the youth of Cakaudrove thought the courses were not delivering, in terms of remunerative self-employment. Applications for the Young Single Women Course have fallen in recent years. As a consequence, the Course is currently under review to make it more relevant to the need of young single women living in the village.

The Centre needs have a local focus but with an international character

Since its inception, the focus of Tutu has been entirely on the Province of Cakaudrove, and more recently on some areas in the adjacent Bua and Cakaudrove Provinces. However, Tutu is not by any means an insular parochial training institution. From the outset, the TRTC has run in parallel to the Oceania Training Centre for Marist Brothers. The trainees for the Oceania Centre come from all over the Pacific. While the two centres are administered separately,

there is close interaction between the trainees from the two centres. Part of the TRTC Mission is “to be involved in a transformation and a reciprocal outreach to the peoples of the Pacific”. Thus, Tutu has been more than willing to share its experience with other rural training centres and initiatives throughout the Pacific¹³. This cooperation is going to be critical if the Tutu model is going to be successfully applied elsewhere in Fiji and the Pacific. Tutu has become an internationally recognized centre in no small measure due to influence and outreach of the long-standing Principal. Fr. McVerry was originally recruited from the Solomon Islands and technically remains part of the Solomon Islands. This international character needs to be maintained into the future to avoid the risk of Tutu falling back into being a parochial training institution.

Identified weaknesses of the TRTC

Despite the remarkable success of the TRTC over more than 30 years, there are inherent weaknesses and fragilities that need now to be resolved if this success is to be maintained into the future. These weaknesses revolve around a high degree of key person dependency and insecurity of tenure and funding.

A high degree of key person dependency

The leadership of the Tutu Principal, Fr. McVerry S.M., over the last 28 years has, no doubt, been a key factor in the success of Tutu. His success has led to the issue of key person dependency, which Tutu now must deal with if the achievements of the TRTC are to be sustainable. However, this succession will be made easier by the Principal’s management style which has been very much participatory in nature. During the course of 2008 and 2009, Fr. McVerry was absent from Tutu for extended periods for medical treatment. In his absence, all responsibility was delegated to the Deputy Principal and senior staff. By all reports, the Centre ran well during the absence of the Principal. It is the view of Fr. McVerry that, under the current management arrangements, the TRTC would function well for five-years with existing staff in his absence. However, issues could likely arise in the longer term with new staff becoming responsible for decision-making. Thus, for this reason, emphasis is placed on mentoring a successor and putting into place a governance/management structure aimed at ensuring the sustainability of the success of the TRTC well beyond the retirement of the present Principal.

Recommendations are made in chapter 4 on an appropriate governance/management structure.

Insecurity of tenure

The land on which the TRTC is based is owned by the Society of Mary in the Province of Oceania. The TRTC and Oceania Province have enjoyed an excellent relationship from the outset. However, the TRTC has no formal lease arrangement with the Oceania Province, in terms of use and access to the land. This creates an inherent vulnerability for the TRTC. By the same token, the Oceania Province, who is legally responsible for the TRTC, is also vulnerable to a major financial crisis at the TRTC. Recommendations are made in chapter 4 for land-leasing arrangements between the Society of Mary and TRTC.

Insecurity of funding

This Review found the TRTC to be an efficient cost-effective operation. Nevertheless, Tutu has always been dependent on a high degree of government funding. This is likely to continue for the foreseeable future. The Fiji Government has continuously provided funding for Tutu since 1976. In some years, however, there have been large unplanned cut backs in funding, which created a crisis for already committed courses and for staff. The worst such occurrence was in 1987 and 1988. Recommendations are made in chapter 4 for increasing the financial self-sufficiency of the Centre.



2011 Young Farmer graduate drying his yaqona crop at the hydro-powered Tutu drier

¹³ In October 2011, the TRTC hosted a one-week fact-finding visit on the “Tutu Model” for representatives from rural training centres from the Solomon Islands and Vanuatu. The travel costs for these participants was met by Geoff Bamford.

High dependency on two crops – *yaqona* and *dalo*

The Young Farmers Course is based on two core crops – *yaqona* and *dalo*. They have proven to be an ideal combination of long-term and short-term income earners, upon which the Young Farmers Course has been able to thrive.

The planting of *yaqona* is a readily quantifiable measure of the applicants' aptitude to join the course. At the time of graduation, a young farmer can expect to have some 2,000 *yaqona* plants ready to harvest. Each plant has an estimated harvested value of \$50. Thus, at graduation, the young farmers have a substantial lump sum of capital to invest. *Dalo*, as a nine to ten-month crop delivers regular cash flow to the trainees. It is *dalo* planted on the young farmers' blocks at Tutu that provides the income for their savings accounts that is mainly used to build their house back in the village. However, there are significant risks associated with these two core crops.

Once a kava plant reaches 12 to 18 months of age, it is very susceptible to cyclones. If the tops break and the roots are shaken, the plant will die. A damaged two year-old crop will likely be a complete loss. The roots of older trees can be salvaged if they are pulled and dried immediately. This is the most labour-intensive stage of *yaqona* production and immediately after a hurricane demands on labour are at premium. Thus, a lot of *yaqona* can be lost, particularly in larger plantings where the area has been clear-cut. These plantations lack the natural windbreaks of small traditional forest gardens. This makes *yaqona* a high risk crop, especially as it takes three years to reach maturity and several more years to reach optimum production. The 1995 to 1999 Young Farmers Course was severely affected by a cyclone that struck Vanua Levu toward the end of the course. The database shows that 18 of the original list of 38 participants did not complete the Course – the lowest completion rate of any course. Fr McVerry indicated that many left "as a result of discouragement from the big cyclone that hit them". There was a similar occurrence with the 2011 Young Farmer group who were hit by Cyclone Tomas in April 2010. However, all of this group have stayed the distance and graduated in April 2011. The class of 2011 benefited from Tutu's investment in expanded hydro electric and drying facilities. This enabled the Young Farmers to salvage a high percentage of their *yaqona* planted on their Tutu blocks.

Dalo also brings with it its own set of risks. *Tausala ni Samoa*, the main *dalo* grown for export, is highly susceptible to disease, particularly taro leaf blight (TLB) (*Phytophthora colocasiae*). This same variety was the basis on the Samoan taro export industry that was decimated by TLB in 1993. Projected changes in climate across the region, including a rise in minimum nighttime temperature and relative humidity, will increase the likelihood of TLB spreading to locations that are currently free of the disease (McGregor et.al 2011). Monoculture taro production on Taveuni is seen to be particularly vulnerable. Samoa is now starting to re-establish itself in the New Zealand export market with blight tolerant varieties¹⁴. Taro exports from Fiji are now facing significant market constraints, particularly with respect to the substantial Australian market. A recent SPC taro market access study concluded, "The Australian Quarantine Inspection Service (AQIS) import protocol requirement of devitalisation has now become a major threat to the continued existence of the Australian market for Pacific island taro "(McGregor et.al. 2010). With this combination of factors at play, it is conceivable that the export taro industry could contract as quickly as it arose.

The combination of *yaqona* and taro has served the TRTC well and there are no obvious replacements to be considered. However, it is important to try and mitigate the risks. The establishment of a hydro electricity powered drier capability at Tutu in 2009 has greatly reduced the *yaqona* losses, resulting from a major cyclone. The prospects of establishing mini-hydro projects, with resulting drying capability at other locations on Taveuni are discussed in Chapter 4. The introduction of a degree of diversification into existing cropping systems through agro-forestry is also discussed in Chapter 4. In particular, the example of sandalwood (*yasi*) is looked at for the drier areas of Vanua Levu.

¹⁴ Samoa is now on the verge of re-establishing itself as a major taro exporter with 15 recommended TLB-resistant varieties, of which five are for the export market (*pers. comm.* Tuifa'asisina Steve Rogers). A recent trial shipment to New Zealand was reported to have been well-received in the market. For Samoa, the major constraint at this time to expanding taro exports to New Zealand is the time required to make available the amount of planting material for desired varieties to increase production (*pers. comm.*, Tolo Iosefa).

Chapter 4: Recommendations for the future sustainability of the TRTC

The discussion and recommendations on future sustainability covers the areas of:

- course content
- governance and organization
- tenancy arrangements
- funding
- income earning opportunities

Course content

The TRTC courses have evolved over time in response to changing needs of the Tutu constituents which is articulated through the feedback received from staff and trainees. Tutu management needs to ensure that this continues to be the case into the future. Adjustments to the Young Single Women's Course is seen as an immediate priority as identified by Tutu management. There would seem to be a need to introduce more income generating activities for women.

Promoting more sustainable agricultural practices and appropriate diversification

Tutu, in recent decades has focused its training around management and human development – with the trainees growing crops with which they were fully familiar and for which there is an established marketing system in (*yaqona* and *dalo*). Attempts to introduce exotic high value crops such as vanilla did not prove satisfactory in the absence of a satisfactory marketing system. It is recommended that this cautious risk-averse approach continue. However, a reliance of the two core commodities (*dalo* and *yaqona*) brings its own risks. These risks could be reduced by Tutu promoting more sustainable agriculture practices and appropriate diversification. Three examples of this that are discussed below are improving soil fertility, introducing agro-forestry into the cropping systems and greater promotion of handicraft raw material production as an enterprise.

Improving soil fertility

The promotion of more sustainable commercial agriculture practices needs to become a central theme in Tutu courses. Declining soil fertility and declining crop yields has become an increasing serious problem, particularly in the main taro growing areas of Taveuni¹⁵. An Australian Centre for International Agriculture Research (ACIAR) Project, in collaboration with the Department of Agriculture and the NGO Teitei Taveuni is working on reversing the trend of declining soil productivity with crop production on Taveuni. Effort is focused around using the green manure *mucuna* bean together with soil amendments. A Farmer Field School (FFF) methodology is being adopted in this applied research programme. The Tutu is a member of Teitei Taveuni and is participating in these trials. Once proven, the TRTC needs to be at the forefront of adopting these technologies at Oceania Farms, on the YFC blocks at Tutu and at the TRTC trainees' (current and former) home farms.

¹⁵The experience of Eric and Magerat Narayan at Waimigara Southern Taveuni is typical. Eric & Magerat attended Married Farming Couples Course in 1993, from which they greatly benefitted (table 3, Annex 2). They own a 5 acre free hold farm that was purchased when the large copra estate was subdivided in 1986 and started to plant Tausala taro for export in 1993. Eric is regarded as one of the best farmers in the area. He plants *dalo* in rotation with *yaqona*, which allows for 1 ½ year fallow period for taro. For the first decade of taro operation, he harvested 1,000 taro corms a month, yielding 1.5 tonnes of which there were virtually no rejects. However, in recent years, his production from 1,000 corms has fallen to ¾ tonne of which 25% are rejected due to size. He applies the full regime of recommended inorganic fertilizer.

Introducing agro-forestry within existing cropping systems

The Tutu courses could promote agroforestry within existing cropping systems as a means of diversification, long-term sustainability and reduced risk. The reintroduction of *yasi* - sandalwood (*Santalaceae*. Spp) into the cropping system is such an example.

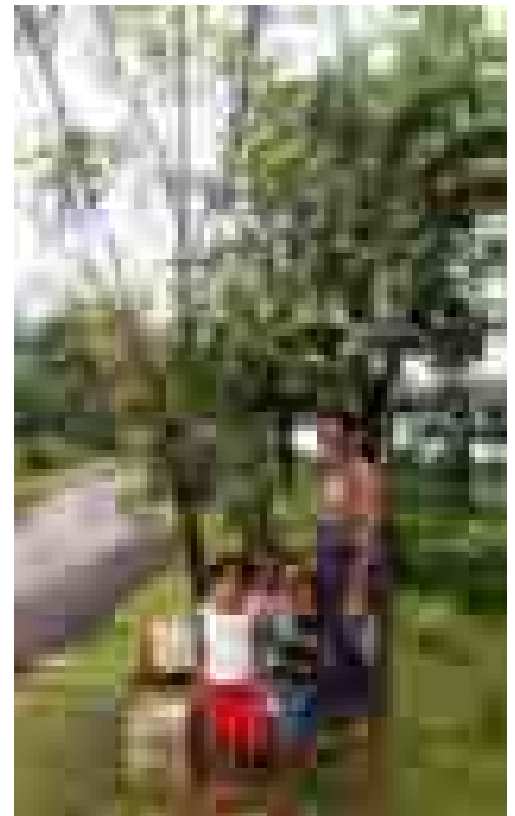
Yasi (*S. yasi*) is a traditional Fijian crop that was heavily exploited in the early 19th Century by sandalwood traders. Sandalwood is an extremely high value product that is becoming increasingly scarce. Despite this, there has only been limited replanting due to the disincentive of the long lag between planting and harvesting. The main commercial products from sandalwood are the heartwood and the essential oil distilled from the heartwood. As heartwood is not present in trees younger than 30 years, there is little reason to fell trees below this age (Thomson 2004). A young person who was encouraged to plant *yasi* during their time at Tutu would have a substantial “nest egg” available to them at a crucial and financially demanding time in their family life cycle. It is encouraging to note that a number of ex-Young Farmers expressed interest in planting *yasi* – several have proceeded with planting *yasi* on their own volition.

There are a number of reasons why sandalwood is well suited to small holder production systems:

- **High unit value** - a single mature tree is so valuable that there is effectively no minimum area or tree numbers required for commercial production. At current prices, a tree yielding 100kgs of heart wood would have a farm gate value of around FJD 5,000
- **Particularly suited to inter cropping.** Sandalwood does not grow in forests with closed canopies but needs sunlight in order to thrive. Thus, it is suitable for intercropping with root crops. Sandalwood is hemi-parasitic by nature, whereby it requires one or more host plants. It derives water and some nutrients through attaching to roots of other species. The roots of sandalwood are intimately linked with the surrounding plant community, making the health of sandalwood trees dependent on the health of surrounding trees
- **Sandalwood is fairly resistant to strong winds associated with cyclonic storms.** The small size of the tree – 5 to 10 m at maturity
- **Small holders are better able to provide the necessary security** for such a high value product than would be possible under forest or larger plantation scale production systems

There are a number of farming systems or farming system components that could incorporate sandalwood, including (Marlin et.al. 2005):

- **Alley cropping** - Sandalwoods are suitable for inclusion in alley cropping systems, especially where the other alley species include good hosts, such as *Calliandra* spp.
- **Home gardens** - The trees are very suitable for planting in home gardens, which have the advantages of a mixture of host species, variable light levels, and high security
- **Improved fallows** - Could be included in improved fallows of nitrogen-fixing trees, with a fallow rotation of twenty or more years to ensure that sandalwoods attain commercial maturity
- **Windbreaks** - Sandalwood is suitable for inclusion in windbreaks, especially where the main windbreak species include good hosts, such as *Casuarina* spp.
- **Woodlot** - Sandalwoods are suitable for inclusion in woodlots, especially when planted along sun-exposed edges and in combination with compatible species (p, 13)



Yasi a “nest egg” for the future

Pacific agroforestry expert Dr Lex Thomson, in his visit to Tutu in November 2011, recommended that an alley cropping approach be adopted. It is proposed that the boundary of the Young Farmer blocks be divided by double rows of teak. In between the rows of teak, it proposed that a row of pou (*Flueggea flexuosa*) be planted. Rows of *yasi* should be planted on the outside of the teak where they receive adequate light and have access to the other trees that would serve as hosts. It is recommended that *Calliandra* also be included in the alley to improve fertility and to serve as host for the *yasi*. A similar combination of compatible species is recommended along the TRTC roads.

With this demonstration at the TRTC, the Young Farmers and Married Couples participants will be encouraged to plant *yasi* back at their home farms. Depending on their own circumstance, this could involve alley cropping, wood lots or as single trees in their home garden. An important aspect of the Tutu programme is working with participants' parents and the village elders to ensure that the participants have unfettered access to land. Given the long-term nature of *yasi* and other timber crops, particular emphasis will have to be devoted to land tenure and land access issues.

The promotion of handicraft raw materials as a cropping enterprise, particularly for women

The Tutu courses have been built around crops for which the participants are fully familiar and for which there is an established marketing system in place. Handicraft raw materials (particularly *masi* and *voivoi*) fit into this category. *Masi* and *voivoi* could now be considered as conventional agricultural crops and should be promoted as such. A detailed study undertaken by the Fiji Trade and Investment Board (FTIB) explored the enterprise opportunities for growing handicraft raw materials as a commercial crop (FTIB 2001). The FTIB Report reached positive conclusions regarding this prospect which warrants consideration by the TRTC, particularly with respect to expanding enterprise opportunities for women.

Teaching a wider range of skills for the enhancement of village life

While Tutu courses have been highly successful in achieving the objective of graduates returning to the village to productively use their own land, there is scope for widening of the useful skills taught for the enhancement of village life. Basic building construction is an example of such a skill. The objective here would not enable the trainees to build their own high quality houses, but rather give them the skills to build simpler structures such as farm shelters, chicken and piggery houses. As was found at St Martin in the Solomon Islands, basic skills in building also enabled graduates to assist the community in the building of churches and other community buildings. It would also be useful to include other agricultural skills such as fencing, as well as other skills relevant to village life such as those relating to water supply and sanitation. Training could be provided through short courses, using outside trainers when necessary. Over the four years, this additional training could be readily included without reducing the time available for the agricultural management training and the human development component of the course.

Governance and organization

Moving beyond key person dependency

The non-formal nature of the management structure and style has served Tutu well. However, in effect, management and governance arrangements have been essentially the same. While this has worked because of the people involved, it brings with it substantial inherent risks and does not provide sound basis for Tutu to move into a new management era. It is now necessary to introduce a greater degree of formality into Tutu's management structure and governance arrangements. Mahitahi New Zealand, at the request of Fr. McVerry, provided the services of experienced consultants¹⁶ to "provide advice in a suitable governance structure that could be put in place in response to the need to separate governance from management". The consultants met with this study team and shared their draft report.¹⁷ In discussions with Fr. McVerry and the Mahitahi Team, it was agreed that it would be desirable to establish a Trust Board to provide ongoing oversight of the management of the Marist Training Centre at Tutu. The proposed Trust Board would be charged with:

- the retention and development of the special Marist character of the Centre

¹⁷ Janne Pender and Collene Roche. Summary of Findings and Suggested Actions Marist Training Centre, Tutu. Draft Report, January 2011.

- strategic planning for the future direction of the Centre
- the appointment of the Director/Principal
- the financial viability of the operation through grants, profits and fund raising
- the careful management of assets

It was agreed that it is important to maintain the “internationality” of the TRTC through its Board. It was recommended that there always be a significant number of board members with international expertise and experience. The following desirable list of Board members was suggested:

- the Oceania Provincial or his deputy
- the Director/Principal of MTC
- a person with an international development focus
- two staff (they could be a married couple)
- a person with financial expertise
- a Mission Leader (involved in Mission Education, rituals, formation of the Board, liaison with Novitiate)

It is suggested that the Permanent Secretary of Agriculture be added to this list.

Where necessary, one or two people could be co-opted to the Board to provide specific expertise in areas such as adult rural education. A successful agricultural business person from Cakaudrove, or who knows the Province well, would also be desirable. It would be important to have a few strategic thinkers on the Board. However, the Board needs to be kept to a manageable size.

The function of the Board is to provide strategic direction and oversight and not to get involved with day to day activities. It would be expected to meet three or four times a year. At least one meeting a year would be held at Tutu. The remainder of the Board meetings would be held via conference call. These meetings would need to be budgeted for.

It is recommended that the Board of Trustees be established as soon as possible in order to work with the Region of Fiji and the Oceania Province in negotiating the lease of the land and any other requirements.

Tenancy arrangements

According to Pender and Roach, the land at Tutu legally belongs under civil law to the Fiji Region of the Society of Mary, while at the same time it belongs under Canon Law to the Oceania Province of the Society of Mary. At present, there is an Agreement between the Fiji Region and the Oceania Province, regarding the land and the monies that derive from it. There is no indication of how long this agreement may continue other than “if the land is no longer required for use of the Province, the responsibility for the land reverts to the Fiji Region and this agreement ceases” (item 4) of the “Agreement Between Fiji Region and Oceania Province – Tutu Land”. Pender and Roach point out that, what is not set out is on what basis a decision would be made that “the land is no longer required for use of the province”. Therefore, the continuation of the Marist Training Centre could be in jeopardy at any time.

Pender and Roach recommend that the use of the land at Tutu by the Marist Training Centre be protected through a mechanism such as a twelve-year rolling lease. This Review fully supports the concept of a rolling lease for the TRTC, although a 10-year period would probably be of sufficient duration. The concept is that a 10-year (or 12-year) lease would initially be issued by the Society of Mary to the TRTC, after which 10 years notice would have to be given if the land is required by the land owner. At the end of each year, if no notice is given, the TRTC have 10 years remaining on the lease.

Ten years is seen as an adequate time for Tutu to meet all existing commitments to its constituents. The Young Farmers Course has the longest duration of about 10 years from the start to the finish of the process (two to three years of pre-entry work, four years of the course proper and two to three years of intense follow-up activity). The lease period is sufficiently long to justify expenditure on the adequate repair and maintenance of infrastructure. There is sufficient time to plan and make investments in alternative arrangements, should the Society of Mary require the land.

For the tenant, a rolling lease arrangement removes the atmosphere of uncertainty, which can be debilitating as seen with the Fiji sugar industry. For the landowner, a rolling lease provides the psychological wellbeing of knowing they can always get the land back within the timeframe of generation, if required. Land owners can be reluctant to provide long-term leases because they don't know what the needs are likely to be beyond a generation.

Funding

Ongoing financial support from government is necessary and inevitable. However, risks have been identified with a dependency on a high level of Government funding. In recent years, various donors have also made an important contribution to Tutu funding – often making up for shortfalls in the Government's contribution. However, donor funding is generally even less reliable than that of Government.

Thus, there is a need to increase Tutu's level of financial self-sufficiency to the extent feasible and without distracting from Tutu's core training function. It is suggested that an increased level of financial self-sufficiency for Tutu could be achieved in two broad areas:

- the establishment of a trust fund to help fund Tutu operations
- Tutu income generation

The establishment of a trust fund to help fund Tutu operations

Interest and investment income currently amounts to \$16,500 annually. Investments are made through the Marist Missions of the Pacific, based in Sydney and are currently held in a balanced mix of on-call fixed-interest funds and property unit funds. The TRTC 2009, audited accounts note: "The purpose of the Sydney investments is to act as both a bridge and a back-up in times of financial insecurity". It is recommended that ways of expanding investment income through a managed trust fund be explored. The interest and dividends generated by the trust fund would contribute to the operation of the Tutu courses, with some portion put aside in a "rainy day" fund that could be , following a major natural disaster or other unforeseen events. A trust fund with a capital base of around one million dollars is seen as a realistic target. Such a fund could expect to generate an annual income of around \$100,000. The target contributors to the TRTC Trust Fund would be aid donors and "Friends of Tutu". Given Tutu's international reputation for performance and integrity, raising the necessary capital is seen as achievable.

Tutu income generation enterprises

TRTC has access to a substantial area of high quality land. This offers income earning opportunities that do not detract from Tutu core training functions. This is already happening with the Oceania Farm which is operated as a separate entity.

It most years, the Oceania Farm has been able to generate a modest gross income (\$36,910 in 2009 and \$55,674 in 2008) from the selling of *dalo* and *yaqona*. This income contributes to the operations of the TRTC. *Dalo* and *yaqona* are quite labour intensive crops which are not usually successfully grown on a plantation scale. The TRTC has been able grow these crops successfully because it has access to productive low cost labour. There is probably some scope for increasing the income earned from these enterprises.

There are other opportunities for developing other worthwhile income-generating activities that would not detract from core training functions. Examples of such enterprises are discussed briefly below. These are:

- increased value-added from *yaqona* sales
- fruit drying
- producing quality papaya and other fruit for the Taveuni tourist market

Taking full advantage of Tutu's drying facilities

The availability of free electric power thanks to Tutu's hydro, offers the opportunity of producing premium quality dried products. Tutu management has been quick to take advantage of this opportunity. A small scale drying facility

has been established, utilizing technical assistance from Dr Michael Williamson¹⁸. Examples of immediate opportunities that flow from this are increased value-added in *yaqona* production and producing high quality dried fruit. These are discussed briefly below.

Increased value-added from *yaqona*

Taveuni is a major *yaqona* producer. However, the island does not have a particularly good reputation for quality because of the difficulties in drying under Taveuni's high rainfall conditions. The TRTC has been able to overcome this problem with its hydro power electric drier and is now able to produce premium quality dried *yaqona*. If Tutu is to obtain a premium price for its product that reflects its quality, it needs to be differentiated from Taveuni *yaqona*, generally. There would seem to be good scope for labelling and branding "Tutu special" *yaqona* along the lines of some of the premium quality Kadavu kavas (e.g. "Ravitaki kava"). Some assistance and advice on branding, labelling and marketing is required.

Fruit drying

Michael Williamson has installed a pilot electricity-driven fruit drier at Tutu. Excellent results have been achieved. The proposed Tutu red papaya project recommended below would offer the prospect of significant volumes of high quality, low cost raw material for a more commercial scale drying enterprise. The necessary scaling up will require technical assistance in packaging and labelling, designed to meet food safety standards and establish marketing arrangement.

Fruit drying can also be introduced as a micro enterprise for the trainees, particularly for the Married Farming Couples Course. The provision of reliable power will also allow the further expansion and diversification of the income generation and capital accumulation opportunities for the Married Couples and Single Women's courses. Value-added enterprises could include expanded weaving activities, semi-mechanised tapa-making, soap-making, baking and food making enterprises. The example of semi-mechanised tapa-making is discussed briefly below.

Semi-mechanised tapa-making



The FTIB handicraft enterprise study cited above identified a substantial market for white Fijian masi (tapa cloth) (FTIB 2001). Quality Fijian masi makes an outstanding expanded fibre paper for artists. A smooth surface can be obtained that is ideal for gouache and oil paints. Leading art supply stores offer a range of handmade natural expanded fibre papers from different raw materials and locations. The most famous expanded fibre paper is made from papyrus reed. Art supplies could well offer a significant niche market for masi paper. This type of handmade paper is particularly popular for traditional Japanese painting. A specialist business would need to be developed to exploit the specialty art supplies market. The Suva-based Matenga Creative Ltd is the type of business that could fulfil this role¹⁹. To be competitive, it would probably be

Quality Fijian masi produced by a Farming Couples Course participant

necessary to reduce costs by semi-mechanising some of the more labour-intensive stages of masi manufacture. A prototype machine has been developed by Akbar Engineering, in Vatuwaqa, for mechanising the highly labour-intensive first stage of beating where the hard fibres are cracked and spread. There is also increasing demand for using natural products for gift-wrapping. A relatively thin, reasonably priced masi, would be ideal for this purpose. There would be an immediate market in Fiji for wrapping gifts purchased by tourists and a segment of the local population. The opportunities can be discussed further with Matenga Creative Ltd.

¹⁸ Michael Williamson is the engineer who developed the high temperature forced air (HTFA) quarantine treatment facility operated by Natures Way Cooperative at Nadi Airport and is an expert in fruit drying. He provided his services to Tutu for no fee.

¹⁹ Jodi and Ingi Hayward, Matenga Creative Ltd, tel 336-9050;929-7967

Tutu, with its access to free electrical power would seem to be ideally placed to undertake such an income-earning venture. This tapa manufacturing should be closely integrated with small enterprise training for the Single Young Women and Married Farming Couples Courses.

Producing quality papaya and other fruit for the Taveuni tourist market



Taveuni is a popular destination for higher-spending tourists, seeking special holidays, prepared to pay for long haul travel and the additional domestic fare to the island. There are currently 39 licensed accommodation premises on Taveuni with a total of 479 beds (Fiji Visitors Bureau) yet, these tourists visiting Taveuni, unlike those staying on Viti Levu, do not experience premium quality Fiji red papaya for which Fiji has become world renown. A good market for high quality solo sunrise papaya has been identified in the Taveuni hotel sector. It is also envisioned that, with the availability of high quality solo sunrise papaya at an affordable price, there will be an increase in demand from the local non-tourist sector, particularly in the main town of Naqara.

Seedling nursery established at the TRTC

There is scope to expand the papaya venture and to introduce other fruit trees into the programme. Those tree fruits identified to have particular potential are rambutan, sweet carambola, dragon fruit, mangosteen, citrus and improved variety avocado. Some of Tutu's higher elevation land provides ideal conditions for growing some of these fruits.

The success of a programme to introduce fruit trees into the TRTC programme, as with the planting of longer-term high value timber species will depend on utilising the best available germplasm and adopting appropriate best horticultural practice. A request for technical assistance in these areas has been formulated.

Tutu staff have made initial links with the Australian Centre for International Agriculture Research (ACIAR) Fiji Papaya Project (FPP) to obtain expertise in growing and handling of premium quality solo sunrise papaya. The FPP has supplied seed and a seedling nursery has been established at TRTC. The FPP have expressed their willingness to provide further technical assistance to the TRTC in establishing a papaya project. Livai Tora from the FPP has established a package of practices for growing solo red papaya in Tutu's high rainfall conditions, which is presented in annex 3. Indicative budgets prepared by the FPP indicate that an annual average gross margin of around \$15,000 could be achieved from planting one acre of papaya annually (annex 3). To this would be added the revenue obtained from utilizing fresh fruit rejects in a fruit drying enterprise.

Growing of papaya and associated seedling production enterprises are seen as a particularly suitable business activity to be introduced into the Married Farming Couples Course. The AusAID-funded Seedling Enterprise Project has provided training for Tutu staff in this area.

Selling electricity to a future Taveuni grid

The TRTC has generated its own hydro electricity since 1972. The centre has operated a 10 kVA system since 1985, which ran successfully for over 25 years. Over this period, the TRTC saw considerable expansion across the five individual centres of the complex. With the expansion, a major problem for electrical equipment demanding a steady voltage was the imbalance in the system²⁰. In 2007, the German Catholic NGO Katholische Zentralstelle für Entwicklungshilfe.V.Misereor provided \$1.32 million towards a hydro electricity extension. AusAID provided a grant of \$70,000 to meet the unforeseen cost of duties imposed on imported equipment. The power station was commissioned in May 2009 with an installed capacity of 70 kVA, supplemented by a 40 kVA diesel generator set.

The TRTC now has 24-hour power, supplied to the 65 building facilities on its property. The micro hydro facility is running according to specification and no major problems have been encountered, following initial installation

²⁰ The hydro facility ran on single-phase power, while the diesel alternator on three-phase power

adjustments. On average, the TRTC uses 20 kwh/day with the water used in the hydro facility distributed as potable water to the nearby villages. Excess power is redirected into an electrical resistance water heater to prevent damage to the system. The current TRTC hydro facility scheme has an installed-generating capacity of 58 KW, and a current average distribution capacity of 30 KW. Current daily average demand is 20 KW. Accordingly, under the current distribution capacity, TRTC has surplus capacity of 10 KW. If TRTC were to upgrade output, its maximum surplus capacity, according to current daily average demand would be 38 KW.

Some of the direct benefits of investment in the expanded hydro facility include:

- **Cost savings:** savings in diesel usage are estimated at \$50,000 to 60,000 annually, based on limited power usage, with generators only operating between 6pm to 10 pm
- **Expanded programme:** the provision of stable 24-hour power has enabled the TRTC to securely purchase freezers, industrial bread mixers, computers, internet access, workshop tools, mechanical tools, additional lighting, electrical fans, fruit driers, *yaqona* driers and pounder, and a range of household electrical equipment in the 20 family houses and course participant hostels. This provides a significant benefit to otherwise lowly paid staff
- **Reduced risk:** the income base for the Young Farmer trainees has been *yaqona*. at the end of the four-year *yaqona* production cycle would prove financially devastating unless the crop can be harvested and dried. Cyclone Tomas in severely impacted Taveuni in March such an event. An electrical drier system in early 2010 ensured that much of the Farmers crop could be saved



Young Farmers preparing *yaqona* for drying immediately after TC Tomas

TRTC and A cyclone

quickly 2010 that 2010, was installed Young

operate operated island – the

The Fiji Electricity Authority (FEA) does not on Taveuni. At present, there only two mini-grids by the Public Works Department (PWD) on the their coverage is limited to Somosomo village and Waiyevo Government centre. The absence of a wide distribution grid hinders the development of the

dalo export

A proposal for the construction of a 700 KW run-off-the-river hydro scheme at Somosomo on the west coast of Taveuni has been the subject of successive studies since the mid 1970s. In recent years, the Somosomo proposal has been seriously revisited, through assistance provided by the Chinese Government. The proposed project will supply electricity to the northwest coastal area of Taveuni, between Wiwi village to Soqulu settlement, covering a distance of approximately 45.9 km. With most of the Taveuni population and commercial activity situated on the coast, only the coastal areas will be reticulated. The Department of Energy (DoE) is the implementing agency for the proposed project and it intends to seek expressions of interest for the reticulation and operation of the grid, once final funding approval has been issued.²¹

Selling its surplus electricity to the proposed Somosomo grid provides an income earning opportunity for the TRTC. Annex 4 analyses this opportunity in some detail, with the findings presented summarised below. TRTC, as an electricity provider would be required to enter into a Power Purchasing Agreement (PPA) with the prospective power purchaser, be it FEA or an alternative Taveuni utility. Under the PPA, the TRTC may be able to negotiate a higher unit price/kWh. A PPA is a legally binding contract between a provider and power purchaser. The TRTC must be certain that it can provide a firm level of power for the duration of the agreement.

²¹Department of Energy representatives, *pers. comm.*

Under the PPA, the availability of the energy must be guaranteed, which implies that back-up equipment must be ready to be put on line in case of programmed maintenance or forced outage of the main units. The most convenient back-up equipment consists of diesel engine(s), installed in close proximity to the hydroelectric plant.

At November 2010, FEA's minimum tariff rate for independent power producers (IPPs) was \$0.23/kWh. This provides a baseline from which to measure what the TRTC could earn from selling its surplus power to the proposed Somosomo grid. The first priority for the TRTC's hydro facility is to support the centre's own programmes and activities. To mitigate the risk of these being adversely affected, the TRTC may wish to only sell its surplus energy in the wetter months of September to February.

A 15-year forecast model is used to examine the financial viability of two options:

- Option 1, based on selling 20 KW over 12 months
- Option 2, based on selling surplus power six months of the year, amounting to a total of 6 KW

Capital costs are based on FEA reticulation design estimates for a three-phase mainline tee-off from Feeder 1 to the TRTC.²² Additional variable costs are based on variable generation costs for hydro per kWh²³. These include additional costs required for maintenance of generators, spare parts and repair works, to ensure that TRTC can provide a firm level of electricity for the duration of the agreement. All values are in 2010 prices.

The cash flow to the TRTC from the two options are presented in annex 4 (figures 2.2 and 2.3). From year two onwards, option 1 is estimated to generate approximately \$40,000 in net revenue to the TRTC, annually. Option 2 generates approximately \$12,000, annually.

To earn this net revenue, the TRTC would need to invest some \$60,000 in a three-phase mainline and expend approx \$800 in annual operating costs. The cash flow projections indicate that this would be a highly profitable investment for the TRTC. The financial internal rate of return (IRR)²⁴ option 1 is an exceptional 64.2 per cent, while option 2 still yields a healthy IRR of 16.5 per cent (annex 4). With option 2, there is little risk of the commitments of selling to the grid, interfering with the TRTC's own activities. However, in adopting option 2, a significant amount of revenue would be forgone or need to be derived from other sources. Based on these estimates, selling electricity to the grid is a financially worthwhile venture for the TRTC. It is recommended that option 2 would be the most appropriate.

A major constraint to rural development and income generation amongst rural people in Cakaudrove is the absence of reliable and affordable power. Annex 4 provides a review of how rural electrification can best serve income generation and social uses on Taveuni. This is followed by a discussion on small-scale hydropower, in terms of past resource assessments, advantages and disadvantages of the technology and why the TRTC could potentially be well-suited to promote its use. There is an initial identification of a potential project for donor funding applying a systematic approach. Annex 4 also discusses the opportunities for bundling a number of micro hydro projects together to raise income for rural development by selling carbon credits.

Certification of training

Throughout the Pacific islands, there is a growing trend towards accrediting and external certification of training institutions. Fiji is no exception in this respect.

The overall trend to accreditation of educational institutions is welcome. However, conventional external accreditation is not applicable to the type of rural adult education training provided by Tutu. Tutu does not issue diplomas to its successful graduates which they can use to source wage employment. The Tutu graduates are expected to be self-employed, utilizing their own resources. At Tutu, there is a curriculum – but it is flexible and it can be modified to meet changing circumstance. The Tutu staff are highly skilled and experienced in what they do. They all have proven track records in rural self-employment. However, none of the lay training staff have post secondary school education qualifications.

²² FEA 2004

²³ FEA 2004

²⁴ The IRR is also the discount rate at which the present value of the free cash flow stream in financial terms becomes zero

Tutu programmes are already subject to continuous and rigorous review by the people who matter most – those who receive the training. Tutu’s reputation for excellence has been hard-earned for a period of over 30 years. However, this reputation could be quickly lost if it was perceived as not delivering remunerative self-employment to its participants. In a situation where the Tutu constituents can quickly “vote with their feet”, courses need to be flexible and able to evolve in line with needs. Fr McVerry notes: “the oscillation of participants between the traditional village life and the centre remain one of the most telling factors and is an inbuilt evaluator, in terms of relevance of our practices”.

Chapter 5: Applying the principles of Tutu in Fiji and elsewhere in Pacific islands

There is considerable interest in replicating the TRTC model in Fiji and elsewhere in the Pacific islands. This interest is driven by two factors:

- the strong-felt need for rural youth to become involved in agriculture; and
- the perception that Tutu has been a success, where most rural training institutions have failed

What the TRTC is and what it is not

Before considering the scope for replicating the Tutu model in a particular situation, it is important to have an understanding of what the TRTC is and what it is not. It is also important to determine to what extent Tutu is a special case and can only be applied to limited situations where certain conditions apply. Perhaps, it is more important to identify what Tutu is not, when considering opportunities for replication.

Tutu is:

- **not** a training programme for ‘dropouts’ from formal education;
- **not** a training programme for wage employment;
- **not** a training programme for people without access to their own land;
- **not** a substitute for formal technical training in agriculture;
- **not** suitable for national coverage; and
- **not** amenable to external certification and accreditation

On the other hand, Tutu:

- **is** a non-formal adult education training centre for a specific geographical area;
- **is** a training centre for rural self-employment, using the participants’ own resources;
- **is** a management training centre, that provides flexible and innovative courses that meet the needs of rural people;
- **is** a partnership between the sponsor, community and government; and
- **is** locally focused but with an international character

Applying the lessons and underlying principles of the TRTC

There are certain lessons and underlying principles from the Tutu experience that should be taken into account in developing effective training programmes for self-employment in agriculture in the Pacific islands. These are applicable, even if it is not feasible to adopt the full Tutu “model”.

The experience of Tutu has shown that rural youth can earn good livelihoods from the farming of their own land. The key principles and lessons learnt from this study in the achievement of this outcome are listed below. They are grouped under a number of broad categories: the purpose and focus of training; trainee selection; approach to training and course content; management and staffing; growth, sustainability and accountability.

Training purpose and focus

- The training is for self-employment, using the participants own resources - it is not training for wage employment
- This is not a programme for “dropouts” from formal education
- The programme is not a substitute for formal agricultural training – which also needs to be substantially improved in all Pacific island countries
- The focus audience is 19 to 23 year olds who live in their own village

Trainee selection

- The training centre must have specific and demanding course entry requirements that demonstrate the participants’ access to land and commitment to being farmers

- Admission fees should not be charged – there needs to be a significant contribution in kind/voluntary work

Approach to training and course content

- Management is at the core of Tutu courses
- The training centre needs to serve a specific geographic region
- Farming enterprises for the trainees need to be based on crops that have well-established marketing systems in place
- The courses need to provide the mechanism to accumulate savings for investment
- The training requires regular oscillation between the trainees home farm and the raining centre
- Training must be in the local vernacular
- An intensive and prolonged extension effort required from staff to support the training
- Parental involvement in the training is essential
- The Centre has an important role to play in facilitating the trainees’ access to their own land

Management and staffing

- The successful management of a rural training centre requires a high level of expertise. Such expertise is not readily available and would likely need to be acquired on the job
- Staff should be selected on the basis of a proven track record in using their own resources
- Management needs to be highly participatory and responsive to needs of the constituents

Growth, sustainability and accountability

- The training programme needs to start small and evolve in response to needs of the rural community
- The rural training centre needs to be a partnership between the sponsor, community and government
- There should be sufficient flexibility to respond to needs of constituents – there needs to be a freedom to innovate
- The demand for courses is the main source of inbuilt accountability
- The centre must have a local focus but with an international character

Expanding and replicating the Tutu model in Fiji

Expanding the TRTC

The TRTC, at the behest of the Fiji Government, agreed to expand its intake catchment, from its traditional base of Cakaudrove, into parts of the neighbouring Provinces of Bua and Macuata. This was to be part of the ADB’s ROI Project that never materialized. The TRTC has been able to absorb this expansion reasonably well, despite all the additional funding promised not being forthcoming. However, the expanded area has put considerable strain on staff in the delivery of the required intensive extension. It is the view of Tutu staff that it would not be desirable to extend Tutu’s geographical coverage any further. However, the TRTC is more than willing to promote and provide advice on the application of the Tutu model and its principles in Fiji and beyond. Part of Tutu’s Mission Statement is “It involves a transformation and a reciprocal outreach to the peoples of the Pacific”. As a follow-up to this study, the TRTC hosted in November 2011, a study tour to discuss the principles and practices of Tutu with representatives of rural training centres from the Solomon Islands and Vanuatu.

Replicating the TRTC in Fiji

Navuso

Background

The Methodist Church founded the Navuso Agricultural School in 1923. A Navuso Student Farmer Scheme (NSFS) was established at the School in the early 1960s. The aim of the NSFS was to address management problems in Fijian agriculture. It was recognized at the time “that young farmers who have the incentive to break from the traditional pattern, must contend with conservatism of elders and difficulties in obtaining finance and adequate tenure on land, while they themselves are psychology ill-equipped for a more independent style of living” (Bamford, 1986 p, 25). The

Navuso Student Farmer Scheme aimed to prepare young men for a livelihood as economically viable farmers and help them establish their own farming enterprises. The operations of the NSFS are described in detail by Bamford 1986. The three-year programme was available to single men over the age of 18 years, with 12 new entrants per year. If they had not completed a vocational agriculture course, they must have spent at least one year in the village after leaving school, been involved in farming, and have access to land for future farm development. Entrants had to sign an agreement that they would return to farming or approved agricultural work after their course, or they would forfeit up to 50 per cent of the money they saved during the course. From 1961 to 1984, 322 students graduated from the Scheme.

The Student Farmer Scheme did not offer formal classes but instead allocated each trainee three hectares of land which they managed under supervision. The students met each Monday to discuss new farming techniques and problems they encountered. There were also regular meetings of the Co-operative Committee that was responsible for business operations, with special attention given to farm records and bookkeeping. The final year students formed the Executive Committee of the Cooperative. Each trainee submitted a monthly account to the Cooperative for all produce sold, and payment was made in bank deposits slips. Students were paid a monthly allowance into their saving accounts while their farms were developing and could draw minimal living expenses from these accounts. On entering the Scheme, each trainee was given tools (spade, fork, axe, knife) and a set of bookkeeping and farm record books. If the farms were satisfactorily maintained, the students had considerable freedom, although they were expected to work at least 36 hours per week. The main crops grown were root crops and pineapples. There were also small livestock enterprises.

The trainees' farms were valued at the completion of the course to determine the expected gross income over the next 12 months. This value was compared with the average expected performance for these farms. If the valuation exceeded the base standard, the incoming trainee paid the difference into the outgoing trainee's savings account. The new trainee "buy in" was financed by the Cooperative Society. If the valuation was below the base standard, the outgoing trainee paid the incoming trainee the difference from his savings account. At the end of the three years, most students saved around \$F1, 000, although some saved more than double this. Students therefore, left the course with significant financial resources to invest in their new farms, although the funds were usually not released until they had secured a lease on the land they intended to farm. With a lease, capital and farming expertise, graduates were excellent candidates for Development Bank loans.

The Navuso Student Farmer Scheme of old had much in common with the current Tutu Young Farmers Course. The main similarities were:

- Church-based adult education;
- main objective, the training of young men for self-employment on their own land;
- emphasis was on practical farm management, provided through the supervised operation of the trainee's own farm at the centre;
- operated compulsory saving schemes that provided the opportunity for participants to accumulate significant savings from growing and selling their own produce; and
- the advantage of an exception leader for an extended period of time.

However NSFS had important differences:

- it was a national centre that drew its students from all over Fiji;
- had no oscillation between centre and the students' home farm;
- had no performance-based criteria for entry;
- gave greater emphasis to teaching trade skills;
- had no extension outreach, before, during and after the course; and
- had no involvement of parents and the community.

The NSFS developed a reputation for excellence. Most graduates (85 per cent up to 1983) either returned to farming or took up agriculture-related work. The graduates were well-regarded as self-reliant commercial farmers with technical skills, managerial expertise and financial resources. They became role models in their districts and helped motivate other commercial producers. Unfortunately, the scheme abruptly stopped in 1987, largely because of a land dispute with traditional land owners. There were also problems with funding, the declining quality of the Navuso Agricultural School itself and the increasing politicization of the Methodist Church.

With the closure of the Student Farmer Scheme, the name was changed to the Navuso Agricultural College – which offered two year certificate and diplomat courses in Tropical Agriculture. This was largely classroom training in agricultural science and related subjects, with some practical training on the Navuso farm. During the 1990s, enrolments fell steadily, reaching only 16 in 2001, when the College was finally closed and replaced by a Junior Secondary School. Bamford (2001) reported:

The drop in enrolments in recent years is undoubtedly due to both the parents' and students' disillusionment with the quality of the training being provided, particularly the practical, and the inability of most graduates to obtain paid employment. The high dropout rate in the certificate course in recent years would indicate student dissatisfaction, while the fall in diplomat numbers would indicate that parents are disillusioned when they find after paying almost \$2700 in fees, their sons and daughters have a qualification that is largely unrecognized and leads to low paid employment if any (p, 17).

Of those who graduated in 2000, only 11 per cent who were awarded the Certificate in Tropical Agriculture (CTA) returned to farming and only 16 per cent of those awarded the DTA returned to farming (Bamford 2001).

In 2001, Bamford prepared a report for the Methodist Church on the Future of the Navuso Agricultural College. He recommended that the prime objective of Navuso be:

- **to provide in a Christian environment, agricultural training need for self-employment in farming.** He further recommended that to reach this objective: "A Tutu/Student Farmer type of training programme will be needed. However to be realistic, it must be accepted that some trainees will not wish or have the opportunity to return to farming. As there will be a national need for some skilled workers in agriculture, horticulture and allied fields, he identified as a secondary objective:
- **to provide training for paid wage employment in agriculture, horticulture and allied rural occupations.** He recommended a certificate course to achieve this secondary objective. However, he expressed a word of caution regarding such a certificate, if it proved a distraction to the primary objective. "If the certificate does result in reduced interest in the Tutu/Student Farmers type then the prime objective above be the only objective."

The Bamford report was not accepted by the Church authorities and instead, it was opted to establish a Junior Secondary School, with emphasis on vocational training.

The current situation

The Navuso Agricultural College is now effectively closed with only the run down dairy farm remaining operation. After years of neglect, the buildings and facilities are in a state of disrepair. The tools and equipment are broken or missing. The site has serious water problems. Much of the land has been invaded by African Tulip (*Spathodea campanulata*).

The last few years have seen somewhat of a turnaround in Navuso fortunes. Access to the site has been greatly improved through the building of a high quality road and bridge, funded by Chinese aid. The Methodist Church now seems to be seriously committed to rehabilitating Navuso. This is reflected in the appointment of an experienced Farm Manager. This Manager has been working with the Ministry of Primary Industry to rehabilitate the Navuso farm as an income-earning enterprise, through substantial planting of taro and some pasture rehabilitation.

The Church is also now interested in re-establishing an agriculture training programme at Navuso which has strong support from the Ministry of Primary Industries. MPI has requested Chinese Government financial support for the development of a major agricultural training facility at Navuso. It is reported that China has agreed in principle to provide \$ 6 million for this purpose.

A Tutu-type scheme as a part of major agricultural training facility development at Navuso

Navuso is located on 485 hectares of land, a high percentage of which is suitable for agriculture. For marketing purposes, it is located in close proximity to the highly populated Suva/Nausori corridor and the international port. Some 325 hectares of this land is freehold-owned by the Methodist Church of Fiji and the balance is Crown Lease. The Methodist Church owns another 150 hectares of freehold land at Nakadi in close proximity to Navuso.

It is anticipated that a substantial amount of aid-funding will become available to establish a major agricultural training centre at Navuso. Based on the lessons learnt from this study, it would not be realistic or wise to use such a large amount of funding to solely establish a “Tutu-type” agricultural training scheme at Navuso. The particular lessons learnt that indicate that this would not be appropriate are:

- **The training programme needs to start small and evolve** in line with staff capability of the centre and in response to needs of the rural community
- **Staff should be selected on the basis of a proven track record in using their own resources.** Only a few of such people are likely to be available and willing to offer their services to a new rural training centre. The starting of a large Tutu-type youth training scheme at Navuso would be doomed to failure if it did not have sufficiently experienced and highly motivated staff to deliver the programme
- **Staff development and moulding is a long process that requires on-the-job training.** It will take time to develop a cadre of suitably trained staff. The programme needs to grow in line with staff capability
- **The demand for courses is the main source of inbuilt accountability.** The initial demand for courses is unlikely to be high until the centre has proven itself in delivering successful self-employment to participants on their own land
- **A successful Tutu-type training course requires regular oscillation between students’ home farms and the training centre.** This precludes trainees from outside eastern Viti Levu.
- **The conditions and crops grown at the centre need to mirror those of the participants’ home situation.** This would further restrict the intake to participants from Naitasiri, Tailevu and Namosi
- **The Tutu model is not applicable to a national training programme**
- **A Tutu-type training programme is not a substitute for more formal agricultural training.** Fiji needs to upgrade the standards of agricultural extension officers, research officers and agricultural technicians. The injection of a substantial amount of donor funding provides the opportunity to establish an agricultural training centre of excellence for this purpose. Grant aid from China would be best used in providing the necessary infrastructure (classrooms, dormitories, laboratories, roads, water supply and equipment) for such a formal agricultural training centre

A pilot Tutu/Student Farmer scheme as part of a larger national agricultural training complex at Navuso

There is a need to substantially up-skill Fiji’s agricultural professionals in the area of extension, research and related technical fields. The related technical fields include food processing, food safety, post harvest handling and agricultural engineering. Skill upgrading is needed at both the entry and the in-service levels. The injection of a substantial amount of aid funding provides the opportunity to provide such training.

Agricultural training is largely provided by the Fiji College of Agriculture (FCA), which is now part of the Fiji National University (FNU). However, FCA has limited facilities and land to provide high quality practical training. Extension officers, to be effective in transferring technology to farmers, need to have had “hands on” experience in farming. A substantial national agricultural training institution at Navuso could have the land and resources to meet this need.

Much of the aid funding would go into infrastructure such as access roads, water supply and buildings. There would also be investment in land improvement, including the removal of the destructive African tulip. With these overhead investments covered, there would be scope for developing a complementary Tutu-Type/Student Farmer Scheme.

Some suggestions on how such a Tutu-Type/Student Farmer Scheme might be established, operate and develop are listed below:

- **It would initially be a small pilot scheme with no more than about 15 students.** This would provide the opportunity for scheme to evolve and to prove itself
- **The pilot scheme should come under the auspices of the Methodist Church.** The Methodist Church owns the land and has a long-standing involvement with agricultural training in the area. The Methodist Church has the links with the village communities from which the participants are drawn
- **The trainees to be drawn only from the surrounding Provinces of Naitasiri, Tailevu and Namosi.** These areas have similar crops and agronomic conditions to the Centre and their close proximity will allow the application of the oscillation principle
- **The same selection criteria as the Tutu Young Farmers Course.** The participants should be young (18 to 23 years) men living in the village. They must have a demonstrated commitment to agriculture and access to land – planting targets for admission similar to Tutu would need to be established
- **Fees not be charged but with significant in-kind contributions required**
- **The pilot scheme centre should be located some distance from the main Navuso complex.** Being located away from the main complex would reduce distractions for the young farmers. However, it would need to be sufficiently close for the young farmers to attend classes at the main complex and to undertake practical work on the Navuso farms. The Nadaki site has been suggested. The Navuso Adult Education Centre is another option for consideration
- **The main Navuso complex would provide the agriculture theory courses.** However, if feasible, the classroom presentations should be in Fijian
- **The crops likely to be grown by the young farmers at the centre are *yagona*, taro and other root crops, pineapples and vegetables.** The participant would grow similar crops on their home farms
- **A parents' course would be established from the outset**
- **Other courses, such as married farming couples and young single women's courses,** should be established once the pilot scheme had been established and proven itself
- **Part of the aid funds for the Navuso training complex would be used to build infrastructure for the pilot scheme.** Dormitories and staff housing would have to be built or rehabilitated (depending on the site). Water supply, electricity and road access would need to be provided. As an indicative guide, perhaps 20 per cent of the total grant out-going to the Navuso training complex might be allocated to the Young Farmer Pilot Scheme. However, detailed costings will be required. Costs will depend on the particular site chosen for the scheme
- **Ongoing funding for operating costs will be required.** Tutu receives a substantial annual grant from Government, even after 30-years of operation. The Navuso Young Farmer Pilot Scheme will require similar funding, either from Government or the Methodist Church, or a combination of both

It is now up to various stakeholders to decide how they wish to proceed, in terms of the rehabilitation and development of agricultural training at Navuso. These stakeholders are: The Methodist Church of Fiji, The Ministries of Primary Industries and Education and rural people of the Province of Naitasiri. Once that has been decided, a detailed design of Young Farmers Pilot Scheme could be developed in collaboration with the stakeholders.

Other locations

A Tutu-type training centre is not seen as appropriate as a national training centre. A Tutu-type centre is suited to serving a specific region that is relatively homogenous, in terms of crops grown and agricultural systems. Also, the trainees' home farms need to be in reasonably close proximity to allow the essential oscillation principle to be economically applied.

For these reasons above, there is little interest by or scope for the TRTC extending beyond its present catchment. Should the Navuso pilot scheme be successfully established and grow, it could service young farmers in Naitasiri, Tailevu and Namosi. This would leave large areas of Fiji not serviced – in particular the Provinces Nadroga, Ba and Ra and the outer islands.

Potential sites have been identified in Namosi and on Ovalau (to service Lomaiviti) as possible sites for a Tutu-type centre. Both have the advantage of being connected to the Catholic Church. The Seventh Day Adventist Church has relocated its Fulton Training College from Tailevu to the Sabeto Valley near Nadi. The SDA Church in the Pacific islands, particularly in PNG, has a long association with agriculture training. It would be worthwhile to initiate discussion with Fulton College authorities to determine their interest in setting up a Tutu-type scheme for the Western Division.

The Circuit School network²⁵ of the Methodist Church does provide a possible mechanism to apply some of the principles of the Tutu model. Circuit Schools do not have much land. However, some of the Tutu principles could still be applied. Bamford suggests the following for a Centre that would have limited land:

- Centre training linked to village projects in which participants would attend the Centre for possibly one day a week and spend another two days on home projects or alternatively, a block of four to five days every four to five weeks in the Centre and during the weeks not at the Centre, two days each week, working on the home projects
- Young Farmers Association approach – two to three days every week on their own and/or group projects with appropriate short block courses at the Centre as needed

The Nausori Circuit School (previously the Lotu Bible School) would seem to be an immediate prospect for adopting either of these approaches. The Nausori Circuit has an established commercial farming operation, including fish farming.

Replicating the TRTC outside Fiji

All three Melanesian countries are moving toward formalizing RTCs by introducing testing to national standards and the awarding of nationally recognized certificates. Vanuatu has moved furthest in the direction of formalization. These centres are moving away from the Tutu non-formal adult education model. Bamford is of the view that the Tutu Oscillation Model (TOM) would require considerable modification if it was to be successfully applied in these other Melanesian countries. He identified a number of particular constraints that would need to be overcome for the TOM to be successfully applied:

- Most Centres do not have access to significant quantities of good quality land upon which the trainees can develop their Centre-based farm
- The isolated location of the Centres from markets constrains the development of viable enterprises. Opportunities are seen to exist to build a TOM around tree crop (cocoa and coffee) enterprises
- Difficulty in identifying high value crops that would allow trainees to generate sufficient savings while at the Centre
- Difficulty, at least initially, to recruit appropriate trainees from the local area to apply the oscillation principle
- Pressures on the Centres to meet Government requirements for national testing and certification
- Difficulty, at least initially, to recruit staff with the commitment and competence to implement this new approach to training

Bamford recommends the establishment of a trial of the TOM at two or three of the Melanesian Centres for a period of four to five years. This pilot project commenced with a study tour to Tutu in November 2001 for representatives of RTCs from the Solomon Islands and Vanuatu. The study tour was financed by Geoff Bamford.

St Martin's in the Solomon Islands: Lessons Learnt in Trying to Replicate the Tutu Model in Melanesia

The St. Martin's Rural Training Centre (SMRT) in the Solomon Islands is seen as an effort to replicate the Tutu experience in Melanesia. This effort has not been regarded as particularly successful – although it remains a work in progress. The St Martin's experience provides useful lessons on the difficulties and requirements to successfully replicate the Tutu model.

²⁵ There are 34 Circuit Schools in the 54th Division of the Methodist Church in Fiji

SMRT, as with the TRTC, was an initiative of the Society of Mary of the Catholic Church. St Martin's is located on 46 hectares on the Guadalcanal Plains, some 25 km outside Honiara. The Centre was established in response to the lack of practical, informal village training for young men, particularly those migrating from the village to urban centres (Bamford 2009). The training was intended to provide the opportunity for young men to be productive by utilizing the skills they learned to improve village life. The Centre was closed in 2000 as a result of the ethnic tension – but was reopened in 2001.

Br. Makario established a Young Farmers Course at St Martin's, modelling, to some extent, the Tutu Young Farmers Course. It was a two-year course, with alternating periods of three months between the Centre and the trainee's village. This was a much longer period than that of the TYF. The trainees, as with Tutu, were recruited from close proximity to the Centre. Unfortunately, it was necessary to close the course in 2002 "due to weak management, particularly of its finances" (Kalisto and Vouza 2009).

Following the preparation of the report "St Martin's Rural Training Centre – Now and in the Future", prepared by Bamford, it was decided to reopen the Centre with the appointment of a new Principal. The course duration was reduced to 18 months – with the entire first year spent at the Centre, with the last six months intended to be spent working on a project back in the village.

An evaluation of the St Martin's YFC was conducted in November 2009 by Kalisto and Vouza²⁶. They concluded that the course that covered agriculture, carpentry, mechanics, joinery and life-skills was relevant to the trainees needs. However, it was their view that the Tutu model did not work at St Martin's. The evaluation concluded: "The concept itself is relevant and it works in Fiji, however it does not operate like that in the Solomon Islands, unless it is reviewed to meet the conditions of the Solomon Islands."

It seems that those who designed the St Martin's Young Farmers Course based on the Tutu "model" had a poor understanding of the key oscillation principle. This is reflected in the comments of the Kalisto and Vouza review:

Two years of training is appropriate for a rural training centre. In the first year for students, it often takes time for them to adjust and often it is at a time where most of the trainees are beginning to adjust to a life very different from the village life they come from. It is only in the 2nd year that students are beginning to acquire understanding and put into place the knowledge that they learned in the first year. Again, these two years are only spent at the Centre, but they go back to their village in their 2nd year in June to undertake home projects. According to some of the trainees, they said that "when they go home to embark on new projects, it does not work". The time frame from June – November is too short to initiate home projects. The projects that may be made available to them in that time only belong to their immediate family, such as a piggery and poultry. These projects are not initiated by the students, but by their families.

Surprisingly, the review team concluded that the "The Tutu Model that was adopted by the Centre does not work because individuals who live by the Centre are interested in going to other Provinces to experience a different environment. The Tutu Model is restricted and does not allow students to be exposed to other cultures and to engage with other people".

Some of the key differences in what are being trialled at St Martin's and the situation at Tutu include:

- there are no demanding pre-entry requirements for entry into SMRT
- all the SMRT teaching staff are paid for directly by the Solomon Islands Government
- the trainees at SMRT have not been able to generate savings to reinvest in their home farm and house

²⁶ Jack Kalisto is the Director of the Kastom Gaden Association and the former Principal of the St. Dominic's RTC. Henry Vouza is the former Principal of Kaotave and the Secretary of the SIAVRTC.

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Annex 1: TRTC Trainee Data Base (1973-2011)

Table 1: Volunteer and Comprehensive Courses (1973-1982) Database

Volunteers Course (1973)														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Atunaisa	Likusuasua	Y		Jerusalemi, Savusavu		Methodist							
2	Beniame	Pulilevuka	Y	23	Bagata, Wailevu	Class 6	Methodist	Y	Village	Y	Y	1000	750	
3	Botei	Iosefo	Y	25	Nasinu, Navatu	Class 8	Methodist		RIP					
4	Eroni	Dakai	Y		Vusasivo, Natewa		Catholic	Y	Village	Y	Y	1000	400	
5	Eroni	Vueti	Y		Qeleni, Wainikeli		Catholic	Y	Village	Y	Y	1000	1100	
6	Farasiko	Seru	Y		Vunikura, Mabuco		Catholic		RIP					
7	Gabiriele	Eremasi	Y		Vakativa, Wailevu		Methodist							
8	Iliesa	Matakubou	Y		Vatulele, Wailevu		Catholic							
9	Isaia	Vakalua	Y		Nawi, Mabuco		Catholic	Y	Village	Y	N	3000	750	copra
10	Ilisiki	Josefo	Y		Lavena, Wainikeli	Class 8	Catholic	Y	Village	Y	Y	1000	750	
11	Iosefo	Jese	Y	19	Waitabu, Wainikeli		Catholic	Y	Village	Y	Y	1000	750	
12	Iowani	Rusi	Y		Qeleni, Wainikeli		Catholic	Y	Village	Y	Y	1000	750	
13	Iowani V	Salaibulu	Y		Naqaravutu, Tunulua		Catholic							
14	Iowani	Vilise	Y		Lavena, Wainikeli		Catholic	Y	town	Y	Y			
15	Isimeli	Cerelala	Y		Drekeniwai, Navatu		Catholic	Y	Village	Y	Y	1000	750	
16	Jone	Tamaisuki	Y		Yasawa, Saqani		Methodist							
17	Lemeki	Ratemo	Y		Bagata, Korocau		Methodist							
18	Misiamete	Ratusaki	Y		Togaviti, Vaturova		Catholic							
19	Pelasio	Rayabia	Y		Bouma, Wainikeli		Catholic	Y	Village	Y	Y	1000	750	
20	Pita		Y		Bagata, Wailevu		Methodist							
21	Samisoni	Pio	Y		Vusasivo, Natewa	Class 6	Catholic	Y	Village	Y	Y	1000	750	
22	Samuela	Viliame	Y		Dromuninuku, Savusavu		Catholic	Y	Village	Y	Y	1000	1100	
23	Samu	Waqanivatu	Y	19	Navetau, Saqani		Catholic	Y	Village	Y	Y	1000	750	
24	Sebe	Uli	Y		Tacilevu, Savusavu		Methodist							
25	Toma	Buleisua	Y	18	Savare,	Class 8	Catholic	Y	Village	Y	Y	1000	750	cocoa

Comprehensive Course (1973)														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Arjun	Prasad	Y	18	Qila, Cakaudrove				Settlement		N	1000	400	vegetables
2	Berenado	Vulakauvak	Y	22	Vunikura, Mabuco		Catholic	Y	Town	Y	Y			
3	Iowani	Duilomaloni	Y	20	Lamini, Somosomo		Catholic	Y	Village	Y	Y	1000	400	
4	Matia	Malekai	Y	27	Bouma, Wainikeli		Catholic	Y	Village	Y	Y	1000	1100	
5	Maritino	Kaiverata	Y	18	Lavena, Wainikeli		Catholic	N	Village	Y	Y	1000	400	
6	Ponipate	Moce	Y	24	Dogotuki, Macuata		Catholic							
7	Petero	Tuyaro	Y	19	Qali, Wainikeli		Catholic		RIP					
8	Selesitino	Tikoilau	Y	29	Fatima, Cakaudrove		Catholic	Y	Village	Y	Y	1000	400	
9	Viliame	Roko	Y	21			SDA							

Volunteers Course (1974)														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Apolonia	Seniyaro	Y		Koronikoli, Navatu		Methodist	Y	Village	Y	Y	1000	400	
2	Aporosa	Musuvanua	Y	18	Saqani, Saqani	Class 8	Methodist	Y	Village	Y	Y	1000	1100	
3	Beniame	Pulilevuka	Y	23	Bagata, Wailevu	Class 6	Methodist	Y	Village	Y	Y	1000	400	
4	Eroni	Dakai	Y		Vusasivo, Natewa		Catholic	Y	Village	Y	Y	1000	400	
5	Eroni	Vueti	Y		Qeleni, Wainikeli		Catholic	Y	Village	Y	Y	1000	750	
6	Farasiko	Seru	Y		Vunikura, Mabuco		Catholic		RIP					
7	Gabiriele	Eremasi	Y		Vakativa, Wailevu		Catholic	Y	Village	Y	Y	1000	1100	copra
8	Iliesa	Matakubou	Y		Vatulele, Wailevu		Catholic							
9	Ilisama	Loganimasi	Y		Nabua, Koroalau		Methodist	Y	Village	Y	Y	1000	400	
10	Isaia	Vakalua	Y		Nawi, Mabuco		Catholic	Y	Village	Y	Y	1000	750	
11	Isimeli	Cerelala	Y		Drekeniwai, Navatu		Catholic	Y	Village	Y	Y	1000	750	
12	Ilisiki	Josefo	Y		Lavena, Wainikeli	Class 8	Catholic	Y	Village	Y	N	1000	750	
13	Iosefo	Jese	Y	19	Waitabu, Wainikeli		Catholic	Y	Village	Y	Y	3000	750	
14	Iowani	Rusi	Y		Qeleni, Wainikeli		Catholic	Y	Village	Y	Y	1000	750	
15	Iowani V	Salaibulu	Y		Naqaravutu, Tunuloa		Catholic	Y	Village	Y	Y	1000	750	
16	Iowani	Vilise	Y		Lavena, Wainikeli		Catholic	Y	town	Y	Y			
17	Jone	Tamaisuki	Y		Yasawa, Saqani	Class 8	Methodist	N						
18	Kaione	Waivou	Y	18	Bagata, Korocau		Catholic	Y	Village	Y	N	1000	750	copra
19	Lemeki	Ratemo	Y		Bagata, Korocau		Catholic	Y	Village	Y	N	1000	400	piggery
20	Manasa	Bulisovasov	Y		Natoga,		Methodist							
21	Misiamete	Ratusaki	Y		Togaviti, Vaturova	Class 8	Methodist	Y	Village	Y	Y	1000	400	
22	Noa	Samoto	Y	23	Saqani, Saqani		Methodist							
23	Pauliasi	Raqili	Y		Vunidogoloa, Koroalau		Catholic							
24	Panapasa	Vuetaki	Y		Vatukuca,		Catholic							
25	Pelasio	Rayabia	Y		Bouma, Wainikeli	Class 6	Catholic	Y	Village	Y	Y	1000	750	
26	Pita		Y		Bagata, Wailevu		Methodist							
27	Ruveni	Naira	Y		Naloalao, Wailevu		Catholic	Y	Village	Y	Y	1000	750	
28	Samuela	Viliame	Y		Dromuninuku, Savusavu		Catholic	Y	Village	Y	Y	1000	1100	
29	Samu	Waqanivatu	Y	19	Navetau, Saqani		Catholic	Y	Village	Y	Y	800	750	
30	Sebe	Uli	Y		Tacilevu, Savusavu		Methodist							
31	Sipiriano	Teaiwa	Y		Vatukuca,		Methodist							
32	Samisoni	Pio	Y		Vusasivo, Natewa		Catholic	Y	Village	Y	Y	800	400	
33	Sulio	Save	Y		Vakativa, Wailevu		Catholic	Y	Village	Y	Y	800	1100	
34	Toma	Buleisuva	Y	18	Savare,	Class 8	Catholic	Y	Village	Y	Y	800	750	cocoa

Comprehensive Course (1974)														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Aisikele	Yaya	Y	18	Korotasere, Vatuova		Methodist							
2	Arjun	Prasad	Y	18	Qila, Cakaudrove				Settlement		N	1000	400	vegetables
3	Aporosa	Tubuvanua	Y	19	Saqani, Saqani									
4	Br Joseph		Y		Tutu, Cakaudrove		Catholic							
5	Br Pariu		Y		Tutu, Cakaudrove		Catholic							
6	Br Leone		Y		Tutu, Cakaudrove		Catholic							
7	Br Edward		Y		Tutu, Cakaudrove		Catholic							
8	Br Vereniki		Y		Tutu, Cakaudrove		Catholic							
9	Benjamin	Chute	Y	18	Tawake, Saqani		Catholic							
10	Berenado	Vulakauvak	Y	22	Vunikura, Mabuco		Catholic	N	Village	Y	Y	1000	1300	copra
11	Botei	Iosefo	Y	25	Nasinu, Navatu	Class 8	Methodist	Y	RIP					
12	Iowani	Duilomaloni	Y	20	Lamini, Somosomo		Catholic	Y	Village	Y	Y	1000	1300	
13	Matia	Malekai	Y	27	Bouma, Wainikeli		Catholic	Y	Village	Y	Y	1000	400	
14	Maritino	Kaiverata	Y	18	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1000	400	
15	Marika	Gauna	Y	18	Saqani, Saqani		Methodist							
16	Ponipate	Moce	Y	24	Dogotuki, Macuata		Catholic	N	Village	Y	Y	1000	400	rice
17	Petero		Y	19	Bouma, Wainikeli		Catholic	N	Village	Y	Y	1000	400	
18	Tevita	Macanawa i Voce	Y	18	Korotasere, Vatuova		Methodist							

Voluneers Course (1975)													
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants
1	Valebatiti	Nikotemo	Y	20	Seavaci, Vatuova	Class 4	Methodist	y	RIP				
2	Samu	Waqanivatu	Y	19	Navetau, Saqani	Class 6	Catholic	y	Village			500	750
3	Luke	Ramatani	Y	21	Nadivakarua, Kubulau				Village				
4	Petero	Sitiveni	Y	19	Dromoninuku, Savusavu				Village				
5	Gabiriele	Buli	Y		Satulaki, Vatuova	Form 2		y	Village			500	750
6	Selesitino	Voreqe	Y		Lavena, Wainikeli			y	RIP				
7	Sulio	Save	Y	19	Vakativa, Wailevu	Class 7	Catholic		Village				
8	Raqili	Poliasi	Y	19	Vunidogoloa, Koroalau	Form 2	Methodist		Village				
9	Aporosa	Musuvanua	Y	18	Saqani, Saqani	Form 2	Methodist	y	Village			500	1500
10	Jone	Rusi	Y	19	Qeleni, Wainikeli	Class 7	Catholic	y	Village			500	750
11	Pita		Y										
12	Samisoni	Pio	Y	22	Vusasivo, Natewa	Form 4	Catholic						
13	Ilisama	Hoganimusi	Y	22	Nabua, Koroalau	Form 2	Methodist	y	rural non village			500	1500
14	Anasa	Navilivou	Y	22	Tabia, Navatu	Form 2	Methodist	y	Village			500	1500
15	Pelasio	Paiyala	Y		Korovou, Wainikeli	Class 7	Catholic	y	Village			500	750
16	Botei	Iosefo	Y	25	Nasinu, Navatu	Form 2		y	RIP				
17	Lemeki	Ratemo	Y	24	Bagata, Wailevu	Form 2	Methodist		Village				
18	Beniame	Pulilevuka	Y	23	Bagata, Wailevu	Class 6	Methodist		Village				
19	Iowani Ve	Salaibulu	Y	23	Naqaravutu, Tunuloa	Class 6	Catholic		Village				
20	Misiamete	Patukuki	Y		Togaviti, Vatuova	Form 2	Methodist	y	town				

continued

21	Toma	Buleisuva	Y	18	Savare	Form 2	Catholic		Village				
22	Noa	Samoto	Y	23	Saqani, Saqani	Form 2	Methodist	y	Village			500	300
23	Marika	Gauna	Y		Saqani, Saqani			y				500	1500
24	Adriano	Namucu	Y		Waisoli, Wailevu								
25	Eroni	Dakai	Y	18	Vusasivo, Natewa	Class 6	Methodist		Village				
26	Iliesa	Matakubou	Y	23	Vatulele, Wailevu	Form 2	Methodist						
27	Sebo	Uli	Y	21	Tacilevu, Savusavu	Form 3							
28	Ruveni	Naila	Y	23	Naloaloa, Wailevu	Class 6	Methodist						
29	Sepuloni	Baleivatu	Y	18	Nacodreudreu, Wailevu	Class 7	Methodist						
30	Iliesa	D	Y	18	Navakuru, Vatuoro	Form 2	Methodist						
31	Mataiyasi	Vono	Y	21	Naboutini, Wailevu	Class 6	Methodist						
32	Samuela	Silani	Y	19	Naloaloa, Wailevu	Class 6	Methodist						
33	Iowane	Larua	Y	22	Vakativa, Wailevu	Class 7	Catholic						
34	Elia	Marika	Y	21	Vakativa, Wailevu		Catholic						
35	Pelasio	Rayabia	Y		Bouma, Wainikeli		Catholic	Y	Village			500	750
36	Iosefo	Jese	Y	19	Waitabu, Wainikeli	Form 2	Catholic	y	Village			500	750
37	Atonio	Ginigini	Y	19	Korovou, Wainikeli	Class 6	Catholic	y	town				
38	Rapoama		Y	21	Buca, Tunuloa	Form 2	Catholic						
39	Pauliasi	Qaqa	Y	22	Buca, Tunuloa	Form 3	Catholic						
40	Vilise	Joane	Y	23	Lavena, Wainikeli	Class 7	Catholic	y					
41	Elisiki	Josefo	Y	21	Lavena, Wainikeli	Form 2	Catholic	y				500	1500
42	Eroni	Vueti	Y	21	Qeleni, Wainikeli	Form 2	Catholic	y				500	750
43	Farasiko	Seru	Y	19	Vunikura, Mabuco		Catholic	y	RIP	Y	Y		
44	Isaia	Vakalua	Y	20	Nawi, Mabuco		Catholic	y	Village	Y	Y	500	750
45	Sirino	Waikeli	Y	23	Dakuniba, Mabuco	Form 2	Catholic	y	RIP	N	Y		
46	Samu	Wiliame	Y	19	Dromoninuku, Savusavu	Form 1	Methodist	y	Village			500	750
47	Isimeli	Cerelala	Y	24	Drekeniwai, Navatu	Form 2	Methodist	y	Village			500	1500

ComprehensiveCourse (1976)														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Alekesio	Timoci	Y		Dromoninuku, Savusavu									
2	Atunaisa	Camaibau	Y	18	Qeleni, Wainikeli		Catholic	Y	Village	Y	Y	1000	750	
3	Br Eremodo	Eliseo	Y		Namosi, Namosi		Catholic	Brother						
4	Br Alekesio	Tatini	Y		Tutu, Cakaudrove		Catholic	Brother						
5	Babaraua		Y	18	Rabi, Rabi		Catholic							
6	Donatione	Vulivuli (II)	Y	22	Nukubalavu, Savusavu		Methodist	Y	Village	Y	Y	1000	750	copra
7	Eritai (II)	Teaiwa	Y	18	Tabiang, Rabi	Class 8	Catholic							
8	Henry	Ting	Y		Salia, Tunuloa	Form 4	Catholic	Y	Village	Y	Y	5000	1500	
9	Inosi	Vono	Y		Naboutini, Saqani		Methodist							
10	Jone Raivali	Tusola	Y		Naselesele, Wainikeli	Form 5	Catholic	Y	Village	Y	Y	1000	400	
11	Joseph	Minati(II)	Y	18	Nuku, Rabi		Catholic							
12	Kaione	Waivou	Y		Bagata, Korocau		Methodist							
13	Keleto	Livai	Y		Nasinu, Navatu		Methodist							
14	Leone	Cama (II)	Y		Dromoninuku, Savusavu		Catholic	Y	Village	Y	Y	1000	400	copra; livestock
15	Matang		Y		Rabi, Rabi		Catholic							
16	Makario	Waga	Y		Bouma, Wainikeli		Catholic	Priest	Village	Y	Y			
17	Manuel	Lord	Y		Naselesele, Wainikeli		Catholic	Y	Village	Y	Y	1000	750	
18	Mikaele	Bati	Y	25	Wainigadru, Tawake	Form 4	Catholic	Y	Village	Y	Y	3000	750	cocoa
19	Samu	Wiliame	Y	19	Dromoninuku, Savusavu	Class 7	Methodist	Y	Village	Y	Y	1000	750	copra

20	Saimone	Kosi	Y		Nasinu, Navatu		Methodist	Y	Village	Y	Y	1000	400	copra
21	Simione	Vala	Y		Navakawau, Vuna		Catholic	Y	Village	Y	Y	1000	750	
22	Sirino	Vakacamera	Y		Nailou, Tunulua		Catholic	Y	Village	Y	Y	1000	750	
23	Sovita	Moceituba	Y	18	Vunikura, Mabuco		Catholic	Y	Village	Y	N	1000	750	
24	Tomasi	Mawi (II)	Y	18	Urata, Savusavu	Form 3	Methodist	Y	Village	Y	Y	1000	400	copra
25	Tomasi	Tawake	Y		Kanakana, Tunulua		Catholic	Y	Village	Y	Y	1000	750	
26	Uliano	Laisenia	Y		Napuka, Tunulua		Catholic	Y	Village	Y	Y	1000	750	

ComprehensiveCourse (1977)													
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants
1	Aloisio	Biraki	Y		Karoko, Tunuloa		Catholic						
2	Atonio	Tunari	Y		Nailou, Tunuloa		Catholic						
3	Atunaisa	Camaibau	Y		Qeleni, Wainikeli		Catholic						
4	Atunaisa	Wainiqolo	Y		Nakobo, Korocau		Methodist						
5	Collin	Taylor	Y		Nakobo, Korocau		Methodist	Y	Village	Y	Y	500	750
6	Farasiko	Soloto	Y	26	Koroivonu, Tunuloa	Class 7	Catholic	Y	Village	Y	N	500	300
7	Henry	Ting	Y		Salia, Tunuloa	Form 4	Catholic	Y	Village	Y	Y	5000	1500
8	Iosefo	Rede	Y		Nakorovou, Kubulau		Methodist						
9	Iowane	Madri	Y		Karoko, Tunuloa		Catholic						
10	Jese	Manu	Y		Naboutini, Savusavu		Methodist						
11	Jone	Draunibaka	Y		Waiyevo, Cakaudrove		Catholic	Y	Village	Y	Y	1000	750
12	Jone Raivali	Tusola	Y		Naselesele, Wainikeli	Form 5	Catholic	Y	Village	Y	Y	1000	400
13	Kaliova	Kovukovu	Y		Naboutini, Savusavu		Methodist						
14	Kisi	Maivunisikec	Y	22	Nakobo, Korocau	Form 4	Methodist	Y	Village	Y	Y	1000	400
15	Manoa	Bawaqa	Y		Dromuninuku, Savusavu		Methodist						
16	Mateo	Rapea	Y		Vakativa, Wailevu		Methodist						
17	Matia	Gavuso	Y		Vivili, Savusavu		Methodist						
18	Mikaele	Bati	Y	25	Wainigadru, Tawake	Form 4	Catholic	Y	Village	Y	Y	1000	750
19	Mikaele	Viliame	Y		Karoko, Tunuloa		Catholic						
20	Nemani	Kalokalo	Y		Naweni, Cakaudrove		Catholic						
21	Petero	Sikaipotu	Y		Wairiki, Cakaudrove	Form 3	Catholic	Y	Village	y	Y	1000	750
22	Pita	Nayavucece	Y		Nakuku, Vaturova		Catholic						
23	Pio	Bulivale	Y		Tavuki, Cakaudrove		Catholic	Y	Village	Y	Y	1000	750
24	Rogosiano	Boutarua	Y		Salia, Tunuloa		Catholic						
25	Romanu	Taione	Y		Nakorovou, Kubulau		Methodist						
26	Saimone	Banuve	Y		Nakobo, Korocau		Methodist						
27	Saimone	Ravaga	Y		Urata, Savusavu		Methodist						
28	Samu	Wiliame	Y	19	Dromoninuku, Savusavu	Class 7	Methodist	Y	Village	Y	Y	1000	750
29	Setefano	Naqila	Y		Nailou, Tunuloa		Catholic		Village	Y	Y	1000	750
30	Selau	Madden	Y		Matei, Wainikeli	Form 5	Catholic	Y	Settlement	Y	Y		
31	Sirino	Vakacamera	Y		Nailou, Tunuloa		Catholic		Village	Y	Y	1000	750
32	Vitale	Roqica	Y		Vativa, Wailevu West		Methodist		Village	Y	Y	1000	750
33	Wame	Uraia	Y	18	Tapena, Rabi	Class 8	Methodist	N	Village	Y	Y	3500	750

Volunteers Course (1978)														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Aisake	Lovobalavu	N		Mataikoro, Korocau									
2	Aminiasi	Rokoba	Y	21	Sese, Saqani	Form 2	Methodist	Y				500	1500	
3	Apenisa	Ragadi	Y	24	Sese, Saqani	Class 6	Methodist	Y				500	750	
4	Akuila	Kolidamu	Y	19	Korotasere, Vatuova		Methodist	Y				500	1500	
5	Atonio	Salele	Y	16	Koronikoli, Vatuova	Form 2	Methodist	Y						
6	Atunaisa	Siva`	Y	23	Sueni, Wairiki, Cakaudrove	Form 2	Methodist	Y				500	1500	
7	Benidito	Laisenia	Y	19	Wainigadru, Tawake	Form 4	Methodist	Y				500	750	
8	Bonovasio	Waga	N											
9	Eliorepi	Matairugu	Y	18	Togaviti, Vatuova	Form 4	Methodist	Y				500	1500	
10	Epeli	Vakalalabure	Y	18	Natuvu, Saqani	Form 4	Methodist	Y				500	750	
11	Epeli	Tamani	Y	18	Navonu, Korocau	Class 5	Methodist							
12	Gabiriele	Buli	Y	21	Satulaki, Vatuova	Form 2	Catholic							
13	Gabiriele	Temai	Y	18	Rabi	Form 2	Catholic							
14	Iliesa	Ratusaki	Y	17	Vatuova, Vatuova	Form 4	Catholic	Y				500	750	
15	Ilisoni	Rabete	Y	18	Korotasere, Vatuova	Form 5	Methodist	Y	Rural non village					
16	Ioane	Rasalato	Y	28	Vakativa, Wailevu	Class 5	Catholic							
17	Ipirito	Bakaua	Y	20	Rabi	Form 5	Catholic							
18	Isei	Nasaroa	Y	19	Baleyaga, Vatuova	Form 4	Methodist	Y				500	1500	
19	Jioji	Vusonimeku	Y	19	Nasinu, Navatu	Form 2	Methodist	Y				500	1500	
20	Josefa	Biraki	Y	30	Yasawa, Saqani	Class 6	Methodist	Y				500	750	
21	Kitione	Finau	Y	18	Navonu, Korocau	Class 5	Methodist	Y	town					
22	Lui	Mikaele Teka	Y	19	Rabi	Form 5	Catholic							
23	Mario	Raivasi	Y	17	Wavu, Vatuova	Form 3	Methodist	Y				500	750	
24	Mateo	Baleilagi	Y	19	Navetau, Saqani	Class 6	Catholic	Y				500	1500	
25	Mateo	Salase	Y	18	Vakativa, Wailevu	Form 4	Catholic							
26	Paula	Daniva	Y	18	Vuniwai, Saqani	Form 4	Methodist	Y	town					
27	Paulo	Waqanivatu	Y	24	Navetau, Saqani	Class 6	Methodist							
28	Peni	Sitoni	Y	19	Vuinadi, Vatuova	Form 4	Catholic	Y				500	1500	
29	Pio	Suluka	Y	18	Wavu, Vatuova	Form 2	Catholic	Y				500	750	
30	Ropate	Nayacalevu	Y	21	Vanuavou, Vatuova	Class 6	Methodist	Y				500	750	
31	Rusiate	Qalo	Y	23	Malake, Saqani	Form 3	Methodist	Y	RIP					
32	Salesi	Raqili	Y	17	Nacula, Saqani	Form 4	Catholic							
33	Savenaca	Vakalolo	Y	17	Vuniwai, Saqani	form 5	Methodist	Y				500	750	
34	Solomoni	Nabici	Y	22	Natuvu	Form 2	Methodist	Y	RIP					
35	Tuciri	Lalanakoro	Y	21	Domokavu, Vatuova	Form 2	Methodist	Y	RIP					
36	Vetaia	Turagavou	Y	21	Vuniwai, Saqani	Form 4	Methodist	Y	town					
37	Viliame	Manayala	Y	17	Nabua, Korocau	Form 4	Methodist							

Voluneers Course (1979)													
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants
1	Apisalome	Bogidua	Y	17	Navetau, Saqani	Form 4	Catholic	Y	town				
2	Filimomi	Pio	Y	18	Urata, Savusavu	Form 4	Catholic						
3	Gabiriele	Tuinaceva	Y	19	Naweni, Savusavu	Form 2	Catholic						
4	Ilai	Rasama	Y	24	Dromuninuku, Savusavu	Class 1	Methodist						
5	Iosefo	Navera	Y	23	Savusavutaqa, Savusavu	Form 2	Catholic						
6	Iotepa	Kaitarawa	Y	18	Rabi	Form 4	Catholic						
7	Esikeli	Vesikula	Y	17	Nasinu, Navatu	Form 5	Methodist						
8	Jale	Wainiqolo	Y	20	Navonu, Korocau	Form 2	Catholic	Y				1000	1500

9	Jonasi	Rokolekai	Y	17	Natewa	Form 2	Catholic	y				1000	750
10	Jioji	Suquturaga	Y	17	Navonu, Korocau	Form 2	Methodist	Y	RIP				
11	Joseva	Camoro	Y	18	Satulaki, Vaturova	Form 2	Catholic	y				1000	1500
12	Joseva	Wainiika	Y	17	Vakativa, Wailevu	Form 2	Methodist						
13	Josua	Vakadranu	Y	18	Korolevu, Navatu	Form 4	Methodist						
14	Lasarus	Lovolailai	Y	18	Yaroi, Savusavu	Form 4	Methodist						
15	Manasa	Naduva	Y	19	Naweni, Savusavu	Form 2	Catholic						
16	Marika	Kulanio	Y	17	Jerusalemi, Savusavu	Form 2	Catholic						
17	Milio	Toganivalu	Y	18	Yaroi, Savusavu	Form 4	Methodist						
18	Moritikei	Nabuli	Y	21	Nasinu, Navatu	Form 5	Methodist						
19	Neimani	Vatuvodo	Y	19	Naibalebale, Savusavu	Form 2	Methodist						
20	Pauro	Iporito	Y	18	Rabi	Form 4	Catholic						
21	Penieli	Nawasala	Y	19	Yaroi, Savusavu	Form 2	Methodist						
22	Pero	Raurenti	Y	18	Fatima, Rabi	Class 5	Catholic						
23	Petero	Bokoi	Y	17	Napuka, Tunulua	Form 4	Catholic						
24	Petero	Gonedau	Y	17	Naibalebale, Savusavu	Form 4	Catholic						
25	Rupeni	Rabici	Y	17	Namoli	Form 2	Methodist						
26	Rusiate	Vukeca	Y	19	Naweni, Savusavu	Form 4	Catholic						
27	Saviriano	Voce	Y	18	Vakativa, Wailevu	Form 4	Catholic						
28	Semi	Senitiuri	Y	20	Naibalebale, Savusavu	Form 2	Methodist						
29	Soane	Qalita	Y	18	Fatima, Rabi	Form 2	Catholic						
30	Tokoia	Robert	Y	18	Fatima, Rabi	Class 6	Catholic						
31	Vakere	Balenicula	Y	17	Jerusalemi, Savusavu	Form 1	Methodist						
32	Waisale	Cabenasiga		18	Naloaloa, Wailevu	Form 4	Catholic						

Voluneers Course (1982)													
		Name	Completed Course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants
1	Iosefo	Rapuga	Y	21	Bouma, Wainikeli	Class 6	Catholic	Y	Village			1000	750
2	Eferemo	Waga	Y	16	Vuna, Vuna	Form 3	Catholic	Y	Village	N	Y	3000	750
3	Donato	Batidua	Y	24	Bouma, Wainikeli	Class 6	Catholic	Y	Village			1000	750
4	Maritino	Vulatabu	Y	18	Lavena, Wainikeli	Class 6	Catholic	Y	Village	Y	Y	6000	1500
5	Iowani	Maluguvou	Y	19		Form 1	Catholic	Y	Village				
6	Iosefo	Dreinatewa	Y	23	Bouma, Wainikeli	Form 4	Catholic	Y	Village			1000	750
7	Penitama	Lakaba	Y	18	Bouma, Wainikeli	Class 6	Catholic	Y	Village			1000	750
8	Amato	Lagilagi	Y	21	Lavena, Wainikeli	Form 1	Catholic	Y	Village	Y	Y	1000	750
9	Petero	Bulainayau	Y	26	Bouma, Wainikeli	Form 2	Catholic	Y	Village			1000	750
10	Lui	Lala	Y	17	Vuna, Vuna	Form 4	Catholic	Y	Settlement	Y	Y	6000	1500
11	Iakobo	Railotu	Y	18	Lavena, Wainikeli	Form 3	Catholic	Y	Village	Y	N	1000	1500
12	Dennis	Paul Taylor	Y	17	Koroni, Cakaudrove		Catholic	N	town	N	N		
13	Pita	Sereki	Y	17	Wai,Wainikeli	Form 1	Methodist	Y	Village			1000	1500
14	Tomasi	Laladidi	Y	20	Wai, Wainikeli	Form 4	Methodist	Y	Village			1000	1500
15	Rupeni Mila	Taufa	Y	18	Wai, Wainikeli	Form 4	Methodist	Y	Village			1000	1500
16	Petero	Radua	Y	18	Qali, Wainikeli	Class 6	Catholic	Y	town	Y	N		
17	Farasiko	Waqasoqo	Y	26	Qali, Wainikeli	Form 2	Catholic	Y	Village			1000	1500

18	Abaramo	Tivikea	Y	18	Qali, Wainikeli	Form 2	Catholic	Y	Village	Y	Y	6000	1500
19	Wani	Tavata	Y	17	Vuna, Vuna	Form 2	Methodist	Y	Village			6000	1500
20	Saimone	Balelevuka	Y	18			Methodist						
21	Leone	Batisova	Y	19	Namakomako, Macuata	Form 1	Catholic	Y	town				
22	Eroni	Daugunu	Y	23	Saqani, Saqani	Form 4	Methodist	Y				1000	1500
23	Dionisio	Naibuka	Y	20	Yaudigi, Macuata	Form 4	Catholic	Y	town				
24	Samuela	Vakawale	Y	19	Nawi, Mabuco	Form 3	Catholic	Y	town	N	not farming		
25	Paulo	Tuanoka	Y	20	Vitina, Macuata	Form 5	Catholic	Y	town				
26	Esira	Cakau	Y	23	Nukusa, Macuata	Form 3	Methodist	Y	town				
27	Atonio	Togamaivei	Y	24	Togo, Qamea	Form 2	Methodist	Y				1000	750
28	Jone	Ramasima	Y	21	Dromuninuku, Savusavu	Form 5	Catholic	Y				1000	750
29	Kasimiro	Kalini	Y	32	Naveta	Form 1	Catholic						

Table 2: Young Farmers Courses (1983-2011) Database

1983 Course, Graduation 1986														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Pelasio	Manaseva	Y	25	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1500	750	
2	Saimone	Turagavou	Y	21	Drekeniwai, Navatu		Catholic	Y	Village	Y		1500	1500	
3	Pita	Sereki	Y	19	Wai, Wainikeli		Methodist	Y	town	Y	Y			
4	Petero	Radua	Y	21	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1500	1500	
5	Iakobo	Railotu	Y	21	Lavena, Wainikeli		Catholic	Y	Village	N	Y	1500	750	
6	Maikeli	Seru	Y	23	Drekeniwai, Navatu		Methodist	Y	Village			1500	750	
7	Atonio	Togamaivei	Y	24	Togo, Qamea		Methodist	Y	Village			1500	750	
8	Donato	Bati	Y	23	Korovou, Wainikeli		Catholic	Y	Village	Y	Y	1500	750	
9	Amato	Lagilagi	Y	24	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1500	750	
10	Ioawane	Vakaruru	Y	23	Vidawa, Wainikeli		Catholic	Y	Village	Y	Y	1500	750	copra;fishing
11	Penitoma	Lakaba	Y	18	Korovou, Wainikeli		Catholic	Y	Village	Y	Y	1500	1500	
12	Siliveteri	Talemaisuv	Y	22	Lavena, Wainikeli		Catholic	Y	Village	Y	Y	1500	1500	
13	Joe	Vulea	Y	21	Qila,Cakaudrove		Catholic	Y	Village			7000	1500	
14	Lui	Lala	Y	19	Vuna, Vuna		Catholic	Y	Village			7000	1500	

Table 3: 1985 Young Farmers Course (Graduating 1988)

		Name	Completed Course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprises
1	Mikaele B	Seniorita	Y	26	Qeleni, Wainikeli		Catholic	Y	Village	Y	y	7000	1100	livestock;fishing
2	Iosefo	Vodo	Y	22	Somosomo, Cakaudrove		Catholic		Village			1500	750	
3	Iosefo	Bulavakarua	Y	21	Wairiki, Cakaudrove		Catholic	Y	Village	Y	Y	1500	750	
4	Pita	Turagabeci	Y	25	Dromoninuku, Savusavu		Catholic		Village			1500	750	
5	Seru	Ioane	Y	19	Dromoninuku, Savusavu		Catholic		Village			1500	750	
6	Tomasi	Rawaloa	Y	18	Nagigi, Cakaudrove		Methodist		Village			1500	750	
7	Enesi	Turogo	Y	17	Naselesele, Wainikeli		Methodist	Y	town					
8	Robert	Ting	Y	18	Naqaravutu, Tunulua		Catholic		Village			1500	1100	
9	Robert	Naceba	Y	17	Welagi, Cakaudrove		Methodist	Y	Village			1500	750	
10	Tavite	Loaloa	Y	25	Dakuniba, Mabuco		Catholic	N	town	N	not farming			
11	Manoa	Roko	Y	18	Dakuniba, Mabuco		Catholic	Y	town	Y	y			

12	Aleposio	Maue	Y	21	Muana, Natewa		Catholic		Village			1500	1100	
13	Mikaele	Vakaibulu	Y	17	Muana, Natewa		Catholic		Village			1500	1100	
14	Suliano	Bale	Y	17	Vusasivo, Natewa		Catholic		Village			1500	1100	
15	Paulo	Soka	Y	17	Vuniuto, Cakaudrove		Catholic	Y	Village	Y	Y	7000	1100	
16	Metonio	Bulimaibau	Y	22	Salia, Tunulua		Catholic	Y	Village			1500	1100	
17	Rogasiano	George	Y	18	Salia, Tunulua		Catholic		town					
18	Sesario	Tila	Y	22	Wailevu, Tunulua		Catholic		Village			750	700	
19	Tobia	Sikivou	Y	18	Kanakana, Tunulua		Catholic		Village			750	1100	
20	Lorosio	Manasa	Y	18	Naqaravutu, Tunulua		Catholic		Village			750	1100	
21	Seba	Tiko	Y	18	Vuna, Vuna		Catholic	Y	Village	N	Y	7000	1100	
22	Sani	Fine	Y	17	Vuna, Vuna		Catholic	Y	Village	Y	Y	7000	1100	
23	Taniela	Matakibau	Y	17	Navakawau, Vuna		Catholic	Y	Village			7000	1100	
24	Misaele	Kelepi	Y	15	Navakawau, Vuna		Catholic	Y	Village	Y	Y	7000	1100	trading
25	Jone	Waqabitu	Y	18	Wailevu, Tunulua		Catholic	Y	Village			1500	1100	
26	Viliame	Kele	Y	18	Welagi, Cakaudrove		Catholic	Y	Village			7000	1100	

Table 4: 1987 Young Farmers Course (Graduating 1991)

1987 Course, graduating 1991														
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Fabiano	Tui	Y	21	Dakuniba, Mabuco	Form 2	Catholic	Y	Village	Y	Y	1500	500	copra;fishing
2	Gabiriele	Turagacei	Y	18	Nawi, Mabuco	Class 6	Catholic	Y	Village	Y	Y	1500	800	copra;fishing;othe
3	Kolodio	Lesuma	Y	18	Waimaqera(Dakuni ba)	Class 6	Catholic	Y	Village	Y	Y	1000	1200	
4	Romanu	Coladuadua	Y	18		Form 2								
5	Kesi	Valaqele	Y	21	Kicukicu, Korocau	Class 6	Catholic	Y	Village	Y	Y	1500	700	
6	Iosefo	Turagacei	Y		Nawi, Mabuco	Form 2	Catholic	y	Village	Y	Y	1500	700	copra,fishing
7	Mateo	Tuiviani	Y		Delaivuna(Kanakan a)	Form 2	Catholic	y	Village	Y	Y	2000	1000	other
8	Savirio	Sikavou	N	22		Form 2								
9	Atonio	Savudrodoro	N	20		Form 1								
10	Aloisio	Biraki	Y	22	Delaivuna(Karoko, Tunulua	Form 1	Catholic	y	Village	Y	Y	1200	900	
11	Wani	Savenaca	Y	20	Wailevu, Tunulua	Class 6	Catholic	y	town	N	not farming			other
12	Lorosio	Qionisara	Y	19	Wailevu, Tunulua	Form 1	Catholic		town	N	Y			
13	Mataki	Bolewale	Y	17	Nadavaci, Natewa	Form 2	Catholic	y	Village	Y	Y	1500	800	copra
14	Esala	Yabakidrau	Y	18	Nasinu, Navatu		Methodist	y	Village	Y	Y	1500	1000	copra
15	Peni	Vono	Y	21	Sese, Saqani	Form 1	Methodist	y	Village	Y	Y	1500	6000	
16	Seroma	Rokovesa	Y	18	Naboutini, Wailevu	Form 1	Methodist	y	Village	Y	Y	1500	500	copra
17	Alipate	Motolaulau	Y	20	Naboutini, Wailevu	Form 2	Methodist	y	Village	Y	Y	1500	700	copra
18	Farasiko	Soloto	Y	18	Salia, Tunulua	Form 2	Catholic	y	RIP	Y				
19	Meli	Caniosio	N	20	Wainigadru, Tawake	Form 1								
20	Pita	Cakacaka	Y	23	Wairiki, Cakaudrove	Form 1	Catholic	y	town	Y	Y			
21	Isoa	Kasainaceva	N	21		Form 1								

Table 5: 1991 Young Farmers Course (Graduating 1995)

		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Mareko	Koroi	Y		Dakuniba, Mabuco	Form 2	Catholic	y	town	Y	N		700	
2	Lui	Baleicikobia	Y		Salia, Tunulua	Form 2	Catholic	y	Village	Y	Y	1500	600	
3	Sakiusa	Ling	Y		Tavuki, Cakaudrove	Form 2	Catholic		town	N	N			
4	Vincent	Tovata	Y		Nawi, Mabuco	Form 1	Catholic	y	Village	Y	Y	1500	1000	copra; livestock; fishing
5	Isoa	Ligairi	N		Naibalebale, Wailevu	Form 1	Catholic	-	Village	N	N	-		-
6	Iosefo	Ravuama	N		Nailou, Tunulua	Class 6	Catholic	y	Village	Y	Y	1500	500	copra
7	Suliano	Waqavanua	N		Kanakana, Tunulua	Form 1	Catholic							
8	Pita	Sanele	Y		Salia, Tunulua	Form 1	Catholic		Village	Y	Y	1500	700	
9	Semi	Dakuwaqa	Y		Salia, Tunulua	Class 5	Catholic	y	Village	Y	Y	1500	400	copra
10	Rafaale	Qativi	Y		Vione, Cakaudrove	Form 1	Catholic		Village	Y	Y	3500	500	
11	Leslie	Kaiyatia	N		Qamea, Wainikeli	Form 3	Methodist							
12	Joeli	Baleidravuni	Y		Kanakana, Tunulua	Form 1	Catholic		Village	Y	Y	1500	500	
13	Viliame	Matai	Y		Wairiki, Cakaudrove	Form 2	Catholic		town	N		1500		
14	Petero	Maciu	Y		Nawi, Mabuco	Form 1	Catholic	y	rural non village	N	Y	1500	1200	copra
15	Benidito		Y		Salia, Tunulua	Form 5	Catholic		Village	Y	Y	1500	1000	copra
16	Peni	Turagabaleti	Y		Nasinu, Navatu	Form 1	Methodist		Village	Y	Y	3500	600	copra
17	Timoci	Maulisio	Y		Naqaravutu, Tunulua	Form 1	Catholic		Village	Y	Y	3500	500	copra
18	Mateo	Rokovesa	Y		Waica, Cakaudrove	Form 2	Catholic	y	Village	Y	Y	7000	1000	
19	Maku	Masikau	Y		Lavena, Wainikeli	Form 2	Catholic	y	rural non village	Y	N	3500	600	

Table 6: Young Farmers Course 1995 (Graduating 1999)

		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise
1	Iowane	Waqanivavak	Y	20	Muana, Tunulua	Form 3	Catholic		Village		Y	1500	1100	
2	Petero	Bolatoga	Y	19	Muana, Tunulua	Form 3	Catholic		Village	Y	Y	1500	750	
3	Maritino	Vakaseta	N	20	Vunikura, Mabuco	Form 2	Catholic	N	Village	N	Y			
4	Makario	Ulavucu	N	20	Vakativa, Wailevu	Class 5	Catholic							
5	Alosio	Neori	Y	21	Qeleni, Wainikeli	Form 3	Catholic	Y	town	Y	Y	1500	1100	
6	Filipe	Paiaa	N	19	Nawi, Mabuco	Form 2	Catholic	Y	1	Y	Y	1500		copra
7	Silverio	Raika	Y	19	Naweni, Korocau	Form 2	Catholic	Y	town	N	not farming			
8	John Lea	Alfred	N	18	Waimaqera, Vuna	Form 2	Catholic					3500		
9	Pio	Nabenia	N	18	Malaga, Cakaudrove	Form 1	Catholic					2100		
10	Iosefo	Tunacika	Y	19	Navakawau, Vuna	Form 2	Catholic		town					
11	Simone	Waqalevu	N	19	Nailou, Tunulua	Form 2	Catholic					1500	1100	
12	Pauliasi		Y	19	Dawa, Natewa	Form 2	Methodist		town	Y	Y			
13	Alipate	Tui	N	18	Vusa, Natewa	Form 3	Methodist							
14	Poasa	Raiwalui	Y	17	Dawa, Natewa	Form 2	Methodist					1500	1100	
15	Aporosa	Doloka	N	21	Qeleni, Wainikeli	Form 2	Catholic							
16	Pauliasi	Silinameke	Y	18	Qeleni, Wainikeli	Form 2	Catholic		Village	Y	Y	3500	1100	
17	Daniele	Tikoivavalagi	Y	18	Qeleni, Wainikeli	Form 2	Catholic					3500	1100	
18	Sulio	Tunulua	N	23	Lumiboso, Tunulua	Form 2	Catholic							livestock
19	Elia	Rakai	Y	20	Kanakana, Tunulua	Form 2	Catholic		Village	Y	Y	1500	1100	livestock
20	Kuru	Katuba	Y	20	Navonu, Korocau	Form 1	Methodist					1500	1100	
21	Maciu	Namoce	N	21	Vunivesi, Wailevu	Form 3	Catholic							
22	Benito	Maikeli	N	20	Naba, Wainikeli	Form 1	Catholic							
23	Iowani	Kau	Y	20	Naba, Wainikeli	Form 1	Catholic	Y	Village	Y		1500	1100	livestock; fishing
24	Karalo	Tukania	Y	18	Dakuniba, Mabuco	Form 2	Catholic	Y	Village	Y		3500	1100	copra, livestock

25	Samuela	Nataba	N	20	Naibalebale, Wailevu	Class 6	Methodist									
26	Mikaele	Matai	Y		Kanakana, Tunulua	Form 1	Catholic					1500	1100			
27	Ilisoni	Lalakomacua	Y		Koroivonu, Tunulua	Class 5	Catholic					1500	1100			
28	Jone	Sokoyawa	Y	22	Dreketi, Wainikeli	Form 1	Catholic					1500	1100			
29	Toa	Bavoko	N	21	Dreketi, Wainikeli	Class 5	Methodist									
30	Petero		N													
31	Aparama	Waq	N	21	Naqaravutu, Tunulua	Form 2	Catholic									
32	Gabiniele	Gasau	Y	22	Vusasivo, Tunulua	Form 2	Catholic	Y	Village	Y		1500	1100		copra	
33	Ioane	Waq	Y	18	Muana, Tunulua	Form 2	Catholic					1500	1100			
34	Timoci	Kiu	N	19	Naqaravutu, Tunulua	Form 2	Catholic									
35	Esala	Kenadau	N	20	Nayarabale, Macuata	Form 1	Methodist									
36	Abele	Matai	Y	22	Wairiki, Somosomo	Form 1	Catholic		town	N						
37	Isikeli	Raradoka	N	21	Natewa, Natewa		Methodist									

Table 7: Young Farmers Course 1999 (Graduating 2003)

		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise	Savings used for housing	Cash in bank at end of course
1	Adrea	Namata	Y	26	Navetau, Tunulua	Form 2	Catholic	Y	Village	Y	Y	3500	500	Copra		1,532
2	Aisake	Gusuniceva	Y		Waivula	Form 3	Methodist		Village	Y	Y	7000	1100	fishing		4,962
3	Akuila	Vodotagitagi	Y	22	Vusasivo, Natewa	Form 3	Methodist		Village	N	Y	1500	200	fishing		3,825
4	Alusio	Corerega	Y	17	Qamea, Wainikeli	Form 2	Catholic		Village	Y	Y	3500	400	fishing		2,972
5	Atonio	Vakadranu	Y	18	Salua, Tunulua	Form 2	Catholic	Y	Village	N	Y	1500	300	Copra		2,163
6	Charles	Robert	Y	21	Kedra, Dogotuki	Form 2	Catholic	Y	Town	Y	Y			fishing		
7	Charles	Simmons	Y		Saivou, Seaqqa	Form 3	Catholic	Y	Village	N	Y	7000	1100	fishing		3,394
8	Daniele	Jone	Y	20	Navakawau, Vuna	Form 2	Catholic	Y	Village	N	Y	500	500	fishing		1,914
9	Diki		Y		Tukavesi, Tunulua	Form 1	Catholic		town	N	Y			copra		2,776
10	Dionisio	Kautoga	Y		Lovonivonu, Gataudrau	Form 2	Catholic		Village	Y	Y	3500	1100	fishing		2,750
11	Ella	Bosco	Y	20	Tavuki, Gataudrau	Form 2	Catholic	Y	Village	N	Y	1500	400	fishing		2,554
12	Ella	Lilicama	Y	21	Wairiki, Gataudrau	Form 3	Catholic		Town	N	Y			Copra		3,551
13	Eneriko	Poe	Y	23	Navonu, Korocau	Form 1	Catholic		Village	Y	Y	3500	200	copra		1,179
14	Farasiko	soloto	Y	21	Salua, Tunulua	Form 2	Catholic	Y	Village	Y	Y	1500	700	copra		8,166
15	Farasiko	Rabale	Y	20	Tavuki, Gataudrau	Form 2	Catholic	Y	Village	Y	Y	2000	2000	Fishing		4,696
16	Iaia	Turagabalavu	Y	19	Wavu, Vaturova	Form 2	Catholic	Y	Village	Y	Y	3500	600	copra		2,717
17	Ilesia	Kotoiyacata		18	Naqaravutu, Wadawau	Form 2	Catholic	Y	Village	Y	Y	1500	750	fishing		1,873
18	Isimeli	Matiavada	N	19	Vusasivo, Natewa	Form 2	Catholic	Y	Town	Y	Y					4,579
19	Joeli	Varo	N	21	Navakawau, Vuna	Form 1	Catholic	Y	Village	N	Y					1,164
20	Kameli	Waqabitu	Y	21	Navonu, Korocau	Class 6	Catholic	Y	Village	Y	Y	1500	750	fishing		571

2003 continued

21	Kinijoji	Lawaka	Y	20	Navakawau, Vuna	Form 2	Catholic	Y	Village	N	Y	2000	1500	fishing		2,579
22	Kiritiana	Baleinavesi	Y	20	Vusasivo, Natewa	Form 1	Catholic	Y	Village	Y	Y	1500	1100	fishing		3,391
23	Kustino	Vaturua	Y		Naqaravutu, Vatasava, Vatawa	Form 3	Catholic	Y	Village	Y	Y	3500	1100	fishing		3,878
24	Lasarus	Waqonovo	Y	23	Vusasivo, Natewa	Form 3	Methodist	Y	Village	Y	Y	1500	1100	copra		4,626
25	Lorosio	Baleikoro	Y		Navakawau, Vuna	Form 2	Catholic	Y	Village	Y	Y	7000	1100	fishing		2,242
26	Lui	Taoni	Y		Lavena, Wainikeli	Form 2	Catholic	Y	Village	Y	Y	1500	1100	fishing		2,993
27	Malakai	Mateo	Y	21	Nakuku, Vaturova	Form 1	Methodist	Y	Village	Y	Y	7000	750	copra		1,852
28	Manasa	Maivalenisau	Y	21	Vuna, Vuna	Form 2	Catholic		RIP							1,759
29	Manueli	Waibuta	Y	21	Nadavaci, Tunuloa	Form 3	Catholic	Y	Village	Y	Y	3000	800	fishing		1,652
30	Meli	Somumu	Y	21	Lakeba, Saqani	Form 6	Catholic	Y	Town	Y	Y	1500	300	fishing		2,393
31	Mikaele	Madigibuli	Y	22	Navakawau, Vuna	Form 2	Catholic	Y	Town	N	Y	3000	300	fishing		3,942
32	Mosese	Lepani	Y	20	Tavuki, Caladawa	Form 3	Catholic	Y	Village	N	Y	7000	1000	fishing		2,409
33	Mosese	Saunaki	Y	21	Yasawa, Saqani	Form 2	Methodist					3500	1100	Copra		3,188
34	Peni	Banivualiku	Y	19	Nadavaci, Tunuloa	Form 1	Catholic	N	Village	Y	Y	1500	1100	fishing		770
35	Petero	Ramabuke	Y	21	Vuna, Vuna	Form 3	Catholic	Y	Village	N	Y	3000	1500	fishing		677
36	Rafaele	Isoa	Y	21	Navakawau, Vuna	Form 2	Catholic	Y	Village	N	Y	7000	1100	fishing		1,216
37	Rafaele	Kau	Y		Naba, Wainikeli	Form 2	Catholic	Y	Village	Y	Y	2000	900	fishing		3,523
38	Rupeni	Rabici	Y	20	Nasinu, Navatu	Form 2	Methodist	Y	Village	Y	Y	7000	1100	Copra		4,026
39	Sairusi	Katuba	Y		Navonu, Korocau	Form 2	Methodist		Village	Y	Y	1500	400	copra		246
40	Savirio	Tukana	N	23	Nadavaci, Tunuloa	Form 2	Catholic		Village	Y	Y					
41	Setefano	Salatubalavu	N	20	Kanakana, Tunuloa	Form 3	Catholic		Village	N	Y					
42	Silo	Lalaqila	Y	18	Muana, Tunuloa	Form 2	Catholic	Y	Village	Y	Y	1500	750			2,174
43	Solomone	Bogidrau	Y		Navakawau, Vuna	Form 3	Catholic		Village	N	Y	1500	900			2,939
44	Solomone	Bulaoca	Y		Navakawau, Vuna	Form 2	Catholic	Y	Village	Y	Y	3000	1000			2,068
45	Solomone	Vukitu	Y		Nakuku, Vaturova	Form 2	Catholic		Village	Y	Y	1500	750	copra		2,452
46	Sulliano	Isei Jnr	Y	19	Nadavaci, Tunuloa	Class 6	Catholic		Village	Y	Y	1500	1100			782
47	Tevita	Baleinagasau	Y	22	Vatukuca, Vaturova	Form 2	Catholic	Y	Village	Y	Y	3500	1100			3,599
48	Tuqialau	Usaia	Y	20	Nawi, Mabuco	Class 5	Catholic	N	Village	N	Y	1500	1100	copra		2,250
49	Uraia	Masivou Jnr	Y	24	Navetau, Saqani	Form 1	Catholic	Y	Village	Y	Y	1500	1500			3,920
50	Veresa	Valemel	N	23	Nacula, Saqani	NA	Methodist		Village	Y	Y					659
51	Villame	Neori	N	19	Qeleni, Wainikeli	Form 2	Methodist		Village	Y	Y	1000	1500			
52	Villame	Vakarewa	Y	19	Saroni, Dogotuki	Form 3	Methodist	Y	Village	Y	Y	1500	1100			2,089
53	Waisea	Vesikula	N	18	Navonu, Korocau	Form 2	Catholic		Village	Y	Y					1,613
54	Waisele	Buli	Y	18	Naqaravutu, Tunuloa	Form 2	Catholic	Y	Village	Y	Y	1500	1100			3,151

Table 8: Young Farmers Course 2003 (graduating 2007)

	Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise	Savings used for housing	Cash in bank at end of course
1	Alekesio Kanawabu	Y	22	Tavuki, Cakaudrove	Form 2	Catholic	N	RIP	Y	Y				2,856	425
2	Alusio Avoko	Y		Lavena, Wainikeli	Form 2	Catholic	N	Village	Y	Y	1100	235	fishing	7,880	554
3	Atanasio Dionirova	Y		Vuna, Vuna	Form 1	Catholic	Y	Village	Y	N	7000	200	Copra	11,007	3,360
4	Atonio Kawakawa	Y		Vuna	Form 1	Catholic	Y	Village	Y	Y	1500	400	fishing	3,435	154
5	Benidito Masikau	Y		Naba, Wainikeli	Form 1	Catholic	Y	Village	Y	Y	1500	600	Fishing	2,931	336
6	Eferemo Babitu	Y		Vuniwai, Somosomo	Form 2	Catholic	Y	Village	Y	Y	3500	500	Fishing	3,755	681
7	Elia Sawesawe	Y		Qeleni, Wainikeli	Form 2	Catholic	N	Village	Y	Y	3000	500	livestock	2,741	1,120
8	Eroni Bovoroi	Y		Loa, Korocau	Form 3	Methodist	N	Village	Y	Y	1500	200	copra	3,217	1,248
9	Etuete Celasiga	Y		Navidi, Tunuloa	Form 3	Catholic	Y	Village	Y	Y	1500	700	livestock	3,867	3,945
10	Gabiriele Erenasi	Y		Vakativa, Wailevu	Form 3	Methodist	Y	Village	Y	Y	1500	340	fishing	4,396	372
11	Iosefo Harry	Y		Kanakana, Tunuloa	Form 3	Catholic	N	Village	Y	Y	1500	400	copra	3,976	1,410
12	Iosefo Kalaveti	Y		Navidi, Tunuloa	Form 2	Catholic	Y	Village	Y	Y	1500	4000	livestock	11,953	255
13	Iosefo Takala	Y		Tavuki, Cakaudrove	Form 2	Catholic	N	Village	Y	Y	1500	100	fishing	4,811	238
14	Iowane Sevenaca	Y		Vakativa, Wailevu	Form 2	Catholic	Y	Town	Y	Y	500	900	copra	9,317	202
15	Iowani Waqalevu	Y		Tavuki, Cakaudrove	Form 2	Catholic	Y	Village	Y	Y	7000	250	Copra	8,384	383
16	Jonacani Katonivualiku	Y		Navakawau, Vuna	Form 1	Catholic	N	Village	Y	Y	7000	200	Copra	3,612	490
17	Jonasa Rokoleakai	Y		Navatege, Tawake	Class 6	Catholic	N	Village	Y	Y	1500	300	fishing	1,716	3,356
18	Kameli Mekelali	Y		Nakuku, Vatuova	Form 1	Catholic	N	Village	Y	Y	3500	310	copra	3,091	2,355
19	Kitione Ligavala	Y		Salvou, Seaqaqa	Form 2	Catholic	N	Village	Y	Y	1500	450	fishing	2,371	1,071
20	Luke Malaude	Y		Navetau, Saqani	Form 2	Catholic	N	Village	N	Y	1500	300	fishing	1,375	703

21	Mikaele	Tiko	Y		Qeleni, Wainikeli	Form 2	Catholic	Y	Village	Y	Y	7000	200	fishing	3,860	755
22	Mitieli	Tuve	Y		Navetau, Saqani	Form 1	Catholic	Y	Village	Y	Y	1500	500	Copra	4,488	637
23	Mosese	Delai	Y		Nasinu, Navatu	Form 2	Methodist	Y	Village	Y	Y	3500	220	copra	3,450	247
24	Paulo	Bale	Y		Qeleni, Wainikeli	Class 6	Catholic	Y	Village	Y	Y	3000	500	Copra	3,216	625
25	Petero	Waiakal	Y		Lavena, Wainikeli	Class 6	Catholic	N	Village	Y	Y	3500	100	fishing	8,810	1,515
26	Pio	Busena	Y		Lavena, Wainikeli	class 5	Catholic	N	Village	Y	Y	1500	300	fishing	7,753	433
27	Romanu	Solimoce	Y		Lavena, Wainikeli	Form 1	Catholic	N	Town	N	Y	2000	157	fishing	1,738	960
28	Ropate	Vunibaka	Y		Loa, Korocau	Form 3	Methodist	N	Village	Y	Y	1500	300	copra	1,415	1,885
29	Rusiate	Ratu	Y		Loa, Korocau	Form 4	Methodist		Village	Y	Y	1500	100	copra	3,458	551
30	Samuela	Serenivosa	Y		Salvou, Seaqaqa	Form 3	Catholic	N	Village	Y	Y	1500	100	fishing	2,319	3,595
31	Semi	Ravu	Y		Tavuki, Cakaudrove	Form 2	Catholic	Y	Village	Y	Y	3500	150	fishing	10,017	709
32	Sirilo	Rakai	Y		Lavena, Wainikeli	Form 2	Catholic	N	Village	Y	Y	1500	280	fishing	3,621	1,085
33	Waisake	Tuimuru	Y		Navetau, Saqani	Form 1	Catholic	N	Village	Y	Y	3500	277	livestock	2,496	1,996
34	Waisale	Rasuliwa	Y		Navakawau, Vuna	Form 3	Catholic	N	Village	N	Y	7000	400	fishing	2,254	2,741
35	Ilino	Damenawaib	Y		Drononinuku, Cakaudrove	Form 4	Catholic	Y	Settlement	Y	Y	1500	210	copra	2,822	496
36	Iowani	Vakatalai	Y		Vuniuto, Cakaudrove	Form 3	Catholic	Y	Village	Y	Y	3500	210	fishing	1,457.00	246
37	Lepani	Matakinabosa	Y		Qeleni, Wainikeli	Form 3	Wesele	Y	Village	Y	Y	3500	100	fishing	542.00	910
38	Mitieli	Wasei	Y		Waimaqera, Vuna	Form 4	Wesele	Y	Freehold	N	N	1500	300	fishing	900.00	954

Table 9: Young Farmers Course 2007 (graduating 2011)

	Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise	Savings used for housing	Cash in bank at end of course
1	Alekesio Nabote	N	23	Nadivakarua, Kubulau	Form 4	AOG	Y	Village	N	Y					
2	Alosio Ray	Y	22	Nadavaci, Tunulua	Form 4	Catholic	N	Village	Y	Y	4000	2600	copra	1,100	143
3	Apenisa Ciwa	Y		Naiivivi, Wainikeli	Class 8	Catholic	N	Village	Y	Y	8000	800	copra	4,285	765
4	Apete Salaibulu	Y		Navakawau, Vuna	Form 3	Catholic	N	Village	Y	Y	8000	2000	fishing	520	3,610
5	Aseri Robarobalevu	Y	22	Seavaci, Vaturova	Form 4	Methodist	N	Village	Y	Y	9000	1000	fishing	2,045	304
6	Asesela Nikolau	Y		Tukavesi, Tunulua	Form 4	Methodist	N	Village	Y	Y	6000	282	copra	1,040	543
7	Atonio Ilkimi	Y	22	Vuna, Vuna	Vocational	Catholic	N	Village	N	N	1000	200	Copra	1,050	2,450
8	Emosi Tui Naulu	Y	19	Wailevu, Tunulua	Class 7	Catholic	N	Village	Y	Y	7000	1200	fishing	3,050	388
9	Eneriko Taukei	Y		Dogoru, Macuata	Form 4	Catholic	N	Village	N	Y	100	600	livestock	1,590	503
10	Etika Baleilautoka	Y	24	Navidi, Tunulua	Form 2	Catholic	N	Village	Y	Y	5000	7000	fishing	2,000	1,397
11	Etuate Tuikilakila	Y	21	Tavuki, Cakaudrove	Class 6	Catholic	N	Village			1000	500	fishing		355
12	Feresiko Masikau	Y	23	Lavena, Wainikeli	Form 1	Catholic	N	Village	N	N	9000	2400	fishing	640	2,398
13	Feremo Ratusauma	Y		Kilaka, Kubulau	Form 2	Catholic	N	Village	Y	Y	5000	1500	copra	2,844	242
14	Ilisoni Ravaga	Y		Navatege, Saqani	Form 4	Methodist	N				2000	300	livestock	1,050	1,454
15	Iosefo Daucakacaka	Y		Salia, Tunulua	Form 2	Catholic	N	Village	Y	Y	3000	1800	copra		1,471
16	Iosefo Jolame	Y			Form 4	Catholic	N	Village	Y	Y	4000	200	fishing	1,735	831
17	Iosefo Sauma	Y		Nasealevu, Macuata	Form 4	Catholic	N				2000	200	livestock		417
18	Iowane Lepani	Y	20	Qeleni, Wainikeli	Form 3	Catholic	N	Village	Y	Y	7000	695	fishing	3,280	1,702
19	Iowane Manoa	Y	23	Walmaqera, Cakaudrove	Form 2	Catholic	N				3000	1000	fishing	3,400	355
20	Ioji Cokanauto	Y	22	Navetau, Saqani	Form 3	Catholic	N				3500		livestock		224

2007 continued

21	Joji	Varauni	Y		Navatege, Saqani	Form 3	Methodist	N	Settlement	N	Y	2000	300	livestock	1,012	424
22	Lorosio	Kasou	Y		Kikukicu, Korocau	Form 2	Catholic	N	Village	N	Y	3000	360	copra	500	348
23	Maikel Qald	Vuloko	Y	19	Kikukicu, Korocau	Class 8	Catholic	N		N	Y	2000	200	copra		886
24	Manueli	Sanaki	Y		Nalaoalo, Wailevu	Form 3	Catholic	N	Village	N	Y	5000	278	copra	980	696
25	Mario	Raivasi	Y	20	Levena, Wainikeli	Class 8	Catholic	N	Village	Y	Y	5000	900	fishing	1,510	464
26	Mariselo	Maitokana	Y	26	Nawi, Cakaudrove	Form 6	Catholic	N	Village	Y	Y	9000	1400	copra/livestock	4,688	1,063
27	Mikaele	Cika	Y	20	Bouma, Wainikeli	Form 5	Catholic	N	Village	Y	Y	5000	1600	fishing	1,150	110
28	Osea	Loa	Y	19	Lagi, Dogotuki	Form 5	Methodist	N		N	Y		200	fishing	1,496	144
29	Pelasio	Reyabia	Y	18	Bouma, Wainikeli	Class 6	Catholic	N	Village	Y	Y	5000	850	fishing	3,170	443
30	Petero Badd	Baleiwakolo	Y	21	Bouma, Wainikeli	Form 5	Catholic	N	Village	Y	Y	5000	1200	copra	890	57
31	Petero	Kanawabu	Y	18	Lavena, Wainikeli	Form 2	Catholic	N	Village	Y	Y	5000	500	fishing	1,505	1,500
32	Petero	Taniela	Y	20	Waitabu, Wainikeli	Class 8	Catholic	N		N	Y	1000	300	copra	3,230	232
33	Pio	Gaunavou	Y		Dogoru, Macuata	Form 2	Catholic	N		N	Y		100	livestock		530
34	Raguele	Lagivou	Y	24	Lomaloma, Saivou	Form 6	Catholic	N	Village	Y	Y	3000	950	livestock	2,060	566
35	Ratu Moses	Tikotikoca	Y	20	Tavuki, Cakaudrove	Class 4	Catholic	N	Village	Y	Y	10000	1250	copra	5,860	612
36	Samuela	Beleidrokadre	Y	20	Wailevu, Tunulua	Form 3	Catholic	N	Village	Y	Y	4000	950	copra	1000	391
37	Saverio	Raivoce	Y		Vuiraqilai, Macuata	Form 4	Catholic	N		N	Y	1000	125	sugarcane	400	1,040
38	Silio	Loaloa	Y	19	Koroivonu, Tunulua	Form 5	Catholic	N	Village	Y	Y	10000	1500	fishing		219
39	Sullano	Velkoso	Y	19	Vuna, Vuna	Class 8	Catholic	N	Village	Y	Y	6000	800	fishing	2870	363
40	Tom	Kavekai	Y		Tavuki, Cakaudrove	Form 3	Catholic	N	Village	Y	Y	5000	1500	fishing	1370	144
41	Tomasi	Ratavo	Y	21	Vusasio, Natewa	Class 8	Methodist	N	Village	N	Y	3000	1300	fishing	1790	1,941
42	Valetino	Turaganivalu	Y		Qeleni, Wainikeli	Form 7	Catholic	N	Village	Y	Y	8000	1900	fishing		714
43	Viliame	Seru	Y	22	Navidi, Tunulua	Form 4	Catholic	N	Village	Y	Y	4000	660	copra	1671	1,395
44	Vilitati Leon	Tullawa	Y	18	Nekorovou, Kubulau	Form 3	Catholic	N	Village	N	Y	4000	1200	copra	420	424
45	Waisea	Kalivakatoga	Y		Kikukicu, Korocau	Form 2	Catholic	N		N	Y	4000	300	fishing		492
46	Waisale	Cabenasiga	Y		Suveni, Macuata	Form 2	Methodist	N	Village	N	Y	4000	350	fishing	1100	484
47	Waisiki	Brown	Y	25	Dreketi, Wainikeli	Form 3	Catholic	N	Village	Y	Y	5000	800	copra	1500	2,497
48	Wiliame	Kakili	Y	22	Vatusogosogo, Wainikeli	Class 8	Methodist	N		N		3000	200	fishing	1,546	188
49	Yakobo	Vilikesa	Y		Dogoru, Macuata	Form 2	Catholic	N	Village	Y	Y	4000	1310	livestock	200	460

Table 10: Young Farmers Course 2007 (graduating 2011)

Course commencing 2007 graduating 2011																
		Name	finished course	Age at course start	Village & Tikina	Formal Education	Religion	Married	Residence	Build a House	Farming Mataqali land	Approx current number of dalo plants	Approx current number of yaqona plants	Other income earning enterprise	Savings used for housing	Cash in bank at end of course
1	Alekesio	Nabote	N	23	Nadivakarua, Kubulau	Form 4	AOG	Y	Village	N	Y					
2	Alosio	Ray	Y	22	Nadavaci, Tunulua	Form 4	Catholic	N	Village	Y	Y	4000	2600	copra	1,100	143
3	Apenisa	Ciwa	Y		Nalivivi, Wainikeli	Class 8	Catholic	N	Village	Y	Y	8000	800	copra	4,285	765
4	Apete	Salaibulu	Y		Navakawau, Vuna	Form 3	Catholic	N	Village	Y	Y	8000	2000	fishing	520	3,610
5	Aseri	Robarobalewa	Y	22	Seavaci, Vatuova	Form 4	Methodist	N	Village	Y	Y	9000	1000	fishing	2,045	304
6	Asesela	Nikolau	Y		Tukavesi, Tunulua	Form 4	Methodist	N	Village	Y	Y	6000	282	copra	1,040	543
7	Atonio	Ilikimi	Y	22	Vuna, Vuna	Vocational	Catholic	N	Village	N	N	1000	200	Copra	1,050	2,450
8	Emosi Tui	Naulu	Y	19	Wallevu, Tunulua	Class 7	Catholic	N	Village	Y	Y	7000	1200	fishing	3,050	388
9	Eneriko	Taukei	Y		Dogoru, Macuata	Form 4	Catholic	N	Village	N	Y	100	600	livestock	1,590	503
10	Etika	Baleilautoka	Y	24	Navidi, Tunulua	Form 2	Catholic	N	Village	Y	Y	5000	7000	fishing	2,000	1,397
11	Etuate	Tuikilakila	Y	21	Tavuki, Cakaudrove	Class 6	Catholic	N	Village			1000	500	fishing		355
12	Feresiko	Masikau	Y	23	Lavena, Wainikeli	Form 1	Catholic	N	Village	N	N	9000	2400	fishing	640	2,398
13	Feremo	Ratusauma	Y		Kilaka, Kubulau	Form 2	Catholic	N	Village	Y	Y	5000	1500	copra	2,844	242
14	Ilisoni	Ravaga	Y		Navatege, Saqani	Form 4	Methodist	N				2000	300	livestock	1,050	1,454
15	Iosefo	Daukakaka	Y		Salia, Tunulua	Form 2	Catholic	N	Village	Y	Y	3000	1800	copra		1,471
16	Iosefo	Jolame	Y			Form 4	Catholic	N	Village	Y	Y	4000	200	fishing	1,735	831
17	Iosefo	Sauma	Y		Nasealevu, Macuata	Form 4	Catholic	N				2000	200	livestock		417
18	Iowane	Lepani	Y	20	Qeleni, Wainikeli	Form 3	Catholic	N	Village	Y	Y	7000	695	fishing	3,280	1,702
19	Iowane	Manoa	Y	23	Waimaqera, Cakaudrove	Form 2	Catholic	N				3000	1000	fishing	3,400	355
20	Joji	Cokanauto	Y	22	Navetau, Saqani	Form 3	Catholic	N				3500		livestock		224
21	Joji	Varauni	Y		Navatege, Saqani	Form 3	Methodist	N	Settlement Village	N	Y	2000	300	livestock	1,012	424
22	Lorosio	Kasou	Y		Kicukicu, Korocau	Form 2	Catholic	N		N	Y	3000	360	copra	500	348
23	Maikeli Qali	Vuloko	Y	19	Kicukicu, Korocau	Class 8	Catholic	N		N	Y	2000	200	copra		886
24	Manueli	Sanaki	Y		Nalaloa, Wallevu	Form 3	Catholic	N	Village	N	Y	5000	278	copra	980	696
25	Mario	Raivasi	Y	20	Levena, Wainikeli	Class 8	Catholic	N	Village	Y	Y	5000	900	fishing	1,510	464
26	Mariselo	Maitokana	Y	26	Nawi, Cakaudrove	Form 6	Catholic	N	Village	Y	Y	9000	1400	copra;livestock	4,688	1,063
27	Mikaele	Cika	Y	20	Bouma, Wainikeli	Form 5	Catholic	N	Village	Y	Y	5000	1600	fishing	1,150	110
28	Osea	Loa	Y	19	Lagi, Dogotuki	Form 5	Methodist	N		N	Y		200	fishing	1,496	144
29	Pelasio	Rayabia	Y	18	Bouma, Wainikeli	Class 6	Catholic	N	Village	Y	Y	5000	850	fishing	3,170	443
30	Petero Badc	Baleiwakolo	Y	21	Bouma, Wainikeli	Form 5	Catholic	N	Village	Y	Y	5000	1200	copra	890	57
31	Petero	Kanawabu	Y	18	Lavena, Wainikeli	Form 2	Catholic	N	Village	Y	Y	5000	500	fishing	1,505	1,500
32	Petero	Taniela	Y	20	Waitabu, Wainikeli	Class 8	Catholic	N		N	Y	1000	300	copra	3,230	232
33	Pio	Gaunavou	Y		Dogoru, Macuata	Form 2	Catholic	N		N	Y		100	livestock		530
34	Raguele	Lagivou	Y	24	Lomaloma, Saivou	Form 6	Catholic	N	Village	Y	Y	3000	950	livestock	2,060	566
35	Ratu Moses	Tikotikoca	Y	20	Tavuki, Cakaudrove	Class 4	Catholic	N	Village	Y	Y	10000	1250	copra	5,860	612
36	Samuela	Baleidrokadr	Y	20	Wallevu, Tunulua	Form 3	Catholic	N	Village	Y	Y	4000	950	copra	1000	391
37	Saverio	Raivoce	Y		Vuiraqilai, Macuata	Form 4	Catholic	N		N	Y	1000	125	sugarcane	400	1,040
38	Silio	Loaloa	Y	19	Koroivonu, Tunulua	Form 5	Catholic	N	Village	Y	Y	10000	1500	fishing	2870	219
39	Suliano	Velkoso	Y	19	Vuna, Vuna	Class 8	Catholic	N	Village	Y	Y	6000	800	fishing	1370	363
40	Tom	Kavekai	Y		Tavuki, Cakaudrove	Form 3	Catholic	N	Village	Y	Y	5000	1500	fishing	1790	144
41	Tomasi	Ratavo	Y	21	Vusasivo, Natewa	Class 8	Methodist	N	Village	N	Y	3000	1300	fishing		1,941
42	Valetino	Turaganivalu	Y		Qeleni, Wainikeli	Form 7	Catholic	N	Village	Y	Y	8000	1900	fishing	1671	714
43	Viliame	Seru	Y	22	Navidi, Tunulua	Form 4	Catholic	N	Village	Y	Y	4000	660	copra	420	1,395
44	Vilitati Leon	Tuilawa	Y	18	Nakorovou, Kubulau	Form 3	Catholic	N	Village	N	Y	4000	1200	copra	800	424
45	Waisea	Kalivakatoga	Y		Kicukicu, Korocau	Form 2	Catholic	N		N	Y	4000	300	fishing		492
46	Waisale	Cabenasiga	Y		Suweri, Macuata	Form 2	Methodist	N	Village	N	Y	4000	350	fishing	1100	484
47	Waisiki	Brown	Y	25	Dreketi, Wainikeli	Form 3	Catholic	N	Village	Y	Y	5000	800	copra	1500	2,497
48	Willame	Kakili	Y	22	Vatusogosogo, Wainikeli	Class 8	Methodist	N				3000	200	fishing	1,546	188
49	Yakobo	Vilikesa	Y		Dogoru, Macuata	Form 2	Catholic	N	Village	Y	Y	4000	1310	livestock	200	460

Table 11: Married Farming Couples Course

Married Course Graduates (Dec 2010)

Names	Years married at time of course	Village	Tikina	Religion	Was husband a young farmer	Where do you live	Main source of income	Farming mataqali land	Approx current number of dalo plants	Approx number of yaqona plants	husband's other enterprise	wife's non farm enterprise
2010 Course												
Vincent & Lusi	10	Nawi	Cakaudrove	Cath/Cath	Yes	In village	Farming	Yes		3,000	piggery	mats/sewing
Tovata												
Samuela & Vikatodia	6	Tukavesi	Cakaudrove	Cath/Cath		In village	Farming	Yes		3,000		
Paulo & Ana	11	Nave'au	Cakaudrove	Cath/Cath		In village	Farming	Yes		6,000		
Manavava		Tunuloa										
Iosefo & Rosalia	6	Tavuki	Cakaudrove	Cath/Cath		In village	Farming	Yes		3,000		
Mualevu		Taveuni										
Isidore & Amele	6	Viriqilai	Macuata	Cath/Meth		In village	Farming	Yes		2,000		
Vasul		Macuata										
Iowane & Manini	11	Lavena	Wainikeli	Cath/Cath	Yes	In village	Farming	Yes		2,000		screen printing/sewing
Kau			Cakaudrove		Yes							screen printing/sewing/cant
Mateo & Nina	6	Waica	Cakaudrove	Cath/Cath		In village	Farming	Yes		1,200		
Bokovasa												
Lino & Kelera	6	Nasealevu	Macuata	Cath/Cath		In village	Farming	Yes				
Paulo & Miriama	11	Nawi	Cakaudrove	Cath/Cath		In village	Farming	Yes		1,000		sewing/mats
Petero & Rufina	14	Delaivuna	Cakaudrove	All Nations/AN		In village	Farming	No				baking/selling

2008 Course												
Paulo & Marama	12	Navakawau	Vuna	Cath/Cath		In village	Farming	Yes				
Ovaova												
Julian & Dibogi	12	Togaviti	Vaturova	Cath/Cath		In village	Farming	Yes				sewing
Bibi		Vavaiavou										
Aliki & Elisabeta	6	Delaivuna	Vuna	Cath/Cath		Outside village	Farming	No				
Sanirosi & Sera	12	Nave'au	Saqani	Cath/Cath		In village	Farming	Yes				
Wada												
Mateo & Teresia	17	Tutu	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Malake												
Semi & Sisilia	7	Vuna	Vuna	Cath/Cath		Outside village	Non farming	No				
Valevavani												
Paulo & Torika	25	Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				
Timoci & Litia	6	Vusasio	Natewa	Cath/Cath		In village	Farming	Yes		5,000		
Duwu												
Iowane & Lusi	9	Tutu	Cakaudrove	Cath/Cath		Outside village	Non farming	No				
Lasapa												
2005 Course												
Alekesto & Selipa	7	Cavaga Vua	Bua	Cath/Meth		In village	Farming	Yes				
Lui & Teresia Raco	8	Vunikura	Cakaudrove	Cath/Cath	Yes	In village	Farming	Yes				
Farasiko & Maria	12	Navonu	Cakaudrove	Cath/Cath		Outside village	Farming	Yes			canteen	
Ramasi												
Vilise & Makarita	6	Qali Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Alusio & Susana	5	Qeleni	Cakaudrove	Cath/Cath	Yes	In village	Farming	Yes				sewing
Suliano & Losalini	9	Vuna	Cakaudrove	Cath/Cath		In village	Farming	Yes			vegetable farming	
Raqiyawa												
Aselemo & Lusiana	16	Vusasio	Natewa Cakudrove	Cath/Cath		In village	Farming	Yes			vegetable farming	
Onisimo & Susi	11	Naqaravutu	Tunuloa Cakudrove	Cath/Cath		In village	Farming	Yes				
Qio												
Mika & Litia Inia	18	Navakawau	Vuna Cakaudrove	Cath/Cath		In village	Farming	Yes				
Lario Benina	11	Qali Lavena	Cakaudrove	Cath/Cath		In village	Farming	Yes				

2001 Course												
Mateo & Sala <u>Tuiviani</u>	12	Delaivuna	Cakaudrove	Cath/Cath		In village	Farming	No				
Marika & Elenora <u>Turika</u>	12	Navetau Saqani	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Lui & Benedita	14	Salia Tunuloa	Cakaudrove	Cath/Cath		In village	Farming	Yes				sewing
Elia & Elisabeta <u>Rakai</u>	14	Qali Lavena	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Iosefo & Mereadani <u>Kasihulu</u>	5	Wailevu Tunuloa	Cakaudrove	Cath/Cath	Yes	In village	Farming	Yes				
Farasiko & Makarita Jese	10	Nawi	Cakaudrove	Cath/Cath	Ex YW	In village	Farming	Yes				
Pateresio & Eliomena	6	Navakawau	Cakaudrove	Cath/Cath	Ex YW	In village	Farming	Yes				
Pelasio & Maria	13	Lavena	Cakaudrove	Cath/Cath	Yes	In village	Farming	Yes				
Gabiriele & Maria Vulakoro	11	Lavena	Wainikeli Cakaudrove	Cath/Cath		In village	Farming	Yes				
Petero & Ana <u>Natavava</u>	19	Tutu	Cakaudrove	Cath/Cath		#	#	#				
Orisi & Asilika <u>Qalita</u>	12	Navakawau	Vuna Cakaudrove	Cath/Cath		In village	Farming	Yes				
1998 Course												
Farasiko & Vulase <u>Solotu</u>	16	Salia Tunuloa	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Rokododo & Katarina	5	Vatukuca	Vuna	Cath/Cath		In village	Farming	Yes				
Rusiate & Ita <u>Tugalo</u>	11	Malake	Saqani	Meth/Meth		In village	Farming	Yes				
Jeremaia & Resina Turagaulu	9	Dogoru	Macuata	Cath/Cath		In village	Farming	Yes				
Onisivoro & Lusia Maivalelevu	5	Vatukuca	Vaturova	Cath/Cath		In village	Farming	Yes				
Beni & Karolina <u>Kuboutawa</u>	12	Wavu Vaturova	Vaturova	Cath/Cath		In village	Farming	Yes				
Savenaca & Ietila <u>Raika</u>	12	Domokavu	Vaturova	Cath/Cath		In village	Farming	Yes				
Manueli & Maretina Tabua	33	Nadavaci	Tunuloa	Cath/Cath		In village	Farming	Yes				
Leone & Maretina <u>Tui</u>	12	Vitina	Dogotuki	Cath/Cath		In village	Farming	Yes				
Leone & Vika <u>Tamanijuga</u>	10	Vitina	Dogotuki	Cath/Cath		In village	Farming	Yes				

1996 Course												
Simione & Marisilina <u>Kaparoro</u>	11	Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Beniamino & Akosita Berahi	12	Salia	Tunuloa	Cath/Cath		In village	Farming	Yes				
Viliame & Vilomena Tutila	10	Salia	Tunuloa	Cath/Cath		In village	Farming	Yes				
Koloba & Lusia <u>Sigarara</u>	30	Navetau	Tunuloa	Cath/Cath		In village	Farming	Yes				
Jioji & Elisabeta	7	Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Suliano & Miliana <u>Nadau</u>	8	Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	No				
Maciu & Mareta <u>Levi</u>	5	Delaivuna	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Paulo & Mele <u>Vulalo</u>	5	Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Amena & Mareta	5	Nadavaci	Tunuloa	Cath/Cath		In village	Farming	Yes				
1994 Course												
Sirino & Aqela <u>Dakai</u>	18	Bouma	Wainikeli	Cath/Cath		In village	Farming	Yes				
Sakeo & Repeka	11	Kanakana	Tunuloa	Cath/Cath		In village	Farming	Yes				
Venasio & Rosa <u>Tamainai</u>	20	Koroivonu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Tobia & Lupe	22	Nailou	Tunuloa	Cath/Cath		In village	Farming	Yes				
Setefano & Mareta Suvia	5	Kanakana	Tunuloa	Cath/Cath		In village	Farming	Yes				
Lino & Maria <u>Bulavakarua</u>	6	Tavuki	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Jioji & Miliana Pio	6	Nailou	Tunuloa	Cath/Cath		In village	Farming	Yes				
Josaia & Makarita Turagabeci	5	Mudre	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Sesoni & Rusula Qalotaki	15	Nailou	Tunuloa	Cath/Cath		In village	Farming	Yes				

1993 Course												
Jale & Mereoni Seniiale	11	Navonu	Korocau	Cath/Cath		out side village	Farming	Yes				
Eric & Makarita Naravan	22	Waimaqera	Cakaudrove	Cath/Cath		out side village	Farming	No	5,000		piggery	
Kusitino & Alisi	22	Navonu	Cakaudrove	Cath/Cath		out side village	Farming	Yes				
Apolo & Manaini	12	Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				
Lui & Susana Wagaiauma	5	Koroivonu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Eneriko & Tarusila	15	Navonu	Korocau	Cath/Cath		In village	Farming	Yes				
Uliano & Rusila Naka	5	Navetau	Saqani	Cath/Cath		In village	Farming	Yes				
Fabiano & Unaisi Ravunisa	7	Tukavesi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Ruveni & Veronika Wesi	5	Wainigadru	Tawake	Cath/Cath		In village	Farming	Yes				
Abaramo & Vitalina	6	Qali Lavena	Waunukeli	Cath/Cath		In village	Farming	Yes				
Silio & Rosalia Jioji	5	Tukavesi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
1992 Course												
Tauramarawat & Mereva	10	Fatima Rabi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Elia & Makarita Low	7	Delaivuna	Cakaudrove	Cath/Cath		In village	Farming	No				
Apenisa & Teresia Ciwa	5	Waimaqera	Cakaudrove	Cath/Cath		outside village	Farming	No				
Ermosi & Senileba Rakasi	12	Drekeniwai	Navatu	Cath/Cath		In village	Farming	Yes				
Filipe & Teresua Kau	18	Lavena	Waunukeli	Cath/Cath		In village	Farming	Yes				
Elia & Rosalia Koila	6	Malaga	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Rafaele & Dominika	12	Manukasi	Tunuloa	Cath/Cath		In village	Farming	Yes				
Petero & Losana Raisaqai	8	Navonu	Korocau	Cath/Cath		In village	Farming	Yes				
Iosefo & Sainimere Masikau	8	Delaivuna	Cakaudrove	Cath/Cath		In village	Farming	No				

1991 Course												
Eroni & Serafina Balumu	1979	Navonu	Korocau	Cath/Cath		In Village	Farming	Yes				
Cagilevu & Selina	1981	Buca	Cakaudrove	Cath/Cath		In Village	Farming	Yes				
Jemesa & Kusitina Bautarua	5	Navonu	Korocau	Meth/Meth		In Village	Farming	Yes				
Viliame & Mere Mateavulu	1985	Navonu	Korocau	Cath/Cath		In Village	Farming	Yes				
Jone & Asenaca Banicakau	1985	Navoni	Korocau	Cath/Cath		In Village	Farming	Yes				
Joseph & Lanieta Alfred	1981	Waimaqera	Cakaudrove	Cath/Cath		In Village	Farming	No				
Iteba & Matea Timoa		Rabi	Cakaudrove	Cath/Cath		In Village	Farming	Yes				
Anasa & Perina Rasusu	1984	Ucunivatu	Cakaudrove	Cath/Cath		In Village	Farming	Yes				
Savirio & Dialena		Karoko	Tunuloa	Cath/Cath		In Village	Farming	Yes				
Seteo & Asela Yavala	1990	Wairiki	Cakaudrove	Cath/Cath		In Village	Farming	No				
Viliame & Mere Mateavulu	1985	Navonu	Korocau	Cath/Cath		In Village	Farming	Yes				
1990 Course												
Silio & Lise Loaloa	30	Karoivonu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Kitione & Asinate Einau	12	Navonu	Korocau	Cath/Cath		In village	Farming	Yes				
Gabiriele & Timaima Vodo	18	Koroivonu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Matia & Senirewa Latidreketi	20	Buca	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Samuela & Ane Nataba	35	Naibalebale	Wailevu	Cath/Cath		In village	Farming	Yes				
Panapasa & Joana Koroi	6	Navakawau	Savusavu	Cath/Cath		In village	Farming	Yes				
Nikosio & Ana Maria	10	Vusasivo	Vuna	Cath/Cath		In village	Farming	Yes				
Paulo & Monika Buliqeile	7	Kanakana	Natewa	Cath/Cath		In village	Farming	Yes				
Lario & Litiana Valera	10	Navonu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Peni & Alisi Viliame	8	Navakawau	Korocau	Cath/Cath		In village	Farming	Yes				
Paulo & Rosalia Tiko	12	Nailou	Vuna	Cath/Cath		In village	Farming	Yes				
Elia & Bibiana Tabucala	12	Qeleni	Tunuloa	Cath/Cath		In village	Farming	Yes				

1989 Course							Farming	Yes				
Basilio & Maria Tui	8	Nadavaci	Waunukeli	Cath/Cath		In village	Farming	Yes				
Iosefo & Makitalena Casilaba	12	Nadavaci	Natewa	Cath/Cath		In village	Farming	Yes				
Jioji & Salote Mainukubati	6	Nadavaci	Natewa	Cath/Cath		In village	Farming	Yes				
Anasa & Marusela Drigita	12	Korerega	Natewa	Cath/Cath		In village	Farming	Yes				
Elia & Kusitina Berahi	9	Wailevu	Vaturova	Cath/Cath		In village	Farming	Yes				
Mikaele & Vitalina Puaka	30	Karoko	Tunuloa	Cath/Cath		In village	Farming	Yes				
Sirino & Ana Tunulua	33	Kanakana	Tunuloa	Cath/Cath		In village	Farming	Yes				
Mika & Kini Madigibuli	20	Navakawau	Tunuloa	Cath/Cath		In village	Farming	Yes				
Eroni & Usenia Mualele	7	Vuna	Vuna	Cath/Cath		In village	Farming	Yes				
Petero & Josevini Solomone	7	Nailou	Vuna	Cath/Cath		In village	Farming	Yes				
Viliame & Maria Dakuwaqa	10	Wailevu	Tunuloa	Cath/Cath		In village	Farming	Yes				
1988 Course								Yes				
Mosese & Vilisita Saukuru	5	Navonu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Iosefo & Maraia Mualevu	10	Tavuki	Korocau	Cath/Cath		In village	Farming	Yes				
Iosefo & melania Jese	5	Vidawa	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Samuela & Aqela Lawelua	5	Navakawau	Wainikeli	Cath/Cath		In village	Farming	Yes				
Berenado & Rosalia Soroalau	5	Lavena	Vuna	Cath/Cath		In village	Farming	Yes				
Pio & mariana Buisena	5	Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Napolioni & Unaisi	10	Malaga	Wainikeli	Cath/Cath		In village	Farming	Yes				
Donald & Marie Taylor	6	Koroni	Cakaudrove	Meth/Meth		In village	Farming	Yes				
Eferemo & Elisabeta Lawedua	9	Tavuki	Cakaudrove	Cath/Catch		In village	Farming	Yes				
Savirio & Ela vereti	10	Togo Qamea	Cakaudrove	Cath/Catch		In village	Farming	Yes				
Marisiale & Ana Bakavono	6	Lavena	Cakaudrove	Cath/Catch		In village	Farming	Yes				

1987 Course							Farming	Yes				
Iowane & Serenia Madigibuli	6	Navakawau	Wainikeli	Cath/Catch		In village	Farming	Yes				
Aleposio & Miriama Silivale	7	Kanakana	Vuna	Cath/Catch		In village	Farming	Yes				
Atonio & Maria Ramabuke	8	Bouma	Tunuloa	Cath/Catch		In village	Farming	Yes				
Sirilo & Meresiana Ravuiwasa	9	Tavuki	Wainikeli	Cath/Catch		In village	Farming	Yes				
Mikaele & Teresia	9	Waitabu	Cakaudrove	Cath/Catch		In village	Farming	Yes				
Aonio & Lusia Kolo	7	Navonu	Wainikeli	Cath/Catch		In village	Farming	Yes				
Sirino & Sulimidra Vakadrano	8	Kanakana	Korocau	Cath/Catch		In village	Farming	Yes				
Alusio & Vasiti Biraki	6	Kanakana	Tunuloa	Cath/Meth		In village	Farming	No			market vendor	
Sirilo & Katarina Tiko	5	Tavuki	Tunuloa	Cath/Meth		In village	Farming	Yes				
1986 Course												
Paulo & Maria Wati	5	Vunikura	Cakaudrove	Cath/Meth		In village	Farming	No				
Viliame & Vitorina Turaganiqali	12	Vuna	Cakaudrove	Cath/meth		In village	Farming	Yes				
Lino & Ana Bavudi	12	Vunikura	Vuna	Cath/Cath		In village	Farming	Yes				
Salatieli & Maria	35	Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Borosio & Sala	12	Wairiki	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Iowane & Teresia Wadali	22	Waitabu	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Mikaele & Vitorina Tuitoga	6	Vunikura	Waunukeli	Cath/Cath		In village	Farming	Yes				
Iowane & Elena Kali	6	Delaivuna	Cakaudrove	Cath/Cath		In village	Farming	No				
Erenimo & Elena Tabua	10	Navakawau	Vuna	Cath/Cath		In village	Farming	Yes				
Daniele & Ana Maria	7	Nawi	Vuna	Cath/Cath		In village	Farming	Yes				
1985 Course						In village	Farming	Yes				
Petero & Alumita Sitiveni		Naweni	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Vitale & Akeneta Naduva		Naweni	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Sakapo & Elenoa Latialala		Vuna	Cakaudrove	Cath/Cath		In village	Farming	Yes				

Maria												
1985 Course						In village	Farming	Yes				
Petero & Alumita Sitiveni		Naweni	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Vitale & Akeneta Naduva		Naweni	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Sakapo & Elenoa Latialala		Vuna	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Iosefo & Asenaca Mainasauto		Navakawau	Vuna	Cath/Meth		In village	Farming	Yes				
Paloto & melania Wana		Dakuniba	Vuna	Cath/Cath		In village	Farming	Yes				
Tavite & Teresia waqavatu		Dromuninuku	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Jone & Nunia Masaga		Vione	Naweni	Cath/Cath		In village	Farming	Yes				
Rusiate & Marica Raturaga		Dromuninuku	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Leone & Pasepa Lasaqa		Vuna	Naweni	Cath/Cath		In village	Farming	Yes				

1984 Course												
Tanasio & Katarina Niukala		Nawi	Vuna	Cath/Cath		In village	Farming	Yes				
Luke & Maca Ramasisima		Dromuninuku	Cakaudrove	Meth/meth		In village	Farming	Yes				
Lusiano & Elisabeta Lalama		Nawi	Naweni	Cath/cath		In village	Farming	Yes				
-Romanu & Ema Moi		Nawi	Cakaudrove	Cath/cath		In village	Farming	Yes				
Paulo & Kelera Ratana		Nawi	Cakaudrove	Cath/cath		In village	Farming	Yes				
Luke & Rosalia Low		Nawi	Cakaudrove	Cath/cath		In village	Farming	No				
Silivenusi & Atalaite		Dromuninuku	Cakaudrove	Meth/meth		In village	Farming	Yes				
Petero & Elisabeta Tauberera		Malaga	Naweni	Cath/Cath		In village	Farming	Yes				
Petero & Elaisa Tusabe		Vuna	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Semesa & Maria Tiko		Nawi	Vuna	Cath/Cath		In village	Farming	Yes				
Iowane & Maria Madigibuli		Navakawau	Cakaudrove	Cath/Cath		In village	Farming	Yes				
1983 Course						In village	Farming	Yes				
Mikaele & Sereana		Dromuninuku	Vuna	Cath/Cath		In village	Farming	Yes				
Dakuwana Mikaele & Maria Lausua		Naweni	Naweni	Cath/Cath		In village	Farming	Yes				
Vereniki & Rayapi Veremalua		Tabia	Naweni	Cath/Cath		In village	Farming	Yes				
Manueli & Sereana Ratumote		Dromuninuku	Wailevu	Cath/Cath		In village	Farming	Yes				
Rokopita & Alumeci Koroj		Korolevu	Naweni	Ang/Ang		In village	Farming	Yes				
Viliame & Vilisita Tioti		Wailevu	Koroalau	Cath/Cath		In village	Farming	Yes				
Emilio & Laiza Qiolele		Nailou	Tunuloa	Cath/Cath		In village	Farming	Yes				
Sepo & Varanisesa Raio		Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Farasiko & Maria Rosa Soloto		Wailevu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Samuela & Elisabeta		Salia	Tunuloa	Cath/Cath		In village	Farming	Yes				
Turagabeci Petero & Elaisa Tusabe		Vuna	Tunuloa	Cath/Cath		In village	Farming	Yes				
Benito & Vitalina saleleyawa		Korovou	Vuna	Cath/Cath		In village	Farming	Yes				
Eroni & Maria Rosa Matai		Kilaka	Kubulau	Cath/Cath		In village	Farming	Yes				
Setefano & Sera Usaja		Vuya	Kubulau	Cath/Cath		In village	Farming	Yes				
Adrea & Rufina Bekitilako		Nabala	Bua	Cath/Cath		In village	Farming	Yes				
Pateresio & Diunisi		Vudibasoga	Macuata	Cath/Cath		In village	Farming	Yes				
Qio & Usenia		Navakawau	Macuata	Cath/Cath		In village	Farming	Yes				
Sakaraia & Mariana Iiale		Vione	Vuna	Cath/Cath		In village	Farming	Yes				

1982 Course								Yes				
Iowane & Mareta Bola		Makolei	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Elia & Sadrina Lawakeli		Cavaga	Bua	Cath/Cath		In village	Farming	Yes				
Iosefo & Karalaini Cabealawa		Nasealevu	Bua	Cath/Cath		In village	Farming	Yes				
Marisilino & Josefina Tawake		Nasealevu	Macuata	Cath/Cath		In village	Farming	Yes				
Beniamino & Sulita Soso		Lagi	Macuata	Cath/Cath		In village	Farming	Yes				
Pio & Maria Bonica		Vakativa	Dogotuki	Cath/Cath		In village	Farming	Yes				
Aisake & Siteri Nawaikula		Buca	Wailevu	Cath/Cath		In village	Farming	Yes				
Aisake & Valeria Tale		Bouma	Savusavu	Cath/Cath		In village	Farming	Yes				
Taresesio & Monika		Naivivi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Lepani & Seini Naduri		Vione	Wainikeli	Cath/Cath		In village	Farming	Yes				
1981 Course								Yes				
Fabiano & Maria Salabuco		Bouma	Qamea	Cath/Cath		In village	Farming	Yes				
Matia & Mere Mailekai		Vidawa	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Sakapo & Makarita Rereiova		Bouma	Wainikeli	Cath/Cath		In village	Farming	Yes				
Solomone & Makarita Saga		Qali Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Iowane & Makarita Rusi		Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				
Atonio & Perina Sokomuri		Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				
Leone & Luisa Bukacewa		Bouma	Wainikeli	Cath/Cath		In village	Farming	Yes				
Paulo & Salanieta Tiko		Qali	Wainikeli	Cath/Cath		In village	Farming	Yes				
Mikaele & Melania Rasari		Boima	Wainikeli	Cath/Cath		In village	Farming	Yes				
Kusitino & Teresia		Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				

1980 Course						In village	Farming	Yes				
Alifeo & Elena Volitiviti		Vidawa	Wainikeli	Cath/Cath		In village	Farming	Yes				
Felisiano & Sisilia Nayago		Qali	Wainiukeli	Cath/Cath		In village	Farming	Yes				
Vitoriano & Veronika Oaga		Naselesele	Wainikeli	Cath/Cath		In village	Farming	Yes				
Josaia & Meresiana Turagacati		Bouma	Wainikeli	Cath/Cath		In village	Farming	Yes				
Mikaele & Teresia Wana		Waitabu	Wainikeli	Cath/Cath		In village	Farming	Yes				
Vitoriano & Rufina Voia		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Kelemete & Maria Amete		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Mikaele & Rosa Naihe		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Atanasio & Miliakere Rakesa		Waica	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Rusiate & Perina Iowane		Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				
Sovita & Ema Tui		Nawi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Gabiriele & Maria Keteketete		Navakawau	Vuna	Cath/Cath		In village	Farming	Yes				
Mario & Meresiana Senimoli		Navonu	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Toma & Arieta Divivuna		Wainigadru	Tawake	Cath/Cath		In village	Farming	Yes				
Beniamino & Luisa Batikoli		Korovou	Kubulau	Cath/Cath		In village	Farming	Yes				
Solomone & Besina Bayuva		Vudibasoga	Macuata	Cath/Cath		In village	Farming	Yes				
Atonio & Marisela		Nukubalavu	Savusavu	Cath/Cath		In village	Farming	Yes				
Filipo & Maria Kawa		Nasinu	Navatu	Cath/Cath		In village	Farming	Yes				
Lorosio & Diwaqa Qirimo		Lagi	Dogotuki	Cath/Cath		In village	Farming	Yes				
Elia & Rufina Moi		Yaudigi	Macuata	Cath/Cath		In village	Farming	Yes				
1979 Course								Yes				
Leone 7 koleta Soroalau		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Venasio & Elenora Sohu		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Lui & Repeka Tauni		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Inoke & Aqela		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Milikiade & Anatolia		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Iowane & Ana Vilise		Lavena	Wainikeli	Cath/Meth		In village	Farming	Yes				
Petero & Katarina Dauniseka		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Laitia & Serana		Togo Qamea		Cath/Cath		In village	Farming	Yes				
Romanu & Vitalina		Togo Qamea		Cath/Cath		In village	Farming	Yes				
Iosefo & Maria Elisiki		Vurevure	Wainikeli	Cath/Cath		In village	Farming	Yes				
Eneriko & Diama Naiveli		Buca		Cath/Cath		In village	Farming	Yes				
Paulo & Katarina Cama		Nabaka	Savusavu	Cath/Cath		In village	Farming	Yes				
Seresio & Aqela Turaganivalu		Vitina	Dogotuki	Cath/Cath		In village	Farming	Yes				
Jerome & Margaret Teburea		Rabi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Sirilo & Maria Usucala		Nawi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Sivorosi & Teresia		Dromuninuku	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Iowane & katarina Eremasi		Naweni	Naweni	Cath/Cath		In village	Farming	Yes				
Inoke & Maria Vosailalele		Dogoru	Macuata	Cath/Cath		In village	Farming	Yes				
Petero & Amerita Tuisiga		Vuya	Bua	Cath/Cath		In village	Farming	Yes				
Leronio & Maria Bale		Nadivarua	Kubulau	Cath/Cath		In village	Farming	Yes				
Joseph & Mere Kirite		Rabi	Cakaudrove	Cath/Cath		In village	Farming	Yes				

1978 Course						In village	Farming	Yes				
Epeli & Alisi Maiciwa		Korosi	Navatu	Meth/Meth		In village	Farming	Yes				
Salajilei & Raijilei Rulewa		Tabia	Navatu	Meth/Meth		In village	Farming	Yes				
Panapasa & Anaseini Vuetaki		Vatukuca	Vaturova	Cath/Meth		In village	Farming	Yes				
Mailoa & Mere Suwa		Wavu	Vaturova	Meth/Meth		In village	Farming	Yes				
Ilaitia & Lavenia sadroka		Korotasere	Vaturova	Meth/Meth		In village	Farming	Yes				
Remesio & Losavati Dralolo		Vanuvou	Vaturova	Meth/Meth		In village	Farming	Yes				
Eroni & Mareta Seru		Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Berenado & Eka Vula		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Lino & Kabarini Tiko		Bouma	Wainukeli	Cath/Cath		In village	Farming	Yes				
Aisake & Ilisapei		Karoko	Tunulia	Cath/Cath		In village	Farming	Yes				
Joseva & Elosapei Kevu		Viani	Navatu	Meth/Meth		In village	Farming	Yes				
Tevita & Unaisi Seru		Tabia	Navatu	Meth/Meth		In village	Farming	Yes				
Mosese & makelesi Jijiji		Navakaka	Navatu	Meth/Meth		In village	Farming	Yes				
Jimilai & Ulieta Qiodravu		Korolevu	Navatu	Meth/Meth		In village	Farming	Yes				
Benito & Mareta Nayacarua		Nasali	Cakaudrove	Meth/Meth		In village	Farming	Yes				
Jonacani & Laisani		Nakobo	Korocau	Meth/Meth		In village	Farming	Yes				
Mosese & Elina Vosanibola		Bouma	Wainukeli	Cath/Cath		In village	Farming	Yes				
Tomasi & Vasemaca Rakita		Dawa	Natewa	Meth/Meth		In village	Farming	Yes				
Jale & Miriama Narusu		Drekeniwai	Navatu	Meth/Meth		In village	Farming	Yes				
Manueli & Tekela Jesi		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Petero & Ana Qalajahu		Vatudavui	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Silio & Makitalena Ialaqila		Muana	Tunuloa	Cath/Cath		In village	Farming	Yes				
Uliano & Ana Maravu		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Kelemete & Karolina Koroi		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Pio & Maria Sikeli		Solevu	Bua	Cath/Cath		In village	Farming	Yes				
Iosefo & Anarieta Madigibuli		Bouma	Wainukeli	Cath/Cath		In village	Farming	Yes				
Rafaele & Sera Kava		Welagi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Ada & Finau Qeavu		Tawake	Saqani	Cath/Cath		In village	Farming	Yes				
Alekesio & Akeneta Cagialau		Vuna	Vuna	Cath/Cath		In village	Farming	Yes				
Jone & Sera Kamea		Labasa	Macuata	Cath/Cath		In village	Farming	Yes				
Beato & Rufina Alumita		Kubulau	Bua	Cath/Cath		In village	Farming	Yes				
Kanito & Rafaela Nanila		Napuka	Tunuloa	Cath/Cath		In village	Farming	Yes				
Aloisio & meresiana Nabure		Nabala	Macuata	Cath/Cath		In village	Farming	Yes				
Eneriko & Tarusila		Navonu	Korocau	Cath/Cath		In village	Farming	Yes				
Beniamino & Teresia		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
1977 Course								Yes				
Maciu & Dilisi		Korotasere	Vaturova	Cath/Cath		In village	Farming	Yes				
Filipo & Ana Maria Bole		Vundilo	Vuna	Cath/Cath		In village	Farming	Yes				
Peni & Elenoa Bavulolo		Vanuaomi	Saqani	Meth/Meth		In village	Farming	Yes				
Sailosi 7 Ema Mainailou		Sese	Saqani	Meth/Meth		In village	Farming	Yes				
Kamilio & Nunia Nacevo		Karoko	Tunuloa	Cath/Cath		In village	Farming	Yes				
Sailasa & Mereani Maiqilo		Sese	Saqani	Cath/Cath		In village	Farming	Yes				
Isei & Katarina Mudu		Vunikura	Cakaudrove	Meth/Meth		In village	Farming	Yes				
Pelasio & Sofia Mobalavu		Karoko	Tunuloa	Cath/Cath		In village	Farming	Yes				
Silivitere & Atala Vakaseti		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Pio & Pasemaca Raciri		Nukubalavu	Savusavu	Cath/Cath		In village	Farming	Yes				
Viliame & Resina Ramere		Karoko	Tunuloa	Cath/Cath		In village	Farming	Yes				
Kamelilo & Nunia		Karoko	Tunuloa	Cath/Cath		In village	Farming	Yes				
Rajen & Kadavu Deo		Valenidiri	Cakaudrove	Hindu/Meth		In village	Farming	Yes				
Samisoni & Ela Kaitu		Dudui	Cakaudrove	Meth/Meth		In village	Farming	Yes				
Koroi & Sallina Wainigolo		Nakobo	Korocau	Meth/Meth		In village	Farming	Yes				
Jiuta & Maria Vueti		Navonu	Cakaudrove	Meth/Cath		In village	Farming	Yes				
Jioeli & Ekari Bogitini		Nakobo	Cakaudrove	Meth/Meth		In village	Farming	Yes				
Isikeli & Unaisi Gavidi		Mataikoro	Cakaudrove	Meth/Meth		In village	Farming	Yes				
Poasa & Lavinia Bayva		Mataikoro	Cakaudrove	Meth/Cath		In village	Farming	Yes				
Selesitino & Marica		Vunisavisavi	Cakaudrove	Cath/Meth		In village	Farming	Yes				
Bulimaitoga												

1976 Course								Yes				
Mikaele & Miliana Naihe		Karoko	Tunulua	Cath/Cath		In village	Farming	Yes				
Petero & Elisabeta Visa		Dakuniba	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Jone & Karolina Tuilomaiviti		Tabakau	Vuna	Cath/Cath		In village	Farming	Yes				
Kusitino & Leba Vili		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Lario & Vitorina Tila		Navakawau	Vuna	Cath/Cath		In village	Farming	Yes				
Iowane & Rogosiana Savetaki		Bouma	Wainikeli	Cath/Cath		In village	Farming	Yes				
Igenasio & Lusie Varavou		Koroivonu	Tunulia	Cath/Cath		In village	Farming	Yes				
Tevita & Teresia Masiwini		Kanakana	Tunulua	Cath/Cath		In village	Farming	Yes				
Leone & Maria Calauca		Koroivonu	Tunulua	Cath/Cath		In village	Farming	Yes				
Nikolau & Serafina Kaiatia		Koroivonu	Tunulua	Cath/Cath		In village	Farming	Yes				
Iowani & Senimili Siga		Navakawau	Vuna	Cath/Cath		In village	Farming	Yes				
Sirilo & Selina Ravu		Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				
Iowani & Mariana Waga		Navakawau	Vuna	Cath/Cath		In village	Farming	Yes				
Samisoni & Ana Volau		Navakawau	Vuna	Cath/Cath		In village	Farming	Yes				
Josefo & Bale Volau		Navakawau	Vuna	Cath/Cath		In village	Farming	Yes				
Farasiko & Litia Misija		Qeleni	Wainikeli	Cath/Meth.		In village	Farming	Yes				
Epeli & Rafaela Asava		Qeleni	Wainikeli	Meth/Cath		In village	Farming	Yes				
Erani & Litiana Paitala		Malaga	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Rafaele & Seravina Tuvai		Delaivuna	Cakaudrove	Cath/Cath		In village	Farming	Yes				
1975 Course						In village	Farming	Yes				
Jone & Vika Ramasihana		Dreketi	Wailevu East	Meth/Meth		In village	Farming	Yes				
Nacanieli & Elesi Sanaki		Natua	Wailevu East	Meth/Meth		In village	Farming	Yes				
Sovita & Mareta Tuivolioli		Nawi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Mikaele Iowana Kalidole		Nasea	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Silivateri & Litiana		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Josefo & Vosita Banidawa		Napuka	Tunulua	Cath/Cath		In village	Farming	Yes				
Mikaele & Ana Maria		Wailevu	Tunulua	Cath/Cath		In village	Farming	Yes				
Lino & Siteri		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Isei & Lusiana Somovasi		Nacodreudre u	Wailevu East	Meth/Meth		In village	Farming	Yes				
Taniele & Sovaia Burewalu		Wailevu	Wailevu East	Meth/Meth		In village	Farming	Yes				
Kelemedi & Lusiana Lenate		Vuadomo	Wailevu East	Meth/Meth		In village	Farming	Yes				
Aminiasi & Elenani Moala		Nacodreudre u	Wailevu east	Meth/Meth		In village	Farming	Yes				
Enosi Dagaga		Urata	Savusavu	Meth/Meth		In village	Farming	Yes				
Benito & Sovaia masilou		Vakativa	Wailevu East	Cath/Cath		In village	Farming	Yes				
Sivorosi & Amali Matai		Valeni	Wailevu West	Meth/Meth		In village	Farming	Yes				
Manueli & Tekela		Vunikura	Cakaudrove	Cath/Cath		In village	Farming	Yes				

1974 Course						In village	Farming	Yes				
Adrea & Maria Taito		Naweni	Savusavu	Cath/Cath		In village	Farming	Yes				
Eliakimi & Meresiana Vakavatu		Viani	Cakaudrove	Meth/Meth		In village	Farming	Yes				
Sairusi & Joana Vuniwaqa		Drekeniwai	Navatu	Meth/Meth		In village	Farming	Yes				
Tevita & Nemai Rano		Korosi	Navatu	Meth/Meth		In village	Farming	Yes				
Josese & Ana Rea		Vusasio	Natewa	Meth/Meth		In village	Farming	Yes				
Jale & Miriama		Drekeniwai	Navatu	Meth/Meth		In village	Farming	Yes				
Epi & Lusiana Tukai		Korolevu	Savusavu	Meth/Meth		In village	Farming	Yes				
Ilaitia & Vilimaina		Korosi	Savusavu	Meth/Meth		In village	Farming	Yes				
Tomasi & Mere Kevu		Vusasio	Natewa	Cath/Cath		In village	Farming	Yes				
Kalaveti & Atolia Duikete		Navetau	Saqani	Meth/Cath		In village	Farming	Yes				
Uraia & Elena Masiyovu		Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Misale & meresiana Vuetaki		Drekeniwai	Navatu	Meth/Meth		In village	Farming	Yes				
Aseri & Luisa Saniwa		Drekeniwai	Navati	Meth/Meth		In village	Farming	Yes				
Peceli & Manaini Niulala		Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Petero & Siteri Manikibati		Salia	Tunuloa	Cath/Cath		In village	Farming	Yes				
Silio & Makta Lala		Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Nikosio & tavaita Rose		Navetau	Saqani	Meth/Meth		In village	Farming	Yes				
Josua & Mere Buli		Korokoli	Vuinadi	Meth/Meth		In village	Farming	Yes				
Josefa & Apolonia Biraki		Vusaratu	Natewa	Meth/Meth		In village	Farming	Yes				
Tomasi & Vasemaca		Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Timoci & Maria Qahale		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
1973 Course						In village	Farming	Yes				
Paulo & Maria Soka		Wailevu	Tunulia	Cath/Cath		In village	Farming	Yes				
Asito & Pulekeria Bose		Muana	Tunuloa	Cath/Cath		In village	Farming	Yes				
Sunia & Akeneta Alusio		Salia	Tunuloa	Cath/Cath		In village	Farming	Yes				
Sirino & Alisi Bulligele		Wailevu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Kaminieli & Amelia Onesimo & Benedita Ojo		Drekeniwai	Navatu	Meth/Meth		In village	Farming	Yes				
Onesimo & Benedita Ojo		Salia	Tunuloa	Cath/Cath		In village	Farming	Yes				
Lino & Silivia Seru		Salia	Tunuloa	Cath/Cath		In village	Farming	Yes				
Simione & Elesi Kawarogo		Naqaravutu	Tunuloa	Cath/Cath		In village	Farming	Yes				
Setoki & Alumita		Vusaratu	Natewa	Meth/Meth		In village	Farming	Yes				
Isimeli & Elisabeta		Wailevu	Tunuloa	Meth/Cath		In village	Farming	Yes				
Leone & Litiana Baleiwailevu		Nawi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Kelemete & Karolina		Vunikura	Cakudrove	Cath/Cath		In village	Farming	Yes				
Filipe & Teresia Kau		Wailevu	Tunuloa	Meth/Meth		In village	Farming	Yes				
Adriano & Akeneta Rokovesa		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Lorosio & Teresia sabai		Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				
Apolo & Elena Korovuka		Qeleni	Wainikeli	Cath/Cath		In village	Farming	Yes				
Saimoni & Tokasa Banuve		Kocoma	Qamea	Meth/Meth		In village	Farming	Yes				
Peni & fane Kusitino		Vuna	Vuna	Cath/Cath		In village	Farming	Yes				
Fabiano Akeneta		Vidawa	Wainikeli	Cath/Cath		In village	Farming	Yes				
Sirino & Aqela		Bouma	Wainikeli	Cath/Cath		In village	Farming	Yes				
Iosefo & Elisabeta Koro		Vidawa	Wainikeli	Cath/Cath		In village	Farming	Yes				
Elia & Rosa Niuleka		Vidawa	Wainikeli	Cath/Cath		In village	Farming	Yes				
Iowane & Valeria Bokola		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Karalo & Usenia Rokoqica		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Daniele & Lusia Koro		Naiviivi	Qamea	Cath/Cath		In village	Farming	Yes				
Mariselo & Maria Kalokalo		Lavena	Wainikeli	Cath/Cath		In village	Farming	Yes				
Joe & Maretina Bibi		Nawi	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Timoci & Maloni Koro		Karoko	Tunuloa	Cath/Cath		In village	Farming	Yes				
Gabiriele & Marisela Lalasara		Buca	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Josese & Maria Kalaidreketi		Delaivuna	Cakaudrove	Cath/Cath		In village	Farming	Yes				
Mosese & Elina		Bouma	Wainikeli	Cath/Cath		In village	Farming	Yes				
Sebasitiano & Falavia Kaunisela		Vuna	Vuna	Cath/Cath		In village	Farming	Yes				

Table 12: Young Single Women's Course

2009 Course

Name	Y. O. B.	Village	Tikina	Formal Education	Religion	Married	Where do live	Income generating project	Money in bank when left Tutu
Akata Tinaimotu	1989	Nakorovou	Kubulau	Class 8	Catholic	no	own village		160
Amelia Sovaki	1989	Qeleni	Wainikeli	Form 5	Catholic	no	own village	agriculture	431
Ana Mategalu	1988	Naba, Lavena	Wainikeli	Form. 3	Catholic	no	town		311
Birisita Saukelo	1990	Bouma	Wainikeli	Form 3	Catholic	no	own village		352
Dawn Rose	1989	Vuna	Vuna	Class 8	Catholic	no	own village		389
Makarita Maria	1991	Naqaravutu	Tunuloa	Form 2	Catholic	no	own village		376
Maria Aliti	1990	Naselesele	Wainikeli	Form 2	Catholic	no	own village	sewing and fabric	405
Maria Radigeli	1991	Natokalau	Kubulau	Form 2	Catholic	yes	husband village	sewing and fabric	198
Maria Marica	1989	Wailevu	Tunuloa		Catholic	no	own village		232
Maria Saufaasi	1988	Nadavaci	Tunuloa	Form 2	Catholic	yes	husband village		250
Mariana Baba	1987	Nakorovou	Kubulau	Form 3	Catholic	yes	husband village	sewing and fabric	349
Mareta Vasemaca	1984	Nawi	Mabuco	Form 5	Catholic	no	own village	sewing and fabric	440
Masilina Lutumailagi		Driti		Form		no	town	sewing and fabric	336
Matila Maramanikaiviwa		Vatusogosogo	Wainikeli	Form 3	Methodist	no	own v illage		300
Mereseini Ula	1991	Navakawau	Waimakilu	Form 3	Catholic	no	own village	sewing and fabric	479
Monika Valekuta		Dogoru			Catholic	no	own village		259
Naolo Manaini	1987	Dogoru		Form 4	Catholic	no	own village	sewing and fabric	265
Penina Likulivaliva	1989	Vuna	Vuna	Form 2	Catholic	no	own village	agriculture	486
Rafaela Sivoki	1988	Manukasi	Tunuloa	Class 6	Catholic	no	own village		334
Rosalia Buabeta	1985	Vuna	Vuna	Form 3	Catholic	no	own village		484
Salote Liku		Naivivi	Wainikeli	Form 4	AOG	no	own village		306
Suliana Dilau		Tavuki		Class 6	Catholic	no	own village		263
Vilimaina Tiavala	1989	Vatudiriniu	Vaturova	Form 4	Methodist	no	own village		270
Asela Ditotoci	1989	Nabaka	Savusavu	Form 3	Catholic	no	own village		338

Ana Loloma		Vuna	Vuna		Catholic	yes	husband village	sewing and fabric	253
Ana Maria		Makolei	Solevu		Catholic	no	own village	0	209
Adi Anadrodro		Vusasivo	Natewa		AOG	yes	husband village	0	210
Asilika Adi		Cavaga	Solevu		Catholic	no	own village	0	180
Eleni Siteri		Qeleni	Wainikeli		Catholic	yes	husband village	sewing and fabric	307
Fulori Lidia		Salia	Tunuloa		Catholic	yes	husband village	0	166
Laisani Sepo		Ucunivatu			Catholic	no	own village	0	171
Laita Matebalavu		Qeleni	Wainikeli		Catholic	yes	husband village	0	348
Bernadette Tikotikoca		Waimaqera	Vuna		Catholic	no	own village	agriculture	258
Losalini Lama		Jerusalemi	Savusavu		Catholic	no	own	sewing and fabric	222
Joana Qumia	1985	Kicukicu	Korocau		Catholic	yes	husband village	0	316
Margret Judith		Delaivuna			Catholic	yes	husband village	agriculture	240
Maria Kalara		Nawaído	Solevu		Catholic	no	own village	0	189
Maria Sofia	1986	Vuna	Vuna		Catholic	yes	husband village	agriculture	148
Maria Taipa	1986	Nawaído	Solevu		Catholic	yes	husband village	0	193
Iowana Ceavi	1983	Naba, Lavena	Wainikeli		Catholic	yes	husband village	agriculture	225
Masilina Kalara	1982	Saivou	Seagaqa		Catholic	no	own village	agriculture	207
Neomai Senibuli	1985	Nadavaci	Natewa		Catholic	yes	husband village	agriculture	185
Oripa Tukana	1983	Vusasivo	Natewa		Catholic	no	own village		215
Paulini Pulekeria	1985	Bouma	Wainikeli		Catholic	yes	husband village	sewing and fabric	326
Maria Resina	1985	Waimaqera	Vuna		Catholic	yes	husband village	0	236
Rufina Taufa	1983	Cavaga	Solevu		Catholic	yes	husband village	sewing and fabric	213
Salome Takubu	1984	Makolei	Solevu		Catholic	no	own village	0	206
Teresia Alena	1984	Waica			Catholic	yes	husband village	sewing and fabric/handicraft	263
Teresia Waimila	1984	Vuna	Vuna		Catholic	no	own village	agriculture	291
Tititlia Volavola	1983	Nadavaci	Natewa		Catholic	yes	husband village	0	257
Unaisi Divola	1984	Wairiki			Catholic	no	own village		262
Vitorina Vola	1984	Qali	Wainikeli		Catholic	no	own village	0	240
Serafina Duilomaloma	1986	Lamini	Somosomo		Catholic	yes	husband village	Other	330
Enisolo Niumai	1986	Dreketi	Qamea		Catholic	yes	husband village	0	328
Meresiana Maivuya	1986	Waica	Wairiki		Catholic	no	own village	0	210
Paulini Mateyawa	1983	Qeleni	Wainikeli		Catholic	yes	husband village	sewing and fabric	258
Filomena Diwaqa	1987	Lomaloma	Seagaqa		Catholic	no	own village	0	104
Asenaca Teresia		Kanakana	Tunuloa		Catholic	no	own village	0	110

Joana Ripote	1984	Lomaloma	Seaqaqa		Catholic	yes	husband village	0	152
Mere Cabebiu	1986	Nakavika	Seaqaqa		Catholic	yes	husband village	0	155
Sisilia Sili	1986	Kilaka	Kubulau		Catholic	no	own village	0	135
Teresia Qato	1982	Nakorovou	Kubulau		Catholic	yes	husband village	0	143
Titilia Veidreyaki	1983	Nakavika	Seaqaqa		Catholic	yes	husband village	0	213
Vilisi Vulavou	1987	Dreketi	Qamea		Catholic	yes	husband village	0	118
Vitalina Veibau	1987	Makolei	Solevu		Catholic	no	own village	0	112
Vitalina Naikore	1985	Nadivakarua	Kubulau		Catholic	no	own village	0	131

2002 Course

Name	Y. O. B.	Village	Tikina	Formal Education	Religion	Married	Where do live	Income generating project
Elisabeta Maivalenisau	1982	Vuna	Vuna	F. 5	Catholic	yes	husband village	0
Rufina Taufa	1981	Wairiki		F. 6	Catholic	yes	husband village	0
MariaUtonidrodoro	1979	Tavuki		F. 6	Catholic	yes	husband village	agriculture
Repeka Maiseniniu		Nasavu		F. 6	Catholic	yes	husband village	
Makarita Sigaleka	1981	Nailou	Tunulua		Catholic	yes	husband village	
Maria Tonina	1982	Salia	Tunulua	F. 6	Catholic	yes	husband village	0
Senilagali Biubukarau	1981	Navakawau	Vuna	Cl. 8	Catholic	yes	husband village	0
Losalini Wasei	1983	Waimaqera	Vuna	F. 2	Catholic	yes	husband village	0
Alice Rosie	1983	Vuna	Vuna		AOG	yes	husband village	0
Lusia Toga Dakai	1983	Bouma	Wainikeli	F.5	Catholic	yes	husband village	0
Raijeli Degei	1983	Mudre	Wairiki	F. 3	Catholic	yes	husband village	0
Lusiana Diqolikoro	1983	Mudre	Wairiki	F. 3	Catholic	yes	husband village	0
Kelera Litia	1980	Vunikura	Mabuco	F. 4	Catholic	no	own village	0
Sera Vakaseti	1980	Vunikura	Mabuco	F. 4	Catholic	no	own village	0
Luisa Madigibuli	1981	Navakawau	Vuna	F. 5	Catholic			
Luisa Waqavanua		Vione		F. 5	Catholic	yes	husband village	0
Sivoki Vakaloloma	1979	Vione		F. 5	Catholic	yes	husband village	0
Nanise Cagilaba	1980	Waimaqera	Vuna	F. 5	Catholic	yes	husband village	agriculture
Ana Litia	1977	Vuna	Vuna	F. 6	Catholic	yes	husband village	agriculture
Akeneta Salote	1980	Vuna	Vuna	F. 6	Catholic	yes	husband village	0
Mareta Soro	1983	Navakawau	Vuna	F. 5	Catholic	yes	husband village	0
Marisela Leba Tokai	1980	Nawi	Mabuco	F. 4	Catholic	no	town	Other

1999 Course								
Name	Y. O. B.	Village	Tikina	Formal Education	Religion	Married	Where do live	Income generating project
Mareta								
Maca		Navakawau	Vuna		Catholic	yes	husband's village	agriculture
Selina Reape		Malake	Saqani					
Maria Rogo		Navakawau	Vuna	F. 6	Catholic	yes	husband's village	
Ura								
Vanabale								
Mela								
Ceva								
Ana								
Lena								
Mareta. D								
Aggie								
Ruci								
Mereia								
Milika								
Meri								
Serenia								
Moli								
Rosalia								
Kelera Tikomaikoro		Navetau	Tunulua					
Neomai		Vitina	Dogotuki					
Susana								
Maria Alisi		Wairiki		F.6	Catholic	yes	husband's village	sewing and fabric/other
Siteri V								
Makarita								
Luisa								
28. Makarita Maria		Muana	Tunulua		Catholic			
29. Nanise Naduva		Naweni	Savusavu		Catholic			
30. Pau								

1997 Course								
Name	Y. O. B.	Village	Tikina	Formal Education	Religion	Married	Where do live	Income generating project
31. Onorina Rokovilo		Niuwea	Mabuco		Catholic	1	2	sewing and fabric/handicraft
32. Elisabeta Gelei		Niuwea	Mabuco		Catholic	1	2	handicraft
33. Eremoce Yavuca		Navonu	Korocau		Catholic			sewing and fabric
34. Sainiana Lewacicina		Wainigadru	Tawake		Catholic			handicraft
35. Monika		Vunimokosoi	Korocau		Catholic			agriculture
36. Selina Savu		Qali	Wainikeli		Catholic			handicraft
37. Akeneta Tavaita		Dakuniba	Mabuco		Catholic	1	2	handicraft
38. Makereta Taufa		Naivivi	Wainikeli		Catholic	1	2	handicraft
39. Aqela Likusiga		Naivivi	Wainikeli		Catholic	1	2	handicraft
40. Mariana Sera		Naivivi	Wainikeli		Catholic	1	2	handicraft
41. Kirsitina Verevuni		Muana	Tunulua		Catholic			sewing and fabric
42. Folora Banuve		Muana	Tunulua		Catholic			sewing and fabric
43. Elisabeta Ula		Wailevu	Tunulua		Catholic			
44. Makarita Maramalevu		Vunivesi	Wailevu		Catholic	1	2	sewing and fabric
45. Ana Medru		Kanakana	Tunulua		Catholic			handicraft
46. Melania Vodre		Kanakana	Tunulua		Catholic			handicraft
47. Lusiana Saurara		Vunimakosoi	Korocau		Catholic			
48. Ana Vueti		Qeleni	Wainikeli		Catholic			
49. Katarina		Lavena	Wainikeli		Catholic			
50. Maria Biudole		Tukavesi	Tunulua		Catholic			
51. Meresiana Wasa		Wairiki			Catholic	1	2	sewing and fabric
Lena Caucau		Tutu			Catholic			
Miriama		Napuka			Catholic			
Salote		Naselesele	Wainikeli					
Kalesita Bulitaki								

Annex 2: Detailed case studies of TRTC Course participants

Table 1: Current Young Farmers Course

<p>Name: Alosio Ray Village: Nadavaci, Natewa Entry: 23 July , 2007</p>	<p>This Young farmer from Nadvaci in Natewa could not finish form 4 after his family had financial hardships and no longer could send him through school. As a young man he had always wanted to go away overseas to seek work there. But this was not meant to be. He heard of Tutu from relatives and was eager to apply for a place there after hearing of what Tutu had to offer. He left for Tutu with only \$200 his late Father had given to him on his death bed. This last farewell gave him enough motivation to pursue his journey at Tutu. He had spent four years in the village and was caught up in a cycle of long kava sessions, many unproductive days and no sense of direction. The young farmer expressed that there was a period when he was doing the same thing every day for many months.</p> <p>“Au sa sisi wavoki tuga! Sa tobokiau tu na vei dre mai na koro” ena gauna ya¹.</p> <p>In another related comment he mentions.</p> <p>“Tamani vei vesu levu e tiko mai na koro. Sa varerevaki na gunu <i>yaqona</i> kei na lasa. Sa sega ni caka tu na teitei , sa qei levu ga na vucesa!”²</p> <p>At Tutu, the young farmer gained more confidence and was able to fully explore his full potential, something that had been lying dormant all those years. His exposure at Tutu instilled in him discipline and independence. The farmer has already built his house and has expanded production on his home farm.</p> <p>The young farmer attributes his success to a few key areas he has been able to master; these are time management, human development and spiritual development. Other factors such as saving money in the bank and being proactive by planting crops especially for family obligations has assisted during his journey at Tutu.</p> <p>Alosio has been an exceptional product of Tutu.</p>
<p>Name: Asesela Nikolau Village: Buca Bay Entry: 23 July , 2007</p>	<p>This young farmer from Buca Bay left school when he was in Form 4 due to family problems. He had spent three years in the village before he decided to embark on the Tutu journey. During the period in his village he was accustomed to peer pressure and excessive kava drinking. He observed how many of his peers would rather spend more time around the kava bowl than in their individual plantations. There was always this urgency to break away but the “<i>crab in the basket syndrome</i>” was too strong. The young farmer explains;</p> <p>“³ Nai vesu levu e tiko mai na koro”</p> <p>In other words there seems to be a “force” in the village that is hindering the progress of our youth. He goes on to say that this “magnet” stunts the growth of young men and women and that they do not realize it themselves. He now realizes himself to be a role model for his peers in the village and struggles to keep them motivated as they always fall back into this invisible force that attracts young men and women in a typical Fijian village setting.</p> <p>The young farmer describes the Human development component, spiritual development and living a life of autonomy as contributing factors to his success at Tutu.</p>

1 I was aimless in the village with no sense of direction. Village life suppressed his vision and focus in life.

2 Village life was full of merry making and traditional obligations. This resulted in heavy grog consumption and many unproductive days.

3 There is a certain force that exists in the village which traps ones enthusiasm and stunts ones growth.

<p>Name: Etika Baleilautoka Village: Navidi, Tunulua, Cakaudrove Entry: 23 July , 2007</p>	<p>Etika comes from the village of Navidi, Wailevu, Cakaudrove. Because access to the village and plantations are difficult the villagers here prefer to concentrate on planting kava on a semi commercial scale. Taro is only planted for home consumption and special functions. The Young farmer had always been farming after he left school but on a subsistence scale only. However, Tutu changed that whole perspective. This was the break that he needed. The oscillation process made them realize the probabilities and possibilities of the two scenarios;</p> <p>“Life in the village as an average villager depending on family and relatives or a life of autonomy and purpose”</p> <p>Late night ‘talanoa’ sessions among other Young farmers inspired him more. The plan to build a house and expand his current operations was a reality. “He felt empowered and hard work was no longer a burden but an advantage.” The Young farmer stressed that managing his time well was what made the difference between him and other fellow boys in the village. He says, all the boys are hard working but they need some form of direction. “<i>Time is nonexistent in the village</i>”. While everyone is still asleep i make my way up to my plantation to begin my task before the sun gets too hot. Others would begin to come to their plantations and work under the hot sun. Human and spiritual development aspects of the course put things into perspective. The carpentry and mechanical features of the course served as useful tools that would prove useful for any villager. Other young men in the village follow Etika’s footsteps although they are not part of the Tutu programme. He says that the first phase of planting is always filled with enthusiasm and energy. However during the following months the young men slip back to their former lifestyle which is a lot of merry making and many kava sessions. Our culture he admits does not help. We are related here and the whole village looks after everyone.</p>
<p>Name: Iosefa Daucakacaka Village: Salia, Tunulua Entry: 23 July , 2007</p>	<p>This young farmer from Salia, Tunulua in Cakudrove had always anticipated for a good job in the towns. After hearing stories about Tutu from fellow villagers and former participants he made up his mind to go to Tutu. This decision he admits was the best decision he had made in his entire life. Tutu has opened up opportunities that he could only dream of.</p> <p>“The thought of building his own house was an incentive that kept his spirits high”</p> <p>His relationship with other people was much more open than before. The human development module and spiritual development modules are the basis of his success at Tutu. Good time management was essential in every young farmer’s life. To step out of village culture was to alienate yourself from your peers. “A task which was noticed with a lot of suspicion and envy” The Young farmer does his best to inspire other young men in the village and share his new found skills. This resulted in more young men involved in semi – commercial scale farming. Those young men who have grasped the concept of the Tutu formulae carry on without ever attending Tutu.</p>
<p>Name: Waisiki Brown Village: Qamea, Wainikeli, Cakaudrove Entry: 23 July , 2007</p>	<p>Waisiki completed his formal education after completing Form (4). He recalls the first time heard about Tutu and the urge to experience what other Young farmers were going through. He was excited at the prospect of getting to build his own house and contributing back to the family. When asked to describe what were some of the obstacles facing young people in the village he mentioned; no time management, relaxed attitude, no</p>

	<p>pressure to work since this was the culture that existed in the village. Food and other basic needs are shared among villagers as this was just part of their upbringing and what people in the village have been accustomed to. Human development sessions exposed the young farmer to know his purpose in life and opened up his mind to all the opportunities that the world offered. During the oscillation process he admits that things became clearer.</p> <p>“It was important that they experience both worlds to fully understand the concept that Tutu is driving, which was to live a life of autonomy. “</p>
<p>Name: Apete Salaibulu Village: Navakawau, Vuna Entry: 23 July , 2007</p>	<p>The Young farmer from Vuna left school at the age of 16. At this age he was mature enough to understand the village routine. He mingled with other school dropouts and older youths who were already subsistence farmers in their own right. Grog sessions were the norm in the village as a way of socializing. Young men who had just left school were usually the ones serving the elders and older folk. There was no push from the top to redirect their paths. Leaving school early was accepted for the young men. However the young women were the ones usually sent away to the towns and the Cities to attend school there in the hope that they would further their education and settle down there and get a decent job. This resulted in the large number of young men in that dwelled in the village.</p> <p>Time management was one of the most useful tools that this young farmer spoke about. The Human development component transpired to be the core module that worked in parallel with all the other modules. Without first knowing one’s purpose in life all the other modules didn’t take effect.</p>
<p>Name: Valetino Turaganivalu Village: Qeleni, Wainikeli Entry: 23 July , 2007</p>	<p>The young farmer from Qeleni , Wainikeli in Cakaudrove is a form 7 graduate. His aspirations to be a young farmer were initiated by other young farmers who were in the same village and being very successful. Although his family urged him to further his education elsewhere the temptation was hard to resist.</p> <p>Seeing is believing, and for the first time he could vision himself building his own house and become an independent successful young farmer. This idea outweighed all the options that were offered to him.</p> <p>At Tutu he adapted quickly and the years flew by fast. His home farm which consists of kava that is ready to be harvested and taro are the results of hard work and patience. Finally the hope and dream of building his own house is near. The young farmer however states that not all is easy when he still lives with the family. Everyone is obliged to pitch in to maintain the daily needs of the family. Sometimes his daily programme is disrupted by social gatherings in the village as in weddings, funerals etc. To cover up for lost hours on the farm he spends more time on the farm during the following week. This is how he manages to balance his time with commitments he has in his home.</p> <p>“⁴ Au kalougata ni rawa niu mai vuli tale e Tutu. Kea sega , seni macala na vanua au sat u kina”</p>
<p>Name: Iowane Lepani Village: Qeleni, Wainikeli Entry: 23 July , 2007</p>	<p>Iowane left school after form 3. The Tutu network had been in the village for a long time. Many young men and women had been through Tutu.</p> <p>The young farmers five year plan was already taking shape. A house was to be built along with a solar system panel. He would invest in labor to expand his farm. His long term plan is to buy a van for his farm and continue investing in his farm.</p> <p>Time management, managing targets and spiritual development has greatly influenced the life of this Young farmer.</p> <p>He admitted that accessing land from clan members can be competitive</p>

⁴ I am blessed to have come to Tutu. If it was not for Tutu, I don’t know where I would have ended up.

	<p>because of the increase in the number of clan members. If it was not for Tutu it would have been difficult for the elders to support me. The elders play an important role in the process. Without their support the training at Tutu will be incomplete.</p> <p>⁵“Na kalougata era solia mai na qase. Ke sega o ira e sega o keimami.”</p> <p>During his term in the village he has been visited regularly by staff from Tutu. These are one of those times that give them a boost of energy and give them some personal satisfaction that their farms are being inspected. Extension staff advise and encourage the young farmer to continue the good work and assist in any problems he may be facing. Problems concerning young farmers are dealt with on location during staff visits. Family members are gathered and a <i>talanoa</i> session follows. The sessions involve long kava sessions. The dedicated staff take this in their own stride.</p> <p>“The visitation is a critical factor in the Tutu equation. “</p>
<p>Name: Viliame Seru Village: Navidi, Tunulua Entry: 23 July , 2007</p>	<p>The most important factor that this Young farmer could attribute towards his success at Tutu was the unconditional support he got from his family. He insists that this was the deciding factor that made the Tutu formulae work. Without this element in the system the young farmer would be in dilemma.</p> <p>“The long term land security, unconditional support from family and Mataqali members , flexibility towards village obligations”</p> <p>These were the ingredients that sowed the seeds of success. Managing his personal life and managing his time well was not only practiced at Tutu but implemented in his village. His peers would comment on his movements but this only motivated him to press on regardless.</p> <p>His five year plan includes a house and a fiber glass boat. His target is to plant at least a minimum of 200 kasa every month.</p> <p>“⁶E ka bibi na neimami five year plan. Baleta e vakamatata taka na neimami gaunisala ni oti na vei qaravi mai Tutu”</p> <p>He makes realistic targets to give some form of flexibility to balance personal, family and village obligations.</p>
<p>Name: Lorosio Kaso Village: Kicukicu, korocau Entry: 23 July , 2007</p>	<p>This young farmer left school when he was in class seven (7). His five year plan consists of a house, chainsaw and a brush cutter. Tools of the trade that would help him implement his plan.</p> <p>Lorosio explains that for him the oscillation process gives them an opportunity to reflect on life in the village and the options that Tutu offered.</p> <p>He considers himself fortunate to be able to have been accepted at Tutu. In the same respect he feels for other young men who did not have that opportunity. He goes on to talk about how he has formed a mutual relationship with his peers and constantly encouraging them to have clear goals in life and that the only way out of the burden of village life was to be productive on their individual farms.</p> <p>“⁷Au sa dau saga meu vukei iratou na noqui caba mera dau muria eso na vavuvuli mai Tutu”.</p> <p>The young farmer understands the situation in the village and the obligations that go with it. This is no longer a burden for his family because they have planted Kava and taro for that purpose. His home farm is not touched.</p>

⁵ The elders give their blessings and support. Without them we are nothing.

⁶ The five year plan is very important. It gives us a practical direction when we finish from Tutu.

⁷ I always strive to help my fellow friends in the village, and guide them with lessons that I have learnt at Tutu.

<p>Name: Emosi Tui Village: Wailevu, Tunuloa Entry: 23 July , 2007</p>	<p>Emosi Tui a Young farmer from Wailevu, Tunuloa in Cakaudrove. His home farm presently consists mainly of kava. Taro is not grown on a commercial scale here because of the rough terrain they travel to their farms. Life is hard here he admits and many young men and women prefer to look at opportunities near the towns and urban centres. Only a few remain and toil the land. Access to the markets is also an issue. Although kava is seen as a lucrative crop one has to wait for 4 years until it is harvested.</p> <p>Human development was a bridging gap that made him realize his purpose in life. He felt more responsible towards his family and felt the urge to contribute. Coming out of his comfort zone was a bold move. But he knew that this was the only way he would succeed. Detaching from his peers was the best decision he had made.</p> <p>“⁸Au sa kila tiu ga na noqu meca ,evu taudua na noqui caba main a koro. Noqu taluva ga mai na gauna ya sa mai toso vinaka saran a noqu sasaga takai au”.</p>
<p>Name: Tomasi Ratavo Village: Vusasivo, Natewa Entry: 23 July , 2007</p>	<p>The young farmer from Vusasivo in Natewa Bay spent five years in the village after leaving school at class 8. Living in the village with no sense of direction and purpose, life was miserable he explains. Being prone to peer pressure at that early age did take its toll. He was constantly joining other young men and indulging in long kava sessions.</p> <p>Tutu provided the break he was yearning for. A few young men from the village and some married couples had been through Tutu. He had seen how Tutu had transformed them into respected people in the community. Their lives were in order and you could easily observe the difference between others who had not been through the system. These ex graduates had already built their homes and progressed steadily with their farms. Married couples even were good models for young people in the village. This prompted him to apply to Tutu and make a difference in his life.</p> <p>The human development training triggered everything he admits. Once he recognized the power within, all the other components of the course automatically fell into place. Spiritual guidance and time management helped put things into perspective. He grew more confident of himself during the oscillation process and experienced a period of empowerment. His relationship with other people changed and he felt he could express his feelings openly without being intimidated by anyone.</p>
<p>Name: Marisilo Maitokana Village: Nawi, Cakaudrove Entry: 23 July ,2007</p>	<p>Marisilo Maitokana finished Form 6 and had no intention of furthering his education let alone look for a job in town. His thoughts were always directed towards being a farmer. After talking to ex Tutu graduates from his village and observing the transformation of these young men Marisilo was inspired and made sure he would attend Tutu. Looking back he remarked ;</p> <p>⁹“Au kila tikoga ni noqu bula au na rawata ga mai na qele”</p> <p>He knew all along that he could live of the land. But actually implementing this task was what he needed help in. Tutu moulded him into an independent, confident and smart working farmer. Hard work was irrelevant. The time management component of the course taught him to programme his time wisely and set weekly, monthly and yearly targets.</p> <p>Spiritual development drew him closer to his dreams and human development component opened up a world of opportunities. He grew bolder during the oscillation process between Tutu and the village. During this process he recognized his weaknesses and worked hard to rectify them. The village situation would always pose a challenge. He saw how tradition and culture</p>

⁸ I have always known that my worst enemies were my friends in the village. Once I broke out of that cycle I excelled independently.

⁹ I knew that I could sustain myself and my family by using the land wisely.

	sometimes clashed with what he was trying to do disrupting his weekly programmes and offsetting his targets. However, once he found out how to balance his personal obligations and village lifestyle there was no turning back.
Name: Samuela Baleidrokadroka Village: Wailevu, Tunuloa, Cakaudrove Entry: 23 July, 2007	<p>Being raised in the village all of his life, this young farmers view in life was isolated. His life revolved around the confines of a typical village setting and there was no avenue to reflect on his future.</p> <p>Tutu gave him the opportunity to realize this and what transpired after that was a transformed young man willing to make a difference. His dream materialized into reality and soon he was bold enough to make good sensible decisions about his future endeavours.</p> <p>Human development was a key component that defined him as a person and put things into perspective. Without spiritual guidance he admits he could not execute his plans as there was also a force that was pulling him back.</p> <p>¹⁰“sa sivia na meca ena koro”</p> <p>The young farmer was aware of the jealousy and envy that existed in the village. His steady progress at Tutu was tested again and again when he was in the village. Constantly getting invited to kava sessions proved to be hard to cope. This sometimes disrupted his programme as he would fail to meet set weekly targets. But in due course he found a way to counter this problem and at the same time not to offend anyone.</p> <p>Time management is a critical tool in the village. Without it you just fall deep into the village lifestyle and culture where time is deemed as neither here nor there.</p>

Table 2: Former Young Farmers Course participants

Name: Vincent Tovata Village: Nawi, Buca Bay, Cakaudrove Years: 1995 -98	<p>Vincent Tovata is an ex Young farmer from Nawi village in Buca Bay. He was 18 years old when he entered Tutu in 1995.</p> <p>Initial contact was through Brother Eremodo who was on field visitation in his village. Two young men from Nawai were also attending Tutu hence Brother Eremodos presence.</p> <p>The ex Young farmer recalls going through the oscillation process and recognizing the different principles that existed both in the village and at Tutu.</p> <p>Village life was slow and things evolved more around the kava bowl than anywhere else. Young men were just not to enthusiastic about farming at all. Farming was too much of an effort and the income was low and irregular. There was no reason for all the hard work when return to labour was minuscule.</p> <p>The added fact that the elders held tightly onto the land was an issue that was considered <i>Taboo</i>.</p> <p>It was disrespectful to question the status of the land when you are a young man. These were some of the factors that were inhibiting the dreams of the young men.</p> <p>“¹¹E dredre ni vei keimami ni ra se bula tiko na neimami qase”</p> <p>The traditional obligations of the village were stunting their growth. Periods of regular village functions distracted all their plans and targets.</p>
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¹⁰ There are many outside forces that exist in the village which hinders ones growth.

¹¹ It's difficult for us to progress because our elders make the decisions for us.

	<p>"Culture was again at play here and caused many Young farmers to isolate themselves from the village environment and move to their farms on Mataqali land."</p>
<p>Name: Iowane kau Village: Lavena, Taveuni Years: 1995 -98</p>	<p>Iowane Kau an ex young farmer from Lavena village in Taveuni. He left school at class 5 and adapted to village life very quickly. The order of the day involved helping around the house and going to the plantation to maintain the family gardens.</p> <p>Inspired by other ex graduates he set out to plant his first block of kava, a requirement that was essential to attend Tutu.</p> <p>Tutu was difficult at first. Trying to adapt to a system that was foreign to him. The courses were carefully structured to suit the present participants.</p> <p>As the years flew by he grew more confident of himself and felt a sense of empowerment. Observing the success of his crops at his home farm and farm at Tutu heightened his spirits. The skills and lessons acquired at Tutu was implemented and monitored by the staff on a regular basis. They would be visited at their home farms and problem solving issues on the spot. The important part of the training was how the participant was going to adapt back in the village after he left Tutu. This was yet to be tested.</p> <p>After graduating and filled with a lot of enthusiasm and a fair amount of capital in his bank account he set out alone to implement his five year plan.</p> <p>With no one to monitor his movements and daily programme the young farmer set out to implement his plan.</p> <p>Nothing went smoothly for this graduate. The family obligations, communal responsibilities over took his enthusiasm and his work rate started to deteriorate. Long kava sessions took its toll on the ex young farmer and resulted in him falling back into the whole routine of village life. He was also pressured to get married and he thought that this was what he needed to get back on track. This was not the case. Marriage life frustrated him, he could not focus on his plans properly. It seemed that everything had gone out of control. Production on the farm dropped and all his enthusiasm came to a halt.</p> <p>"¹²Na bula vakawati sa dua na bula dredre vei keimami na cauravou"</p> <p>Visitations by staff reaffirmed his goals. He was determined to come out from all this misery he was in. Having children in the process made the task even harder.</p> <p>However, the ex young farmer made sure that he would work thing out. By setting his priorities right and balancing his responsibilities he was back to where he had left off. A more confident and positive minded farmer.</p>
<p>Name: Mateo Rokovesa Village: Somosomo, Cakaudrove Years: 1991 -93</p>	<p>The ex young farmer from Somosomo graduated from Tutu in 1993. With all the skills and enthusiasm he had he set out to work on his five year plan. Backed up with a moderate savings he had acquired from his home and Tutu farms he was virtually on a high. However the realities of life got the better of him. Staying in the village with his family complicated things more. He insisted on isolating himself from the village to live on the outskirts of the village where his farm located.</p>

¹² Marriage life is very difficult for us Young farmers

	<p>The reality of being alone to fend for himself sunk in. His skills were now being tested. He admits that this was a really tough time. With no one to oversee his programme and monitor his progress on the farm, it finally dwelled on him that he was the Master of his own destiny. With a positive attitude he pressed on, making many mistakes on the way. The temptation to involve himself with all the social functions that were held in the village was contagious.</p> <p>Visitations by the field staff from Tutu put him back on track. Getting married came with its difficulties. There were now two different people making the decisions. This complicated their relationship and was an extra burden for the ex young farmer. This resulted in him not attending to his farm as he used to and inevitably farming seemed like too much hard work. The ex graduate was contemplating on looking for work in the town to supplement the needs of his young family.</p> <p>Another visit by Tutu staff reassured him of his goals and from that point there was no turning back. At the time of the interview he was back at Tutu for the Couples course.</p>
<p>Name: Waisale Rasaliwa Village: Navakawau, Vuna Years: 2003 – 2007</p>	<p>This Young farmer from Navakwau in Vuna graduated from the course in 2007. With savings from his proceeds from Tutu and his home farm he started working on his five year plan.</p> <p>Materials for his house were brought in and fellow villagers helped in build it. At the same time he carried on expanding his <i>dalo</i> and kava farms to achieve his monthly targets.</p> <p>Not intending to get married any soon he focused on establishing a solid platform. He did not forget the “reverse pass” code that was encouraged in Tutu. This kept his family content and he was able to progress with unconditional support.</p> <p>“¹³Au sega ni guicelava na noqu veivuke vei rau noqui tubutubu na vei gauna au vakailavo kina.Qo eso ga na lesoni dredre au vulica mai Tutu.”</p> <p>All of the skills he had learnt from Tutu came into play. Time management was a critical tool that he had mastered. This gave him the edge among his peers in the village. Soon he had friends following his own routine and together they formed a youth group who concentrated on planting <i>dalo</i> for commercial purposes. Having access to land was the key. They were given their blessings from the elders and set off on their venture. At the time of the interview the group consisted of 100 young men who were ready to harvest a total 100,000 <i>dalo</i> from their project. The economic impact from this into the village would be huge.</p> <p>The young farmer is satisfied that with the help of other committed youths in the village, they are able to rely on the land to meet all their responsibilities and obligations.</p>
<p>Name: Paula Baleimakogai Village: Qeleni, Wainikeli, Cakaudrove Years: 2004 - 2007</p>	<p>Paula is from the village of Qeleni and attended graduated from the course in 2007. Before finishing the course he had built half of his house. His five year plan consisted of finishing his house, investing in a generator, brush cutter and chainsaw. At the time of the interview he had accomplished all of these. He now has a young family and concentrates on expanding his farm. He admits that it was not smooth</p>

¹³ I never forget to contribute financially to my parents. This was one of the important lessons I learnt at Tutu.

	<p>sailing at all. Village life gets the better of you at some stage but it is up to the individual to make decisive decisions and follow them through.</p> <p>¹⁴“Na bula va na Koro e sa rui dredre meda veisau taka” Life in the village is difficult to change. It is up to us to respond differently to its responsibilities and work at balancing our priorities.</p>
<p>Name: Etuate Celeasiga Village: Navidi, Tunulua, Cakaudrove Years: 2003 - 2007</p>	<p>Etuate is an ex young farmer from Navidi, Tunulua in Cakaudrove. He graduated from the course in 2007.</p> <p>With his five year plan that he developed with the assistance from the staff he was confident of implementing them. He got married in 2008 and now has two children. He has been able to build house and has been steadily progressing with his <i>dalo</i> and kava farms. On the other hand the young graduate has invested in cattle and a small piggery. This investment would serve the purpose of village obligations, so he would not have to spend money in contributing financially. This was a smart move and paid off well.</p> <p>He agreed that Tutu had given him the opportunity to realize his dreams and turn it into a reality. The course broadened his horizons as it was always confined to the village environment.</p> <p>The human development and spiritual aspect of the course was the foundation that he based his success upon. These were the backbone of the courses. It transformed them into independent people thinking individuals who were able to make decisions on their own.</p> <p>Time management and overall farm management were the tools that proved necessary in order to carry out these tasks in a structured way.</p> <p>¹⁵“Na vakayagataki ni gauna e dua na lesoni levu taudua ni noqu vuli mai Tutu” The young farmer recognized the problems and obstacles he would face in the village and put in pro active measures to mitigate these issues such as his cattle and piggery scheme.</p>
<p>Name: Iosefo Kalaveti Village: Navidi, Tunulua, Cakaudrove Years: 2003 - 2007</p>	<p>The ex young farmer from Navidi, Tunulua in Cakaudrove left school when he was in Form 4. After a few years in the village he had the opportunity to attend Tutu. He successfully graduated in 2007 and began to implement his five year plan straight away.</p> <p>¹⁶“E dredre na gaunisala mai na koro. Sa dau vodo ga mai na waqa na neimami yaya ni vale.” Accessibility to the village is difficult so all his materials for his house were brought in by boat. He made sure to maintain his matured kava and continue with his monthly planting targets.</p> <p>As planned he got married which was well budgeted for and started a family of his own.</p> <p>Marriage life had its challenges but he was determined to make it work. Spiritual guidance gave him some form of soul enrichment. He was constantly being challenged but the training at Tutu instilled in him a life of self discipline and independence. Detaching from the</p>

¹⁴ It is difficult to change the mindset of people in the village.

¹⁵ Time management is one of the most important lessons I learnt at Tutu.

¹⁶ Accessibility to the village is very difficult. We use boats to cartage house materials which is expensive.

	<p>comforts of his family he was bold enough to begin his own. During his time on his home farm he would look back at how Tutu had transformed him to be a better person. He would encourage other young men to work alongside him to generate their own income. He served as a role model for them and many young men followed although they did not have the luxury to attend Tutu.</p>
<p>Name: lowane Waqanivavalagi Village: Muana, Tunuloa, Cakaudrove Years: 1995 - 1999</p>	<p>lowane is now a self employed farmer in Muana, Tunuloa in Cakaudrove. Graduating in 1999, he came with his five year plan and was determined to make the most of it.</p> <p>As a single individual then he opted for a life of isolation where he could concentrate on his five year plan. Once the proceeds from his labour started coming in, he reinvested it in his farm hiring other young men to plant more crops. This saw him surpass his monthly and annual targets.</p> <p>When marriage life came into the picture his attention was divided as his wife preferred to live in the village. This resulted in him spending more time in the village then on the farm. A feeling of uneasiness was what he felt.</p> <p>Visitations from the staff from Tutu gave him some sense of direction. Problems and issues were discussed on the spot. Solutions were provided and a counselling session followed. For this the farmer was grateful.</p> <p>¹⁷“Au vakavinavinaka vei ratou na vei siko mai Tutu ni rawa ni ratou walia rawa na noqu leqa. “</p> <p>Time management was crucial in organizing the day’s activities. Managing his obligations in the village was difficult yet he was determined to fulfil them according to his means. His priority was his young family and this gave him some form of inspiration as he was able to maintain their needs.</p> <p>Spiritual guidance was at the forefront of all his deeds. He admits that without spiritual intervention all his plans would come to no avail.</p>
<p>Name: Waisale Bulimainavesi Village: Naqaravatu, Tunuloa, Cakaudrove Years: 1999 – 2003</p>	<p>This ex graduate from Tunuloa is a product from the 1993 group. Today, he explains he has never left the village and is content with earning a moderate income from his farm in the village. He saw how other young men and women were fascinated by the urban centres and towns and how many of their plans were directed that way. In years to come he would see them again in the village in the same situation not being able to contribute back to the village. Life was tough as it is in the village but living in the towns posed its own challenges as there were only a handful of people to assist.</p> <p>His five year plan progressed as planned and he knew he had all the skills to survive on his own two feet.</p> <p>The oscillation process gave him a new perspective in life as he experience fist hand the difference between living a life as an average villager or detaching from the family and to support from the outside. It was a period of understanding and experiencing what life was all about and the opportunities that came with it.</p> <p>The young farmer continually supports young men and women who need some form of direction. He encourages them to use the land as a</p>

¹⁷ I am thankful to the Tutu staff for counseling sessions that provided solutions to adjusting to married life during visitations.

	means of making ends meet.
Name: Lasarusa Waqa Village: Vuasasivo, Natewa, Cakaudrove Years: 1999 – 2003	<p>Lasarusa Waqa is a self employed, energetic Young farmer. After graduating from Tutu in 2003 he worked tirelessly on his five year plan. He calls this his Bible.</p> <p>“¹⁸Na noqu vola tabu na noqu five year plan”</p> <p>Tutu opened up a new chapter in his life. One that was full of hope and fulfilment. He was confident that nothing was going to deter him from the achieving his targets. This resulted in a lot of apprehension among his fellow villagers. He was determined to succeed and was aware of all the challenges he would face.</p> <p>Time management was a tool that gave him the edge over other peers. He would execute his plans in a timely manner and structured it in such a way that it did not interfere with his obligations to his family and the village.</p> <p>During the oscillation process he identified how he was going to implement his plans. He took a step further when he invested his proceeds into the Unit Trust of Fiji as a shareholder.</p> <p>He described how the life in the village was progressing slowly with developments popping up here and there. But it was up to the individuals, especially youths to take the opportunity and make a difference.</p> <p>Financial management was very important. It was the tool that he used to cover for his long term goals. Being prudent was another factor that he said made the difference and also attracted a lot of negative vibes from his family and friends. To this young farmer, it was every farmer for himself.</p>
Name: Gaberiel Eremasi Village: Vakativa, Wailevu, Cakaudrove Years: 2003 – 2007	<p>The young farmer from Vakativa village in Wailevu, Cakudrove graduated from Tutu in 2007. Equipped with the skills, knowledge and capital he wanted to quickly implement his five year plan. He was aware though of all the issues that could distract him from executing his plans. This posed a constant challenge in the village. However this didn't deter him from building his own house and moving on to have a family of his own. He responded to his family obligations with open hands. But now he had his wife's family to cater for and this was beginning to be a handful. His plans to have a fish pond, piggery and truck are yet to be established. He says his plans got distracted but is adamant that he would achieve his goals.</p> <p>“¹⁹Au taleitaka na bula vakawati. Etiko na kena dredre io au sa toso tiko ga vakamalua.”</p> <p>Human development training was one factor that made him sure of himself. He felt empowered and grew confident in making his own decisions.</p> <p>The fact that he had built his own house was an achievement in itself. He would compare this with his peers who could not even build their own homes and still stayed with family and relatives. This was a morale booster. He agreed that Tutu made the difference in his life</p>

¹⁸ My bible is my five year plan.

¹⁹ I enjoy marriage life although it comes with its difficulties but I am adjusting.

	and encouraged other youths in the village to apply for a place. At the same time he had regular sessions with his close friends and encouraged them to farm and earn an honest living from the land.
Name: Kitione Lagivala Village: Saivou, Seaqaqa, Macuata Years :2003 – 2007	<p>This enterprising young farmer from Macuata graduated from Tutu in 2007. Leaving formal education at an early age and exposed to peer pressure and the challenges of village life he was determined to make a difference.</p> <p>He recalled the difficulties he initially faced during the oscillation period. Out of the whole group he was identified as one of the boys that were not maintaining his farm in his village. This ended up with a session with Fr Mcverry. It was this session that was the turning point in his life.</p> <p>“The young farmer recalled how Tutu was a breeding ground in heaven and that the village life was the reality on earth.”</p> <p>“²⁰Vei keimami o Tutu e vakatu Ko lomalagi. Noqu koro me vaka tu na vuravura levu. Qo na vanua keimami na tovolei kina na neimami dina.”</p> <p>He regained confidence and went through the course without any further incidents.</p> <p>During the time of the interview he had just arrived from his farm where he was temporarily living. Looking forward to harvest a bumper <i>dalo</i> crop this year to accommodate some of his plans.</p> <p>Time management was a tool that he implanted in his life. Tutu taught him to master the concept of time management and he used this to his advantage. It made work more enjoyable as he strived to work smart instead of working hard.</p> <p>The idea of self employment was spread among his peers in the village. He acted as a role model earning money on the roadside to cater for family needs and other obligations. Many of his friends are now fully involved in farming and look forward to reaping the rewards of their labor.</p> <p>Detaching from the confines of the village has seen him camping in the bush with other young men. Here the plans are executed with no distraction. He admits that one day he will return to the village permanently. But, for now, he prefers to invest in expanding his farm.</p>
Name: Solomon Vukitu Village: Dogouru, Wailevu, Macuata Years: 1999 – 2003	<p>Solomon Vukitu hails from the village of Dogouru in the interior of Macuata. Being a young farmer from Macuata posed a challenge since he was farther away from Tutu than his other friends. However the difficulties he faced he pressed on regardless. Family support was what encouraged him to carry on. If it was not for my family I would not have completed the course he remarked.</p> <p>After graduating from Tutu he was prepared to implement his five year plans. With enough capital in his bank account, the first challenge he faced was the regular village obligations that he was obliged to support. Money was being diverted into this hole and was never to be seen again.</p> <p>“²¹Na noqui lavo e rawa mai Tutu e mai vakayagataki vakavei talia ena sogo main a koro”</p>

²⁰ For us Tutu is like heaven and the village is earth where our faith is constantly tested.

²¹ The money that I had saved from Tutu was used on unwisely on many family functions.

	<p>Relatives took advantage and soon he was at a point of low esteem and down hearted. All his sweat was instantly gone in a matter of weeks. When he realized what had happened he set out again to focus on his plans. This time more cautious.</p> <p>Visitations by Tutu staff gave him hope and motivated him more. It was the critical factor that reassured him of his plans and direction. If it was not for that visit he recalls he would fell back to his old ways. Village life was like a magnetic force pulling all the energy and resources out of you he explained.</p>
<p>Name: Waisake Tuimuru Village: Navetau, Saqani, Cakaudrove Years: 2003 – 2007</p>	<p>Waisake Tuimuru is a well respected farmer in his village. Although as young as he is it was observed that fellow villagers appreciated his contribution in the community.</p> <p>He now leads a group of youths planting kava on a commercial scale and setting targets for them on a monthly basis. Tutu he explained gave him the confidence and strive to fulfil his obligations in the village. Overcoming all these responsibilities was just part of Fijian culture which you cannot escape he explained. Young farmers have to adjust and prioritize.</p> <p>“²²Na bula ena koro kei na kena colacola e seganidua e rawa ni levea”</p> <p>His five year plan was done in successions. First his house was built and then he focused on expanding his home farm on Mataqali land. He mentioned though that jealousy was rife in the village and mataqali members sometimes gave him a hard time. But this problem gave him an opportunity to reach out to other youths in the village and help them be more accountable for their own respective families and invest their energy and resources in the land.</p> <p>He has been able to maintain his savings and is optimistic about his future plans. He says helping the youths to help themselves gave him great satisfaction as this was what Tutu had taught him.</p>
<p>Name: Mosese Saumaki Village: Yasawa, Saqani, Cakaudrove Years: 1999 – 2003</p>	<p>This young man from Yasawa, Saqani, Cakaudrove has been a role model for young men in the village. After graduating in 2003 he set of to establish a project scheme for youths in the village to plant <i>dalo</i> on a semi commercial scale. Aware of the difficulties that young people were facing in the village he encouraged them to participate.</p> <p>This scheme would be divided for family obligations, village obligations and personal obligations. The young men were inspired by the idea and targets were being met on a monthly basis. When there was a death or another related function there was <i>dalo</i> available to be sold for the occasion. This made the young men happy and motivated them even more.</p> <p>He discussed at length of how Tutu had transformed his thinking and opened up a world of opportunities. During the oscillation period he witnessed the difficulties village folk were having in trying to keep up with their obligation to the family, village and the church. Everyone was struggling he explained. Apart from his five year plan he saw an opportunity to use the youth to assist their families and themselves to develop their standard of living.</p> <p>The human development programme and spiritual development programme he attributed as the foundation of his success. Detaching himself from his family was the best decision he had made. Although</p>

²² Life and obligations in the village is something that we cannot just avoid.

	<p>he still contributed to the affairs of the family by using the “reverse pass” to maintain that link to his family.</p> <p>He continues to work with the village youth and explains the options that they have and that investing back in the land is an opportunity to be self sufficient and independent.</p>
<p>Name: Alusio Neori Tikoinasau Village: Qeleni, Wainikeli Years: 1995 -1999</p>	<p>Alusio Neori has been one of the outstanding young farmers during his years at Tutu. Attending the couple’s course with his wife landed him a position to work with the Young farmers at Tutu.</p> <p>During his term at Tutu they were unfortunate to feel the full brunt of a cyclone which destroyed most of the crops on their home farm and the school farm. The young farmers had to adjust their planting schedules because there was a lack of” Kasa” <i>yaqona</i> cuttings.</p> <p>Support from the village elders was necessary to build up their confidence level. If it was not for their support they would not have been able to succeed.</p> <p>²³“Na neimami kalogata era solia mai na nei mami qase. O ira na nei mami kalogata”</p> <p>“But there was also a catch here, while the support was unanimously given the young men were obliged to reciprocate. “</p> <p>This understanding was never mentioned it was an unwritten rule that had always existed. It was simply part of the Fijian culture.</p> <p>The oscillation process was an important part of the programme. It opened up their minds and exposed them to the reality of life. This prompted them to carefully develop their five year plans to counter these barriers that existed in the village.</p>
<p>Name: Rafaele Kau Village: Naba, Wainikeli, Cakaudrove Years: 1999 – 2003</p>	<p>The young farmer from Naba village in Wainikeli, Cakaudrove is happily married with three children. He agrees that Tutu had transformed his life to an independent, confident young man. Prior to coming to Tutu, he would always try to avoid social functions and kept his distance from his peers. He left school in Form 3 and as a result did not have the courage to interact with people other than his family members. When he heard about what Tutu had to offer he gradually came out of his hole to begin planting his 1000 kava crop. As he began his task staff from Tutu would visit him and other boys in the village to see the progress. He was being motivated and encouraged to continue the good work. When the time came for him to attend Tutu he was still not confident of himself.</p> <p>²⁴“Au dau vaka yaloqqa taki ira na noqu caba mera dau teitei vakalevu ni levu na qele”</p> <p>The human development course opened up his horizon and gave him a sense of belonging and purpose. He had never felt that way before he explained. As the months went by he recognized his strengths and weaknesses. Spiritual development in his life was enhanced. He felt empowered by the training at Tutu.</p> <p>During the oscillation period in the village he could now understand the concepts that Tutu was trying to instil to develop a life of autonomy and independence.</p>
<p>Name: Petero Waitakai</p>	<p>The young farmer from Naba village left school when he was in form 3.</p>

²³ Our blessings come from our elders. They are the source.

²⁴ I encourage my friends to plant more crops since there is an abundance of land available.

<p>Village: Naba, Wainikeli, Cakaudrove Years: 2003 – 2007</p>	<p>Life in the village was tough, especially when you were a school dropout. He explained people would not tell it in your face but the body language said it all. He felt lonely and distanced himself from social gatherings. Through two other boys who had been at Tutu previously he was encouraged at the prospect of giving it ago. He explained that this was just an excuse to get out of the village. Having planted his quota of 1000 kava plants he was eager to attend Tutu. The first few weeks were culture shock. Getting up early in the morning etc. Once he got the feel of it there was no turning back. The sessions on human development were intense. He gradually came to accept himself as a person with purpose. He felt good at what he was able to achieve and felt empowered.</p> <p>The support from his family was instrumental. Their giving land for him to use on a long term basis was a blessing. His farm at Tutu and at home were doing well and grew confident by the day.</p> <p>When he graduated with his five year plan he set of to build his house. This was completed in stages as access to the village was only by boat for large building materials.</p> <p>Time management was critical in the confines of the village as time in the village was slow.</p> <p>He has attributed all his success to the training at Tutu. If he had not got that opportunity he would have been living a life of no direction and purpose.</p>
<p>Name: Alusio Avoro Village: Naba, Wainikeli, Cakudrove Years: 2003 – 2007</p>	<p>Alusio left school when he was in class 8. With no sense of direction and purpose he soon was seen to dwell among other school leavers in the village. When Tutu was proposed to him by relatives he took that opportunity and began planting his 1000 qouta of kava plants on his Mataqali land. He approached his family for land and the support was overwhelming. This he admitted was the turning point in his life. Ex Tutu graduates encouraged him along and discussed at length the strategies to become independent and the results of being autonomous.</p> <p>Tutu changed his perception of life and gave him the direction that he needed to get on with his life. Life in the village was difficult but Tutu made them appreciate life in the village and provided solutions to these problems that existed.</p> <p>²⁵“Na bula ena koro e dredre. Io ko Tutu e solia kece main a kenai wali”</p> <p>His five year plan was to build a house and expand his kava plantation. Time management was a tool he insisted was instrumental in executing his plans.</p> <p>Without managing time well you were doomed to fail. Spiritual intervention was enhanced and was something that he followed back to the village.</p> <p>²⁶“Na noqu bula vakayalo e vakaukautaka na noqu tosotoso main a koro”</p> <p>He was able to express himself better among villagers and has taken up leadership roles in the village, and is the current treasurer of his youth group.</p>

²⁵ Village life is difficult as it is but Tutu has given us solutions to these difficulties.

²⁶ The spiritual essence of the programme gave me strength to overcome difficulties in the village.

Table 3: Former Married Farming Course Participants

<p>Name: Julian Waqa Bibi & Kesaia Dibogi Bibi Village: Togaveti, Vaturova, Cakaudrove Years: 2008</p>	<p>This couple from Vaturova in Cakudrove admitted that their stint at Tutu was the turning point in their lives. Before the Tutu experience their relationship was an unhappy one. Having children turned into a big burden. The couples could not communicate with each other and the result was a bitter relationship.</p> <p>Tutu was a life saver for them. The human development module gave the chance for the couple to reflect on themselves and the direction they were following. The course opened up another world of opportunity.</p> <p>²⁷“Sa qai tadola na neirau rai” was how they put it. The narrow perspective they were accustomed to in the village disappeared and a new vision was created.</p> <p>Other components of the course that Tutu offered such as agricultural, economic and other domestic skills fell into place naturally.</p> <p>“The human aspect of the course was the catalyst for change”</p> <p>The couple remain adamant and positive that they would accomplish everything that they had intended to do in their five year plan.</p> <p>Both of the couple are active in leadership roles in the village as President of the Youth club and manager of the Kindergarten. This surprised them both since they always thought that they were not capable for those roles.</p>
<p>Name: Isidore Vasu & Amele Nai Village: Vuriqilai, Sasa, Macuata Years: 2010 , August</p>	<p>Spiritual development was the most influential module that impacted these couple’s lives. The module gave them an opportunity to reflect on their lives and to gauge their relationship.</p> <p>Human development enhanced the process and they admitted that everything else fell into place.</p> <p>The couple’s relationship has strengthened and the result is a happy household free from misconceptions and any form of misunderstanding. It was observed that the relationship had impacted the lives of the extended family members that lived with them.</p> <p>Time management had placed things into perspective.</p> <p>²⁸“Na vakayagataki ni gauna sa vukei keirau saraga vakalevu”</p> <p>The other components of the course such as the agricultural aspect and the parenting modules supplemented the couples with lifelong tools.</p> <p>The domestic skills, carpentry and mechanics were modules offered out of necessity so that couples could make better use of resources available to them.</p>
<p>Name: Koloba Sigarara & Luisa Sigarara Village: Navetau, Tunuloa, Cakaudrove Years: 1983</p>	<p>The couple from Navetau, Tunuloa, Calaudrove entered the course in 1986. Now with the responsibility of tending to the grandchildren at an elderly age, the mention of “Tutu” resulted in the couples burst of energy praising the whole Tutu makeup.</p> <p>²⁹“ke sega o Tutu, keimami na vakaloloma levu”</p>

²⁷ Our vision had been broadened.

²⁸Applying the time management principles assisted greatly in implementing daily chores.

²⁹ If it was not for Tutu we could not have achieved anything productive.

	<p>The couple hinted that if it was not for Tutu life in the village would be much more difficult. Tutu to them was a shining light for rural dwellers in the Cakaudrove province. Life was difficult already as it is in the village. The traditional obligations, the pressures of maintaining the family and the responsibility that came with the Church.</p> <p>The village where the interview took place was known only to produce Kava and copra. Accessibility only by boat and a rough track was the means of reaching the village. Despite the difficult circumstances the village was very well maintained. They attributed all this from what they gained from Tutu. As the traditional elders of the village they admitted that Tutu was exceptional.</p>
<p>Vincent Tovata & Lusiana Waqanitoga Village: Nawai, Cakaudrove Years: 1995 - 1999</p>	<p>Vincent Tovata is a product of the Kevin Young farmers. Brother Eremondo was influential in his passage through to Tutu. Two young men from the same village had also been through Tutu. After several years as a young farmer he returned with his spouse to attend the marriage couples course.</p> <p>As a young man and ex graduate from Tutu he was accustomed to making his own decisions. Since marriage, life had changed and now two people were both making decisions. It was culture shock for the young farmer and the result affected production on the farm. This posed a threat to his entire plan and the urge to attend the Marriage course was too strong to resist.</p> <p>The following events occurred after the 6 month course in which everything was put into perspective. The couple went through sessions of intensive counselling. The human development strengthened their very fragile relationship.</p> <p>With 6 children to look after, time management was a critical factor that proved worthwhile. The oscillation phase made them realize the impacts of their decisions and this was an opportunity set things straight.</p> <p>³⁰“Ke sega o Tutu kea vakaloloma na neirau bula vakavuvale”</p> <p>Spiritual counselling enhanced the bonding phase and reconnected the two individuals. The experience was so powerful that they admitted that they would attend the course again if offered the opportunity.</p> <p>The money that they earned was reinvested in their farm hiring people to expand their Kava farm and taro plantation.</p>
<p>Name: Jale Senimoli & Mereani Coga Village: Navonu settlement (Nakobo) Years: 1993</p>	<p>The couple from Navonu in Nakobo went through the course in 1993. They own a 30 acre piece of land they have leased from the Mataqali. Life is hard in these parts as farmers rely heavily on copra for income. Kava is grown but at a smaller scale. The weather here does not favour commercial <i>dalo</i> ventures. Opposed to their counterparts from Taveuni where the soil is rich and porous.</p> <p>Their five year plan was to invest in working bullocks and a sewing machine to supplement the income from copra. However, all their plans were constantly disrupted when obligations to the village and family came into play. They admitted that even though they lived on the outskirts of the village they were obliged to contribute to the affairs of the village. Functions such as weddings, funerals, birthdays, fundraising</p>

³⁰ Tutu has helped our relationship thrive. If it was not for Tutu we would have been facing a lot of difficulties.

	<p>were all taking its toll.</p> <p>Staff visitations re envisaged the couples to have a sense of balance for their obligations and to maintain that link in the village because “no man is an Island”.</p> <p>The human development course and Time management was what keeps their spirits high. They have accepted their role in the village and have adjusted to keeping up with their obligations.</p>
<p>Name: Paulo & Ana Tuilau Village: Navetau , Tunuloa , Cakaudrove Years: 2010 - August</p>	<p>Paulo and Ana recently graduated from the married couple’s course in August, 2010. The energetic couple have five children. The Tutu course was an eye opener for them. Never did they realize their purpose in life and difference they could make to contribute back to the family and village.</p> <p>The parenting course gave a new perspective in life for the couple. They now understood the true concept of parenting and bonded with their children as they never did before.</p> <p>The human development component was the deciding factor, without the human element in the equation the skills taught at Tutu would be of no avail. Getting to know their own persons and recognizing their strengths and weaknesses. This was the first time they got to relate to each other and communicate better.</p> <p>“³¹keirau dau duidui yalo tu ena levu na gauna”</p> <p>Spiritual intervention was the foundation block for the course. It was also the vehicle that enabled the other course to fall into place.</p> <p>Time management was a tool that they both agreed put things into perspective. Prior to this time was not seen as an essential tool for progress.</p> <p>They plan to build a house of their own and expand their kava plantations. They realize that contributing back to the village and family is a fundamental issue that needs to regularly forged.</p> <p>They have however begun a saving scheme that will assist in the education of their children. They know that investing in the welfare of the children is paramount and will make the difference in years to come.</p>
<p>Name: Susi & Onisio Qio Village: Naqaravatu, Tunuloa, Cakaudrove Years: 2005</p>	<p>The couple from Naqaravatu in Tunuloa, Cakaudrove went through the course in 2005. Being brought up in a village where copra was the main source of income was very challenging. Bringing up four children at the same time was taking its toll.</p> <p>However despite all the hardships that they were going through they applied for a place to attend the Married couple’s course. This was the turning point in their lives. Never did they realize or dreamt what Tutu had to offer. The spiritual development module proved very effective as it released them of all their burden and misery as they searched for divine intervention. The human development course established a sense of belonging and purpose. They both agreed that this component of the course was the basis of where all the other modules that were offered came into place. Learning new skills to supplement their income was a bonus.</p> <p>Their five year plan was established and included extending their home, saving for the children’s education and putting money aside for</p>

³¹ We had never seen eye to eye on issues regarding our relationship.

	<p>traditional obligations.</p> <p>The couple admitted that this to proved a challenge as village life and its obligations distracted their plans. As they ventured into small business enterprises, operating a home canteen etc they were constantly asked for credit on most of the items. They said it was difficult to say know since they were all related somehow or another.</p> <p>Time management though was a tool that they agreed was very helpful to put things into perspective.</p> <p>Visitations by the staff from Tutu were a motivating factor. At times when frustration took its toll and the staff came around for visits it gave them a boost of energy and raised their self esteem.</p>
<p>Name: Nikosio Rabusa Village: Vusasivo, Natewa, Cakaudrove Years: 1991</p>	<p>Nikosio Rabusa entered the course in 1991 with his wife who was not available for the interview. He regards Tutu as a catalyst for change in every aspect of village life. Before Tutu he explained his life was unstructured. Life in the village was based on events such as traditional, church and family obligations.</p> <p>His five year plan consisted of a house and fibreglass boat which he has already achieved. Although life in the village poses a challenge they have been able to adapt and respond better. What was once a burden is now achievable.</p> <p>The relationship with his spouse strengthened that link which was never tapped. They bonded and the result was a happier relationship and a happy family.</p> <p>They would often share their experiences with other couples who were going through a hard time. It seemed that all the couples were facing the same problems. Good communication was the key that they emphasized.</p> <p>Time management was essential into putting programmes into perspective. Weekly and monthly targets were achieved despite the hectic village schedules. Although the church also had its obligations this was all taken care of.</p>
<p>Name: Aselemo Banica Village: Vusasivo, Natewa, Cakudrove Years: 2005</p>	<p>The couple from Vuasasivo graduated from the course in 2005. This was the turning point in their lives. Tutu had instilled in them a sense of purpose and a boost of energy. They realized that before they attended Tutu their lives were disorganized and their self esteem was low. Village obligations were seen as a burden and the church was also a factor that contributed to their misery. Nothing seemed to work out until they went through Tutu.</p> <p>Human development established a foundation that allowed the other entire course to fall into place. It made them accept their selves as individuals with a purpose and heightened their self esteem.</p> <p>Time management was critical, especially in a village environment where time was slow. Once they grasped this concept it made work more enjoyable and put their programmes into perspective.</p>
<p>Name: Timoci Duvuniwailala & Litia Rauraura Village: Vusasivo, Tunuloa, Cakaudrove Years: 2007</p>	<p>Timoci and Litia Ruarua are from Vuasasivo in Tunuloa. The couple enjoyed the Tutu course which has helped them stabilize their marriage and relations with other people.</p> <p>Their five year plan consists of building a farm house, a water tank and to expand their kava farm. They also intend to extend their house in the village.</p> <p>Beside's kava, they grow assorted vegetables which they sell to villagers.</p>

	<p>They both reinvest into their vegetable blocks and try and be consistent with their supply.</p> <p>³²“keirau saga tiko ga qo me toso vinaka na neirau bisinisi ni tei kakana draudrau”</p> <p>Time management is a factor that they agree was having the edge over other villagers. They say that the average villager does not appreciate time and thus productivity is low.</p> <p>Human development gave them a clear perception on the direction they were heading and established a concrete foundation to begin with. As all the other couples agreed spiritual intervention was the bridging gap that formed the new persons in them.</p> <p>They have taken up leadership roles in the village and have inspired other couples to follow suit. They are constantly motivated by regular visits by the team from Tutu which is one of the factors that play a key role in the transformation process.</p>
<p>Name: Sanirosi Bale & Sera Bale</p> <p>Village: Navetau, Saqani, Cakaudrove</p> <p>Years: 2008</p>	<p>The couple attended the course in 2008. Coming from mainland Vanualevu to attend Tutu was a challenge in itself because of the logistics of transport and the expenses that went with it. However this did not deter the couple from trying to develop themselves into better people.</p> <p>The course opened up many options that they thought did not exist; it gave them an opportunity to reflect on their lives and the direction they were going.</p> <p>The course helped them to do mini budgets for daily, weekly and monthly budgets. This helped them budget for personal, family and village obligations.</p> <p>They commended the Human development course as being the most beneficial course. It strengthened their relationship and assisted them to be better individuals. They communicated better to each other and were aware of each other's weaknesses and strengths.</p> <p>Time management was seen as catalyst for change. Once they knew and understood the fundamentals of this course their approach in life was better and clearer.</p> <p>The oscillation period was a fundamental part of the Tutu programme as they would have a feeling of both worlds and re-invent their strategies to make things work better for them in their home environment.</p>
<p>Name: Marika Tuicika & Elenoa Tuicika</p> <p>Village: Navetau, Saqani, Cakaudrove</p> <p>Years: 2001</p>	<p>Spousal relationships are the basis of any family. This was the comment made by the couple from Navetau in Saqani. The experience at Tutu enlightened them on aspects of life which they did not know existed. Their mind set at that time was so narrow that they thought that this was what life had to offer. Once they realized that there were infinite opportunities available from the course, they used this to their advantage.</p> <p>The couple now have a good cattle herd of 60 cattle and have been able to send all their children to school. They have invested in kava and <i>dalo</i> in their farm and have been able to manage all their traditional and family obligations.</p> <p>It's all about managing your funds well and reinvesting they said. People in the village tend to live for the day but Tutu has shown us that we have to have short term, medium term and long term goals to put</p>

³² We are working hard on our vegetable project in the village to maintain supply.

	<p>things into perspective.</p> <p>The oscillation process proved to be the major development in their lives as they first hand experienced their previous life and habits to the new one which Tutu was proposing.</p> <p>Time was an essence that could not be taken for granted. It was time that was being abused and they admit that our culture does not help. Village life is slow and will continue to be slow. If you want to progress you have to be bold and redirect your priorities.</p>
<p>Name: Eric & Margerat Narayan Village: Waimalevu, Vuna, Cakaudrove Years: 1993</p>	<p>Eric and Margaret Narayan are a classic example of what Tutu has been able to produce and utilize. They own a 12 acre freehold block that they farm on. Life before Tutu was not as productive as the situation now. Their relationship has blossomed and the fruits of their labour had seen their children through to University and two of them graduating.</p> <p>Factors that have contributed to the success are the couple's relationship, Time management and managing finance as a couple. Team work has helped them to be more productive. They have invested in <i>dalo</i>, kava and poultry shed to supplement their income. They have indicated that the coups and natural disasters were the only aspects that were hindering their progress.</p> <p>Living on their own in the outskirts of the village has helped them develop and implement their plans well. Without the obligations that interfere with the other graduates the Narayans have been able to be more productive than other graduates.</p> <p>At the time of the interview they had already paid of the land they now own and have heavily invested in their children's education. They admitted that this was their best investment.</p> <p>They have also leadership roles in which they council groups for the marriage and encounter sessions. This has seen them travel to Australia and the Solomons to conduct training.</p> <p>On the other hand life on the farm has provided all the means to live a comfortable life. With the good price in <i>dalo</i> and selling vegetables regularly they have been able to sustain themselves even in times of natural disasters.</p>
<p>Name: Iowane lasaqa & Lusiana Elisabeto Village: Nawai, Cakaudrove Years: 2008</p>	<p>The couple who reside at Tutu are the products of this course. They now serve at Tutu as facilitators for the different courses. Being part of the Tutu family has stunted their five year plan which they had intended to implement once they had finished. But, soon their quality characteristics were picked up by Fr Mcverry and they were invited to work with present staff on the different range of courses.</p> <p>The couple agreed that the human development component opened their minds and gave them an opportunity to reflect on their lives and the direction they were following. Their coming to establish themselves at Tutu was seen as a calling and has resulted in them sharing and promoting the Tutu formula to other young men and women.</p> <p>This gave them a sense of purpose and fulfilment that they have actually made an impact on other people's lives.</p> <p>Time management they mentioned was crucial in the village if people wanted to progress. Since time was slow as usual in the village it was hard to implement any project. But Tutu graduates are trained well to overcome these obstacles.</p>

	<p>Managing their finances was also seen by the couple as some good attributes that came out of the course. Budgeting for family, village and church obligations was all budgeted for.</p> <p>Visitations were an essential exercise that they all forward to. This gave them a sense of inspiration and motivation to press on regardless of the situation at hand.</p>
<p>Name: Farasiko Ramasi & Maria Ramasi Village: Navonu, Korocau, Cakaudrove Years: 2005</p>	<p>Farasiko Ramasi and his wife are also products of the Couples course. They now work with the Tutu staff on the various courses. Their time during the course in 2005 enabled them to understand the fundamentals of life and what it had to offer. It gave them some sense of reason and purpose. Even though they both went through to form 6 they were not prepared for the realities of life.</p> <p>Prior to Tutu they had invested in a FDB loan for a micro business operation. This did not progress well because they were not ready to the realities of running a business in the village. When the opportunity came to attend the course at Tutu they grabbed it.</p> <p>Once they were in the system they absorbed all they could and related this to their home situation. This gave them time to transform from their former mindset to their present vision of life as a whole.</p> <p>They intend to expand their house in the village and increase production on their farms. Good budgeting skills and savings was what they think as something as lacking among the village community. In the village this is unheard of, most people live for the day.</p> <p>The couples also play leadership roles as in Sunday school facilitators for youths. They admit that once the relationship between the spouses is intact the impact will be meaningful.</p>
<p>Name: Semi Yalawamairabi & Sisilia Botei Village: Vuna, Cakaudrove Years: 2008</p>	<p>Semi and Sisilia reside at Tutu. They are also products from the Married couple's course. They now are working as facilitators for the range of courses that Tutu offers.</p> <p>Before coming to Tutu the couple had previous work experience in the hotel industry as they had already completed form 6. When they got the opportunity to attend the couples course they instantly took it.</p> <p>The relationship at that time was shallow. Communicating to one another was an issue that deprived them a happy life. A lot of misunderstanding and misconceptions were the norm.</p> <p>The course at Tutu broke that stigma that was stunting their growth as a couple. They realized that they were weak in judgment and many issues were unresolved because they could not communicate to each other properly. As they began the process of transformation they began to express themselves openly and opened up to each other better. The relationship grew and they bonded. They reconnected their relationship and the home had a much mellow atmosphere. Team work was instilled in them and this made work easier for them to handle.</p> <p>Spiritual guidance was an element that they say was the driving force behind their success at Tutu. Eventually they got to understand things better when the human development component was introduced to them. It gave them more perspective to the way they saw life and what it had to offer.</p> <p>Managing finances played a key role in controlling unnecessary spending. This was a weakness that they identified as being a stumbling</p>

	block for them as a couple.
Name: Samuela Naka & Rusila Nabou Village: Kedra, Dogotuki, Macuata Years: 1993	<p>The couple from Kedra, Dogotuki in Macuata attended the course in 1993. Eager to make a difference in their lives they applied for place at Tutu. This was to be a challenge since they were based up in Macuata. They relied on other sources of income for transportation costs to and from Tutu. They excelled as they absorbed all the components of the course structure.</p> <p>As they progressed with developing their five year plan they were motivated with the prospect of building a better home and support their children to further their education.</p> <p>It was an experiential experience that brought about some form of reason and purpose in their lives. It was the human development component that captivated their minds. This course opened up a world of different options and opportunities. It was a great sense of satisfaction to realize that they could achieve greater things if the couple work together as a team.</p> <p>As the course progressed, the couple's relationship grew stronger. They communicated better and understood each other better. Once this barrier was broken everything else fell into play. It was an empowering experience that the couple went through. They usually came back to the village energized and full of motivation.</p> <p>The visitations helped the participants and kept them on track The temptation of falling back was always there but working as a team got the better of the situation.</p> <p>Spiritual development was the corner stone that proved to be the main factor behind their progress at Tutu.</p>
Name: Iowani & Serenia Madigibuli Village: Navakawau, Vuna, Cakudrove Years: 1983	<p>Iowani and Serenia are presently the Directors of the married couple's course. They are also products of the course way back in 1983. Familiar with the aspirations of the Church, the invitation to go and serve was overwhelming.</p> <p>They quickly progressed to managing the range of courses that Tutu offered. Their relationship is a model that they to promote. By being role models the couple the participants relate to the course better. They respond to seeing rather learning it or reading about it. The participants of the course feel comfortable and open up slowly to their mentors.</p> <p>Being ex-participants themselves they instinctively know what the problems and issues are when they are confronted with them. Each individual is broken down and is said to go through a period of self reflection and given the opportunity to admit all their weaknesses that may exist in them. They are then empowered with a new sense of direction with a purpose. This progression clears the passage to develop plans to meet the goals of the individuals.</p> <p>The oscillation phase of the programme encourages interaction between the home and Tutu. What is taught at Tutu is practiced at home in the village but under very difficult circumstances. Distraction in the form of village obligations, family commitments and social obligations often test the participants' ability to control and manage their priorities. Once they master this concept they feel confident to say no and make sure they stick to their priorities.</p>
Name: Fabiano & Maria Village: Bouma	<p>The elderly couple from Bouma were graduates of the course in 1983. They admit that the principles that they learnt from Tutu has been with</p>

Years: 1981	<p>them since.</p> <p>Growing up in the village among the challenges that they faced in the village environment they recognized the opportunity to make a difference. They then left the confines of the village and went up to live in their farm with the rest of the family. It was there where they felt success and some form of independence. When the opportunity came to attend Tutu they were sure that this was the break that they were waiting for.</p> <p>Human development, Time management, spousal relationship all played a part in moulding the couple's perspective in life. There time there was enjoyable. They were inspired and motivated by the contents of the course. They still go back and interact with former participants during the marriage encounter courses.</p>
Name: Torika Manaua Village: Qeleni, Wainikeli, Cakaudrove Years: 2008	<p>The lady from Qeleni in Winikeli, Cakaudrove attended the course with her husband in 2008. At the time of the interview the husband was away working in the plantation. She said the couple responded well to the contents of the Tutu programme and came away motivated and energized to make a difference. But despite all this she was caught up in a cycle of responsibilities that she found hard to manage. Even though they had just finished the course obligations was the order of the day. Trying to prioritize was difficult in reality. She wanted to attend to all her responsibilities but the demand outweighed the supply.</p> <p>Visitations by Tutu staff reinforced her efforts and motivated them to keep on moving forward. Time management was a tool that helped made ends meet.</p> <p>Their relationship was growing and they had a handful of children to take care of. The oscillation period was difficult enough leaving the children with in laws was tough.</p> <p>During the course of programme they realized all the opportunities that were ahead of them and started a positive attitude. This was the turning point.</p> <p>Spiritual guidance was the x factor that pushed them to the other side.</p> <p>The extra skills that they learnt at Tutu were to enhance their skills more. This would be a money generating activity that would help make ends meet.</p>
Name: Maretino & Melaria Suvianavanua Village: Delaivuna, Vuna Years: 2005	<p>The energetic couple from Delaivuna are farming on Freehold land. They went through the course in 2005 and came back to establish a well managed and productive farm.</p> <p>The couple do not reside in their village in Vanua levu but have opted to make their farm home their permanent home. The course was the turning point in their lives after a period of no direction and purpose.</p> <p>Once they familiarized themselves with the contents of the Tutu programme there was no turning back. Their relationship grew and they communicated better than before. They saw barriers as opportunities that if managed properly could be an advantage.</p> <p>They started to prioritize their responsibilities attending to their home situation first and foremost and attended to others later. The family was their power base and once this component was solid everything else came into play smoothly.</p> <p>Time management was critical in the transformation process as time was of the essence. It was obvious during the interview that they had</p>

	<p>progressed with their beautiful home up in the bush with all the looks of a modern house in town.</p> <p>Spiritual development was the main element that gave them the edge and the extra push. Without this they admitted nothing would be possible.</p>
<p>Name: Susana Yagoi Village: Qeleni, Wainikeli Years: 2005</p>	<p>The young couple from Qeleni graduated from the course in 2005. Frustrated with village life and the challenges that came with it they decided to give Tutu a go. Once the opportunity opened up they devoted themselves to it.</p> <p>The human development aspect of the course opened up a whole range of options in life. Accepting their individual strengths and weaknesses they were able to understand each other better. Responsible parenting gave them a better perspective of their roles as parents and this gave the opportunity to reflect on their attitude towards their children and the way they communicated with each other.</p> <p>Time management was said to have influenced all the targets that they set out to do. Prioritizing responsibilities and obligations was critical. This eased the work load and things were done one at a time.</p> <p>Other skills like basic mechanical maintenance of machines, basic carpentry and furniture making supplemented income. Money management was necessary to keep money on track and weigh out options for spending. Banking which has always been promoted has been one of the weaknesses that the couple face.</p>

Table 4: Former Single women's Course Participants

<p>Name: Elisabete Rotabolakoro Village: Vunikawakawa, Wailevu, Macuata Years: 2002</p>	<p>This young lady from Macuata graduated from the single women's course in 2002. She is now married with two children. She admits that she returned to her village with a lot of enthusiasm and energy. However when she got married and had children everything changed. Her three year plan that had been carefully crafted went on hold as she attended to her new responsibilities.</p> <p>³³“E veisau vakadua na noqu bula na gauna au a vakawati kina”.</p> <p>At present her primary responsibility is her immediate family. Living with her in laws has been a challenge as she is required by obligation to also tend to the needs of the extended family.</p> <p>Her husband who is not a product of Tutu shares some of her views. He stated that although the urgency of detaching from his family is there he is still obliged to look after his elderly parents. This is one obstacle that exists in many villagers in Fiji.</p> <p>This has created a feeling of low esteem and misery. But the onus is with the young graduate from Tutu to make a difference. She sees this as an opportunity to assist and make ends meet. The skills she has learnt from Tutu has given her options to rely on to earn some money on the side.</p> <p>This situation has made her realize that savings for her children's future is important. In her village traditional and church obligations take up a lot of her time but she tries to balance everything with the help of her husband.</p> <p>Time management, spiritual guidance, human developments were attributed as the factors which helped the graduate move on with her</p>
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³³ Life changed dramatically once I got married.

	life.
Name: Koleta Mainatewa Village: Lavena, Wainikeli, Cakaudrove Years: 2002	<p>This ex graduate from Lavena in Wainikeli came out from Tutu with sewing machine and a savings of \$200.00. She now operates a canteen which she admits has been a struggle. Her relatives pose the biggest threat in terms of credit and soft loans which is hardly paid back.</p> <p>³⁴“ Sa sega ni rawa e dua na toso vinaka ni da tiko ena loma ni koro”</p> <p>This was the general consensus among ex graduates was that life in the village was difficult enough and staying with in-laws was not only a challenge but an extra burden.</p> <p>The skills that she had acquired from Tutu are helping her making ends meet. The ex graduate however has pity for other young women in the village who have no idea how to resolve these issues. This has prompted her to advise and guide young women in the village on some aspects of her Tutu training.</p> <p>During the time of the interview the young lady from Wainikeli attends women’s meetings every Wednesday to assist other women in income generating activities.</p> <p>Human development, spiritual guidance and Time management were the factors this graduate identified as the key lessons she learnt whilst at Tutu.</p>
Name: Filomena Diwaqa Village: Lomaloma, Seaqaqa, Macuata Years:2006	<p>The ex-graduate from Lomaloma, Seaqaqa was educated up to form 4 before dropping out from school. She earns a weekly profit of \$40.00 from her handicraft sales and baking which she learnt from Tutu. She admits that after marriage and having children everything just took its toll and her three year plan was in jeopardy.</p> <p>However she progressed slowly and made sure that what she learnt from Tutu would be applied when she had the opportunity.</p> <p>Her mother stressed the importance of grabbing that opportunity and keeps progressing forward. This may be her last chance she envisaged.</p> <p>At present the ex graduate helps other young women in the village in mat weaving and making small handicrafts. At the time of the interview around three young women were sitting around her observing slowly as she explained the process slowly to them.</p> <p>Traditional obligations were seen as stumbling block for progress in the village. The obligations to her in laws and her own family were on a weekly basis.</p> <p>“We are obliged to our responsibility because we are Fijian “is the comment she made.</p> <p>Being content with what she had and sharing her knowledge with her friends kept her mind positive. She attributes this factor from her stint at Tutu.</p> <p>“While the skills she learnt at Tutu provided the avenue for having an income generating activity, it was the human development programme that gave the edge and confidence to apply all these skills”</p>

³⁴ We cannot be productive in the village as life in the village had its own system and pace.

<p>Name: Teresia Alena Village: Waica, Somosomo, Cakaudrove Years: 2006</p>	<p>After leaving form 6 and staying in the village for a couple of years she decided to follow her sister's footsteps and apply for Tutu. The fact that she had been in the village for three years got her enrolled in 2006.</p> <p>Her period in the village led her away from her personal goals of doing better for herself and she slipped into this cycle of constant late night grog sessions and lazing around in the day. This period of her life was seen as time of contentment and social gatherings in the village were her comfort zone.</p> <p>The oscillation period from her home and Tutu made her realize the opportunities available to her. To detach from her family was something new and Tutu helped her express herself and gave some sense of direction. She could now differentiate her past routine with her present actions. Time management was a new concept that she accepted willingly and was usually put her aside from her peers.</p> <p>The human development component made her appreciate her womanhood and gave her a purpose in life. This was the turning point in her life.</p> <p>Today she has a moderate sewing business enterprise which she says helps make ends meet. She admits that she has been able to sustain herself and her family from the money she receives for her services. Helping out with school fees for her nieces and nephews gives her some sense of joy that she can actually contribute to the welfare of the family in the village.</p> <p>Since most of her income is spent on sewing, she has decided to focus on this and is intending to buy another sewing machine to compliment the one she already has.</p> <p>³⁵“Kea sega ko Tutu kea sega ni macala na noqu bula”</p> <p>Feedback from her family is that if it was not for her course at Tutu she would just be like the other young women in the village who have no sense of direction and purpose.</p>
<p>Name: Marica Moroca Village: Wailevu ,Tunuloa, Cakaudrove Years: 2009</p>	<p>The ex graduate form Wailevu, Tunuloa, Cakudrove left Tutu in 2009 with her three year plan and a savings of \$300.00. Arriving with a lot of enthusiasm and in good spirits she was determined to make a difference in the village.</p> <p>However the realities of life sunk in as she was often met with family and village obligations. This was often the barrier that young faced.</p> <p>This did not deter her from looking back. She went to establish herself as a regular <i>masi</i> supplier to a local counterpart. Bank Savings was a weakness she often had like other young women in the village. She suggested that people in the village lived for the day and that long-term goals were unheard of.</p> <p>³⁶“sa kalougata ni ra dau veisiko mai vaka wasoma na vei qaravi mai Tutu. E solia tale vei keimami e dua na bula vou”</p> <p>Regular visits by Tutu staff motivated her to keep pressing on regardless of the difficulties she was facing. This was the same story from the ex graduates. The visits played an important role in maintaining the enthusiasm under difficult circumstances.</p> <p>She admits that with all the new skills she had acquired she could not have implemented it if it was not for the human development course and spiritual guidance component.</p> <p>These two programmes established in her a reason to life and an opportunity to make a difference.</p>

35 If it was not for Tutu I do not know where I would have ended up.

36 We are blessed with field visitations by Tutu staff. It gives us a boost of energy to press on regardless.

Annex 3: A sample extract of the data base on YFC applicants

NAMES	VILL:	D/B:	ED:	Religion:	Yaqona Counts:	Families	Comments::
1.Semesa Sokbale	Nakorovou Kubulau	25.05.90	Cl. 8	Katolika			
2.Saverio Waimaca	Nakorovou Kubulau	30.04.91	Cl. 8	Katolika	Yabaki 1-500	E sega ni kila na tamana. E tiko ga kei na tinana kei na nona Nau (Buna ?)	Nona tatadra me dua na nona vale ka oqoq tale ga na vuni nona via lako mai Tutu. Segga ni kania na marijuana ka sega takega ni gunuva na home brew. #E sega ni tiko rawa ena I otioi ni veisiko, ena nodra lako tu ki Solevu ena soqo ni tabagone
3. Silivenusi Vaniqi	Nakorovou Kubulau	22.05.91	F. 5	Katolika	Yabaki 3-400+ Tei vou - 400+	Lewe 8 ena matavuvale kai ka 6 ni gone okoya. 5 na yalewa ka 3 na tagane	Nona tatadra me dua na nona vale ka vuni nona lako mai Tutu me rawa ni rawati koya vaka I koya. Sa yabaki tolu ena koro. Tovolea oti na marijuana ena gauna ni gone vuli. Cauravou bulabula vinaka ka sega ni dau tautauvi mate. Rau veitokoni vinaka nai tubutubu. E tiko na nona ivola ni sucu. Teitei tiko ena qele ni mataqali. Rauta ni 30 na miniti na taubale me yaco ki nona i teitei.
4. Lui Rabale	Nakorovou Kubulau	.01.92	Cl.8	Katolika	Tei vou - 300	Sega ni tiko rawa e na I otioi ni veisiko	Nona tatadra me dua nona vale ka vuni nona via lako mai Tutu me mai teitei ka vuli e na vuli ni bisinisi.
5. Taniela Ralogaivau	Nakorovou Kubulau	10.12.91	F.4				
6. Taito Ratuvici	Nakorovou Kubulau	06.11.91	Cl.8	Katolika	Yabaki 3 - 200 Yabaki 2 - 200 Yabaki 1 – 300 3 na vula – 200 Tei vou - 100	Sa vakawati tale na tamana e Wailevu. E tiko ga kei na tinana kei na tacina, ganena kei nona Nau. Lewe 3 ena matavuvale, 1 na yalewa ka 2 na tagane. Sa vakawati o koya e qase duadua.	Nona tatadra talei me dua nona vale ka vuni nona via lako mai me mai teitei ka me rawata kina nona vale. Sa yabaki 3 ena koro ka teitei. E sega ni kania na marijuana ka tovolea oti na homebrew. Teitei tiko e na qele ni mataqali. Rauta e 30 na miniti ni taubale kina nona I teitei
7. Iowane Sovivi	Kilaka Kubulau	23.02.88	F.6	Katolika	Yabaki 4 – 300+ Yabaki 3 – 400+ Yabaki - 100+ Tei vou - 1000	Lewe 5 na veitacini ka I ka 3 ni gone o koya	Nona tatadra me dua nona vale ka vuni nona lako mai tutu me mai vakatorocaketaka na nona bula vakadauteitei.E sa yabaki 4 ena koro ka teitei. E tu vua nona vola ni baqe. E vakaraitaka nisa veivosaki tiko kei na yalewa.Sega ni kania na marijuana, ka gunuva na homebrew ena gauna ga e sotava kina. E tiko nona I vola ni sucu. Keba e veikau ena vuku ni yawa ni vanua. Tiko tani ga na I teitei ni matavuvale.
8. Saviriano Vino	Kilaka Kubulau	06.09.92	Cl.8	Katolika	Yabaki 3 – 100+ Yabaki 2 –	Lewe 8 ena matavuvale, 6 na tagane ka 2 na	Nona tatadra me dua nona vale ka oqo na vuni nona via lako mai Tutu. E sa yabaki 3 e nakoro. E vota ni dau kaukauwa na vakatulewa nei Tamana vei iratou na

Annex 4: A recommended package of practices for growing solo sunrise papaya at Tutu Taveuni¹

Step 1: Site selection

- The pilot project site should be easily accessible by a farm road. It is important that the site has good drainage and that the land is fairly flat or on a shallow slope. Since the Island of Taveuni is in a high rainfall area, it is important to incorporate a well-managed soil amelioration programme (mounding and good drainage) to minimize the risks of phytophthora and any other soil-borne diseases.

Step 2: Soil analysis

- After existing vegetation is cleared, soil samples should be collected and sent to Koronivia lab for analysis (this can be organized through Tavenuni MPI office). Based on analysis results, recommendations will be provided on fertilizer application, adjusting soil pH etc. to correct any deficiencies.
- This is an essential step that farmers fail to adopt. It is important that, before any investment is made, farmers have to understand what is already in the soil and what is lacking, in terms of nutrients and soil Ph. Once they have the results, it guides them to the fertilizer schedule that they will use.

Remember that soils differ in different geographical locations, using a standard fertilizer programme from Western Viti Levu in Taveuni is not necessarily a good option.

Step 3: Seedling production

- It is recommended that seedlings be planted instead of seeds being direct sown.
- A well drained potting media must be sourced, this can either be a blend of materials from the island or a potting mix bag sourced from MH's. If mixing your own potting media, it is important to sterilize the soil to kill harmful diseases which will affect the seedlings.
- PB ¾ poly bags are the preferred bag size.
- Only certified *Solo sunrise* papaya seed should be used, this can be sourced from Natures Way cooperative (NWC).
- It is important to have a nursery bench with a plastic protective covering (for germination); the type of plastic commonly used in Fiji is sourced from Flexible Packaging in Lautoka.
- It is important to have a number of tools on hand for papaya seedling production including:
 - A balanced foliar fertilizer (26:4:17) (can be sourced from AgChem)
 - A broad-spectrum insecticide (in case bugs find your seedlings)
 - A broad-spectrum fungicide (in case of disease)
 - A knapsack sprayer to apply fertilizer, insecticide and fungicide
 - A watering can or hose pipe
- Seed should be sown about 4-6 weeks before you plan to plant out in the field
- Just prior to sowing seeds you should soak seeds in a bucket of water for 8-12 hours to help with

¹ Prepared by Mr Livai Tora from the Fiji Papaya Project

germination.

- Seeds that float to the surface are considered inferior seeds and the ones that sink to the bottom are good seeds.
- Generally 2 seeds are sown per PB bag.

Step 4: Land preparation (Depends on existing vegetation)

If a tractor is to be used for land prep:

- Harrowing is generally the first step. The objective here is to identify the type of terrain that the site has and to establish a run off area for excess water to drain through during heavy periods of rain.
- Ploughing – depending on the current vegetation it is advised that the ploughing of the site be done during a period of dry weather. The objective here is to break up the soil well and incorporate any plant debris. Ploughing is conducted until the tractor operator is satisfied with the tilth of the soil. This exercise is usually done two or three times.
- Using a ripper implement on the planter line is recommended for sites that may have compacted soils from excessive farming. Ripping along the planter line also allows you to incorporate pre-plant fertilizer in exactly the right place and creates an open space for the papaya plants that encourages rapid root growth.
- Mounding is a vital component on the land prep as this will help protect the trees from water logging during times of heavy rain (if a solo sunrise papaya tree is left in standing water for more than 48 hours the chance of severe phytophthora infection is almost 100 per cent).
- Mounding is generally achieved by running a two-disc plow both ways down the line. The objective is to get a mound of at least 2 feet with a large trench in between the rows to help the water drain away from the roots of the tree.
- In an ideal situation all of the trenches in between the rows should run into a larger drainage system which will take the water out of the site completely.
- Good land prep; particularly good mounding and drainage will be a key factor that determines the success of this pilot project.

If manual labour is to be used for land prep

- As with the tractor land prep the objective is to have a raised, well drained planting spot for the papaya trees.
- It is essential that there is no standing water around the papaya tree.
- Using manual labour the most efficient land prep will focus only on the planting holes.
- These planting holes should be dug with a fork to break up the soil
- Stake out planting holes at the recommended spacing
- Create large mounds with a spade or digging fork to a preferred height of 2 - 3 ft.

Step 5: Planting out

Spacing

- The typical spacing for solo sunrise papaya is 2 m between trees and 3 m between rows
- This spacing allows enough room for the trees to grow and also allows for a tractor to move between the rows.
- If a tractor is not going to be used for land prep and maintenance then the spacing should be reduced to 2m x 2m.

Plants per hole

- Solo sunrise papaya seedlings will either produce female or hermaphrodite fruit. From 100 seedlings, 70 seedlings are expected to be hermaphrodite with the remaining 30 seedlings being females.
- Hermaphrodite fruit are more pear-shaped while the female fruit are round.
- Hermaphrodite fruit are preferred over female fruit because female fruit have a much larger seed cavity and less edible flesh. (Exports of Fiji papaya are mostly hermaphrodite because this is what the market prefers).
- In order to get a higher number of hermaphrodite plants it is recommended to plant three plants per hole. Once the trees begin to flower than you can determine if it is a female or hermaphrodite plant and cut down the female plants.

Establishment

- During the establishment phase (1-2 weeks after planting) it is important to make sure that the young seedlings are well watered but not over watered. During this phase plants may go through transplant shock and you might not notice much growth.
- Hand weeding or hoeing may be necessary during the establishment phase in order to give the young seedlings an opportunity to thrive without competition from weeds. Hand weeding is generally done 2ft around the young seedlings.
- Alternately a herbicide can be used such as Glyphosate, this should be applied at the rate of 150mls/15litres of water. Make sure spray does not touch the young seedlings.

Estimate Gross Margin for Planting ¼ Acre of Papaya Annually at the Tutu Rural Training Centre

Tutu Farmer planting papaya on a 1/4 acre block using the conventional recepie for the next three years using own labour

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Total
REVENUE						
1 Total number of trees	200	400	600	400	200	1,800
2 Total marketable production @ 1.5kg/tree/month	600	8,400	19,800	12,000	2,400	43,200
3 2/3 for premium quality	400	5,594	13,187	7,992	1,598	28,771
4 1/3 for local market	200	2,797	6,593	3,996	799	14,386
5 Revenue for premium quality papaya (@ 0.50c/kg)	200	2,797	6,593	3,996	799	14,386
6 Revenue from local sales at Naqara (@ 0.30c/kg)	60	839	1,978	1,199	240	4,316
Total Revenue	859	12,028	28,352	17,183	3,437	61,858
Costs						
Non Labor Cash Expenses						
Land Preparation						
Ploughing x 2 @ \$90.00/acre	180	180	180			540
Harrowing x 2 @ \$60.00/acre	120	120	120			360
Ridging x 1 @ \$50.00/acre	50	50	50	50	50	250
7 Subtotal	350	350	350	50	50	1150
Land clearing	6	6	6			18
Lining and digging holes	1	1	1			3
Planting (2 persons x 2days)	2	2	2			6
Fertilizer application @ once/monthx 2 persons	2	14	22	20	8	66
Hoeing / Ring weeding x 2 persons	4	4	4			12
Pest control and sanitation x 2 persons	12	12	12	12	12	60.0
Harvesting and packing in field bins x 2 persons	8	56	88	80	32	264.0
Grading and packing for sale x 2 persons	8	56	88	80	32	264
8 Subtotal	43	151	223	192	84	693
9 Fertilizer and other Agri inputs						
NPK 16:16:16 @ 80grams/bearing tree/month	384	768	1152	768	384	3456
Urea - 10grams /seedling hole @ \$0.10	48	48	48			144
Poultry manure @ \$3.00/bag (120bags/acre)	360	360	360			1080
Glysofphate Weedicide- 10ltr @ \$180/1/4 acre/year	180	360	720	360	180	1800
Knapsack - 20ltr @ \$240	240	240	240			720
Subtotal	1,212	600	960	360	180	3,312
Total labour input	43	151	223	192	84	693
Imputed cost of labour @ \$15.00/day	645	2,265	3,345	2,880	1,260	10,395
Total costs (non labor costs)	2,250	3,366	4,878	3,482	1,574	15,550
Gross margin (Total Revenue - Total Cash expenditure)	(1,391)	8,662	23,474	13,701	1,863	46,308
Average gross margin over 5 years	9,262					
Avarage gross margin /1/4 acre	3,704.65					

Footnotes (note: this is a pilot project)

- Assuming the farmer plants 1/4 acre of papaya (200 trees) every year for the first three years
- Total marketable fruit @ 1.5kg per tree/month (Average)
- Exportable fruit account for 70% of total production which mostly include hermaphrodite
- The other 30% accounts for female fruit, undersized , deformed and non exportable
- Farm gate price for premium grade fruit is @ \$0.50/kg
- Local price at Naqara market is @ \$0.30/kg
- Land preparation is the standard quote used by tractor operators in the Sigatoka valley
- The labour component accounts for each Manday being invested in the project
- Fertilizer and other Agri input costs may vary every throughout the year

Annex 5: Small scale hydroelectric power at the Tutu Rural Training Centre - an instrument for revenue generation and rural development

Introduction

This report was prepared for the Tutu Review by Kalara McGregor of Earth Systems. Two core components of the FAO review are an assessment of options for the TRTC to:

- Increase revenue to enable the Centre to fund its operations; and
- Expand its contribution to rural development in Fiji and the broader Pacific island region.

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- Increase revenue to enable the Centre to fund its operations; and
- Expand its contribution to rural development in Fiji and the broader Pacific island region.

This report is directed at rural electrification within the context of these components of the FAO study. Earth Systems was engaged by Kokosiga Fiji Ltd to undertake an assessment of the options outlined in this report. The report is divided into three sections. Section 2 of the report provides an overview of the TRTC electricity generation capacity and its current surplus power. Immediate opportunities for utilising surplus power are discussed, followed by a financial analysis of the potential medium-term opportunity of selling power to a future grid on Taveuni. The analysis shows that selling surplus power would be a worthwhile and viable option for the TRTC.

Section 3 of the report discusses a major constraint to rural development and income generation amongst the TRTC's constituency – an absence of reliable and affordable power. An overview of energy supply in Fiji is provided, followed by a review of how rural electrification can serve income generation and social uses on Taveuni. This is followed by a discussion on small-scale hydropower, in terms of past resource assessments in Fiji, advantages and disadvantages of the technology and why the TRTC could potentially be well-suited to promote its use.

Finally, section 4 of the report looks at two approaches by which rural electrification can be facilitated. An outline for a potential donor-funded pilot project on Taveuni is discussed, followed by an overview of an alternative approach, looking at existing and emerging prospects under carbon markets.

TRTC's potential for revenue generation

This section of the report provides an overview of the TRTC electricity generation capacity and its current surplus power. Immediate opportunities for utilising surplus power are discussed, followed by a financial analysis of the potential medium-term opportunity of selling power to a future grid on Taveuni.

TRTC Micro hydro scheme - surplus power and options for utilisation

Background on electricity generation at the TRTC

The TRTC has generated its own hydro electricity since 1972. The Centre has operated a 10 kVA system since 1985, which ran successfully for over 25 years. Over this period, the TRTC saw considerable expansion, across the five individual Centres of the complex. With the expansion, a major problem for electrical equipment, demanding a steady voltage saw an electrical imbalance in the system, with the hydro facility running on single phase and the diesel alternator on three phase. In 2007, the German Catholic NGO Katholische Zentralstelle für Entwicklungshilfe.V.Misereor provided \$1.32 million towards a hydro electricity extension. AusAID provided a grant of \$70,000 to meet the unforeseen costs of duties imposed on imported equipment. The power station was commissioned in May 2009, with an installed capacity of 70 kVA, supplemented by a 40 kVA diesel genset.

Current electricity utilisation and estimated excess capacity

With the commissioning of its hydro facility in 2009, the TRTC now has 24-hour power supplied to the 65 various building facilities on its property. According to TRTC representatives and subsequent servicing undertaken by the supplier, the micro hydro facility is running according to specification and no major problems have been encountered, following initial installation adjustments. On average, the TRTC uses 20 kwh/day with the water used in the hydro facility distributed as potable water to the nearby villages. Excess power is redirected or dumped, into an electrical resistance water heater, to prevent damage to the system. The TRTC is currently exploring uses for the hot water generated. The Centre's current daily average demand is 20 KW and the TRTC currently has surplus capacity of 10 KW. If TRTC were to upgrade its turbine, its maximum surplus capacity according to current daily average demand would be 38 KW.

Some of the direct benefits of investment in the expanded hydro facility include:

Cost savings: savings in diesel usage are estimated at FJ\$50,000 – FJ\$60,000 annually, based on limited power usage, with generators only operating between 6pm to 10 pm.

Expanded training programme and provision of modern energy services: the provision of stable 24-hour power has enabled the TRTC to purchase freezers, industrial bread mixers, computers, internet access, mechanical tools, additional lighting, electrical fans, fruit driers, *yaqona* driers and pounder, and a range of household electrical equipment in the 20 family houses and course participant hostels. This provides a significant benefit to otherwise lowly paid staff.

Reduced risk of crop losses: the income base for the TRTC and Young Farmer trainees has been *yaqona*. A cyclone at the end of the 4-year *yaqona* production cycle would prove financially devastating unless the crop can be quickly harvested and dried. Cyclone Tomas in 2010, that severely impacted Taveuni in March 2010, was such an event. The installation of an electrical drier system in early 2010 ensured that much of the Young Farmers' crops could be dried quickly and thus, saved.

Immediate options for utilising surplus capacity

Revenue-generating enterprises for the TRTC

Taveuni is a major *yaqona* producer. However, the island does not have a particularly good reputation for quality because of the difficulties in drying under Taveuni's high rainfall conditions. The TRTC has been able to overcome this problem with its electric drier and is now able to produce premium quality dried *yaqona*. The 24-hour reliable power supply provided by the hydro facility has allowed for the establishment of a commercial *yaqona* and associated drying facility. Projected plans are for the expansion of these as income earning ventures for the TRTC and for the trainees while they are at the Centre. The objective is to extend these ventures to the trainees' respective villages or settlements, once they have access to reliable power.

There is scope for the TRTC to expand income-earning activities to include offering cooler facilities to taro exporters and traders, as well as providing power for the irrigation of papaya and nursery-based enterprises. The provision of reliable power will also allow the further expansion and diversification of the income generation and capital accumulation opportunities for the married couples and single women courses. Value-added enterprises could include expanded weaving activities, semi mechanised tapa making, soap making, baking and food making enterprises. While female participants in the Young Couples and Single Women courses indicated interest in these enterprises, more comprehensive work would be required to establish whether these activities are indeed feasible.

Medium term option: selling surplus electricity to a future grid

Current electricity supply on Taveuni

The two existing mini-grids on Taveuni are operated by the Public Works Department (PWD) and are limited to Somosomo village and the Waiyevo Government centre. A proposal for the construction of a 700 KW run-off-the-river hydro scheme on the west coast of Taveuni has been the subject of successive studies since the mid 1970s including:

- 1986 Beca Worley International design study, followed by the preparation of tender documents in 1987 for a scheme, including a 350 kW hydraulic generating unit and back up diesel generating units;
- 1994 Gibb-Sinclair Knight financial, economic and socio-economic study; and
- a 2004 financial assessment of the project by FEA.

The project considered includes a 350 kW run-of-river hydroelectric plant and two 225 kVA diesel engines that will supplement the hydro generation during periods of low stream flow and peak demand, as well as during maintenance or forced outage periods. The 2004 FEA financial assessment of the project found the project to be viable in economic terms, with an Internal Rate of Return of 15 per cent, but not financially viable with all the charges considered in the study.¹

In recent years, the Somosomo proposal has been seriously revisited through assistance provided by the Chinese Government. The proposed project area to be served by the Somosomo Mini-hydro scheme is shown in Figure 2.1. The proposed project will supply electricity to the northwest coastal area of Taveuni, between Wiwi village to Soqulu settlement, covering a distance of approximately 45.9 km. With most of the Taveuni population and commercial activity is situated on the coast, only the coastal areas will be reticulated. The Department of Energy (DoE) is the implementing agency for the proposed project and it intends to seek expressions of interest for the reticulation and operation of the grid, once final funding approval has been issued.² While landowner disputes have further delayed the commencement of the project, the Department of Energy are hopeful that construction will commence in 2011.³



Figure 2.1 Proposed project area: Somosomo mini hydro scheme

source: FEA 2004

¹ Sogreah 2004

² Department of Energy representatives, *pers. comm.*

³ Department of Energy representatives, *pers. comm.*

Selling electricity to the proposed Somosomo grid is not a new consideration for the TRTC. A 2004 FEA financial assessment of the project report forecast that an estimated 30 KW would be purchased from the TRTC. This estimate was based on the likely commissioning of the TRTC facility in 2006. This estimate would now need to be reduced, to allow for the projected expansion of TRTC activities.

TRTC, as an electricity provider, would be required to enter into a Power Purchasing Agreement (PPA) with the prospective power purchaser, be it FEA or an alternative Taveuni utility. Under the PPA, the TRTC may be able to negotiate a higher unit price/kWh than what is currently offered by FEA to IPPs. A PPA is a legally binding contract between a provider and power purchaser. The TRTC must be certain that it can provide a firm level of power for the duration of the agreement.

The availability of the energy must be guaranteed, which implies that back-up equipment must be ready to be put on line in case of programmed maintenance or forced outage of the main units. The most convenient back-up equipment consists of diesel engine(s), installed in close proximity of the hydroelectric plant.

At November 2010, FEA's minimum tariff rate for independent power producers (IPPs) was \$0.23/kWh. This provides a baseline, from which to measure what the TRTC could earn from selling its surplus power to the proposed Somosomo grid. The first priority for the TRTC's hydro facility is to support the Centre's own programmes and activities. To mitigate the risk of these being adversely affected, the TRTC may wish to only sell its surplus energy in the wetter months of September to February.

Income generated from selling electricity and the return on investment

Applying a 15-year forecast model from 2010 to 2025, figure 2.2 and 2.3 outline two potential options for selling surplus electricity to a future grid. In option 1, the analysis is based on selling 20 KW over 12 months, while Option 2 is based on selling surplus power six months of the year, amounting to a total of 6 KW.

Key variables

The analysis used the following assumptions on key variables. These variables are considered as base variables.

Table 2.1 Key variables

Variable	
Discount rate	10%
FEA minimum IPP tariff rate \$/kWh	\$ 0.23
Additional variable costs/kWh	\$.0045
Inflation Rate	4%

Capital costs are based on FEA reticulation design estimates for a three-phase mainline tee-off from Feeder 1 to the TRTC.¹ Additional variable costs are based on variable generation costs for hydro per kWh². These include additional costs required for maintenance of generators, spare parts and repair works, to ensure that TRTC can provide a firm level of electricity for the duration of the agreement. All values are in 2010 prices.

Cash flow to the TRTC

The cash flow to the TRTC from the two options is presented in figures 2.2 and 2.3 respectively. From year two onwards, option 1 generates FJD 40,290 in net revenue to the TRTC annually. Option 2 generates approximately FJD 12,000 annually.

¹ FEA 2004

² FEA 2004

Return on investment

It is estimated that the TRTC would need to invest an estimated \$61,000 in a three-phase mainline to be able to sell surplus electricity to the grid in the proposed timeframe.¹ The projected cash flow indicates an exceptionally high rate of return on this investment.

For option 1, the net present value (NPV)² over a 15-year period, using a 10 per cent³ interest rate is \$239,032. For option 2, the NPV over the same period is \$24,486.

The estimated profitability of TRTC investing in a three-phase mainline and selling electricity to the grid is provided by the financial internal rate of return (IRR).⁴ The IRR from option 1 is an exceptional 64.2 per cent, while option 2 still yields a healthy IRR of 16.5 per cent.

Based on these estimates, selling electricity to the grid is a financially worthwhile venture for the TRTC. It is recommended that option 2 would be the most appropriate. With option 2, there is little risk of the commitments of selling to the grid interfering with the TRTC's own activities. However, in adopting option 2, a significant amount of revenue would be forgone or need to be derived from other sources.

Sensitivity analysis

A sensitivity analysis has been undertaken to examine the impact of changes to the tariff rate in Option 2.

IPP tariff

In its power purchase agreement with the FEA or an alternative Taveuni utility, the TRTC may be able to negotiate a higher unit price/kWh than the current minimum IPP tariff offered by FEA. Alternatively, given the strong NPV in the base case scenario, the TRTC may choose to negotiate a lower price, in order to negotiate a reduced penalty rate, to cover unforeseen circumstances where the TRTC is not able to supply electricity to the grid. In the base case, \$.023/kWh is used. In the sensitivity analysis, the tariff is changed to \$.019/kWh and \$.029/kWh.

Table 2.2 IPP tariff

IPP tariff \$/kWh	NPV	IRR	Difference
\$0.19	8,497	12.4%	-15,990
\$0.29	48,473	22.4%	+23,986

The impact of an increased IPP tariff is seen to be significant. If the tariff is increased to \$.029/kWh, the NPV increases to \$48,473. However, if the tariff is reduced to \$.019/kWh, the NPV decreases to \$8,487.

¹ FEA 2004

² NPV shows the present value of the free cash flow, or the projects' worth today. A positive NPV indicates that the project generates sufficient funds to cover its initial capital costs, including loan repayments and interest payments. A negative NPV indicates that the project does not generate sufficient return to recover its costs.

³ 10% is based on Reserve Bank of Fiji long-term bond rates

⁴ The IRR is also the discount rate at which the present value of the free cash flow stream in financial terms becomes zero.

Figure 2.2 Option 1 – TRTC selling 20 KW at 0.23/unit

TRTC		2015												2016												2017														2018																2019																2020																2021																2022																2023																2024																2025																2026																2027																2028																2029																2030																2031																2032																2033																2034																2035																2036																2037																2038																2039																2040																2041																2042																2043																2044																2045																2046																2047																2048																2049																2050																2051																2052																2053																2054																2055																2056																2057																2058																2059																2060																2061																2062																2063																2064																2065																2066																2067																2068																2069																2070																2071																2072																2073																2074																2075																2076																2077																2078																2079																2080																2081																2082																2083																2084																2085																2086																2087																2088																2089																2090																2091																2092																2093																2094																2095																2096																2097																2098																2099																2100																2101																2102																2103		
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Figure 2.3 Option 2 – TRTC selling 6 KW at 0.23/unit



Promoting electrification for rural development: a case study of Taveuni

This section of the report discusses a major constraint to rural development and income generation amongst the TRTC's constituency – an absence of reliable and affordable power. An overview of energy supply in Fiji is provided, followed by a review of how rural electrification can serve income generation and social uses on Taveuni. This is followed by a discussion on small-scale hydropower, in terms of past resource assessments, advantages and disadvantages of the technology and why the TRTC could potentially be well-suited to promote its use.

Electricity supply in Fiji

Electricity coverage

The Fiji Electric Authority (FEA) has an extensive grid system on Viti Levu and three smaller grids on the islands of Vanua Levu and Ovalau. FEA is responsible for the development, operation and maintenance of these grids. Approximately half (and steadily declining as a percentage of the total) of Viti Levu's power supply comes from hydro, as well as numerous diesel generators and some generated from burning bagasse and wood mill waste.¹¹

FEA's charge to business and commercial users has recently increased by five per cent, while the average national domestic tariff remains unchanged.¹² There is a national tariff but the real cost varies greatly, with supply to rural Ovalau estimated at being ten times the cost to urban Viti Levu, implying a cross-subsidy from urban to rural consumers.¹³ With generation costs in rural areas substantially higher than the national tariff, efforts to expand rural electrification across Fiji, including Taveuni have been hindered.

Rural electrification

The Department of Energy (DoE) and Public Works Department (PWD) is responsible for the implementation of decentralised renewable energy-based systems in all areas of Fiji that FEA does not serve. The PWD operates small power grids at five provincial centres, including Waiyevo on Taveuni. While initially intended to support government facilities, grids have expanded to include households in the surrounding area. In Taveuni, the diesel mini-grid includes Somosomo village. Facilities are subsidised through the PWD budget, as generation cost is several times the national tariff charge.

Under the 1993 Rural Electrification Policy, rural communities can request government assistance for electrification with several options. These are:

- extension of the FEA grid or a government station mini-grid;
- a diesel genset with a mini-grid, operated by a village committee;
- solar photovoltaic systems (PV) for lighting and basic appliances, operated by a village committee; and
- small hydro with a mini-grid, operated by a village committee.¹⁴

Since 1993, over 1,000 communities have applied to the DoE for rural electrification. As of 2004, over 250 diesel systems have been commissioned, serving approximately 7,500 households for typically 4.5 hours daily.¹⁵ Nearly all the standalone rural electrical systems are reported to provide electricity only in the evening hours, with the electricity used almost exclusively for lighting and entertainment appliances.¹⁶ Under the rural electrification scheme, applicants initially contribute five per cent of the estimated capital costs. Free maintenance and repair services are provided for three years to programme recipients, after which a community committee is responsible for all operation and maintenance costs. An unknown but significant number are reported to no longer function, due largely to high fuel costs and poor operation and maintenance.¹⁷ This was confirmed on site in Taveuni, where villages in the vicinity of the Bouma National Heritage Park are without electricity, due to generator break-down and a lack of funds to undertake maintenance.¹⁸

¹¹ PIREP 2004

¹² <http://www.fea.com.fj/pages.cfm/news/new-tariff--november-2010.html>

¹³ PIREP 2004

¹⁴ UNDP 2005

¹⁵ PIREP 2004

¹⁶ UNDP 2005

¹⁷ PIREP 2004

¹⁸ Bouma villagers, personal communication

Modern energy services: a key input into the development of rural livelihoods

Taveuni is the third largest and third most populated island of the Fiji group. Its economic base is tourism and agriculture, predominantly *dalo* and *yaqona*. The development of these industries has been significantly hampered by a lack of reliable 24-hour power supply.

Rural electrification to meet socio-economic uses

Access to basic energy services is a necessary condition for the achievement of many of the Millennium Development Goals, relating to social and economic development and realising an acceptable quality of life in rural areas. Socio economic benefits associated with rural electrification in PICs include¹⁹:

- Education from extended hours of light available to study;
- Health from increased access to health services, improved hygiene or reduced indoor pollution levels from cooking fires;
- Increased security from services such as community street lighting;
- Entertainment and communication requiring electrical devices such as radios, mobile phones and video players;
- improved productivity levels from extended working hours due to better quality of night lighting, more efficient processes and time saved using electrical appliances, such as washing machines;
- potential savings on non-renewable and expensive energy sources including kerosene and batteries and;
- increased gender equality and empowerment of women from time and labour saving technologies and services, and access to income earning opportunities such as weaving.

Rural Electrification to meet productive uses – challenges and constraints

While rural electrification has traditionally been seen as an end goal, income generating, or productive uses of energy have been stressed in recent rural electrification initiatives. Productive uses of energy are defined by the Global Environment Facility (GEF) and UN Food and Agriculture Organization (FAO) as uses that involve the application of energy (derived mainly from renewable resources) to create goods and/or services either directly or indirectly for the production of income or value.²⁰

The United Nations Development Programme identified seven necessary requirements for increasing income generation through rural electrification projects.²¹

- Access to market at an acceptable cost;
- Business skills to develop and manage the activity successfully;
- Adequate technical skills;
- Investment and working capital;
- Time to do the necessary 'productive' work;
- Long-term commitment;
- Resources, including energy, to maintain production profitability.

In addition to these critical requirements is the local cultural condition of the particular province, village or settlement. Fieldwork for this report identified that 'import substitution' opportunities for rural communities could be improved if reliable affordable power was available. For example, the local market for marine products could be expanded significantly if surplus catches could be refrigerated and replace the purchase of tin fish.

Rural communities on the island of Taveuni are probably better placed than most other rural outer island communities to meet these requirements for increased income generation. Taveuni has well-established industries in taro, *yaqona* and tourism. Electrification would allow for an improvement and a substantial expansion of these industries. Currently, around

¹⁹ Wade and Johnston (2005)

²⁰ Cabraal et al 2005

²¹ UNDP 2007

8,000 tonnes of taro are shipped out of Taveuni annually, for export to New Zealand, Australian and US markets. The farm gate value of these exports is some \$8 million.²² It is estimated that around 17,000 people on Taveuni depend directly or indirectly on taro for income.²³ A recent study identified the potential for considerable export expansion if quarantine protocol regimes were reformed and there were parallel and substantial improvements in taro production and marketing²⁴. The quality and in particular the keeping quality of Taveuni taro presents itself as a major constraint to maintain existing markets, let alone expanding export markets. The Report 'Fiji Agricultural Marketing: A Policy Framework' discusses the inadequacies in the Taveuni taro supply, pointing out the problems caused by the lack of cooler infrastructure on the island:

*The poor keeping quality of Taveuni taro is in part due to the inherent nature of Taveuni soils. However, there are controllable factors that seriously impinge on the shelf-life and quality. It can take up to three days from the time Taveuni taro is harvested before it reaches an exporters cooler in Suva. The taro may have been rolled down a hill in a polybag and loaded on a horse and taken to the side of the road to await collection, where it might wait hours exposed to the elements. It will then be taken, often on a rough road, to a packing shed (no cooler) to be prepared for shipment to Suva. It will be loaded on truck 10 bags high for shipment to Suva. The uncovered truck may be required to wait hours at the wharf before it is loaded on the vessel. Thus, there is little wonder that there are complaints from the market on the keeping quality of Taveuni taro.*²⁵

The ready availability of affordable power would thus, have substantial quantifiable benefits for the Taveuni taro industry. Similar benefits could be attributed to *yaqona*, other agricultural industries and tourism.

The availability of affordable power would also allow for immediate spin-off activities to service these already established industries. An example of diversification activities would be baking, sewing and weaving in villages and settlements such as Bouma and Wai that are in close proximity to the National Park and regularly frequented by tourist groups. Comprehensive work would be required to establish whether these activities are feasible.

In the Pacific islands, it is important to acknowledge the significant limitations in the institutional, policy and regulatory structures of the energy sector. Integrated economic, social and policy approaches are necessary for rural electrification initiatives to result in productive uses. A World Bank supported initiative in Senegal offers approaches to identify and analyse social dynamics and target sectors to maximise income generation impacts of increased access to electricity.²⁶ The systematic approach will be discussed further in Section 4, with the intent of initiating a pilot project in Taveuni, with the view of extending to the taro growing and tourism-based areas of mainland Cakaudrove and beyond.

Why small-scale hydropower for Taveuni?

Hydro resource assessments previously undertaken in Fiji

Over the last decade, the Fiji Department of Energy (DoE) has coordinated a programme monitoring the micro-hydro (under 100 kW) and mini-hydro (100-1,500 kW) potential near communities not served by the FEA grid.²⁷ With the support of Japanese technical assistance, the DoE has evaluated over 100 potential sites. Selected sites that were found to be feasible during the initial surveys were designated to undergo a two to three-year long-term monitoring period to determine the characteristics of the identified river, spring or creek for the different seasonal periods of the year.²⁸ In 2009, the Fiji Department of Energy (DoE) published a small-scale hydro resource assessment, providing the results of preliminary hydro surveys undertaken from 1994 to 2006. As indicated in table 3.1, 38 sites with a total potential of approximately 3.7 MW appear to be technically and economically feasible.²⁹

Table 3.1. Summary of mini and micro hydropower investigations undertaken by the DoE

²² Taveuni Agriculture Department Statistics 2010

²³ Taveuni Agriculture Department Statistics 2010

²⁴ McGregor et.al. 2010

²⁵ McGregor and Gonemaituba 2002, p.29

²⁶ de Gouvello & Durix 2008

²⁷ PIREP 2004

²⁸ DoE 2009

²⁹ PIREP 2004

Feasibility	Number of sites	kW
Feasible/Probably feasible	38	3,245
Not feasible	50	170
Requires more monitoring	20	373
Total	108	3,788

source: PIREP 2004

20 additional sites with a potential totalling roughly 0.4 MW require further monitoring of water flows. As illustrated in Table 3.1, at least six of Fiji's islands have micro-mini hydro potential that may be technically and financially feasible to develop.

Of the 20 sites chosen for long-term monitoring, three are in the province of Cakaudrove and two on the island of Taveuni. Seven other sites from Taveuni were also identified in the report and five of these were identified as technically and economically feasible. Many other sites have yet to be studied. The DoE assessment report noted that 'a comprehensive exercise needs to be undertaken again in order to confirm the potential for development for each highlighted site'³⁰. The follow-on exercise could include institutional and cultural aspects of feasibility, for select sites.

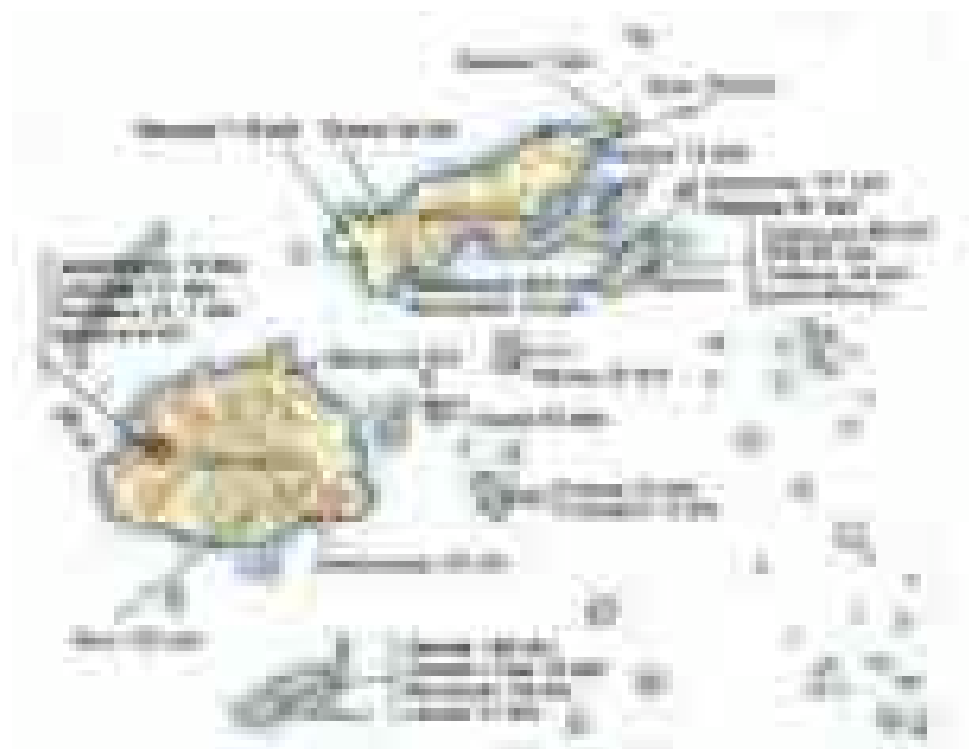


Figure 3.1. Feasible new micro/mini hydro sites in Fiji

source: Johnston 2002 in PIREP 2004

Apart from DoE coordinated survey work, prospective independent power producers have undertaken their own hydro assessments on Taveuni in recent years – these suggest that there are a number of other technically viable sites on the island.³¹

³⁰ DoE 2009

³¹ personal communication with Ross Brodie, Hydro Developments Ltd

Description of geographic features of Taveuni

Rainfall

The rainfall in Taveuni is both convective and orographic in nature.³² The dry season generally extends from May to October. Over the season, the southeast trade winds predominate and bring orographic rainfall to the south and peaks in the interior of Taveuni. The wet season generally occurs from November to April, bringing convective rainfall. The average monthly rainfall value is 232 mm but can vary considerably in the wet season from 2500 mm on the coast to some 14,000 mm near the centre of the island.³³

Topography and Geography

The island of Taveuni is roughly rectangular in shape, an estimated 50 km long and about 16 km across at its widest point. The interior of the island is mountainous and covered in dense forest, rising to elevations up to 1100 m.³⁴

The centre of the island is home to a large elevated lake called Lake Tagimoucia. Lake Tagimoucia and its surrounding marshlands occupy the centre of an old volcano crater. The marshlands and lake drain through a small river which joins with the Wainisairi creek and flows towards the east coast of the island. The surface of the crater is around 2 km², but its catchment covers an estimated area of 5 km².³⁵

An interesting feature of the geography of the island is related to its volcanic origins. The dominant material type found on the island is basalt lava, which has been overlaid through time by a thin soil mantle layer. According to a 2004 FEA report, the unique feature of this layering process is that it does not allow storage of water. Instead, water seeps through the soil and finds its way to the sea – this is one of the reasons why the Somosomo run-of river hydro scheme was proposed.

Advantages and disadvantages of small-scale hydro

It is important to acknowledge the potential benefits and limitations of small-scale hydropower schemes and associated human factors. These are outlined and discussed briefly in the following sub-section, both in general terms and in relation to current and past schemes in Fiji.

Advantages

Efficient, reliable base load power

With power available from hydro systems at a fairly constant rate, 24-hours per day, reliability is likely to be high, with good voltage regulation, minimal system losses and few power supply interruptions. This is particularly important for operating fridges, computer systems, and other electrical equipment associated with business activities.

Potentially long-lasting technology, with low maintenance requirements

If designed and maintained correctly, hydropower can be a long-lasting technology. The original TRTC facility has been in operation for close to 40 years with general maintenance consisting of 'basic greasing and oiling.'³⁶ However, it is important to note that the success of the TRTC scheme has been largely dependent on training individuals for the maintenance of the system and mobilising a group of people to be responsible for it. Of the five village-scale hydro systems have been built in Fiji since 1980, the main technical problems identified have been with the electrical systems.³⁷ Challenges of difficult site access and limited technical skills within the village community have resulted in extended power outages and high repair costs.

No reservoir required

Small-scale hydro schemes are in most cases 'run-of river.' This means that any dam or barrage is quite small, and is usually just a weir (Figure 3.2). Depending on the design and terrain condition, water passing through the generator can be directed back into the source stream.

³² FEA 2004

³³ FEA 2004

³⁴ FEA 2004

³⁵ Sogreah 2006

³⁶ TRTC representatives, pers comm

³⁷ PIREP 2004

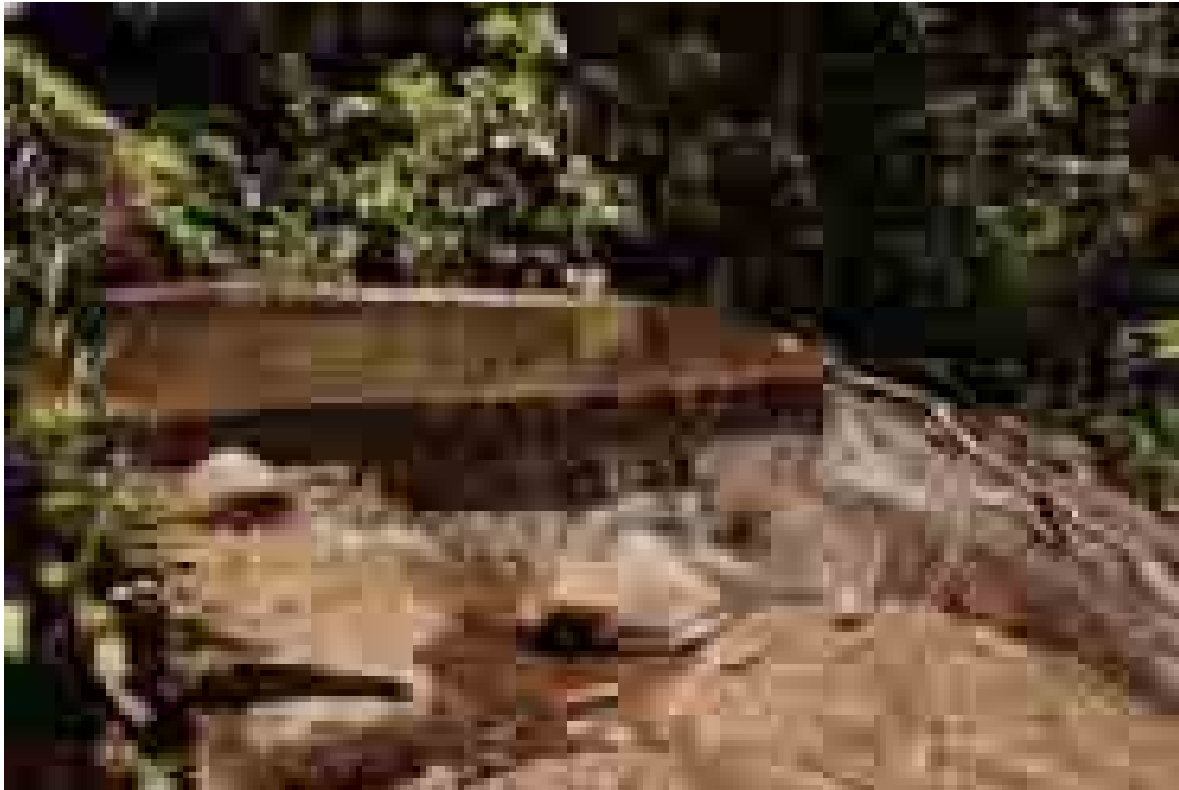


Figure 3.2 TRTC weir, Taveuni

Disadvantages

Site specific technology

Hydropower requires close proximity to a water source and end-users to make installation and energy transmission viable. Sites that are both well-suited to the harnessing of water power and close to a location where the power can be utilised are generally not that common.³⁸ Output can also be weather-dependent in 'run of river' schemes, and flow will vary with rainfall and drought patterns.³⁹ During the exceptional dry June to July period of 2010, the TRTC experienced low water levels in its feeder streams – despite this, the centre was still able to maintain a steady supply of power. This flow variation is an important consideration for the TRTC, in determining how much surplus power it is willing to sell to the proposed Taveuni grid.

Limitations to maximum power output available from a given hydropower site

In comparison to other renewable energy technologies, there is a maximum useful power output available from a given hydropower site. As a result, the size and flow of small streams may restrict future site expansion as power demand increases. This is an important consideration for the TRTC in determining how much surplus power it is willing to sell to a proposed Taveuni grid.

Potential negative environmental impacts

While the environmental impacts of small-scale run-of river hydro are minimal, the low-level environmental effects must be taken into consideration before construction begins. As stream water will be diverted away from a portion of the stream and civil works required for the construction of the penstock, intake and powerhouse, proper caution must be exercised to ensure that potentially damaging impacts on local ecology are assessed. In accordance with the Fiji Environmental Management Act, an environmental impact assessment would be required before construction can commence.

³⁸ Paish 2002

³⁹ Langey et al 2004

Approaches to facilitate electrification for rural enterprise development

This section of the report looks at two approaches by which sustainable rural electrification can be facilitated. Firstly, an overview for a potential donor-funded pilot project is discussed. This is followed by an overview of an alternative approach, looking at existing and emerging prospects under carbon markets.

Initial identification of a potential project for donor funding: applying a systematic approach

Integrating rural electrification with broader development activities

Pacific regional energy experts have recommended that governments and donor agencies integrate energy interventions with activities that support the recipient communities' capacity to use the energy for income generation.⁴⁰

The Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP) 2010 Mid Term Review identified that:

There is a great potential to foster increased productive uses using renewable energy for income generation and employment, including in particular in rural areas. However, this will generally not happen spontaneously from increased electricity supplies, or electrification of rural areas that do not currently have grid electricity supplies. To get viable and sustainable productive uses using renewable energy applications underway generally takes a major and multi-faceted development initiatives in providing business development, entrepreneurship, finance, accounting, marketing, and so forth training and ongoing support alongside the provision of rural electrification.

A methodology that has been identified as having the potential to systematically deal with income generation and recommended to be trialled in one or two PICs is a World Bank supported approach developed in Senegal.⁴¹ The intent of the approach is to develop a clear assessment of existing revenue generating activities in a specified rural area in order to strategically direct energy investments. While the preceding sections have focused on off-grid micro-hydro systems based on the success of the TRTC facility, the following approach highlights that the source of the electricity matters less than how it is used and how adequate it is to meet the end user's needs.⁴²

Trialing a systematic approach in Taveuni, Fiji

The cross-sectoral, systematic approach proposes to follow five key steps:

1. Supply chain mapping: identify the type of productive activities taking place in each sector and subsector of the targeted rural area;
2. Careful analysis of the production processes involved within the region of interest, identification of possible improvements and limitations to these processes;
3. Analyse the role electricity can play and what equipment is required;
4. Analyse the technical feasibility and economic and social viability of the electrically based solution proposed; and
5. Design and implement promotion campaigns tailored to each type of end user.
6. The order of steps is indicative and will depend on the specific rural context. The structure serves as a guide for the following outline of a potential pilot project for Taveuni, Fiji.

1. Supply chain mapping: identify the type of productive activities taking place in each sector and subsector of the targeted rural area

Under this step, initial priority should be given to existing or potential activities that are already acknowledged to be of major importance to the targeted rural area⁴³. In this case of Taveuni, the major income generating activities are taro and tourism.

Taro is the most important industry on Taveuni. It is estimated that around 17,000 people on the island depend directly or indirectly on taro for income. Indirect employment includes marketing agents, trucking and shipping companies, input

⁴⁰ Jensen 2009; UNDP 2007

⁴¹ Jensen 2009

⁴² de Gouvello & Durix 2008

⁴³ de Gouvello & Durix 2008, p.18

suppliers and potential value-added processors. The current farm gate income derived from taro is some \$8 million.⁴⁴ This amount could be readily doubled if production, market access and quality issues could be resolved.⁴⁵

Tourism accommodation is consolidated at the north end of Taveuni, near Matei airport. Taveuni is a popular destination for higher spending tourists seeking special holidays, prepared to pay for long haul travel and the additional domestic fare to the island. Tourists travelling for special events (wedding or anniversaries) and special interest (eco-tourism and community experiences) predominate. Village-based enterprises that have developed as a result of tourism include handicrafts, juice and cake-baking in the villages and settlements near Bouma National Park and Waitabu Marine Park.

2. Careful analysis of the production processes involved, identification of possible improvements and limitations

This step analyses in detail each task of the production process in the active subsectors of the area. The analysis can be done for groups of commodities by subsectors, depending on the similarity of the tasks, or commodity by commodity, if for example, watering needs or disease control differ among cash crops.⁴⁶

The basic information to commence this analysis for the Taveuni taro industry is available under an Australian Centre for International Agricultural Research (ACIAR) Project.⁴⁷ The scoping study for this project made a series of recommendations for improving Taveuni taro production and marketing pathways. Recommendations include:

- Training of taro farmers, buyers, buying agents, transporters, pack house workers and quarantine staff - When interviewed these stakeholders stressed that they have not received any training in proper taro handling and quality and grading systems
- Good quality planting material
- Cool storage facilities at each pack house need to be cleaned regularly with antiseptic and temperature needs to be maintained with minimal fluctuations. Authorized personnel only should enter these facilities ensuring hygiene of the cooling facility and the workers
- Cool storage facilities on Taveuni wait the availability of reliable affordable power. Currently it can be up to 3 days before taro enters a cooler when it reaches Suva

It is recommended that sector specialists lead this stage of analysis.⁴⁸ In the Taveuni case, root crop and tourism specialists should lead this analysis.

3. Review of the contribution of electricity to these expected improvements and what equipment is required

Although some areas of improvement may be beyond the scope of the energy sector, access to electricity may bring increased value, added competitiveness, improved quality, improved productivity, or potentially the creation of a new activity.⁴⁹

In this step, energy specialists, using the areas of improvement identified in the preceding steps, would undertake a closer analysis of the areas where electricity can provide improvement. The energy specialists' technical knowledge will be required to identify the level of expected gains, the type of electricity desirable and possible equipment needed.

4. Analysis of the technical and economic feasibility and the social viability of the proposed electrically based solution proposed

This step will build the case for an adaptation of the production process, primarily by identifying the economic and financial gains expected from the switch to electricity or change in generation type. This step should involve comprehensive field work to ascertain production costs, labour costs, intermediary input costs, market resale prices of the

⁴⁴ Based on farm gate prices at time of field work in November 2010

⁴⁵ McGregor A., Afeaki, P., Armstrong J., Hamilton A., Hollyer, J., Masamdu, R., and Nalder, J. (2010). Pacific Island Taro Market Access Scoping Study. Report prepared for the Secretariat of the Pacific Community

⁴⁶ de Gouvello & Durix 2008, p.19

⁴⁷ The project is entitled 'Cleaner export pathways for Pacific crops – Definition of quarantine environment for targeted commodities'

⁴⁹ de Gouvello & Durix 2008, p.20

commodity, and the processed product level.⁵⁰ A recent Secretariat of the Pacific Community (SPC) market study for Pacific island taro and various Fiji outer island tourism reports could provide the basis for this analysis.⁵¹

The analysis in this step will help indicate the cost recovery capacities of the electricity users, as well as their capacity to face the variable costs of the proposed solution.⁵² Non-financial issues and conditions, such as farmers' training on appropriate equipment choice, use and maintenance, should also be given attention – these will contribute to the success and effectiveness of a production change. Creating strategic business plans, where for example, knowledge of market demand and competition, transportation infrastructure, reliability of input providers⁵³ are considered, is also important. In the Taveuni case, specialists with Pacific-island based resource economics and agribusiness expertise should lead this stage of analysis.

5. Design and implement promotion campaigns tailored to each type of end user

This step is to be undertaken only after the economic viability of the proposed electrically based solution has been established and sector stakeholders are convinced of its merits.

The focus of the campaign should be practical information sharing, involving farmers, suppliers, and manufacturers of electricity-powered productive equipment to present, demonstrate, and obtain feedback on materials, equipment, maintenance, capacities, after sale services, and policies.⁵⁴ The campaign should take into account existing and past agriculture and tourism initiatives on Taveuni.

As part of the emphasis on practical and accessible information, the systematic approach encourages that centralised resource centres be established to provide year-round information on various techniques and their availability, including focused information on major commodities and associated value-adding activities that have strong potential.⁵⁵ The operation of such a centre for Taveuni and the broader Cakaudrove province would need to be given close consideration.

The campaign should not duplicate but complement and work with existing regional donor activities such as the Sustainable Energy Financing Project (SEFP), Pacific Island Greenhouse Gas Abatement through Renewable Energy project (PIGGAREP), the Facilitating Agricultural Commodities through Trade project (FACT), the ACIAR Cleaner export pathways for Pacific crops project and activities under various donor small grants schemes.

Carbon markets

The worldwide carbon market developed as a response to the threat of climate change caused by the excessive emission of greenhouse gases. The market is fuelled by the perception that the future will be 'carbon constrained' and that the global economy will increasingly be decoupling from fossil fuels, and by the increased costs such as insurance losses from extreme weather events.

The carbon market consists of regulatory and voluntary carbon mechanisms or schemes. Regulated markets are largely created by mandatory regional, national, and international carbon reduction regimes, such as the Kyoto Protocol and its three carbon financing mechanisms (CDM, JI and Emissions Trading). A voluntary carbon market functions outside of the regulated markets, enabling companies and individuals to purchase carbon offsets on a voluntary basis.

Carbon credits generated from CDM projects are called Certified Emission Reductions (CERs) while Voluntary or Verified Emission Reductions (VERs) are generated from projects other than CDM projects.

A CER or a VER is a unit that is equal to one metric tonne of carbon dioxide equivalent (tCO₂e) sequestered or avoided through an emission reduction activity. Financial benefits are realised through the sale of these credits.

⁵⁰ de Gouvello & Durix 2008, p.22

⁵¹ McGregor A., Afeaki, P., Armstrong J., Hamilton A., Hollyer, J., Masamdu, R., and Nalder, J. (2010). Pacific Island Taro Market Access Scoping Study. Report prepared for the Secretariat of the Pacific Community

⁵² de Gouvello & Durix 2008, p.24

⁵³ de Gouvello & Durix 2008, p.22

⁵⁴ de Gouvello & Durix 2008, p. 27

⁵⁵ de Gouvello & Durix 2008, p. 27

Voluntary carbon mechanisms are not subject to the same level of oversight, management, and regulation as the CDM and other mechanisms under the Kyoto Protocol. In the voluntary market, project developers are more flexible to implement projects that might otherwise not be viable.

As of December 2010, the CDM pipeline contained 2800 projects with 2703 registered under the UNFCCC.⁵⁶ It is projected that these projects would generate over 1.15 billion CERs by 2012.

The majority of CDM projects are located in China and India making up nearly 60 per cent of total registered projects. Thus far, Fiji has one registered CDM project and several under initial stages of development in the CDM pipeline.

Identifying a project under the regulated CDM market

The main sources of major greenhouse gases identified in Fiji are:⁵⁷

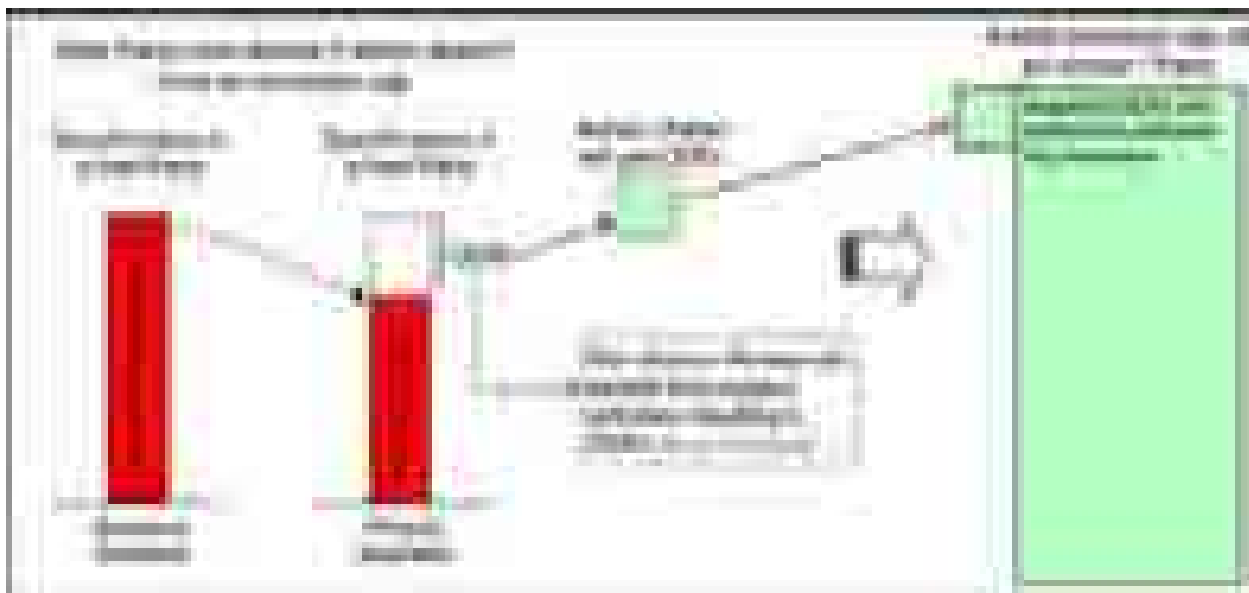
- Carbon dioxide from burning of fossil fuel and biomass;
- Methane – emissions from animal and human wastes and sugar plantation wastes; and
- Nitrous oxide from burning of biomass and incomplete combustion of fossil fuels.

Through the CDM, projects that contribute to the reduction of greenhouse gas emissions based in developing countries are able to qualify to receive carbon credits. Project developers are required to calculate their emission reductions in tonnes of CO₂ equivalent under CDM methodologies. These quantified reductions can then be sold as Certified Emission Reductions (CERs) in the international carbon credit market.

Buyers of these credits are entities with regulatory and voluntary emission reduction targets in industrialised countries (Annex 1 Parties). While Annex 1 countries must meet a proportion of their emission reduction targets domestically, it is often less expensive to purchase credits from developing countries (non-Annex 1 Parties) (see Figure 4.1).

For projects to be eligible under the CDM, they would have to reduce greenhouse gas emissions below the amount that would have occurred in the absence of the project. The amount of CERs that can be claimed is equal to the difference in GHG emissions prior to implementation of the project also known as 'baseline-emissions' (business as usual in the absence of the project) and after implementation of the CDM project or 'project emissions'.

Figure 4.1 The process of obtaining CERs



Source:
Yuji
Mizuno,
2009.
CDM in
Charts
(Version
9.0),
Institute
for Global

⁵⁶ <http://cdm.unfccc.int/Statistics/index.html>

⁵⁷ The six greenhouse gases covered under the Kyoto Protocol include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. The common 'currency' of the Kyoto Protocol targets is one metric tonne of carbon dioxide equivalent (tCO₂ e). Each of the other greenhouse gases can be expressed in this form (on a weight-for-weight basis) by multiplying by its Global Warming Potential (GWP).

Meeting the project eligibility criteria

In general, all projects reducing emissions of any of the six greenhouse gases in any of the sectors included in Annex A of the Kyoto Protocol can be a CDM project. However, there are some overarching CDM characteristics that can be summed up as follows:

- CDM projects must be voluntary, and must have the host country's approval;
- They must meet the sustainable development goals defined by the host country;
- They must reduce GHG emissions above and beyond 'business as usual';
- They must account for GHG emissions that occur outside the project boundary that are attributable to the project;
- They must include the participation of stakeholders;
- They must not contribute to environmental decline;
- They are limited to non-nuclear technology, and there is a limited amount of forestry credits that are eligible;
- They must not divert from official development assistance (ODA); and
- They are limited to strict physical boundaries within which GHG emissions will be reduced or sequestered.

CDM projects can involve all sectors of society – government, non-profit, business and private citizens – in cooperation between Annex I and non-Annex I countries, provided that they are legal entities in their country.

The approved CDM methodologies for each project type outlines procedures for calculating and documenting the emission reductions that may result from the project activity. In some cases, a potential emission reduction activity will not have an approved CDM methodology and will not be eligible for CDM registration until a new methodology is proposed and approved by the CDM Executive Board, the governing authority for all CDM projects.⁵⁸

Additionality

An essential feature of implementing a CDM project is the establishment of a concept known as 'Additionality.' Additionality is established by demonstrating that planned emission reductions are 'additional' to the business-as-usual scenario, meaning that the project activity would not occur without the additional financial and other incentives provided by CDM credits.

Project developers are required to prove that emission reduction activities were considered early on, prior to financial closure and during the planning phase. Developers are required to provide evidence to demonstrate that the planned reductions would not occur without the additional incentive provided by the CDM. Proof of early consideration and additionality can be in the form of board resolutions, meetings, internal correspondence, financial spread sheets and feasibility studies and will need to be established prior to receiving final approval from the CDM Executive Board. The inability to demonstrate additionality is the most frequent cause of failure to obtain CDM registration.

In response to requests to establish simplified modalities for demonstrating additionality for small scale projects, additionality rules were modified in June 2010. **Of particular relevance to small scale rural electrification projects (< 5 MW) in Fiji are the following updates:**

⁵⁸ Developing a new methodology is often a lengthy process (12-18 months), so requests to the CDM Executive Board to modify existing CDM methodology are often a preferred alternative for prospective project developers.

A CDM project activity up to 5 MW that employ renewable energy as their primary technology are additional if one of the following conditions are satisfied:

- The geographic location of the project activity is in a Least Developing Country or Small Island Developing State
- The project activity is an off grid activity supplying energy to households/communities (less than 12 hrs grid availability per 24 hrs day is also considered as 'off grid' for this assessment)

[UNFCCC/2010/EB 54, Annex 15, p1 para2]

Potential application to rural electrification projects in Taveuni – the CDM programmatic approach

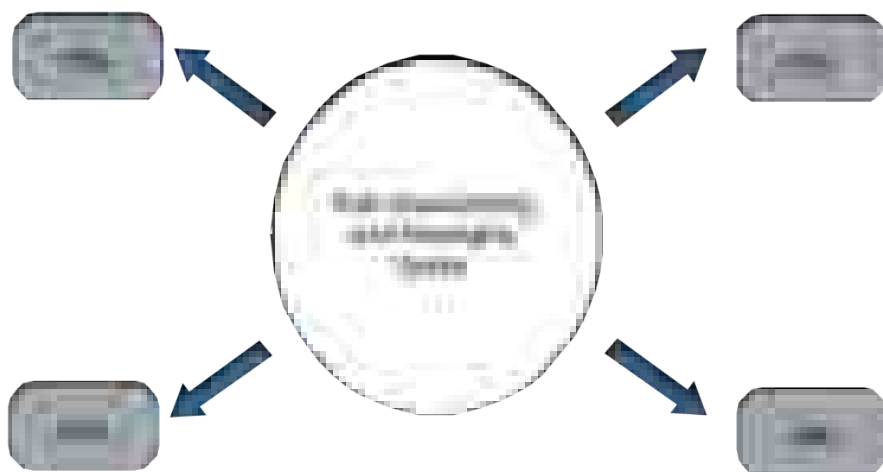
Why a CDM programmatic approach?

There are a number of key reasons why the CDM programmatic approach is relevant to climate financing generally and rural electrification efforts in small island states specifically.

Firstly, with the Kyoto Protocol due to expire in 2012, the Programme of Activities (PoA) approach to developing projects under the CDM is suggested as the likely 'stepping stone' to future mitigation and climate financing mechanisms.⁵⁹

The second reason is more fundamental to barriers to CDM projects, experienced in small island economies and least developed countries. While the CDM has mobilised billions of Euros for projects that reduce greenhouse gas emissions in developing countries, the project-by-project process for verifying projects involves high transaction costs and a long time to market – these are significant barriers to implementation in small island states like Fiji where average project sizes are significantly smaller.

Figure 4.3 PoA framework – many CPAs sharing the same stated goal can be implemented⁶⁰



With the aim of reducing transaction costs and expanding the CDM's application to micro project activities, the CDM executive board launched the Programme of Activities (PoA) modality. Under this modality, a PoA Coordinating/Managing Entity develops a PoA which defines broad parameters for project activities (referred to as to CDM Programme Activities – CPAs).⁶¹ The Coordinating/Managing entity (CME) can be a NGO, business, or government agency. Once the PoA is registered with the CDM Executive Board, an unlimited number of individual projects can be included.

⁵⁹ Carbon Finance 2011, Beaurain & Schmidt-Traub 2010

⁶⁰ adapted from Beaurain & Schmidt-Traub 2010

⁶¹ Beaurain & Schmidt-Traub 2010

When to think about a PoA?

In general, PoAs are most suitable in situations where small to medium-sized project activities are set up over a large area, such as a country, or a group of countries, over a long period of time. PoAs can be structured to suit a number of situations. Examples include:

- Government policy: PoAs can support the implementation of a government policy supporting low GHG measures or technologies, such as a renewable energy-based rural electrification programme;
- Vendor finance: Use a PoA to generate carbon revenues for a technology or service (e.g. hydro facility). In this case the Coordinating Entity might be the technology provider, a project developer or a utility.
- Extend reach to small island states and least developing countries: Regional PoAs can be the tool of choice to include small or otherwise neglected countries in larger programmes. This applies, in particular, to markets that are too small to attract private CDM developers.⁶²

In the Taveuni context, where the Fiji Department of Energy have expressed an interest in pursuing a 'whole of island' approach to rural electrification and reducing diesel consumption⁶³, a PoA CDM could be an appropriate tool to support this. Further detailed quantification, including current and projected energy supply and demand on Taveuni would be needed to establish the merit of this approach.

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⁶² Beaurain & Schmidt-Traub 2010

⁶³ Department of Energy representatives, personal communication