Seeds of Life

Fini ba Moris

ANNUAL PLAN 2013-2014

01 February, 2013 – 31 January, 2014

Includes progress report for period from 01 February, 2012 to 31 January, 2013

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Acronyms and Abbreviations

ACIAR	Australian Centre for International Agricultural Research
AEZ	Agricultural Ecological Zone
AP	Annual Plan
APC	Australian Program Coordinator
ATL	Australian Team Leader
AusAID	Australian Agency for International Development
CGIAR	Consultative Group on International Agricultural Research
CIAT	Centro Internacional de Agricultura Tropical (International Centre for Tropical Agriculture)
CIMMYT	International Maize and Wheat Improvement Centre
CIP	International Potato Centre
CLIMA	Centre for Legumes in Mediterranean Agriculture
CSPG	Community Seed Production Group
DSO	District Seed Officer
EoPOs	End-of-Program Outcomes
FAO	Food and Agriculture Organization
FSMG	Farmer Seed Marketing Group
FSPA	Formal Seed Production Advisor
GIS	Geographic Information Systems
ICRISAT	International Centre for Research in the Semi-Arid Tropics
IELTS	International English Language Testing System
IRRI	International Rice Research Institute
ISPA	Informal Seed Production Advisor
M&E	Monitoring and Evaluation
MAF	Ministry of Agriculture and Fisheries
NDA&H	National Directorate for Agriculture and Horticulture (MAF)
NDR&SS	National Directorate of Research and Special Services (MAF)
NDP&P	National Directorate of Policy and Planning (MAF)
NDACD	National Directorate of Agricultural Community Development (MAF)
NGOs	Non-Government Organizations
OFDTs	On-Farm Demonstrations and Trials
OJT	On the Job Training
OM	Office Manager
PDD	Program Design Document
PMT	Program Management Team
PMP	Performance Management Plan
PSC	Program Steering Committee
RA	Regional Advisor
SEOs	Suco Extension Officer (MAF extension officer)
SoL1	Seeds of Life 1
SoL2	Seeds of Life 2
SoL3	Seeds of Life 3
Sosek	Social Science and Economics (Sosial Ekonami)
STA	Short-Term Advisor
TAG	Technical Advisory Group
TL	Timor-Leste
UN	United Nations
UNTL	University of Timor Lorosae
UWA	University of Western Australia

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1. INTRODUCTION

Phase 3 of the "Seeds of Life" (Fini ba Moris) program commenced at the beginning of February, 2011 following two earlier phases, the first commencing in the year 2000. Phase 3 is considered to be a program within the Timor-Leste (East Timor) Ministry of Agriculture and Fisheries (MAF) to improve national food security through increased productivity of major foodcrops. The Governments of Timor-Leste and Australia collaboratively fund the program. Australian funding is through the Australian Agency for International Development (AusAID) plus the Australian Centre for International Agricultural Research (ACIAR) and is managed by ACIAR. The Centre for Legumes in Mediterranean Agriculture (CLIMA) within The University of Western Australia (UWA) coordinates the Australian funded activities.

The purpose of the program is for 50% (estimated at 65,000 in 2016) of food crop farmers in Timor-Leste to have access to and to routinely use improved food crop varieties. The performance indicators of the program are that 50% of food crop farming households are growing one or more MAF/SoL varieties and that 90% of farmers adopting MAF/SoL released varieties are reporting increased yields. This Annual Plan summarizes the outputs and some outcomes of the program for the period from 01 February, 2011 to end of December, 2012, a period of approximately two years. Extra detail is provided for the activities over the 2012 year. A broad outline of the activities for the third year (2013-2014) are then presented. Details of the progress to date and planned activities are summarized in the Appendices.

a) Appendix 1. Training summary, 2012
b) Appendix 2. Progress against M&E framework (~2 years),
c) Appendix 3. Progress against End of Program Outcomes (~2 years),
d) Appendix 4. Progress against End of Outcomes charts (~2 years)
e) Appendix 5. Seeds of Life communication and dissemination activities 2012-2013,
f) Appendix 6. Progress against Gender Action Plan 2012-2013
f) Appendix 7. Annual workplan 2013-2014, and
g) Appendix 8. Budget for Australian funding, Year 3 (2013-2014)

1.1 Program origin

The current phase of Seeds of Life (SoL3) consolidates the gains made by the Seeds of Life – East Timor (SoL1) Project (2000-2004), a five year Phase 2 (2005-2010) and a Phase 2 extension (September 2010 to January, 2011) (SoL2). Phase 1 conducted replicated trials mainly under research station conditions as an ACIAR project. The project commenced prior to the establishment of a Government of Timor-Leste and was slowly incorporated into the newly formed Ministry of Agriculture and Fisheries as a program under its direction. Likely high yielding varieties were identified in trials conducted in Aileu (Kintal Portugal), Manufahi (Betano) and Baucau (Fatumaca) but these test entries had not been tested under farmers conditions for release.

Seeds of Life 2 commenced in 2005 and conducted both on-station and on-farm trials. Two maize, one rice, one peanut and three sweet potato varieties were identified from the work conducted over the period from 2000 to 2006 and released by the MAF as MAF recommended varieties in 2007. Two cassava varieties were released in 2009 making a total of nine released varieties from SoL/MAF research. Access to seed of the newly released varieties proved to be a constraint and the scope of SoL2 was expanded in 2008 with extra funding to increase the production of seed of released varieties for distribution to farmers. In 2009, the program was evaluated by a review team and it was agreed by all parties that the program be continued. Subsequently a design mission prepared a design for the SoL3 which was approved as the SoL3 Program Design Document (PDD).

SoL3 possesses a) a component of research (Component 1) to continue the identification of suitable food crop varieties for release in Timor-Leste, b) a component of formal seed production (Component 2) for the multiplication of high quality seed for direct distribution to seed producers

and for use by c) the informal seed production component (Component 3) by community seed production groups. The program also possesses a component on raising the capacity of MAF to effectively manage a national seed system (Component 4).

1.2 Program implementation

Overall direction for SoL is provided by the Program Steering Committee (PSC). The committee meets twice per year to discuss the Annual Report and Annual Plan plus the Six Monthly Report. It is chaired by the Minister of Agriculture and Fisheries and possesses representation from MAF, AusAID, ACIAR and program management. MAF is represented by the Director General (DG), MAF directors for a) National Directorate for Research and Special Services (NDR&SS) b) National Directorate for Agriculture and Horticulture (NDA&H) c) National Directorate for Agricultural Community Development (NDACD) and d) National Directorate for Policy and Planning (NDP&P) plus the Australian Program Coordinator (APC) and Australian Team Leader (ATL).

In addition, a team of national and district MAF Directors meet quarterly with the MAF Director General and the ATL to discuss operational matters and resolve any problems emerging during the interim period. This management team is called the Program Management Team (PMT). The MAF Director General (DG) acts as the head of the team along with MAF directors for NDR&SS, NDA&H, NDACD and NDP&P, plus the ATL with support from the advisors.

Long term Australian funded advisor personnel in Timor-Leste includes the ATL, advisors for Research, Formal Seed Production, Informal Seed Production, Monitoring and Evaluation/Social Science Research, Climate Change and three Regional Advisors. The program also has an Office Manager. It is proposed that an Assistant Program Manager to support the ATL in overall program management be added in 2013.

MAF provides the majority of the technical staff working on the program. A list of personnel working full time with the program is presented in Table 1.

Table 1. Personnel working full time on SoL3 (as of end of December 2012)

	Positions		
	MAF	*SoL*	*Total*
Research staff – Component 1			
On-Station Research Officers (OSRO)	11	0	11
OFDT Coordinators (OFDTC)	2	0	2
OFDT Officers (OFDTO)	12	5	17
Pure Seed Officers (PSO)	2	0	2
Seed production staff – Component 2			
Seed Production Coordinators (SPC)	0	1	1
Seed Production Officers (SPO)	10	2	12
C-B seed production staff – Component 3			
C-B Seed Production Coordinators (CBSPC)	12	1	13
Program management – Component 4			
M&E/ Sosek Staff	4	1	5
Germplasm curator	1	0	1
Climate change	2	0	2
Dili and regional office staff		16	16
Drivers	5	17	22
Total GoTL positions	*61*	*43*	*104*
Advisors and office manager		*10*	*10*
Volunteers and short term personnel		*2*	*2*
Total program personnel	*61*	*55*	*116*

All team members respect the conditions of the Ministry including working hours and attendance at daily assemblies. Sixty one MAF salaried staff report directly to respective

Directorates within the Ministry. Their classifications include on-station and on-farm (on-farm demonstrations and trials known as OFDTs) research staff, formal and informal seed production coordinators and officers, climate change research personnel and monitoring and evaluation/social science researchers. Drivers and administrative staff are funded by both MAF and from SoL directly. Operational support for the program originates directly from the SoL office and through the MAF central and district offices.

The main SoL office is located in the MAF compound, Comoro, Dili. Regional offices are also supported in Maliana (Bobonaro), Baucau (Baucau) and Same (Manufahi).

1.3 Preparation of the Annual Plan

This Annual Plan for SoL3 is the third of the five year phase. A draft was prepared during January, 2013 in collaboration with SoL personnel and after discussions with MAF directors from four national directorates (NDR&SS, NDA&H, NDP&P and NDACD). Regionally based personnel were also able to discuss relevant topics with Directors of the Districts SoL3 will be working in during the third year of operation. The plan is a reflection of the interactions between SoL personnel and MAF personnel in Dili and at the District level, NGOs, and other organizations working in the agriculture sector to ensure the annual program was designed to reach the maximum number of collaborators and reached its objectives effectively and efficiently. The ATL discussed planned program activities with the DG on a daily basis, regularly with National and District directors plus at Quarterly program management meetings. Many of the planned activities were also discussed at district meetings to discuss the national seed policy.

The draft plan was be submitted to the Program Steering Committee meeting for discussion and approval on 12 March, 2013. The draft was subsequently updated.

2. PROGRAM DESCRIPTION

SoL addresses the underlying causes of food insecurity in Timor-Leste. These include low yields of staple crops, vulnerability of unfavourable seasons and natural disasters, lack of cash incomes to purchase food during periods of shortfall, post-harvest losses and low market distributional capacities.

SoL3 builds on the success of previous phases and maintains a core focus on increasing yields by selecting and distributing improved varieties of superior genetic quality. It also has a secondary focus on analysing and developing strategies to overcome climate variability and change; improving agronomic practices to reduce weed burdens and increase soil fertility; reducing post harvest storage losses and improving input supply arrangements for seed.

The program concentrates on evaluating higher yielding varieties of crops currently cultivated by farmers in Timor-Leste. These are maize, sweet potato, cassava, rice and peanuts. A small amount of work is also conducted on some minor crops such as wheat, barley, potato and various bean crops.

SoL3 remains a program within the MAF and is being implemented over a five year period (01 February, 2011-31 January, 2016). During the first year, activities were concentrated in the Districts of Aileu, Baucau, Viqueque, Bobonaro, Manufahi, Ainaro and Liquiça. During the second year (2012-2013) Component 3 expanded its activities into three adjoining districts of Lautem, Manututo and Ermera, and in the Oecussi enclave. In the third year (2013-2014) Component 3, capacity building and other activities to manage a national seed system (Component 4) will include MAF personnel from all thirteen of TL's districts.

2.1 Program goal, objective and vision

The goal of the Program is 'Improved food security through increased productivity of major food crops'.

The objective (purpose) is for 50% **(**est 65,000) of food crop farmers have access to and are routinely using improved food crop varieties by the 2015-2016 wet season. To achieve this objective it will be necessary for approximately 10,000 extra farmers to adopt SoL varieties each year (*Table 2*).

Table 2. Target farmer numbers adopting SoL varieties (2011-2015)

Year	2011	2012	2013	2014	2015
No of farmers	21,500	31,500	42,000	53,000	65,000

The Vision for the end of Phase 3 is to have the foundations of a national seed system for TL established and capable of providing a high level of access to seed of improved varieties to farmers throughout the country. Within this vision: (i) MAF is competently managing an adaptive research program that is regularly identifying and releasing improved varieties; (ii) MAF is competently managing formal seed production and processing activities at an appropriate scale; (iii) MAF is effectively distributing formal seed in a manner that maximises scale-up benefits; (iv) informal seed production and distribution is stimulated nation-wide through the establishment of community seed production groups (CSPGs); and (v) MAF is effectively managing overall development of the national seed system for Timor-Leste.

2.2 SoL Components and component objectives

SoL 3 has four components and a management unit. The four components are a) Evaluation of improved food crop varieties, b) Formal seed production and distribution, c) Informal seed production and distribution and d) Seed system management. The objectives and general direction of these components are as follows:

Component 1: Evaluation of improved food crop varieties

Component objective: Improved varieties of food crops identified and released.

Variety evaluation work continues to concentrate on the major crops of maize, rice, sweet potato, peanuts and cassava. A small amount of research is also devoted to improving staple crops growing in the poverty affected temperate upland areas (e.g. legumes, wheat, barley, and potatoes). An extra dimension of research effort in recent years has been on food crops that may adapt to climate change such as more variable rainfall and higher temperatures.

End-of-Program outcomes: (EoPOs), against which performance of Component 1 will be assessed, include:

- MAF research staff competently manage all phases of the research cycle including budget preparation and negotiation, objective setting, planning and field execution of trials, analysis, hypothesis testing and reporting.

Component 2: Formal seed production and distribution

Component objective: Sufficient high quality seed produced through formal channels to maintain the genetic quality of released varieties.

Production of formal seed is an essential component of any national seed system but is expensive to produce. Its production is therefore targeted towards supplying the informal seed production activities both directly through SoL and with NGOs plus other organizations involved in seed production. There is an increased emphasis on cost-recovery and a rationalisation of seed processing/ storage infrastructure to improve production efficiency.

End-of-Program outcomes: End of program outcomes (EoPOs) against which performance of Component 2 will be assessed, include:

- MAF seed production staff competently manage the efficient production and processing of targeted quantities of formal seed.
- MAF staff competently manage the efficient distribution of this seed to farmers.

Component 3: Informal seed production and distribution

Component objective: Mechanisms for the production and distribution of seed through informal and market channels strengthened.

Under this component, a range of new approaches are supported to begin building the foundation of a commercial seed industry in TL and hence increase farmers' access to improved varieties, outside of government channels. These include the production of informal seed by community seed production groups (CSPGs), which will complement and provide a scale-up mechanism for the seed produced through formal channels (Component 2). In year 3 a range of initiatives will also be piloted to stimulate market-based seed exchange.

End-of-Program outcomes: EoPOs against which performance of Component 3 will be assessed, include:

- MAF extension services staff and district officers competently establish and support CSPGs to produce quality seed of improved varieties in required quantities.
- CSPG members competently operate and manage informal production, quality control and distribution of targeted quantities of self-declared quality seed.

Component 4: Seed system management

Component objective: MAF capacity to manage the national seed system strengthened.

The focus of this component is on developing MAF's capacity to manage strategically a national seed system, balancing formal (Component 2) and informal (Component 3) seed production and supply, and linking with on-going improved variety evaluation work (Component 1). Cross cutting issues included in this component include gender, climate change, and policy engagement.

End-of-Program outcomes:

EoPOs against which performance of Component 4 will be assessed, include:

- M&E/ Sosek staff competently implement field evaluation activities and systematic monitoring of the national seed system to inform management by MAF leaders.

2.3 Program outputs

Component 1: Evaluation of improved food crop varieties

Establishment of Agricultural Research Centres and Stations completed. Research centres existing at the beginning of the program (Betano and Loes) are being rehabilitated where necessary. Three addition stations are also being established at: (i) at Darasula (Baucau District) for evaluation of varieties at mid-altitude on red acid soils; (ii) a high altitude site in Ainaro District for evaluation of temperate crops; and (iii) in an irrigated rice growing area in Bobonaro for evaluation of rice varieties.

Genetic material of potential improved varieties identified and sourced. Under SoL 3, the range of species evaluated is broadened from rice, maize, peanuts, sweet potato and cassava to include food legumes, and temperate species such as wheat, barley and potatoes. The scope of the adaptive research program has also been broadened to identify improved varieties and farming systems that are resilient to projected climate change impacts.

Potential new varieties evaluated on-station. All introduced material will be evaluated on MAF research centres based at either Betano, Aileu, Loes, Ainaro, Darasula or at the rice research site in Bobonaro. The material is being examined in replicated trials

Potential new varieties evaluated on-farm. Support continues to be provided for on-farm demonstration trials (OFDTs), as an essential final stage of variety evaluation across all agroecological zones.

Selected new varieties officially released. A Variety Release Committee established in 2007, chaired by the Minister of Agriculture, is functioning well.

Sufficient foundation seed produced for national seed system. Foundation seed production has been expanded to include Loes and will also include the new rice station.

Capacity of MAF research staff to manage the identification and release of new varieties strengthened. The overall objective of training provided under this component is to improve the performance of research and OFDT staff to the point where they can competently manage all phases of the research cycle.

Component 2: Formal seed production and distribution

Formal seed produced through farmer contracts. For species that are propagated from true seed (e.g. maize, rice and peanuts), farmers continue to be contracted to produce seed. Sweet potato and cassava cuttings will be produced under contract farmers and also at research centres.

Quality assurance systems established. Quality assurance processes underpinning the production of true seed crops will continue to be monitored. They encompass crop production monitoring, roguing, monitoring of harvest operations, routine measurement of moisture content (and drying if necessary), routine assessment of germination percentage, lot management procedures, inventory control, and labelling.

Technical extension support provided to contracted seed producers. SoL 3 will establish stronger linkages with district extension staff for extension support of formal seed distribution.

Seed grading, packing and storage facilities established. The number of seed processing centres was expanded during the first year of SoL3 to Baucau, Manufahi, Bobonaro, Liquiça, Aileu and Viqueque.

Formal seed distributed through preferred distribution channels. Priority for seed produced through the formal seed system is given to informal seed production under Component 3. Any surplus to the needs of this program is then sold to other informal seed producing programs (generally under (NGOs or International Organizations) or finally distributed directly to farmers by the MAF. Seed sales are on a cost recovery basis.

Capacity of MAF staff to manage the production and distribution of formal seed strengthened. The overall objective of training provided under this component is to improve the performance of the SPOs responsible for supervising the production and processing of formal seed, and extension staff (at all levels) responsible for managing seed distribution activities, to the point where they can competently manage these activities.

Component 3: Informal seed production and distribution

Community Seed Production Groups established. CSPGs provide a means of increasing the volumes of seed produced and diversifying production sites, both of which can help widen access to seed. CSPGs increase seed access and seed security of their own members, but eventually they should be able to supply other farmers, in some cases beyond the immediate locality. Under SoL3, approximately 1000 groups will be established in rural districts by the end of the Program. A typical CSPG will comprise 10-15 farmers, self-selected, and will receive 2 years of intensive support.

Farmer Seed Marketing Groups established. Farmer Seed Marketing Groups (FSMGs) are organisations that cluster together several CSPGs as a way of facilitating their marketing of seed and overall scope of activities. The Program will initially support the establishment of up to 6 FSMGs as a pilot, covering maize, rice and peanuts. These groups will be established in the second year.

Focal seed merchants in local markets established. Focal merchants in district markets will be assisted to access seed of new varieties, with the eventual aim of establishing links, and possibly contracts, with CSPGs and FSMGs.

Access to seed for vulnerable groups improved through seed fairs. Seed vouchers and fairs are increasingly used in post-disaster situations to help monetise seed producers and improve access to seed for seed-insecure farmers. Vouchers for SoL released varieties will be distributed to target households in advance, allowing them to purchase the seed they require during the day of the fair. This program will commence during the current year of SoL3.

Systems linking informal seed producers with potential buyers developed. Unknown or unpredictable local demand for seed is often a major constraint to local seed enterprise development. The Program will support a set of activities intended to improve the flow of information on potential seed suppliers, and areas of demand, to facilitate trade. This will entail: (i) gathering information on surplus production from CSPGs and FSMGs; (ii) gathering timely information about the potential demand for seed, from projects, local NGOs, and SEOs; (iii) collating and managing this information at a higher level; and (iv) facilitating links between buyers and potential sellers.

Capacity of MAF extension staff to establish CSPGs strengthened. MAF extension staff will be provided with training so that they can support the establishment of the CSPGs, in addition to that included under Component 2.

Component 4: Seed system management

Seed planning and management systems established. The Program supports the development of systems to manage a national seed system encompassing the formal and informal sectors.

M&E/Sosek processes strengthened. The Sosek Unit is responsible for the routine assessment of performance against EoPOs, as well as for conducting the range of field evaluations necessary to guide the refinement of implementation approaches. The Unit is linked to the MAF's National Directorate of Policy and Planning.

GoTL seed policy being informed by SoL experience. Capitalising on its central position in the national seed system and its strong field presence, there is a prime opportunity for the Program to influence seed-related policy. This requires identification of policy issues; analysis of evidence based on field experience; and reporting to relevant government officials.

Seed system gender strategy implemented. A Gender Strategy for SoL 3 was prepared during the second half of year 1. A draft 2 page gender 'action plan', based on this strategy, was also prepared for finalizing during Year 2.

Improved-variety technical and promotional materials developed. SoL is already producing a range of high quality technical and promotional materials, including brochures, posters, calendars, and banners. Additional materials will be developed as new varieties are developed and new activities are initiated.

Awareness of improved varieties increased through use of mass media. As seed supply increases, a key challenge will be increasing the awareness of improved varieties amongst farmers to stimulate the demand for seed, especially from the informal sector. The Program is in the process of developing strategies to further promote SoL varieties using mass media such as radio, text messaging, and television.

Environmental and climate change impacts addressed. The climate change unit will assess the likely impacts of climate change on food crop production in TL to help inform the selection of species/varieties that are better adapted to climate change.

Capacity of MAF staff to manage the national seed system enhanced. Provision is made for targeted training of national MAF staff as an integral part of developing the above systems. Provision is also made for exposure visits by senior staff to review the structure and operation of seed systems in other countries such as Australia and Indonesia.

2.4 Program inputs

The MAF provides office space in its Comoro compound to house most of SoL's Dili based staff. An increase in team size for SoL 3 resulted in a need for more office space. An expansion of the office was completed mid-January, 2012. In addition, MAF/SoL personnel operate from program dedicated offices at the MAF District centres in the three regions based in Baucau, Same and Maliana. The team also utilizes office space in the districts plus research sites at Aileu, Bobonaro (Corluli), Liquiça (Loes), Manufahi (Betano), Baucau (Darasula) and at the highland research site in Maubissi (Urulefa). A temporary building was constructed in Quintal Portugal in Alieu district in 2012 and a similar building will be constructed at the irrigated research site in the Suco of Raimaten, in the sub district of Maliana, Bobonaro district during 2013. Where possible, these buildings are serviced with electricity and security.

MAF personnel provide leadership and manage all research in the districts. The program co-leaders designate approximately 10% of their time to SoL and 56 of the 66 professional staff assigned full time to duties at SoL are fully funded by MAF.

AusAID/ACIAR funding through CLIMA supports the operation of the SoL office, installation and management of replicated and on-farm trials, formal seed production, informal seed production, social research and M&E, climate change activities, training activities, short and long term advisors, infrastructure rehabilitation, some research station maintenance and the operation of SoL vehicles.

Program inputs and their budgeted costs for 2013-2014 is presented in Appendix 7.

2.5 Program sites

SoL performed activities in 8 districts during the first year of SoL3 (2011-2012) (Manufahi, Aileu, Liquiça, Baucau, Ainaro, Bobonaro, Viqueque and Dili). Components 3 expanded its program into four extra districts (Lautem, Manututo and Ermera) during the second year of operation (2012-2013). The program will expand into Cova Lima during 2013-2014. District personnel from all Districts were involved in developing the seed management system (Component 4).

OFDTs will continue to be conducted in 19 subdistricts spread across the 7 districts of Manufahi, Aileu, Liquiça, Baucau, Ainaro, Bobonaro and Viqueque during 2013-2014. Meteorological stations in all Districts excepting Manatutu, Cova Lima and Ermera during 2012 and will be operating in the future. In addition, there are seed production centres in Triloka (Baucau), Loes (Liquiça), Betano (Manufahi), Corluli (Bobonaro), Aileu (Aileu) and Viqueque (Viqueque). Regional Advisors are located at the regional centres in Baucau, Same (Manufahi) and Maliana (Bobonaro). A map noting all districts and main towns is presented in Figure 1.

Figure 1. Districts and main towns in Timor-Leste.

3. Program accomplishments by component (Feb, 2012 – Jan, 2013)

Introduction

Timor-Leste experienced good rains over the wet season of 2011-2012. As a consequence many of the programs implemented during 2012 were successful. The following dry season was also reasonably typical for Timor-Leste but the wet season of 2012-2013 was late starting, delaying some activities for that season. Program activities for the whole year are briefly described below and summarized in the Appendix 1, Appendix 2 and Appendix 3. Some extra detail is provided on the progress made over the latter six months of the year.

Component 1: Evaluation of improved food crop varieties.

Establishment of agricultural research centres and stations completed. Major construction on research stations during the year were primarily on Loes Research Station where roads and drainage were installed to improve access to crops and their growing conditions. At this station, a pump was installed on the bore and a 110,000l tank installed for irrigation. Other infrastructure developments during 2012 include the erection of a temporary service and storage shed at Kintal Portugal (Aileu); water bore development at Darasula Research Station.

Genetic material of potential improved varieties identified and sourced. Most genetic material evaluated during 2012 had been imported during earlier years of the program. The only new material was a QPM (Quality Protein Maize) white maize variety imported from Indonesia.

Potential new varieties evaluated on-station. 40 wet season trials were designed and being implemented during the wet season of 2012-2013. This followed a dry season during which 17 replicated trials were successfully implemented. As the trials presented in Table 3 were being implemented, the trials installed during 2011-2012 were being analyzed, the best of the selection being included in OFDTs. The number of entries in each trial varied from 13 to 106 depending on the crop. Two promising maize varieties were identified in the wet season replicated trials but when evaluated further during the dry season were found to be susceptible to downy mildew and eliminated. The direction for selecting white maize varieties has been modified as a result. 3 new sweet potatoes were identified for inclusion in 2011-2012 and 2012-2013 OFDTs.

Table 3. Replicated research trials, 2012-2013

Species	*Dry season trials*	*Wet season trials*
Cassava		4
Maize	2	5
Peanut	2	4
Potato		1
Rice-irrigated	2	7
Rice-upland		2
Sweet potato	2	5
Velvet bean/maize		3
Winged bean		3
Barley	2	
Wheat	3	
Climbing beans		4
Mung bean	2	
Wheat	2	
Nutrient trial (maize)		1
Liming agronomy pot trial		1
TOTAL	*17*	*40*

Potential new varieties evaluated on-farm. Approximately 330 OFDTs were installed by the end of January, 2013. Of these, 120 were maize, 10 winged beans, 100 sweet potato, 50 rice and 50 cassava. The OFDTs were installed across 7 districts and 19 sub districts. The total number of

OFDTs will increase above this number as the final upland demonstration/trials are installed and lowland rice trials are planted after February.

Selected new varieties officially released. A new white maize variety (tested as P07) was released by the Minister of MAF on 27 July, 2012 with the name of Noi Mutin (white darling in English). This variety proved to be very popular during its evaluation and during the latter part of 2012. Data on mung bean varieties was also being examined for evaluation on-farm.

Sufficient foundation seed produced for national seed system. There was sufficient seed of the new variety, Noi Mutin (3,500kg) and the yellow maize variety, Sele (1,500kg) to be distributed to seed production groups in the 2012-2013 wet season. Small areas of sweet potato multiplication areas were also established close to the farmers requiring cuttings. Watering of these sites was supported by micro-trickle irrigation systems. One ha of cassava plants for cuttings were established at both Loes and Corluli for multiplication by farmer groups.

Capacity of MAF research staff to manage the identification and release of new varieties strengthened. Capacity building of MAF staff included formal and informal training. MAF personnel received training on statistics, data analysis, report writing and presentation of research results. Many also had the opportunity of attending or presenting research papers at international conferences. These events are recorded in the Training Summary presented in .

In addition to training of MAF staff, SoL advisers were involved with supervising university students with their final year theses or "skripsis". Two agronomy "skripsis" were supervised – both on maize agronomy. SoL personnel were also involved with supervising MAF personnel with their MSc theses in Australia and two MAF personnel were sponsored to fulfil the requirements for a MSc in Indonesia.

Component 2. Formal seed production and distribution

Formal seed produced through farmer contracts. Seed production officers (SPOs) contracted farmers in Aileu, Baucau, Liquiça, Viqueque, Bobonaro and Manufahi to produce seed (and planting material) of maize, rice and sweet potato. In 2012-2013 there were eight sweet potato multiplication fields successfully established in five Districts (two at Liquica, one at Bobonaro, two at Aileu, two at Baucau, and one at Manufahi). The program has cassava multiplication fields in the following locations: two at the Betano research center, one at the Loes research center, two in Corluli-Bobonaro, and two with farmers in Viqueque. By the end of 2012 the amount of clean seed produced for the 2012/2013 planting season was as follows: 17.3 t Nakroma rice seed; 42.5 t Sele and Noi Mutin maize seed; 3.7 t Utamua peanut seed.

The program was on target to plant 20 ha of Sele and Noi Mutin maize, 5-10 ha of Utamua peanuts, 5-10 ha of Nakroma rice, 6000 m^2 of Hohrae sweet potato and 5 ha of Ai Luka cassava.

Quality assurance systems established. Seed Production Officers and Seed Production Coordinators continued to monitor the quality of seed produced during the year. Quality was maintained by rejecting up to 20% of that harvested and one technician was dedicated to laboratory analysis of seed quality. Quality equipment purchased in the previous year was used for quality control purposes. New seed sampling equipment and techniques have been implemented in the program. Some of this equipment will be installed in the new seed quality testing laboratory being constructed at the MAF compound in Comoro. The laboratory is expected to be complete by the end of March, 2013. Seed certification applications from contract seed growers at Aileu, Liquiça, Baucau, Bobonaro, Manufahi and Viqueque have been submitted to MAF for evaluation and prior planting inspection of corn field by seeds district officers were conducted at Aileu, Liquiça, and Bobonaro. Source seed of maize was also distributed to contract seed growers at Baucau, Bobonaro, Aileu for further seed multiplication. Maize, sweet potato, peanut and cassava seed production crops were installed and growing at the end of December, 2012.

Technical extension support provided to contracted seed producers. Training on production of certified seed was provided to contract seed growers at a six Districts during the year (Appendix 1). Most of the field inspections done by seed district officers was conducted in the presence of the SEO and farmer. In addition, seed producers received regular visits from seed production officers.

Seed grading, packing and storage facilities established. In 2012, the seed warehouse of Viqueque was established. All seed warehouses are equipped with a rice seed cleaner, and a corn and rice seed thresher. In the second half of the year, a new air screen cleaner has been installed in the Bobonaro seed warehouse. The drying floor and the gate at the seed processing of the Loes seed warehouse were constructed in the second half of the year.

During the year, 20 t rice, 4.6 t maize and 1.7 t peanut seed was processed at Baucau, 7.5 t, maize and 3.6 t peanut in Bobonaro, 37.6 t maize at Betano, 1 t maize and 3 t rice at Aileu, 3.5 t of rice at Viqueque and 6 t at Loes. Each warehouse is capable of storing 30 t of seed and cleaning/grading rice at 1t/hr and corn seed at 0.2 -0.3 t/hr. 15 persons were assigned by MAF to the seed production program. three are women.

Formal seed distributed through preferred distribution channels. 39.2 t of Nakroma seed, 23.8 t of Sele maize and 2.6 t Utamua peanut seed was distributed to MAF, SoL components and NGOs over the year.
Cost recovery from seed distribution for 2011-2012 season was US$8,200, mainly from RDP3

Capacity of MAF seed production staff to manage the production and distribution of formal seed strengthened. In May 2012, two weeks training was provided on seed technology for the 7 new comp 2 staff members plus one DNAH staff member at Bogor Agricultural University, Indonesia. Eight senior seed district officers, the national coordinator and head of seed department also joined a 2 week training course on field inspection for seed certification in May 2012. Later in the year were seed certification training courses, as well as seed production workshops. Trips were also made to Indonesia to update personnel on seed management systems.

Component 3. Informal seed production and distribution

Community Seed Production Groups established. 1,030 (680 MAF groups, 350 NGO Groups) were established by MAF/SoL in 10 districts in 2012. There are 20 women-only groups (3% of total 680 groups). Of the 680 groups, 485 were maize, 151 peanut, 127 paddy, 35 cassava and 74 sweet potatoes. Total members were 8,160. (men 73%, women 27%). By mid-January, 2013, approx. 83% of the groups had planted their seed production crops.

Seeds produced by the groups supported by MAF and NGOs in the 2011-2012 cropping season were as follows:
Maize var. ‘Sele’ seed from MAF/SoL = 15,005 kg
Maize var. ‘Sele’ seed from iNGO/SoL = 30,885 kg
Paddy var. ‘Nakroma’ from MAF/SoL = 24,414 kg
Paddy var. ‘Nakroma’ from iNGOs = 275 kg
Peanuts var. ‘Utamua’ from MAF/SoL = 1,675 kg
Peanuts var. ‘Utamua’ from iNGOs = 2,372 kg

Total seeds produced by MAF+NGOs 77,051 kg (77 tons)

In addition, by the end of January 2013, a total of 135,000 cuttings have been distributed in 2012 by 39 sweet potato groups that had established sweet potato seed production plots in 2011-12. Since, there is no culture of selling sweet potato cuttings in the community, most of these cuttings reported to have been shared among group members, neighbours and relatives. Moreover, of the total

cuttings shared by the groups in the community, 1,200 cuttings of sweet potato were purchased by Seeds of Life from a community seed production group of Maumeta Suco Liquica for distribution to support the Community Learning Centre in Behaho, Manatuto District supported by USC-Canada, community groups supported by Hivos in Lautem District and nutrition demonstration plots of women groups supported by SHARE NGO in Aileu District. Although 25 Cassava seed production plots were established by 25 groups, none of the group reported harvesting of cassava cuttings as planting materials for distribution to their members, neighbours or relatives during the first year.

Currently, the seven original districts (Aileu, Ainaro, Liquiça, Viqueque, Manufahi, Baucau, Bobonaro) now have 80 groups each whilst the three new districts Ermera, Lautem and Manatuto have 24 groups each. Currently, MAF/SoL is implementing informal seed production in 11 districts[1] covering 45 of the total 65 subdistricts and 135 of the total 442 Sucos in the country.

These group numbers under MAF/SoL in each district will be expanded further to the tune of a total of 1,000 CSPGs in 2013-2014.

Farmer Seed Marketing Groups established. Three Farmer Seed Marketing Groups (FSMGs) were established (one in Liquiça and two in Baucau) during the year. A total of 15 CSPGs have joined into three FSMGs. Total maize seeds produced by these FSMGs was 2.6 tons. Of the total, 1.87 tons were SoL to NGOs @$1.50kg. The value of sales of maize seeds sold by FSMGs was worth $2,817.

Focal seed merchants in local markets established. Two seed merchants - one in Baucau and another in Maliana - have been identified with support from MAF offices. One additional seed merchant will be identified in Dili. The three seed merchants in these districts will receive training to properly market SoL improved seed during 2013. The number of seed merchants handling SoL seed will be expanded further in 2014-2015.

Access to seed for vulnerable groups improved through seed fairs. SoL has realised that organising a seed fair is a costly and unsustainable activity for the promotion of SoL varieties. In replacement, SoL has developed a Farmer to Farmer Seed Exchange (FFSE) concept to support seeds and planting materials to vulnerable households. The concept of informal seed growers providing seed directly to needy farmers is simple, inexpensive and easy to use by field staff with little or no cost incurred for logistics and transportation. The concept was discussed at different levels within the MAF National Directorate of Community Development Services and has been agreed with MAF for introduction in the Sucos. The FFSE concept will be implemented from February, 2013 in seven districts for a sweet potato crop. After the evaluation of this activity, we will expand the application of concept to other crops too in 2014-15.

Systems linking informal seed producers with potential buyers developed. In 2012/13, SoL facilitated CSPGs/FSMGs to market their produce by linking them with leading NGOs including World Vision and CRS as seed buyers. These two iNGOs purchased more than 8 tonne of seed from 31 CSPGs and 3 FSMGs. In 2013-14, some FSMGs expanded the area under seed production to sell more seed to potential buyers like iNGOs and MAF. With this experience, SoL plans to prepare a database of FSMGs and CSPGs as seed suppliers with potential buyers like MAF, NGO and seed traders. The database with information on contact addresses, quantities of seeds on sale, crop type and variety will be valuable for establishing and strengthening seed markets in the districts. A workshop is planned around September 2013 where seed producers and potential seed buyers meet, discuss and negotiate on seed.

Capacity of MAF extension staff to establish CSPGs strengthened. A total of 14 training types conducted between January–December 2012. In total 481 participants benefited from the training. Of this total, 58 (12%) were women. Training was provided on the following subjects: seed

[1] Including Oecusse

production, post-harvest and quality control, gender, communication and facilitation skills, English, mathematics, rice research to production course, report writing and presentation skills, understanding national seed systems from Nepal (study visit). The participants were: national seed production coordinators, district informal seed production coordinators, chief of the extension departments from seven districts, Suco extension officers and Sub-District Extension Coordinators.

Component 4. Seed system management

Seed planning and management systems established. Forward planning systems are been implemented in SoL but these still need to be integrated with MAF planning. An inventory system for SoL seed is established and will be expanded to encompass the national seed program as the policy is fully developed. Training is being provided to help MAF staff with the initial design.

M&E/Sosek processes strengthened. The M&E/SosekSosek Unit increased in number to five at the end of December, 2012 with the assignment of a MSc graduate from Australia. The Baseline Survey Report was finalized and published during the year and competency assessments of SoL personnel completed. The information from this assessment was being collated at the end of 2012. The M&E/Sosek team also started a study of maize growing CSPGs in one suco in Aileu, and conducted a feedback survey of CSPGs and SEOs on their year 1. The M&E manual was updated during the year, and became the Performance Management Plan (PMP).

GoTL seed policy being informed by SoL experience. SoL coordinated the formulation of a National Seed Policy for Released Varieties during 2012. This will be finalized during the first half of 2013. A National Seed Policy Working Group with representatives from Government (MAF), non- government (NGOs and development organizations) and farmers. Representatives from these groups took a draft policy for discussion to each of the 13 Districts to gather feedback. 40-70 farmers, SEOs and other district personnel were involved in each of the meetings. Feedback from the discussion groups was being collated at the end of 2012.

Seed system gender strategy implemented. The short term Gender Advisor spent two months developing a work plan for gender in SoL. An action plan for each component has been developed and personnel trained on Gender in Agriculture perspectives. The MAF assigned two persons to work on gender activities in MAF/SoL. Appendix 6 gives detailed information on progress against the Gender Action Plan 2012-2013.

Improved-variety technical and promotional materials developed. SoL personnel published four refereed papers in scientific journals and four other were edited for inclusion in conference proceedings and ACIAR publication. Two other papers were submitted to scientific journals. Program reports were also printed for distribution. These include the 2011 Annual Research Report, Baseline Survey, and others (see Appendix 5). In addition there were three conference presentations, and printed material including banners, information booklets, brochures maps and brochures. A list of these are presented Appendix 5.

Awareness of improved varieties increased through use of mass media. SoL activities received considerable publicity during the year both on local and international TV in addition to publicity in local press. A list of these is presented in Appendix 5. Included were information sharing on SoL with the newly elected President, visits by the MAF Minister and Secretary of State to SoL activities during the year and publically expressed support for the program on local TV.

Environmental and climate change impacts addressed. Educational climate information posters were produced during the year. Included in the posters were recommendations for five key farming adaptations. An analysis of ENSO cycle impact on the climate of each of 13 districts was also completed and a terracing report released. There was also a mapping analysis of pH and Fe & Zn deficiencies in the nation. The state of the nations' weather stations and Ag-met data was developed in collaboration with ALGIS staff.

Capacity of MAF staff to manage the national seed system enhanced. MAF staff received considerable training during the year (Appendix 5). One masters' degree student in Australia was also studying participatory plant breeding and seed distribution systems and two other students studied agronomy – plant breeding. Two students graduated during the year. One in social science and the other in plant breeding.

Program management

SoL personnel dedicated a considerable part of their time during 2012 establishing sustainable systems within MAF. The Program Management Team (PMT) composed of four directors, seven district directors, the SoL ATL and chaired by the MAF DG met on a quarterly basis and directors were fully involved with program activities. All meetings with farmers were organized through the district offices and Suco Extension Officers arranged the CSPGs.

Physical and financial management systems were established at the SoL office in Dili and in the three districts with the assistance of extra logistical and financial staff members. A communications strategy developed during 2011 was acted upon by a small communications team. Administrative guidelines were developed and the M&E Framework was reviewed and being implemented. The second TAG visit in April completed its report in July, 2012 and its recommendations are being acted upon.

Capacity building

SoL invested considerable resources in capacity building of seed industry personnel during the year. MAF personnel were the main recipients attending most of the short term courses and joined conferences and international study tour visits. For example, four Directors and MAF staff members attended gender workshops, statistics, report writing courses and joined trips to Indonesia, Philippines and India. Training opportunities (number of training days multiplied by the number of participants) amounted to 15.75 per working day during 2012. In addition, four persons completed master's degree courses and three are in the process. These are all presented in Appendix 1. The impact that this training is having on the capacity of the MAF to sustain a national seed system is being measured by competency assessments. The results of this evaluation will be available in 2013.

4. Budget and expenditure, 2012-2013

At the end of December, 2012 (eleven months into second year) the program was on budget with 11% of the annual budget remaining for the year (see Table 4). Expenditure in some components was ahead of others. This was due to a "catch up" of activities carried over from the previous year and from a build-up of the informal seed multiplication and distribution component. In 2012, there was heavy investment in capacity building and any over-expenditure within the program was generally attributed to the cost of training, especially for training abroad as MAF personnel were given the opportunity to experience national seed systems in other countries.

Component 1 (Evaluation of improved food crop varieties) was underspent the previous year and had funds committed in 2012-2013 for research station rehabilitation. This is the main reason for its over-expenditure in Year 2. As mentioned above, training costs also exceeded budget allocation in Component 1.

Component 2 (Formal seed production and distribution) activities for seed distribution (including cassava and sweet potato planting were greatly underspent during 2012, however, this was being

rectified during January, 2013 with direct distribution of cassava and sweet potato cuttings to farmers. There was heavy investment in training throughout the year.

Component 3. (Informal seed production and distribution) The cost of setting up the CSPGs was less than expected during 2012, but training costs were higher than budgeted. This component is expanding rapidly to achieve the objective of 65,000 farmer routinely using SoL improved varieties by 2016.

Component 4. (Seed system management). The budget for Component 4 was generally underspent excepting for training. There is an opportunity in 2013 to increase the amount of M&E, gender awareness training and impact studies. Program activity awareness also gathered speed over the year with the assignment of one volunteer to direct the program.

Component 5. (Program management and coordination). On budget for the year. Training of staff and MAF personnel received attention during the year. There was, also over-expenditure in the DG fund and office operations and slight under-expenditure in program report costs, quarterly district meetings and maintenance.

Table 4. Budget and expenditure to end of December, 2012

	Budget ($'000)	*% Budget expenditure remaining at end Dec, 2012*	*Activity behind or ahead of schedule*
Component1. Evaluation of improved food crop varieties.	533	-41	Committed expenditure from the previous year included construction of research station buildings. Over-expenditure in training especially for attendance at International (CGIAR) training courses.
Component 2. Formal seed production and distribution	682	29	Over-expenditure in training especially in International training. Under-expenditure in seed processing and seed plus cassava and sweet potato cutting distribution.
Component 3. Informal seed production and distribution	254	80	Over-expenditure in training especially in local training courses. Cost of setting up seed production groups less than anticipated
Component 4. Seed system management	307	46	Under-expenditure in MOSEK operations and surveys, adoption, impact, seed distribution surveys and awareness programs.
Program management	906	0	Over-expenditure in DG fund, office operations and training. Under-expenditure in program report costs, quarterly district meetings and maintenance.

5. Monitoring

In 2012, the monitoring and evaluation framework for SoL3 was reviewed and updated during two inputs of the M&E Specialist, in April and August 2012, which produced the SoL 3 Performance Management Plan (PMP). The systems and procedures described in the PMP are being implemented by the different Components. The information obtained from the baseline survey conducted in Year 1 is used to guide program implementation, and a series of case studies are being

implemented to gain a better understanding of the processes of change that occur as a result of the program activities, and of the impacts of the improved availability of new seed varieties.

The Gender Specialist developed a strategy for building the capacity and capability of the MAF to make and sustain real improvements to the contribution of women in agriculture. An action plan for each of the components was formulated in 2012, and implemented in all program components. The gender program did however loose some momentum after the departure of the Gender Specialist, and it will be invigorated in 2013 when a new Gender Specialist is recruited for the program.

At the end of January, 2012, the short term training specialist had reviewed the SoL2 training database and was developing a training database for SoL3. The new database has since been used as a management tool for all training and capacity building activities within SoL.

Environmental impacts will continue to be monitored, although there is little threat of the use of higher-yielding varieties increasing environmental degradation in the short term. In the long term, as Timor-Leste's agriculture shifts towards more intensive land-use practices, additional attention will need to be paid to agronomic and farming system practices. Trials on plant spacing, nutrition, pest and disease control, weed management, soil moisture management are included as part of the current program and the number of these will increase under both the auspices of research and climate change.

The major risks to the success of SoL3 identified in the PDD are summarised to be mainly with regard to SoL and its interactions with the MAF. Many of these risks were reduced dramatically when a Program Management Team was established to foster good relations between SoL, MAF at the national level and MAF in the districts. The MAF assigned a high proportion of the staff needed to manage the extra activities within the program and the three regional advisors work closely with District personnel to ensure all are fully involved with SoL program activities. This approach will continue to be monitored.

Progress against the M&E Framework for 2012-2013 is presented in Appendix 2 especially against the program outputs. These outputs are then entered into the End of Program outcomes presented in Appendix 3. Cumulative target values at the Goal and Objectives level are measured three times during the program – years 1, 3 and 5. The baseline survey provided the data for Year 1.

Progress towards outcome targets for each component were well advanced for each Component. For example, 100% of the national network centres had been established, close to the required amount of formal seed and over 120% of the SoL managed community seed production groups for Component 3. Some of these targets are also presented as graphs in Appendix 4.

6. Work plan 01 February, 2013 – 31 January, 2014

A tabulated form of the work plan for Year 3 is presented as Appendix 7. This work-plan details component activities within each component by month from 01 February, 2013 – 31 January, 2014. Extra details of some activities are presented elsewhere. For example, details of the training program for each component are consolidated into a training schedule and presented in Appendix 8, details of the Gender plan for the year are in Table 5 and Budget details for each activity are presented in Appendix 9. Further details of each component activity are presented below.

Component 1. Evaluation of improved food crop varieties.

National Agricultural Research Centres and Research Stations established. During the third year of implementation, repairs and renovations will be made to the house at the research station at Urulefa, Maubisse, a temporary shed constructed at Raimaten, Bobonaro and renovations to a workers house at Betano, Manufahi. If funding is available a training centre will be completed in Triloka.

Genetic material of potential improved varieties identified and sourced. SoL/MAF research personnel developed a relationship with personnel from Marros cereal breeding centre in the Indonesian province of Sulawesi. White maize varieties will be sourced from there to be crossed with Timor local varieties to improve weevil resistance. Indonesian sources of sweet potatoes, mungbean, red bean and other legumes will also be sourced for comparison with local varieties.

Potential new varieties evaluated on-station. The 40 wet season trials conducted during 2012-2013 (Table 3) will be evaluated during 2013. Based on these trials approximately 25 dry season trials will be implemented. Approximately the same number of trials will be planned for the 2013-2014 year. The number of entries in each trial will vary from 10 to over 100 depending on the crop.

Potential new varieties evaluated on-farm. The 330 OFDTs from the 2012-2013 season will be evaluated and possible releases identified during researcher meetings. Based on these results the OFDT program for 2013-2014 wet season will be designed. Approximately 350 OFDTs will be installed across 7 districts and 19 sub districts during the 12 month period.

Selected new varieties officially released. The newly released white maize variety, Noi mutin is proving to be successfully adopted by farmers. Two mung bean and one black gram variety identified in trials conducted over the 2010-2012 period will be included in OFDTs during 2013. If these prove to be successful in the trials they will be considered for release. The three varieties will then undergo social (taste tests etc) evaluation to ensure they are highly acceptable.

Sufficient foundation seed being produced. Both research and formal seed production needs will be assessed at the beginning of both the dry and wet seasons of 2013. Based on this demand, the research stations will multiply sufficient seed for Components 1 and 2. This is approximately catered for with 300-500 kg of Sele and 200kg of Nakroma seed. Additional seed is requested for Component 3 and for direct distribution to farmers by MAF. There will be 1ha of cassava plants for cuttings at Loes and 1 ha at Corluli. Approximately 3000 m^2 of sweet potato seedling material will also be grown at Loes and 800m^2 at Aileu. Foundation seed of Nakroma rice and Utamua peanuts will be conserved on commercial farmer's fields.

Capacity of MAF staff to manage the identification and release of new varieties strengthened. The capacity of MAF personnel to source new planting material, plan and conduct research plus present its results is continually improving. Mentoring by an advisor and freshly returned MSc from Indonesia will continue to support this process during 2013. Sixteen short courses are designed to facilitate the process (see Appendix 7) as will trips to research and management institutes abroad.

Component 2. Formal seed production and distribution

Formal seed being produced through farmer contracts.The program will target planting 50 ha or 25 ton of Sele maize, 25 ha or 25 ton of Utamua peanuts, 40 ha or 25 ton of Nakroma rice, 10,500 m^2 of Hohrae sweet potato and 3.5 ha of Ai Luka cassava by farmer contracts and 4 ha in research stations. The harvest from these sites will provide sufficient seed for Components 1, 2 and 3 with some extra for distribution direct to farmers by MAF and NGOs. Extra seed can be produced in the dry season on a need basis.

Quality assurance systems established. SoL has established quality assurance systems that in past years has resulted in up to 20% of the harvest being rejected thereby maintaining high quality seed. Regular field inspection will be conducted during the planting season. A national coordinator with a seed technology background (a returning master's student) joined the program in January 2013. A field inspection database will be established at the Dili office under the Seed Department of DNAH. Similarly, seed lot archives and a database of seed quality test results will be managed under the Seed Department. A national seed laboratory will be established in 2013-2014.

Technical extension support provided to contracted seed producers. Intensive mentoring of seed growers by seed staff during the growing periods will be the main method of providing technical support to them. In addition formal training on seed processing, rogueing techniques, and seed certification will also be provided in 2013-2014 (Table 6).

Seed grading, packing and storage facilities established. New storage facilities established at Maliana, Aileu, Viqueque and Loes during 2012 will be maintained as will the facilities at Betano. Each warehouse is designed to store 30 t of seed and cleaning/grading rice and maize at 1t/hr. A total of 22 MAF personnel are assigned to the seed production program to ensure the program runs smoothly (Table 1).

Fencing of Aileu seed warehouse, installation of an air screen cleaner for Aileu and Loes seed warehouses, building of drying floor for the Baucau seed warehouse, additional manual-sieves for the six seed warehouses, and maintenance of the existing seed warehouse and it's equipment are planned for 2013-2014. A new permanent labor will be assigned to the Viqueque seed warehouse. Permanent labor and security for the other five seed warehouses will continue be employed

Formal seed distributed through preferred distribution channels. It is planned that 25 t rice, 25 t maize, 10t peanuts, 600,000 sweet potato cuttings and 600,000 cassava canes will be distributed during 2013-2014.

Capacity of MAF staff to manage the production and distribution of formal seed strengthened. Basic training on seed health, training on seed testing, and seed processing and storage will be provided to seed staff in 2013-2014. Seed officers may also join general training courses to improve their capacity to perform non-technical activities.

Component 3. Informal seed production and distribution

Community Seed Production Groups established. 1,030 groups established over the 2012-2013 wet season (680 SoL and 350 NGO groups) will undergo further training during 2013-2014. Currently, in the original seven districts, SoL has an average of 80 CSPGs and in the new districts an average of 24 CSPGs. However, in Oecusse, as an exception, 48 CSPGs have been supported. The new districts included in 2012-13 are Lautem, Manatuto, Ermera and Oecusse. In 2012-13, a total of 11 districts have been covered by the SoL covering 135 Suco and 45 Sub-Districts. These group numbers will be expanded further in 2014-2015.

Farmer Seed Marketing Groups established. Three seed marketing groups have been established during 2012-13. All three FSMGs had sold seeds to NGOs and communities. In 2013-14, SoL plans to establish two FSMGs in each district, totalling about 22 FSMGs from 11 districts.

Focal seed merchants in local markets established. Two seed merchants have been identified with support from District MAF office in Maliana and Baucau. In 2013-14, SoL plans to provide seed marketing training to these seed merchants. The number of seed merchants handling SoL seed will be expanded further in 2013-2014.

Access to seed for vulnerable groups improved through seed fairs. SoL has realised that organising a seed fair is a costly and unsustainable activity for the promotion of SoL varieties[2]. Rather than organizing seed fairs, SoL has developed a Farmer-to-Farmer Seed Exchange (FFSE) concept to support seeds and planting materials to vulnerable households. The concept is simple, inexpensive and easy to use by field staff with little or no cost incurred for logistics and transportation. The concept was discussed at different levels within the MAF National Directorate of Community Development Services and has been agreed to by MAF for introduction in the Sucos. The FFSE concept will be implemented from February in seven districts for a sweet potato crop. After the evaluation of this activity, we will expand the application of concept to other crops too.

Systems linking informal seed producers with potential buyers enhanced. In 2012/13, SoL has facilitated CSPGs and FSMGs to market their produce by linking them with leading NGOs namely World Vision and CRS as seed buyers. These two iNGOs purchased seeds of more than 8 tonnes from 31 CSPGs and 3 FSMGs. In 2013/14, some FSMGs have expanded the area under seed production to sell more quantity of seeds to potential buyers like iNGOs and MAF. With the experience gained over next season, SoL plans to develop a database of FSMGs and CSPGs as seed suppliers with potential buyers like MAF, NGO and seed traders. The database will hold information on contact addresses, quantities of seeds on sale, and types of crops and varieties; this will be valuable information for establishing and strengthening seed markets in the districts. A workshop is planned around September 2013 where seed producers and potential seed buyers meet, discuss and negotiate on seeds.

Capacity of MAF extension staff to establish CSPGs strengthened. At least 20 training sessions are planned for the third year of Component 3 to form sufficient CSPGs to reach the goal of 1,200 CSPGs by the end of Year 5. Training will be provided to District Extension Department personnel in all 13 districts, two MAF/SoL National Seed Production Coordinators, MAF/SoL District Informal Seed Production Coordinators and Suco Extension Officers. SoL plans to request MAF for an additional two National Coordinators to support Component 3 activities. The additional coordinator is required in respond to the growing numbers of CSPGs, FSMGs, and to prepare for the sucession plan to replace the experienced National Coordinator when he leaves for higher study. SoL has planned to hire a NGO Support Coordinator (national staff possibly hired from NGO) so that this person would be able to support nine NGOs that are collaborating with SoL for community seed production and distribution.

Component 4. Seed system management

Seed planning and management systems established. The activities for this output build on the work that was started in 2012 with the formulation of the national seed policy. A National Seed Policy Working Group will be established to provide a platform for stakeholders (Government, MAF Development Partners, academia, local and international NGOs) to create awareness and build consensus and acceptance for a national seed policy.

As the process of obtaining social and political buy-in for a national seed policy proceeds, the *de facto* establishment and institutionalization of the various components of the national seed system will proceed, i.e. seed research; foundation seed production and quality assurance; seed production through CSPGs; marketing through Seed Producing Farmers' Associations.

[2] SoL may however take part in seed fairs organized by other MAF Development Partners, e.g. the GIZ-supported agro-biodiversity project.

M&E/Sosek processes strengthened. The social science / M&E activities in 2013 are primarily focused on learning from through case studies and from the mid-term survey. Several of the case studies are linked to the CSPGs, to gain a better understanding how they operate and can be supported, to what extent the members help to spread new varieties within their communities, and what the impacts of growing new varieties are for the members of the CSPGs. Activities in the M&E Sosek group will be divided into six studies. These include a) supervision of a MSc study on "typology" of successful CSPGs, b) a longitudinal study of eight CSPGs in three districts (Ermera, Manatuto and Lautem) to investigate the success rate of each group in terms of adoption and impact; c) A study to compare the adoption rates of SoL varieties with and without CSPGs, d) A study on the participation and new variety adoption rates of women in farmer groups and of women farmers that do not participate in groups; e) A mid-term program adoption rate study and f) Analysis of BDL (or household wealth) of farmers cooperation with the OFDTs.

The mid-term survey will be conducted in the second half of the year. It is expected that this survey will be smaller in scope than the baseline survey, both in terms of the information sought from the respondents as well as the number of respondents that will be interviewed.

GoTL seed policy being informed by SoL experience. Based on the feedback obtained from the district consultations on the draft National Seed Policy that were conducted in December 2012 and January 2013, some national level workshops are scheduled to discuss and adjust the draft seed policy, to prepare a revised draft. The revised policy will then be submitted to the Minister of Agriculture and Fisheries, for his consideration and for submission to other policy makers, so that it may become the national seed policy. (The policy draft was with the Minister by mid March, 2013)

Seed system gender strategy implemented. The gender action plan developed in 2012 will continue to be implemented. When a new Gender Adviser is contracted, s/he may review and revise the plan, and adjustments will be made as necessary.

Improved-variety technical and promotional materials developed. Scientific publications of SoL research will be prepared and released during the year, and SoL staff may take part in national and international conferences and meetings where results of research, or experience with the implementation of program activities, are presented as papers or in poster format. SoL will also prepare technical and promotional materials for various types of communications (print, audio, visual) to increase the awareness and name recognition of the MAF-SoL varieties, and to share knowledge on varieties and good agricultural practices for different types of audiences.

Variety and technical recommendations in Tetun will also be printed and distributed. Four articles will be published in international journals, the SoL Annual Research Report completed and technical brochures on Noi Mutin printed and distributed.

Awareness of improved varieties increased. SoL activities received considerable publicity during 2012 both on local and international TV in addition to publicity in local press. The communications strategy developed during 2011 will be followed and communication action plan implemented.

Environmental and climate change impacts addressed. The climate change group activities during 2013-2014 will focus on broadly four areas. There will be a) comparison of maize yields with climate information which will be used to develop strategies to adapt to climate change; b) The AEZs in Timor-Leste will be characterized by factor other than altitude including soils and rainfall from which it may be possible to predict crop responses, c) Pilot Sub District maps/fact sheets will be developed to include rainfall, effect of ENSO, predicted climate change and recommendations for adaptation to climate change and d) Development of extension material for climate and agricultural adaptation to climate change.

Capacity of MAF staff to manage the national seed system enhanced. MAF staff will receive considerable training during the year both in terms of short term training, study tours and some support will be given to long term training. (Appendix 8).

Table 5. Gender Action Plan, 2013-2014

COMPONENT	RECOMMENDATION
Component 1	• Inclusion of gender considerations into the evaluation of new varieties • Ensure women's representation, such as a representative from MAF-GWG, female seed producers, and Gender Team in the new varieties release committee. • Ensure equal opportunity and participation of female research staff in gender awareness and capacity development program/events (Masters' Degree, on-the job training, and in-country short courses). • Integrate and the use of sex-disaggregated data and gender analysis in research monitoring and reporting.
Component 2	• Ensure equal participation of female farmers as formal seed producers/contractors. • Develop policy direction for the inclusion of gender sensitivity criteria in formal seeds production, distribution and selection of formal seeds producers/contractors and recipients. • Ensure equal opportunity for the employment of women and men in the management and distribution of formal seeds (i.e., seed bagging and labeling, etc). • Ensure equal opportunity and participation for female and male seed production staff capacity development program (mentoring, meeting, on the job training, etc) • Ensure participation of MAF-SoL Senior Management and formal seed staff in awareness and capacity development program. • Integrate and the use of sex-disaggregated data in formal seed monitoring and reporting.
Component 3	• Integrate gender issues in orientation and capacity development for CSPG by SEOs • Integrate gender issues in the technical guidance to I/NGOs interested in informal seeds • Ensure equal opportunity and participation of female farmers/ female seeds production groups in seeds fairs. • Ensure equal participation of women and men in seed producer-buyer workshop. • Integration of gender issues/topic in the training program for district staff on informal seed production. • Inclusion of gender issues in the orientation program for SEOs on monitoring and reporting progress of CSPGs. • Inclusion of gender issues into the agenda of MAF-National Director (Extension) meetings. • Inclusion of gender issues in farmer field day. • Ensure women's equal opportunity and participation in awareness and capacity development events on informal seed (i.e., mentoring, workshop, short courses, and study visit/comparative). • Ensure participation of SEOs in gender awareness and capacity development events. • Conduct gender awareness and capacity development events for CSPGs and ensure equal participation of women and men farmers/informal seed producers in the events. • Integrate and the use of sex-disaggregated data and gender analysis in informal seeds monitoring and reporting.
Component 4	• Ensure participation of M&E staff in gender awareness and capacity development program (i.e., mentoring, comparative study, short courses, workshop, etc) • Integrate and the use of sex-disaggregated data and gender analysis in socio-economic studies and report. • Integrate and the use of sex-disaggregated data in M&E report. • Integrate gender issues and the use of gender-sensitive language and image in technical and promotional materials. • Integrate gender issues and analysis in environmental and climate change studies

COMPONENT	RECOMMENDATION
	and reports. • Inclusion of gender issues in the agenda of regular meetings. • Strengthen functioning of the Gender Team • Support and facilitate GWG's capacity development. • Conduct Gender Awareness and Capacity Development for Senior Management, Adviser and Staff at the national and sub-national levels. • Develop Gender advocacy tools and materials. • Organize and participate in the celebration of international and national women's day as part of MAF-gender awareness and advocacy program to gain a greater national and international support and visibility for the promotion of MAF-SoL III-gender program. • Develop policy direction for the integration of gender considerations in MAF-SoL program.

7. Budget for Australian funding, Year 3 (2013-2014)

The proposed operating budget for the 2013-2014 program year (Appendix 9) closely follows that presented in the Program Design Document (PDD). Activities remain the same in each of the components. The budgets for Components 1, 4 and 5 (Program management and coordination) remain as in the PDD. Formal seed production activities were reduced slightly as informal seed production activities were increased.

Within the budget it was proposed that a Program Assistant advisor position be created to a) assist strengthen seed planning and management systems, b) assist strengthen the M&E system to enhance the impact of seed production programs in the agriculture sector, c) ensure the SoL system gender strategy is implemented in collaboration with MAF and with inputs from short term consultants, and d) work closely with the Office Manager to supervise and mentoring of MAF-SoL program support staff in Dili, Regional Offices and Research Stations. This position was approved by the PSC on 12 March, 2012 and will be funded from unused advisor man months from 2011-2012.

8. Appendices

Appendix 1. Training summary, 2012
Appendix 2. Progress against M&E framework (~2 years),
Appendix 3. Progress against End of Program Outcomes tables (~2 years),
Appendix 4. Progress against End of Outcomes charts (~2 years)
Appendix 5. Seeds of Life communication and dissemination activities 2012,
Appendix 6. Progress against Gender Action Plan 2012
Appendix 7. Annual work plan, 2013-2014,
Appendix 8. Training schedule for 2013-2014, and
Appendix 9. Budget for Australian funding, Year 3 (2013-2014)

Appendix 1. Training summary, 2012

			Number of participants			
Start Date	*End Date*	*Course Title*	*M*	*F*	*Tot.*	*Training days/opportunities*
MScs						
01/07/2009	31/05/2012	MSc. Seed Sci and Tech (Indo.2011)	2	0	2	1066 (2132)
01/01/2010	31/12/2012	MSc. Agron Plant Breed (Aust. 2012)	1	0	1	1096 (1096)
01/01/2010	31/12/2012	MSc. Soc. Sci (Aust.2012)	1	0	1	1096 (1096)
01/01/2011	31/12/2013	MSc. Social Science (Aust)	1	0	1	1096 (1096)
29/08/2012	21/08/2014	MSc. Agronomy - Plant Breeding (Indo)	1	1	2	723 (1445)
		Total MSc students (2009-2012)	6	1	7	
Scripsi at UNTL						
2011		Agronomy scripsi's at UNTL	*7*	*2*	*9*	
2012		Agronomy scripsi's at UNTL	*6*	*2*	*8*	
Short courses						
01/02/2011	*31/12/2011*	***Total for 2011***	*590*	*186*	*776*	*73 (2505)*
2012						
09/01/2012	13/01/2012	English Level 1	25	2	27	5 (135)
16/01/2012	20/01/2012	English Level 4	2	4	6	5 (30)
18/01/2012	20/01/2012	Data Analysis for Temperate Crops	5	0	5	3 (15)
23/01/2012	27/01/2012	Seed System Study Visit (Indonesia)	8	0	8	5 (40)
23/01/2012	27/01/2012	Statistics	16	7	23	5 (115)
25/01/2012	25/01/2012	Informal Seed Production Workshop	43	4	47	1 (47)
26/01/2012	26/01/2012	Rice Seed Prod'n for Seed Growers	16	0	16	1 (16)
30/01/2012	03/02/2012	Statistics	9	2	11	5 (55)
05/02/2012	10/02/2012	Collaborative research training (Philippines)	5	2	7	6 (42)
06/02/2012	10/02/2012	Statistics	12	6	18	5 (90)
15/02/2012	15/02/2012	Gender Workshop	31	13	44	1 (44)
15/02/2012	15/02/2012	Statistics	3	0	3	1 (3)
16/02/2012	16/02/2012	Gender Workshop	11	14	25	1 (25)
16/02/2012	16/02/2012	Post-harvest and Quality Control	9	5	14	1 (14)
16/02/2012	16/02/2012	Rice Seed Prod'n for seed Growers	12	7	19	1 (19)
17/02/2012	17/02/2012	Statistics for M&E/Sosek Researcher	3	1	4	1 (4)
20/02/2012	21/02/2012	Community Skills for SEOs	38	7	45	2 (90)
20/02/2012	24/02/2012	English Level 3 - Class 1	9	4	13	5 (65)
23/02/2012	24/02/2012	Community Skills for SEOs	25	2	27	2 (54)
28/02/2012	28/02/2012	Post-harvest and Quality Control	17	2	19	1 (19)
29/02/2012	01/03/2012	Community Skills for SEOs	33	2	35	2 (70)
02/03/2012	02/03/2012	Post-harvest and Quality Control	19	2	21	1 (21)
06/03/2012	06/03/2012	Post-harvest and Quality Control	22	0	22	1 (22)
12/03/2012	12/03/2012	Post-harvest and Quality Control	11	4	15	1 (15)
13/03/2012	13/03/2012	Gender Workshop	13	4	17	1 (17)
13/03/2012	13/03/2012	Post-harvest and Quality Control	23	2	25	1 (25)
14/03/2012	14/03/2012	Post-harvest and Quality Control	16	1	17	1 (17)
23/03/2012	23/03/2012	Post-harvest and Quality Control	13	2	15	1 (15)
24/03/2012	31/03/2012	Formal and Informal Seed System of Nepal	11	0	11	8 (88)
26/03/2012	30/03/2012	English Level 3 - Class 2	8	8	16	5 (80)
27/03/2012	27/03/2012	Gender Workshop	45	12	57	1 (57)
02/04/2012	04/04/2012	Analysis of Multi Environment Trials	6	3	9	3 (27)
04/04/2012	04/04/2012	Quickbooks Training	4	3	7	1 (7)
10/04/2012	11/04/2012	Mathematics for Agronomists Level 1	11	1	12	2 (24)
12/04/2012	12/04/2012	Gender Workshop	42	14	56	1 (56)
12/04/2012	13/04/2012	Mathematics for Agronomists Level 1	15	5	20	2 (40)
05/05/2012	18/05/2012	Seed Certification Training (Indonesia)	8	2	10	14 (140)
08/05/2012	09/05/2012	Mathematics for Agronomists Level 1	15	6	21	2 (42)
14/05/2012	18/05/2012	English Level 2	17	1	18	5 (90)
14/05/2012	24/05/2012	Seed Science and Technology (Indonesia)	5	0	5	11 (55)
14/05/2012	01/06/2012	Rice:Res. to Pdn Course (Philippines)	1	1	2	19 (38)
28/05/2012	01/06/2012	Maize OFDT Analysis	11	3	14	5 (70)

04/06/2012	08/06/2012	Data Analysis of the 5 Major Crops	8	0	8	5 (40)
26/06/2012	29/06/2012	Report Writing and Presentation Skills	15	4	19	4 (76)
02/07/2012	05/07/2012	Report Writing and Presentation Skills	13	6	19	4 (76)
10/07/2012	13/07/2012	Report Writing and Presentation Skills	26	6	32	4 (128)
16/07/2012	17/08/2012	English (Australia)	4	0	4	33 (132)
23/07/2012	26/07/2012	Data Analysis on Peanut and Sweet Potato	8	3	11	4 (44)
23/07/2012	27/07/2012	English Level 1	18	0	18	5 (90)
06/08/2012	10/08/2012	Interp. and Presentation of Research Results	16	4	20	5 (100)
08/08/2012	09/08/2012	Community Skills for SEOs	16	7	23	2 (46)
13/08/2012	17/08/2012	Interp. and Present'n of Research Results	9	5	14	5 (70)
21/08/2012	24/08/2012	English Level 3 - Class 1	4	5	9	4 (36)
21/08/2012	24/08/2012	English Level 4	2	5	7	4 (28)
27/08/2012	28/09/2012	English (Australia)	3	0	3	33 (99)
03/09/2012	07/09/2012	English Level 3 - Class 2	10	3	13	5 (65)
04/09/2012	05/09/2012	Community Skills for SEOs	17	2	19	2 (38)
13/09/2012	14/09/2012	Mathematics for Agronomist Level 2	7	3	10	2 (20)
17/09/2012	18/09/2012	Mathematics for Agronomist Level 2	8	0	8	2 (16)
27/09/2012	28/09/2012	Mathematics for Agronomist Level 2	9	1	10	2 (20)
02/10/2012	03/10/2012	Community Skills for SEOs	19	1	20	2 (40)
04/10/2012	04/10/2012	Seed Certification Training	9	14	23	1 (23)
08/10/2012	12/10/2012	English Level 2	17	1	18	5 (90)
09/10/2012	10/10/2012	Mathematics for Agronomist Level 2	4	5	9	2 (18)
10/10/2012	11/10/2012	Community Skills for SEOs	18	1	19	2 (38)
22/10/2012	22/10/2012	Seed Certification Training	25	10	35	1 (35)
24/10/2012	24/10/2012	Seed Certification Training	15	3	18	1 (18)
29/10/2012	30/10/2012	Community and Facility Skills Course	6	9	15	2 (30)
30/10/2012	30/10/2012	Seed Certification Training	16	2	18	1 (18)
05/11/2012	09/11/2012	English Level 4	8	10	18	5 (90)
22/10/2012	11/11/2012	Rice: Production to marketing (Phil)	2	0	2	10 (20)
14/11/2012	14/11/2012	Seed Certification Training	23	5	28	1 (28)
16/11/2012	30/11/2012	Agronomy - Plant Breeding (Indonesia)	2	0	2	5 (10)
05/11/2012	13/11/2012	Seed Production Workshop	5	0	5	9 (45)
12/11/2012	14/12/2012	English (Australia)	0	2	2	33 (66)
19/11/2012	23/11/2012	English Level 3	9	4	13	5 (65)
22/11/2012	24/11/2012	Seed production workshop (Indonesia)	7	0	7	3 (21)
26/11/2012	30/11/2012	Agronomy plant breeding conf. (India)	2	0	2	5 (10)
19/11/2012	06/12/2012	Soil analysis for P, pH and EC	3	0	3	18 (54)
	Total		1031	279	1310	381 (3781)

Number of training opportunities for each working day = 15.75

Appendix 2. Progress against M&E framework 2012

Code	Intervention Logic	Performance Indicators (PIs)	Means of Verification	Progress to January 2013
G1	**Goal:** Improved food security through increased productivity of major foodcrops.	Percentage of farmers experiencing periods of food shortage decreased by 33% in Timor-Leste	Secondary sources	
G2		47,000t increase in production of major staple food crops in Timor-Leste.	Secondary sources	
P1	**Purpose:** 50% **(**est 65,000) of farmers have access to and are routinely using improved food crop varieties.	50% of farming households are growing one or more MAF/SOL varieties	Program assessment via Distribution Surveys.	The 2011 baseline survey found that 18% (estimated 21,000) of the farmers grew one or more MAF/SoL varieties. In 2012, SoL cooperates with 482 farmers in Component 1, 142 contract farmers in Component 2, and an estimated 9,400 farmers in Component 3. In addition, farmers received improved seed directly from the MAF and NGOs.
P2		90% of farmers adopting MAF/SoL released varieties reporting increased yields	Program assessment via Distribution Surveys.	In the 2011 baseline survey, 87.5% of the respondents who provided information on productivity comparison between MAF/SoL varieties and local varieties reported the MAF/SoL varieties were either much better, or better, than the local varieties.
COMPONENT 1: EVALUATION OF IMPROVED FOODCROP VARIETIES				
C1.1	**Component Outcome:** Improved varieties of foodcrops evaluated and released.	MAF research staff competently managing all phases of the research cycle, including objective setting, planning and implementation of trials, analysis, and reporting.	Staff competency assessments	MAF staff completing all trial implementation, and most of the initial analyses. Competency assessments being completed. Most staff are producing reports in Tetun on research activities, at one site in one year.
Key Outputs:				
O1.1	Establishment of Agricultural Research Centres and Stations completed.	Research Centres upgraded, nature of upgrade, location and cost. # professional staff deployed at Research Centres, by position and sex. Operational budget, by source. # Research Stations established, location and cost. # professional staff deployed, by position and sex. Operational budget, by source.	Research Officer Monthly Reports, including: Program records. MAF staff records. SoL financial reports; MAF budget docs.	Major building construction at research stations complete. Installation of irrigation system and roads at Loes to be done plus the installation of temporary buildings at Raimaten; water facilities at Darasula and improved fencing at Urulefa. All stations and sites operating to a budget and manned by MAF professional staff.
O1.2	Genetic material of potential improved varieties identified and sourced.	# and type of improved varieties introduced.	Research Advisor Monthly Reports	New improved test entries imported were 25 new wheat and 25 new barley varieties and 13 wingbean entries from Australia plus 104 upland rice and 60 lowland rice varieties from IRRI, Philippines.
O1.3	Potential new varieties evaluated on-station.	# varieties trialed on-station, by type and location. # trials completed and reported. # varieties selected for OFDTs. # Research Centre and Station deployed, by position and sex.	Research Advisor Monthly Reports	Series of 43 replicated and observation trials established. Cassava (4), maize (5), peanut (4), potato (2), irrigated rice (9), upland rice (2), sweet potato (5), velvet bean (3), wheat (4), barley (4) and climbing beans (1). Of these trials 15 have been analysed, 13 have been harvested, 7 still growing and 8 failures.
O1.4	Potential new varieties evaluated on-farm.	# varieties trialed on-farm, by type and location.	Research Advisor Monthly Reports	A total of 430 OFDT were established, and collected data analysed. The trials were spread across 7 districts and 19 sub districts. At least 80 extra

Code	Intervention Logic	Performance Indicators (PIs)	Means of Verification	Progress to January 2013
		# OFDTs conducted, by type and location. # OFDT coordinators and OFDT officers deployed, by position and sex.		OFDTs to be installed later in the year.
O1.5	Selected new varieties officially released.	# new varieties officially released.	Research Advisor Monthly Reports	A new white maize variety (tested as P07) was released by the Minister of MAF on 27 July 2012 with the name Noi Mutin (white darling in English)
O1.6	Sufficient foundation seed being produced.	Qty of foundation seed produced, by type and location.	Research Advisor Monthly Reports Research Centre records.	On hand at the end of January, 2012 were 1500kg of Sele and 3,500 kg of Noi Mutin foundation seed stored at Betano station; 1 ha of cassava plants for cuttings at Loes and 1 ha at Corluli. Approximately 3000 m^2 of sweet potato seedling material were also grown at Loes and 800m^2 at Aileu. Foundation seed of Nakroma rice and Utamua peanuts were conserved on commercial farmers fields.
O1.7	Capacity of MAF research staff to manage the identification and release of new varieties strengthened.	# of people trained, by position, subject, type of training provided and sex.	Staff training records	Courses during the first six month included statistics (65 persons) and research data analysis (32 persons, report writing skills (70 persons) and mathematics for agronomists (53). Three persons from UNTL were also assisted through their scripsi's (final year theses). In addition, three ex MAF personnel were assisted with their MSc thesis preparation at UWA. Two students were conducting research on social science topics related to SoL activities. The third conducts research on plant selection of legumes.

COMPONENT 2: FORMAL SEED PRODUCTION AND DISTRIBUTION				
C2.1	**Component Outcome:**. Sufficient high quality seed produced through formal channels to maintain the genetic quality of released varieties.	MAF seed production staff competently managing the production and processing of targeted quantities of formal seed; and extension staff competently managing the distribution of this seed to farmers.	Staff competency assessments	Staff competency assessments indicate a steady improvement in the skills throughout SoL3. A further assessment was underway at the end of July, 2012. Staff competency steadily improved. The new SDO staff are capable to produce and process certified seed. The Senior staff capable to do field inspection to produce certified seed.
Key Outputs:				
O2.1	Formal seed produced through farmer contracts.	Qty of true seed produced, by variety and location. No. of farmers under contract, by variety and location. Value of seed produced. # and area of sweet potato and cassava nurseries established. # of sweet potato cuttings and cassava canes produced. # SPCs and SPOs deployed, by position and sex	SPC/SDO Monthly Reports. MAF staff records.	Clean seed produced in 2011-2012 season (ready for 2012-2013 planting seasons) were as follow: 22.0 t Nakroma rice seed; 42.5 t Sele and Noi Mutin maize seed; 4.3 t Utamua peanut seed. Contracted rice seed grower for 2011-2012 season: 2 groups at Aileu, 5 at Baucau, 1 at Liquica, 1 at Viqueque. Contracted maize seed growers for 2011-2012 season: 2 groups at Aileu, 2 at Baucau, 2 at Bobonaro, 1 at Liquisa, 11 at Manufahi. Contracted peanut seed grower for 2011-2012 season: 2 groups at Baucau; 1 at Bobonaro Totally 20 SEO were involved in seed production activity 2011-2012. From 2011-2012 season 150,467 sweetpotato cutting has been distributed for 2012-2013 season. Sweetpotato field to produce cuttings established in 2012-2013 are located in Aileu 800 m^2, Bobonaro 2100 m^2, Manufahi 1000m^2, Baucau 1850 m^2, Liquisa 1000 m^2. From 6750 m^2 (with 3 times harvest) the program should able to produce 600,000 cuttings.

				The last year cassava cutting distribution (for 2011-2012 season) was 74,000 cuttings. Cassava field to produce cutting established in 2012/2013 are: Viqueque 2 ha; Bobonaro 1ha, Liquisa 1 ha, Betano 2 ha. From this field about 500,000 cutting can be produced. Cutting distribution from this field is recently on-going. Imported open pollinated corn cost 5 US$/kg (inclusive transport to District level) one seed production coordinator and 12 seed production officers deployed. Head of Seed Department start to be involved in the comp 2 activities
O2.2	Quality assurance systems established.	% of formal seed produced that meets minimum standards, by type. % rejected.	SPC/SDO Monthly Reports.	District Seed Officers conducted field inspections regularly. High quality seed was maintained by rejecting up to 20% of the crops and seed. In 2012 A total of 55 seed sample were taken using a cylindrical sampler and sent to Dili for seed quality testing (8 rice, 4 peanut, and 43 corn).
O2.3	Technical extension support provided to contracted seed producers.	# extension staff providing direct support to contract seed growers. # of contract seedgrowers trained, by subject, type of training provided by sex.	SPC/SDO Monthly Reports. Training records.	Seed producers received regular visits from seed production officers. Training on certified seed production provided to contract seed growers of the 6 districts. Total participants are166 And numbers of women are:39.
O2.4	Seed grading, packing and storage facilities established.	#, capacity and location of SPCs established. Total investment. # professional staff deployed, by position and sex. Qty of seed processed by SPCs, by variety.	SPC/SDO Monthly Reports	20 t rice, 4.6 t corn and 1.7 t peanut seed was processed at Baucau, 7.5 t, maize and 3.6 t peanut in Bobonaro, 37.6 t maize at Betano, 1 t maize at Aileu and 6t at Loes. Each warehouse is capable of storing 30t of seed and cleaning/grading rice at 1t/hr and corn seed at 0.2 -0.3 t/hr. 15 persons were assigned by MAF to the seed production program. 3 are women. Harvested seed from 2011-2012 was processed in the 6 seed warehouses.To the end of January 2013, 17.0 t rice, 3 t corn and 1.3 t peanut seed was processed at Baucau, 7.2 t, maize and 3.0 t peanut at Bobonaro, 25.4 t maize at Betano, 1 t maize, 1.6 t of rice at Aileu, 3.5 t of rice at Viqueque and 6t maize at Loes. Each warehouse is capable of storing 30t of seed and cleaning/grading rice at 1t/hr and corn seed at 0.2 -0.3 t/hr. 15 persons were assigned by MAF to the seed production program. 3 are women.
O2.5	Formal seed distributed through preferred distribution channels.	Qty of seed distributed by distribution channel, location and variety. # and type of field demonstration/ farmer training activities conducted by SEOs. Budget provided to local extension services for farmer training activities. $ generated from cost recovery on seed distributed.	SPC/SDO Monthly Reports	For 2011-2012 season 39.2 t of Nakroma seed, 23.8 t of Sele maize and 2.6 t Utamua peanut seed was distributed to MAF, SoL components and NGOs over the six month period. Cost recovery from seed distribution for 2011-2012 season was US$18,920, mainly from RDP3 For 2012/2013 season, 33.4 t corn and 4.2 t peanut seed was distributed. Rice distribution for 2012/2013 is on-going, recently about 2.1 t of rice seed distributed. Distribution sweetpotato cutting for 2012/2013 is on-going.By the end of January 2013, 149,000 sweetpotato cuttings, and 41,500 cassava cuttings were distributed. Seed and cutting was distributed to MAF-SOL components such as Informal seed producer, OFDT, Research,and Formal seed producer as well as NGO-Informal seed producer, NGO,MAF-farmer group, MAF-District and MAF-Agriculture school. For 2012/2013 season,most of the seed was provided to MAF-district and Informal seed producer with no charge.

O2.6	Capacity of MAF seed production and extension staff to manage the production and distribution of formal seed strengthened.	# of seed production staff trained, by position, subject, type of training provided and sex. # of extension staff trained, by position, subject, type of training provided and sex.	Staff training records	In May 2012, two weeks training on seed technology for the 7 new comp 2 staffs + 1 DNAH staff has been conducted at Bogor Agricultural University, Indonesia. The 8 senior seed district officers + national coordinator + head of seed department had 2 weeks of training on field inspection for seed certification in May 2012.

COMPONENT 3: INFORMAL SEED PRODUCTION AND DISTRIBUTION				
C3.1	**Component Outcome:** Mechanisms for the production and distribution of seed through informal and market channels strengthened.	CSPG members competently operating and managing informal seed production and distribution of targeted quantities	Group competency assessments	Competency assessments yet to be made.
Key Outputs:				
O3.1	Community Seed Production Groups established	# and location of CSPGs established, by crop type Total membership, by sex. # women-only groups established. Total production of CSPGs, by variety. Qty and value of sales, by variety. # SEOs directly involved in supporting establishment of CSPGs	CSPG records Seed Extension Officer Monthly Reports	680 groups were established by SoL/MAF in 10 districts over the second half of the second year. NGOs established 350 groups using SoL seeds. 20 women only group (3% of total 680 groups) established. Of the 680 groups 485 were maize, 151peanut, 127 paddy, 35 cassava and 74 sweet potatoes. Total members were 8,160. (men 73%, women 27%). By mid January, 2013, approx. 83% of the groups had planted their seed production crops. Seeds produced by the groups were in 2012 were as follows: Maize var. 'Sele' seed from MAF/SoL = 15,005 kg Maize var. 'Sele' seed from iNGO/SoL = 30,885 kg Paddy var. 'Nakroma' from MAF/SoL = 24414 kg Paddy var. 'Nakroma' from iNGOs = 275 kg Peanuts var. 'Utamua' from MAF/SoL = 1,675 kg Peanuts var. 'Utamua' from iNGOs = 2,372 kg --- Total amount of seed produced by informal groups – 77t 135,000 sweet potato cuttings distributed by 39 producers. 25 Cassava seed production plots established. Planting material yet to be distributed.
O3.2	Farmer Seed Marketing Groups established.	# and location of FSMGs established. Total no of CSPGs as members. Total production, by variety. Qty and value of sales, by variety.	CSPG records Seed Extension Officer Monthly Reports	Three FSMGs (two in Baucau and one in Liquica) formed. 15 CSPGs have joined as members in 3 FSPGs. Total maize seeds produced by these three FSMGs were: 2.6 tons. Of the total, 1.87 tons of Sele variety of maize seeds were sold to NGOs @1.50/kg . The value of sales of maize seeds is: worth of USD 2,817.
O3.3	Focal seed merchants in local markets established.	# focal seed merchants supported, by sex. Qty and value of sales, by variety.	CSPG records Seed Extension Officer Monthly Reports	Two seed merchants one in Baucau and other in Maliana have been identified with support from MAF District Offices. A seed marketing training is planned in April 2013.

O3.4	Access to seed for vulnerable groups improved through seed fairs.	# of seed fairs conducted, by location. # of merchants involved, by type. # buyers involved. Qty and value of sales, by variety.	CSPG records Seed Extension Officer Monthly Reports	Organizing a seed fair considered to be a costly and unsustainable from the point of view of uptake of the concept by MAF District Offices. Instead, a simple, inexpensive Farmer to Farmer Seed Exchange approach will be piloted in the districts to support vulnerable households. The seed exchange scheme is planned to implement from January 2013 in Liquica and will be replicated in 6 original districts where CSPGs have sufficient reserves of seeds and planting materials.
O3.5	Systems linking informal seed producers with potential buyers developed.	# districts where system established. # of suppliers recorded. # buyers recorded. Qty and value of sales facilitated, by variety.	CSPG records Seed Extension Officer Monthly Reports	SoL facilitated a linkage support between FSMGs/CSPGs and potential seed buyers in last year. As a result 6.578 tons of maize, 2.3 tons of paddy have been sold @USD1.50/kg. The value of sales of maize and paddy in the last year was USD 12,994. There were two buyers World Vision and CRS iNGOs who purchased the seeds of maize and paddy from 34 CSPGs (includes 3 FSMGs).
O3.6	Capacity of MAF extension staff to establish CSPGs strengthened.	# of people trained, by position, subject, type of training provided and sex.	Staff training records	A total of 14 training types conducted in January –December 2012. A total 481 participants benefited from the training. Of the total, 58 (12%) were women. Training were provided on following subjects: seed production, post-harvest and quality control, gender, communication and facilitation skills, English, mathematics, rice research to production course, report writing and presentation skills, understanding national seed systems from Nepal (study visit). The participants were: national seed production coordinators, district informal seed production coordinators, chief of the extension departments from 7 districts, Suco extension officers and Sub-District Extension Coordinators.
COMPONENT 4: SEED SYSTEM MANAGEMENT				
C4.1	**Component Outcome:** MAF capacity to manage the national seed system strengthened.	Widespread awareness of SoL varieties in all districts.	Program assessment via Distribution Surveys.	Variety brochures printed and distributed. SoL activities and new varieties receive considerable exposure on local media.
Key Outputs:				
O4.1	Seed planning & management systems established.	Forward planning systems developed and operational. Allocation procedures developed and operational. National inventory management system established and operational.	Seed production plans. Allocation procedures and distribution plans. Inventory control reports.	A forward planning system for seed needs developed by SoL and in operation by MAF/SoL. Plan includes allocation procedures. Inventory system for SoL seed established and to be expanded to National program.
O4.2	M&E / Sosek processes strengthened.	# of dedicated staff involved in the M&E / Sosek Unit. # and nature studies conducted and reported.	MAF staff records. Evaluation reports.	Four staff, working on MOSEK activities as agreed to by MAF in the PDD. Case studies commenced as baseline survey report being completed. .
O4.3	GoTL seed policy being informed by SoL experience.	# of seed system-related policy issues identified. # of advisory documents prepared and	Policy advisory notes.	Seed policy drafted by consultants and being considered by specially formed seed policy working group at end of July.

		submitted.		
O4.4	Seed system gender strategy implemented.	To be defined by Gender Specialist.	To be defined by Gender Specialist.	MAF assigned 2 persons to work on gender in agriculture. Gender strategy and gender action plan completed. Training at district level commenced.
O4.5	Improved-variety technical & promotional materials developed.	# and type of technical and promotional materials prepared. Extent of distribution.	Publicity records	SoL personnel published 7 refereed scientific papers and drafted three others during the first six months of the year. In addition "Guidelines for maize production" plus 16 other pieces of extension material were printed and distributed.
O4.6	Awareness of improved varieties increased though use of mass media.	# of mass media campaigns conducted, by channel and cost. Size of target audience.	Publicity records	SoL activities received considerable publicity during the period both on local and international TV in addition to publicity in local press. Included were visits by the MAF Minister and Secretary of State to SoL activities during the year who publically expressed support for the program on local TV.
O4.7	Environmental and climate change impacts addressed.	# species/ varieties evaluated taking climate change considerations into account, by species/ variety. # released. # and nature of farming system adaptations recommended.	Annual research work programs and technical reports.	Climate information posters produced for educating MAF staff with 5 key farming adaptations recommended. Analysis of ENSO cycle impact for each of 13 districts. Terracing report released. Mapping analysis of pH and Fe & Zn deficiencies. Products and research delivered to NGO's. Survey of state of weather stations and Ag-met data reported. Preliminary preparations on climate field research on variety analysis. Capacity building of climate staff links fostered with ALGIS staff.
O4.8	Capacity of MAF staff to manage the national seed system enhanced.	# of people trained, by position, subject, type of training provided and sex.	Staff training records	MAF staff received considerable training during the year. One masters degree student in Australia also studying participatory plant breeding and seed distribution systems. A total 1579 MAF staff and farmers (377 female) attended training events over 205 days (3186 training opportunities) during the year.

PROGRAM MANAGEMENT				
5.1	**Objective:** SoL 3 effectively and efficiently managed in a manner that is responsive to stakeholder needs.	As per Mid-Term Review	Independent Mid-Term Review.	
Key Outputs:				
O5.1	Program governance arrangements established and operating effectively.	PSC established and meeting routinely. APs and M&E reports reviewed and endorsed by PSC.	PSC minutes. PSC minutes.	Second PSC meeting held in March, 2012. 2012-2013 AP approved. Third scheduled for October, 2012. Program Management Team established and meets quarterly.
O5.2	Program Management Team established and operating effectively.	PMT established and core GoTL staff appointed including the NPM. Regional Offices established; Regional Coordinators appointed. # GoTL staff appointed, by position, sex # LT TA staff appointed, by position, sex # and type of training conducted for PMT/ RO staff. Staff performing to a satisfactory level. Physical and financial management systems established. Communication Strategy and Administrative Guidelines developed/ refined. APs prepared in timely manner and approved by AusAID/ ACIAR. APs implemented in an efficient manner. Timely Progress reports prepared M&E Framework established and effectively implemented. Timely mobilisation of quality ST TA. # TAG visits conducted.	Staffing records and duty statements. Training reports. Annual staff performance evaluations. 6-mnth Progress and Financial Reports. Communications Strategy and Admin Guidelines. APs. 6-mnthly Progress Reports. MEF design and M&E Reports. TA mobilisation records. TAG Reports.	Quarterly PMT meetings scheduled. Regional Offices established and operating. District coordinators join regular meetings. Three Regional advisors (all male) appointed. Management systems being established. Physical and financial management systems established. CSU being commissioned to develop communication strategy Administrative Guidelines developed. M&E Framework reviewed and being implemented. Mid term review scheduled for Mid 2013 .
O5.3	Program effectively coordinated with other relevant donor programs.	# of other donor programs with which SoL 3 is formally associated. Nature of cooperation.	6-mnth Progress Reports.	SoL has established good relationships with NGOs, particularly working with CSPGs and climate change field trials.
O5.4	Lessons learned reviewed and shared with Government and other donors.	# lessons learned/ sharing workshops conducted; # of participants.	6-mnth Progress Reports. Lessons-learned reports.	MAF/SoL personnel presented papers at a national conference on agriculture. Staff regularly attend interagency workshops.
O5.5	Pilots on the direct use of MAF's financial systems evaluated and reported.	% of *Chef de Suco's* reporting satisfactory service delivery. Satisfactory audit report.	Sosek Evaluation Reports. Audit reports.	Pilot to commence after system established.

Appendix 3. Progress towards End of Program Outcomes 2012-2013

Program Goal and Objectives: Improved food security in Timor-Leste through increased productivity of major food crops
Progress towards end of program outcomes**.**

Indicators	**Unit of measure**	**Baseline**	**Cumulative target values**					**Frequency**	**Data source/ methodology**	**Responsibility for data collection**	**Description (indicator definition etc.)**
			2011	2012	2013	2014	2015				
Percentage of farmers in TL experiencing period of food shortages decreased by 33%	%	26^	21					Annual	Secondary sources	Secondary sources	Numbers of farmers reporting food shortages
% increase in production of major food crops in TL	%	Rice (Target 63%)						Annual	Secondary sources	Secondary sources	Number of farmers reporting increased production
		Maize (Target 38%)									
		Sweet potato (Target 25%)									
		Cassava (Target 25%)									
Proportion of rice farmers growing one or more SOL varieties	%	44,000 rice farmers; 4,600 farmers growing SoL varieties* (Target 70%)	11*					Baseline, mid-term, end-of-program	Sosek & NDE surveys	Sosek	The number of lowland rice farmers growing one or more SoL varieties
Proportion of upland farmers growing one or more SOL varieties	%	111,000 upland farmers; 18,000 farmers growing SoL varieties* (Target 45%)	15.5					Baseline, mid-term, end-of-program	Sosek & NDE surveys	Sosek	The number of upland farmers growing one or more SoL varieties
Proportion of maize farmers growing one or more SOL varieties	%	96,000 maize farmers; 12,800 farmers growing SoL varieties*	13.5					Baseline, mid-term, end-of-program	Sosek & NDE surveys	Sosek	The number of upland farmers growing one or more SoL varieties

		(Target 40%)									
Proportion of peanut farmers growing one or more SOL varieties	%	26,000 peanut farmers; 4,000 farmers growing SoL varieties* (Target 70%)	16					Baseline, mid-term, end-of-program	Sosek & NDE surveys	Sosek	The number of upland farmers growing one or more SoL varieties
Proportion of cassava farmers growing one or more SOL varieties	%	97,000 cassava farmers; 3,300 farmers growing SoL varieties* (Target 20%)	3.4					Baseline, mid-term, end-of-program	Sosek & NDE surveys	Sosek	The number of upland farmers growing one or more SoL varieties
Proportion of sweet potato farmers growing one or more SOL varieties	%	63,000 sweet potato farmers; 4,000 farmers growing SoL varieties* (Target 50%)	6.6					Baseline, mid-term, end-of-program	Sosek & NDE surveys	Sosek	The number of upland farmers growing one or more SoL varieties
Crop yields increased	%	Local maize 1.6t/ha** Local rice 1.7t/ha Local cassava 4.1t/ha*** Local peanut 1.7t/ha Local sweet potato 4.1t/ha	Maize 1.5t/ha					Annual	Sosek & NDE surveys	Sosek	Numbers of farmers reporting increased yields

* Percentage of farmers in baseline survey reporting to grow SoL varieties
** OFDT yield 4 year means
*** FAO yields
^ Average over four years from BDL data. 337 respondents

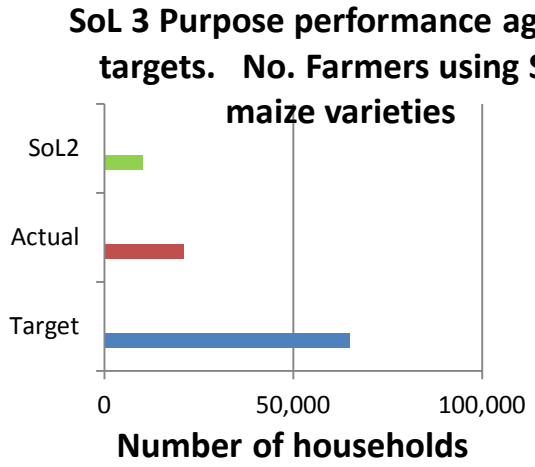
Component 1. Evaluation of improved food crop varieties. Progress towards end of program outcomes**.**											
Indicators	**Unit of measure**	**Baseline**	**Cumulative target values**					**Frequency**	**Data source/ methodology**	**Responsibility for data collection**	**Description (indicator definition etc.)**
			2011	2012	2013	2014	2015				
National network of research centres established*	%	34	64	100				Annual	Component 1 monitoring records	Component 1 team	The number of research stations established
Number of new food crop varieties evaluated and officially released	No.	9 2 maize, 1 rice, 3 sw. potato, 1 peanut, 2 cassava	9 2 maize, 1 rice, 3 sw. potato, 1 peanut, 2 cassava	10 3 maize, 1 rice, 3 sw. potato, 1 peanut, 2 cassava				Annual	Component 1 monitoring records	Component 1 team	The number of varieties of each crop released
Progress towards meeting foundation seed demand	%	95		95				Annual	Component 1 monitoring records	Components 1 and Component 2 teams	Tonnage of rice and maize seed, and number of sweet potato cuttings and cassava canes compared with requirements
MAF managing all phases of research cycle.	%	56*						Annual	Component 1 monitoring records	MAF NDR&SS	Number of MAF staff competently objective setting, planning and implementation of trials, analysis and reporting

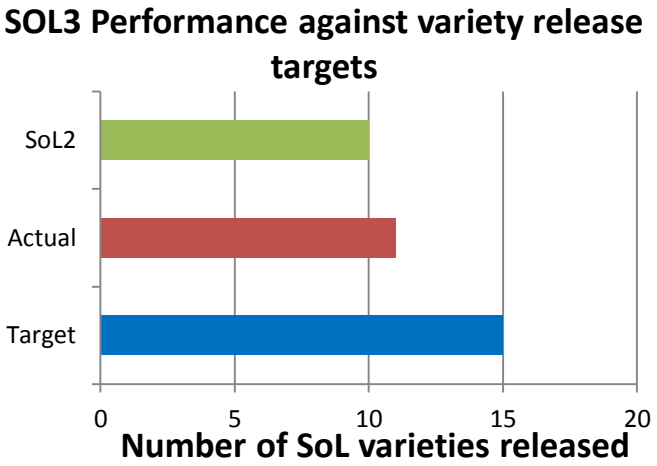
* 2010 Personnel evaluation at 56%

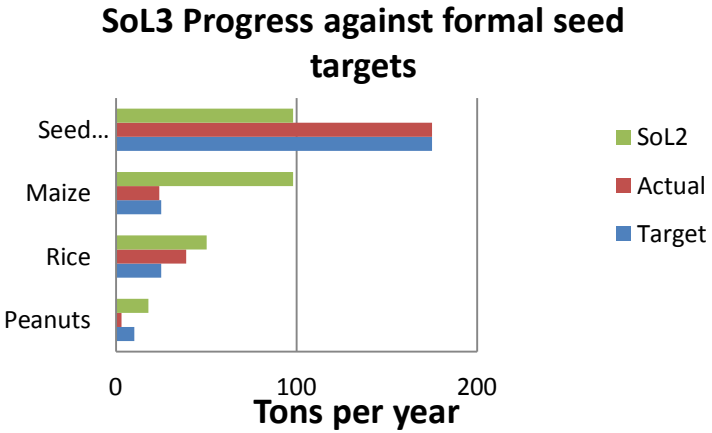
Component 2: Formal seed production and distribution. Progress towards end of program outcomes.											
Indicators	**Unit of measure**	**Baseline**	**Cumulative target values**					**Frequency**	**Data source/ methodology**	**Responsibility for data collection**	**Description (indicator definition etc.)**
			2011	2012	2013	2014	2015				
Total capacity of formal seed production centres (Target 60t/yr)	t/year	82t	73	68.6				Annual	Component 2 monitoring records	Component 2 team	Total number of metric tons of formal seed the SPCs are capable of producing
SPC and contract farmers' capacity to produce formal maize seed (Target 25t/yr)	t/year	32t	22.7	42.4				Annual	Component 2 monitoring records	Component 2 team	The number of tons of formal maize seed produced per year
SPC and contract farmers' capacity to produce formal rice seed (Target 25t/yr)	t/year	50t	47.6	22.5				Annual	Component 2 monitoring records	Component 2 team	The number of tons of formal rice seed produced per year
SPC and contract farmers' capacity to produce formal peanut seed (Target 10t/yr)	t/year	12	2.7	4.2				Annual	Component 2 monitoring records	Component 2 team	The number of tons of formal peanut seed produced per year
SPC and contract farmers' capacity to produce formal sweet potato cuttings (Target 600,000 cuttings/yr)	'000 cuttings/year	64	104	149				Annual	Component 2 monitoring records	Component 2 team	The number of sweet potato cuttings distributed each year
SPC and contract farmers' +capacity to produce formal cassava canes (Target 600,000 canes/yr)	'000 canes/year	50	85	41.5				Annual	Component 2 monitoring records	Component 2 team	The number of cassava canes distributed each year
Formal seed planting material effectively and efficiently distributed to CSPGs	Rice [t/yr]	0	0.6	0.4				Annual	Component 2 monitoring records	Component 2 and Component 3 teams	Evaluation of effectiveness of distribution system
	Maize [t/yr]	0	2.7	2.7							
	Peanut [t/yr]	0	1.4	2.0							
	Sweet potato ['000 cuttings/yr]	0	96	105							
	Cassava ['000 canes/year]	0	12.8	6.4							
MAF effectively managing the production and processing and distribution of targeted quantities of formal seed.	%	Personnel evaluation in 2010 at 5.4/10 (54%)						Annual	Component 2 monitoring records	NDA&H	Number of MAF staff competently managing production and distribution of formal seed

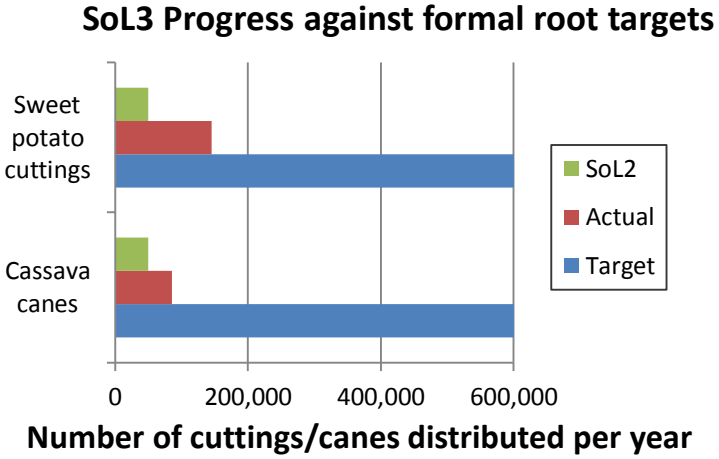
Component 3: Informal seed production and distribution. Progress towards end of program outcomes.											
Indicators	**Unit of measure**	**Baseline**	**Cumulative target values**					**Frequency**	**Data source/ methodology**	**Responsibility for data Collection**	**Description (indicator definition etc.)**
			2011	2012	2013	2014	2015				
Number of SoL managed seed production groups producing surplus or quality seed for sale	Target No.	na	280	560	750	1000	1000	Annual	Component 3 monitoring records	Component 3 team	Number of SoL CSPGs producing surplus seed for sale
	% target achievement	na	89	120							
Total capacity of informal seed production groups (all CSPGs using SoL varieties)	Maize (t/year)	na	na	46				Annual	Component 3 monitoring records	Component 3 team	Tons of seed each year
	Rice (t/year)	na	na	27							
	Peanut (t/year)	na	na	4							
Total capacity of informal sweet potato and cassava production groups (all CSPGs using SoL varieties)	Sweet potato (‘000 cuttings/ year)	na	na	135				Annual	Component 3 monitoring records	Component 3 team	Number of cuttings of sweet potato and cassava produced each year
	Cassava (‘000 canes/year)	na	na	28							
MAF extension services staff and District-based officers competently establishing and supporting CSPGs	%	na		560				Annual	Component 3 monitoring records	Component 3 team	Competency assessments
CSPG members competently operating and managing informal seed production and distribution of targeted quantities	%	na						Annual	Component 3 monitoring records	Component 3 team	Group competency assessments

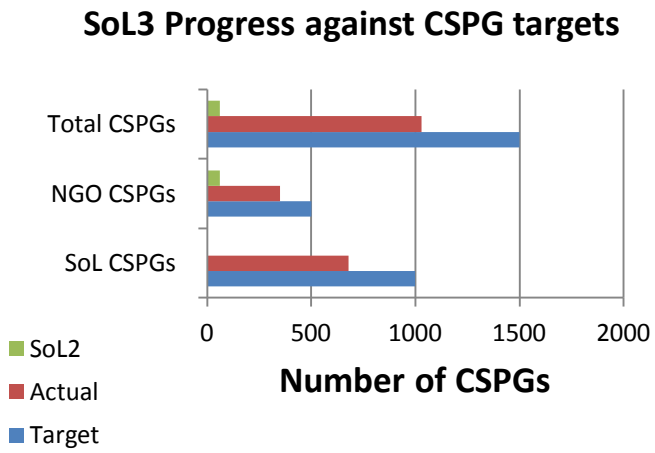
Appendix 4. Performance against target charts 2012

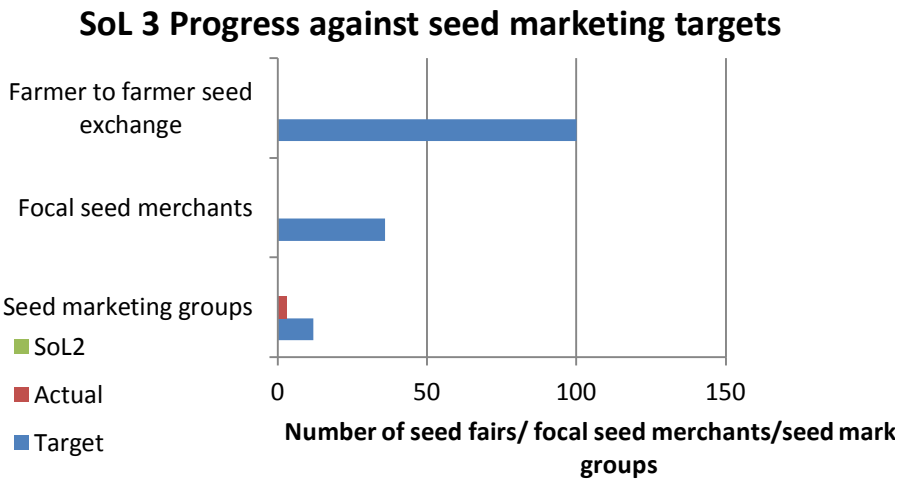


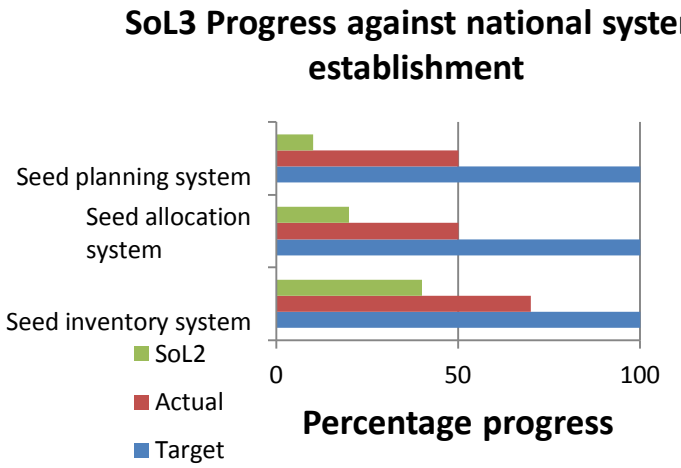


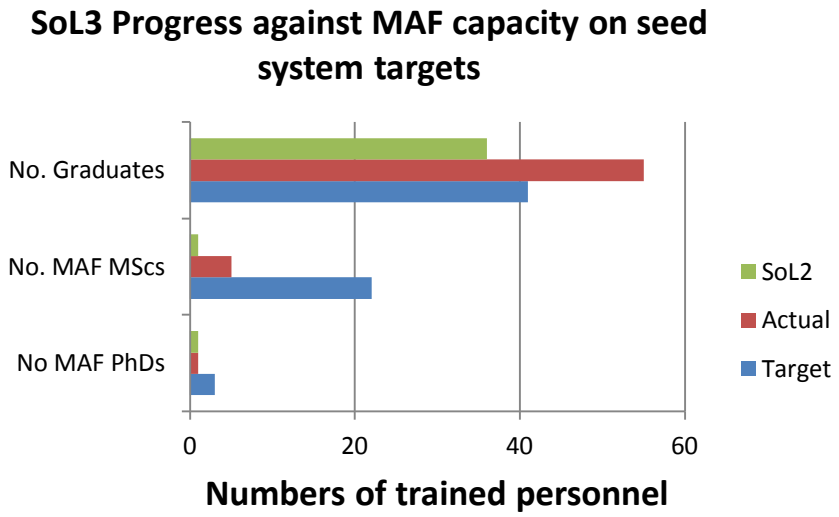





SoL3 Progress against CSPG targets
Total CSPGs
NGO CSPGs
SoL CSPGs
0
500
1000
1500
2000
Number of CSPGs
SoL2
Actual
Target


SoL 3 Progress against seed marketing targets
Farmer to farmer seed exchange
Focal seed merchants
Seed marketing groups
0
50
100
150
Number of seed fairs/ focal seed merchants/seed mark groups
SoL2
Actual
Target


SoL3 Progress against national system establishment
Seed planning system
Seed allocation system
Seed inventory system
0
50
100
Percentage progress
SoL2
Actual
Target


SoL3 Progress against MAF capacity on seed system targets
No. Graduates
No. MAF MScs
No MAF PhDs
0
20
40
60
Numbers of trained personnel
SoL2
Actual
Target

Appendix 5. Seeds of Life 3 communication and dissemination activities, 2012

Publications

Gusmao, M., Kadambot H., Siddique, M., Flower, K., Nesbitt, H. & Veneklaas, E. J. (2012). Water deficit during the reproductive period of grass pea (Lathyrus sativus L.) reduced grain yield but maintained seed size 37p. J. Agronomy & Crop Science ISSN 0931-2250

Lacoste, M., Williams, R., Erskine, W., Nesbitt, H., Pereira, L. & Marçal, A. (2012): Varietal Diffusion in Marginal Seed Systems: Participatory Trials Initiate Change in East Timor, Journal of Crop Improvement, 26:4, 468-488

Molyneux, N., Rangel da Cruz, G., Williams, R. L., Anderson, R. & Turner, N. C. (2012). Climate Change and Population Growth in Timor-Leste: Implications for Food Security. The AMBIO paper. AMBIO, Vol. 41, No. 3, May, 2012

Williams, R., Anderson, R., Marcal, A., Pereira, L., Almeida, L. & Erskine, W. (2012). Exploratory Agronomy within participatory varietal selection: The case of peanut in East Timor. 11 p. Expl Agric. volume 48 (2), pp. 272–282 Cambridge University Press 2012 doi:10.1017/S0014479711001207.

Luis Fernandes, Luis Pereira, Armindo Moises and Robert L. Williams (2012). *Hili varidade ai horis trigu (titboa ho asinata) nian nebee resultadu diak hamutuk toos nain sira. In* Proceedings of the *Communicating New Research on Timor-Leste* Conference, Centro Formação João Paulo II, Comoro, Dili, Timor-Leste, 30 June – 1 July 2011. Eds M Leach, N Canas M da Silva, B Boughton and A Ximenes. Aug, 2012, 396p

Marcos Correia Vidal ho Robert L Williams (2012) - *Lehe bele hasae produsaun batar iha Timor-Leste. In* Proceedings of the *Communicating New Research on Timor-Leste* Conference, Centro Formação João Paulo II, Comoro, Dili, Timor-Leste, 30 June – 1 July 2011. Eds M Leach, N Canas M da Silva, B Boughton and A Ximenes. Aug., 2012, 396p

Felisberto A. Soares, Joao Bosco da Costa, Leandro C.R. Pereira Abril de Fatima ho Robert L. Williams (2012). *Varidade ba batar balu, bele hetan produsaun aas, ho bele tahan ba fuhuk.* In Proceedings of the *Communicating New Research on Timor-Leste* Conference, Centro Formação João Paulo II, Comoro, Dili, Timor-Leste, 30 June – 1 July 2011. Eds M Leach, N Canas M da Silva, B Boughton and A Ximenes. Aug., 2012, 396p

Lopes, M., Nesbitt, H (2012). Improving food security in East Timor with higher yielding crop varieties. In Templeton D. (ed) 2012. Food security in East Timor, Papua New Guinea and Pacific island countries and territories. ACIAR Technical Reports No. 80. Australian Centre for International Research: Canberra. 53pp

Williams, R., Borges F. L., Andersen, R., Lacoste M., Johansen C. & Nesbitt, H. (2012), On-farm evaluation of introduced maize varieties and their yield determining factors in East Timor 22pp. Submitted to Field Crop Research, January, 2012

Marcal, A., Williams, R., Soares, F., Pereira, L., Belo, B., Soares, A., Browne, M., Setiawan, A., & Erskine, W. (2012). Sweet potato can contribute to both nutritional and food security in Timor-Leste, in draft form for submission to “Field Crops Research”

SoL 3 Reports

Seeds of Life Annual Research Report, 2011. Ministry of Agriculture and Fisheries, Dili, Timor Leste 2012, 122 p

Seeds of Life (2012). Seeds of Life Baseline Survey. Ministry of Agriculture and Fisheries, Dili, Timor Leste Vol 1. Main Report, 94p.

Seeds of Life (2012a). Seeds of Life Baseline Survey. Ministry of Agriculture and Fisheries, Dili, Timor Leste Vol 2. Data Tables, 91p.

Seeds of Life (2012b). Seeds of Life Baseline Survey. Ministry of Agriculture and Fisheries, Dili, Timor Leste Vol 3. Annexes, 57p.

Thompson, S. (January, 2012). Geology and Soils in Timor-Leste. 39p.

Seeds of Life Terracing Report Summary. 10p, 2012

Seeds of Life Performance Management Plan, 69p April, 2012

Seeds of Life Annual Plan, 2012-2013, 45p April, 2012

Endah Trista Agustiana, Draft Gender Strategy, 17p June, 2012

Chris Planicka. Formal seed production costs and value chain analysis: Maize., 9p July, 2012

Seeds of Life 3 Technical Advisory Group Report Second Visit, 26p 7 June, 2012

All MAF/SoL and SoL advisors prepared a monthly report each month

Six monthly reports submitted to ACIAR

Timor-Leste media coverage

Televisão de Timor-Leste (TVTL) (2012). Visit of Secretary of State for Agriculture and Arboriculture Mr. Marcos da Cruz to Informal seed production groups in Aileu. Televisão de Timor-Leste (TVTL)

Visit of Secretary of State for Agriculture and Arboriculture Mr. Marcos da Cruz to Informal seed production groups in Baucau – TVTL and Timor Post (newspaper)

Minister of Agriculture and Fisheries visits the Betano Research Center – Jornal Nacional Diario (JND – newspaper) and Suara Timor-Lorosa'e (STL –newspaper)

Cooking competition at the Ministry of Agriculture and Fisheries organised by SoL – Jornal Nacional Diario, Timor Post, TVTL, Business Timor (weekly newspaper)

Minister of Agriculture Mr. Mariano 'Assanami' Sabino inaugurates the Loes Research Center – Timor Post and STL TV

STL TV (2012). SoL's improved variety cooking demonstration by Indonesian Master Chef Haidar Sungkar. STL TV

Jornal Nacional Diario (2012). SoL's improved variety cooking demonstration by Indonesian Master Chef Haidar Sungkar. Jornal Nacional Diario

TVTL (2012). Ministry of Agriculture and Fisheries releases new white corn variety "Noi Mutin". TVTL

Business Timor (2012). Ministry of Agriculture and Fisheries releases new white corn variety "Noi Mutin". Business Timor

Maliana local radio station. Regular coverage of SoL activities

Conference presentations

Pereira, L. C. R. Maize in Timor-Leste: A Summary, Poster presented at the International Maize Conference, Gorontalo, Sulawesi, Indonesia, November 22-24, 2012

Williams, R., Aguilar, L., & Correia, M. Maize and Velvet Bean Systems in Timor-Leste, paper presented at the International Maize Conference, Gorontalo, Sulawesi, Indonesia, November 22-24, 2012

Kunwar, B., Marcal, J., Gama, F., Amaral, R., Setiawan, A., Dalton, J. (2012). Timor-Leste's efforts to achieve maize seed security using 'community seed production', paper presented at the International Maize Conference, Gorontalo, Sulawesi, Indonesia, November 22-24, 2012

Australian media coverage

Collis, B. (2012). Healing wounds with seeds and soil. Partners Magazine.

ACIAR (2012). East Timor, PhD graduate. Partners Magazine, Summer 2012.

ACIAR Blog (2012). Researcher honoured for dedication to Timor-Leste agriculture. ACIAR website http://aciar.gov.au/node/14638

AusAID News (2012). Seeds of Life is helping farmers to grow. AusAID website http://www.ausaid.gov.au/HotTopics/Pages/Display.aspx?QID=50

AusAID News (2012). Seeds of Life Researcher received Queens birthday honour. http://www.ausaid.gov.au/HotTopics/Pages/Display.aspx?QID=700&

Giles, M. (2012). Timor-Leste PhD graduate. ACIAR Blog website http://aciarblog.blogspot.com/2012/01/timor-leste-phd-graduate.html

Horta, J. R. (2012). Timor-Leste benefits from our partnership with Australia. Partners Magazine.

Relief Web Updates (2012). Access to crops from Seeds of Life is helping Liquiça farmers to grow. Relief Web website http://reliefweb.int/report/timor-leste/access-crops-seeds-life-helping-Liquiça-farmers-grow

Relief Web Updates (2012). Seeds of Life researcher receives Queen's Birthday honour (2012). Relief Web website http://reliefweb.int/report/timor-leste/seeds-life-researcher-receives-queen%E2%80%99s-birthday-honour

Relief Web Updates (2012). Real life benefits grow from seeds. Relief Web website http://reliefweb.int/report/timor-leste/real-life-benefits-grow-seeds

Salbolt, C. (2012). A day in the life of a SoL researcher. Youtube website http://www.youtube.com/watch?v=wkocGMU9EYU

UWA News (2012). Minister visits Seeds of Life project. UWA website http://www.news.uwa.edu.au/201205034580/undefined/minister-visits-seeds-life-project

UWA News (2012). CLIMA researcher receives Order of Australia. UWA website http://www.news.uwa.edu.au/201206214754/undefined/clima-researcher-receives-orderaustralia-oam

Printed Materials

Banners

Formal Seed Hare Nakroma Banner, A1, Tetun 4 copies

Habarak Fini Informal Banner, 1m x 3m, Tetun 4 copies

International Maize conference poster, A1, Tetun, 1 copy

Noi Mutin Banner, 1m x 3m, Tetun 1 copy

SoL3 Program Socialisation Workshop Banner, 1m x 3m, 6 copies, Tetun

SoL Photo Competition poster, A1, Tetun, 1 copy

Information Booklets and Brochures

Guidelines for Maize Informal Seed Production 29p, Tetun 1000 copies, English 500
Informal Seed Production: An Introduction. 6p Tetun 1000 copies, English 500
Noi Mutin Brochure, A4, 1p Tetun 5100 copies
Summary of Recommendations 6p, Tetun 1000 copies, English 500
Climate Change Team, Enso fact sheet, A4, Tetun 200 copies, English 200 copies

Report Covers

Annual Research Report 2011 Cover, A4, Tetun 200 copies, English 200 copies
Baseline Survey Annexes, English 150 copies
Baseline Survey Main Report, English 250 copies
Baseline Survey Data Tables, English 150 copies
Strategic Plan Executive Summary, Tetun 55 copies, English 20 copies

Maps

Climate Change Team, Map of Soil pH, English 200 copies
Climate Change Team, Map of Fe & Zn Deficiency, English 200 copies
Climate Change Team, Map of Soil Texture, English, 50 copies
Climate Change Team, Map Annual Rainfall and Temperature, English 50 copies
Climate Change Team, Map of Annual Rainfall 2000, English 30 copies
Climate Change Team, Map of Annual Rainfall 2050, English 30 copies

Posters

Climate Change Team, District Climate Posters, 26 items, A0, Tetun 390 copies, English 117
Fini Nakroma Poster, Tetun 3 copies
Cassava Poster A1, 1p Tetun 35 copies
Maize Poster A1, 1p, Tetun 60 copies
Peanut Poster A1, 1p Tetun 30 copies
Rice Poster A1, 1p, Tetun 70 copies
Sweet Potato Poster, A1, 1p Tetun 40 copies
International Maize Conference Poster, A1, English, 1 copy

Other

Climate Change ENSO Information Sheet, A4, Tetun 1200 copies, English 100
Communications Product Request form, A4, English 100 copies
Group Book Sticker, Tetun 1500 copies
Seed Invoice Booklets, A5, Tetun 15 copies
Seed Request Booklets, A5, Tetun 15 copies
SoL t-shirts, 1000 copies
Stickers for CSPG books, Tetun, 2000 copies
Stickers for Informal Seed Containers, Tetun, 200 copies
Stickers, Labels and Cards for Formal Seed, Tetun, 2900 copies

Website **http://www.seedsoflifetimor.org/**

Appendix 6. Progress against Gender Action Plan 2012

<table>
<tr><th>Component</th><th>Recommendation / Proposed</th><th>Achievements and Remarks</th></tr>
<tr><td>Component 1</td><td>
• Inclusion of gender considerations into the evaluation of new varieties

• Incorporation of gender benefits analysis (along with other benefit analyses such as, economic, social and environment benefits) in the release of new varieties.

• Ensure women’s representation, such as a representative from MAF-GWG, female seed producers, and Gender Team in the new varieties release committee.

• Ensure equal opportunity and participation of female research staff in gender awareness and capacity development program/events (Masters’ Degree, on-the job training, and in-country short courses).

• Integrate and the use of sex-disaggregated data and gender analysis in research monitoring and reporting.
</td><td>
• Initial testing with farmers includes 25% female households. Cooking, pounding and eating qualities which are preferred by women were considered in the release of Noi Mutin.

• Gender aspects are included in on-station and on-farm variety assessments, but are not an additional criteria for the variety release committee.

• Farmer representative in the variety release committee includes 1 Male and 1 Female

<table>
<tr><td>Year</td><td colspan="3">2012</td></tr>
<tr><td>Job Category</td><td colspan="3">Researcher</td></tr>
<tr><td></td><td colspan="2">Gender</td><td></td></tr>
<tr><td>Training Type</td><td>F</td><td>M</td><td>Grand Total</td></tr>
<tr><td>Field Demo/Farmer Training</td><td>1</td><td>1</td><td>2</td></tr>
<tr><td>MSc (Master's Degree Course)</td><td></td><td>2</td><td>2</td></tr>
<tr><td>On-the-Job (OJT)</td><td></td><td>3</td><td>3</td></tr>
<tr><td>Short-course</td><td>46</td><td>150</td><td>196</td></tr>
<tr><td>Study Visit</td><td>1</td><td></td><td>1</td></tr>
<tr><td>Workshop</td><td>16</td><td>58</td><td>74</td></tr>
<tr><td>Grand Total</td><td>64</td><td>214</td><td>278</td></tr>
</table>
• Field day data on taste tests are always segregated by gender
</td></tr>
</table>

<table>
<tr><th>Component</th><th>Recommendation / Proposed</th><th>Achievements and Remarks</th></tr>
<tr><td>Component 2</td><td>• Ensure equal participation of female farmers as formal seed producers/contractors.</td><td>Table 1. Contracted Rice Seed Producer in 2011/2012 season
<table>
<tr><th>No</th><th>District</th><th>Number of group</th><th>Number of farmer</th><th>Female</th><th>Male</th></tr>
<tr><td>1</td><td>Aileu</td><td>2</td><td>5</td><td>0</td><td>5</td></tr>
<tr><td>2</td><td>Baucau</td><td>0</td><td>5</td><td>1</td><td>4</td></tr>
<tr><td>3</td><td>Liquiça</td><td>0</td><td>9</td><td>0</td><td>9</td></tr>
<tr><td>4</td><td>Viqueque</td><td>1</td><td>20</td><td>0</td><td>20</td></tr>
<tr><td></td><td>Total</td><td>3</td><td>39</td><td>1</td><td>38</td></tr>
</table>
Table 2. Contracted Corn Seed Producer in 2011/2012 season
<table>
<tr><th>No</th><th>District</th><th>Number of group</th><th>Number of farmer</th><th>Female</th><th>Male</th></tr>
<tr><td>1</td><td>Aileu</td><td>0</td><td>2</td><td>0</td><td>2</td></tr>
<tr><td>2</td><td>Baucau</td><td>0</td><td>3</td><td>0</td><td>3</td></tr>
<tr><td>3</td><td>Bobonaro</td><td>1</td><td>27</td><td>4</td><td>23</td></tr>
<tr><td>4</td><td>Liquiça</td><td>1</td><td>7</td><td>0</td><td>7</td></tr>
<tr><td>5</td><td>Manufahi</td><td>11</td><td>39</td><td>21</td><td>18</td></tr>
<tr><td></td><td>Total</td><td>13</td><td>78</td><td>25</td><td>53</td></tr>
</table>
Table 3. Contracted peanut Seed Producer in 2011-2012 season
<table>
<tr><th>No</th><th>District</th><th>Number of group</th><th>Number of farmer</th><th>Female</th><th>Male</th></tr>
<tr><td>1</td><td>Baucau</td><td>0</td><td>3</td><td>1</td><td>2</td></tr>
<tr><td>2</td><td>Bobonaro</td><td>1</td><td>6</td><td>2</td><td>4</td></tr>
<tr><td></td><td>Total</td><td>1</td><td>9</td><td>3</td><td>6</td></tr>
</table></td></tr>
<tr><td></td><td>• Develop policy direction for the inclusion of gender sensitivity criteria in formal seeds production, distribution and selection of formal seeds producers/contractors and recipients.</td><td>• In planning meeting, seed district officers are asked to always consider gender sensitive issue in their activities. Seed officers are encouraged to provide equal opportunity to women and men in seed production, processing and distribution.</td></tr>
<tr><td></td><td>• Ensure equal opportunity for the employment of women and men in the management and distribution of formal seeds (i.e., seed bagging and labeling, etc).</td><td>• Seed of Component 2 is distributed to seed users mostly via institutions (NGO, Community seed producer group, OFDTs, research, and MAF), and not to individual farmers directly. In average about 40 % of the laborers working in the warehouses are women. Women mostly work in selection of cobs, and selection of broken peanuts.</td></tr>
</table>

Component	Recommendation / Proposed	Achievements and Remarks
	• Ensure equal opportunity and participation for female and male seed production and extension staff in capacity development program (mentoring, meeting, on the job training, etc)	• From the 15 staff of Component 2, three are women. All of them have equal opportunity in capacity development. Equal opportunity is provided to all staff in capacity development program. As an example: All of the staff has participated in the two weeks training of field inspection for seed certification and seed technology training done in Indonesia in 2012. All three women staff also have equal opportunity to become trainer in production of certified seed for contracted seed growers.
	• Ensure participation of MAF-SoL Senior Management and formal seed staff in awareness and capacity development program.	• The staff, Directors and advisor have participated in the gender sensitive training. This training designed to wake up awareness on gender issue. Participation of senior management so far is only in the level of encouragement to their staff to be aware on the gender issue. The use of gender issue as criteria of staff promotion can be considered.
	• Integrate and the use of sex-disaggregated data in formal seed monitoring and reporting.	• Staff are encouraged to mention number of women involved in each activity in their report. Some staff already implement this in their report but most of them not yet. More attention on this issue will be given in 2013-2014 programs
Component 3	• Integrate gender issues in orientation and capacity development for CSPG by SEOs.	• In 2012/12, all 7 District Informal Seed Production Coordinators (from 7 districts) and Chief of Extension Departments from 7 Districts participated in gender training. SoL also organised training to 43 Suco Extension Officers and 6 Sub-District Extension Coordinators in the 7 districts. With this training, SEOs and Sub-District Extension Coordinators found confident to talk on gender issues with CSPGs.
	• Integrate gender issues in the technical guidance to I/NGOs interested in informal seeds	• A guideline for Seed Production was provided to SoL collaborating iNGOs for community seed production. In the guidelines as well as at the training, SoL has clearly provided guidance to iNGOs to keep community groups gender balanced (see page 6 Selection of Community Group on the Guidelines of Community Seed Production (TETUN version publication).
	• Ensure equal opportunity and participation of female farmers/ female seeds production groups in seeds fairs.	• Seeds fair not implemented in 2012 so this is not applicable for reporting.
	• Ensure equal participation of women and men in seed producer-buyer workshop.	• The above mentioned workshop not implemented in 2012 so this is not applicable for reporting. This workshop will be organised in 2013.

Component	Recommendation / Proposed	Achievements and Remarks
	• Integration of gender issues/topic in the training program for district staff on informal seed production.	• SoL Component 3 Informal Seed Production staffs have adequately integrated gender issues in all training programs that were carried out at national and district level. This practice will be continued in training programs of 2013 and beyond.
	• Inclusion of gender issues in the orientation program for SEOs on monitoring and reporting progress of CSPGs.	• Gender issues have been included in all monitoring and report of progress. For example, SEOs have collected community groups by gender type, and composition of members. Moreover, during the mentoring support from SEOs to community groups they also discussed how groups members men and women work together to select, store and market quality seeds in the community they live.
	• Inclusion of gender issues into the agenda of MAF-National Director (Extension) meetings.	• In all PMT, SoL component 3 team present gender disaggregated group data and advocate with MAF National Director of Community Development Services (DNADCA) about the need for a gender balanced group in the country.
	• Inclusion of gender issues in farmer field day.	• SoL Component 3 had organised farmer field day only one time in 2012 in Liquiça where women farmers had participated at harvesting ceremony of Sele maize seeds from the Seed Production Plots owned by the Farmers Association. Following the harvesting, seed selection was done jointly by men and women members of the Association.
	• Ensure women's equal opportunity and participation in awareness and capacity development events on informal seed (i.e., mentoring, workshop, short courses, and study visit/comparative).	• Women participation in mentoring workshops, short courses and study visits will be done as and when events are occurred. Until now, not study visit organised. This is planned for 2013. The participants targeted are District Informal Seed Production Coordinators and Chief of Extension Department and currently none of them are women. But for the trainings conducted in the districts, 14% of the participants were women.
	• Ensure participation of SEOs in gender awareness and capacity development events.	• SoL short term Gender Advisor provided gender training to all Suco Extension Officers, Sub-District Extension Coordinators and Chief of Extension Departments in 7 districts of Aileu, Ainaro, Baucau, Viqueque, Manufahi, Liquiça and Bobonaro.
	• Conduct gender awareness and capacity development events for CSPGs and ensure equal participation of women and men farmers/informal seed producers in the events.	• In Progress Review and Planning workshop, SoL invited 3 men, 3 women from each groups to participate in the workshop in each districts.
	• Integrate and the use of sex-disaggregated data and gender analysis in informal seeds monitoring and reporting.	• Gender disaggregated data of informal seed groups has been used for monitoring, reporting of Component 3 Informal Seed Production.

Component	Recommendation / Proposed	Achievements and Remarks
Component 4	• Ensure participation of M&E staff in gender awareness and capacity development program (i.e., mentoring, comparative study, short courses, workshop, etc)	• All M&E staff participated in the gender awareness and capacity development events that were organized by the short-term Gender Advisor. One of the M&E staff even acted as an assistant to the Gender Advisor for the different events.
	• Integrate and the use of sex-disaggregated data and gender analysis in socio-economic studies and report.	• Is being done, as illustrated by the baseline survey report.
	• Integrate and the use of sex-disaggregated data in M&E report.	• The M&E reporting is gender disaggregated.
	• Inclusion of gender issues/topic in the workshop of formal seed production.	• See the section on Component 2 on the integration of gender issues in formal seed production.
	• Integrate gender issues and the use of gender-sensitive language and image in technical and promotional materials.	• The promotional materials, and the press releases on the website include pictures of women and use gender-sensitive language.
	• Integrate gender issues and analysis in environmental and climate change studies and reports.	• The climate changes studies have so far only focused on the collection and analysis of meteorological data (rainfall, temperature, etc).
	• Develop Gender Annual Action Plan 2012.	• This was the Gender Annual Action Plan 2012.
	• Inclusion of gender issues in the agenda of PMT meeting, adviser weekly meeting and other important meetings.	• Gender is one of the topics on the agenda of the regular advisor meetings, and gets reported in the PMT meetings, as per the component reports.
	• Strengthen functioning of the Gender Team	• Some activities were scheduled shortly after the last input of the short-term Gender Advisor, but the level of intensity and follow-up became less. A new Gender Advisor is being recruited to help to invigorate gender activities.
	• Support and facilitate GWG's capacity development and its monthly meeting	• A few monthly meetings were conducted, but in the absence of a Gender Advisor, these were not continued.
	• Establish Gender Facilitator Team to facilitate gender awareness and capacity development/training program.	• A Gender Facilitation Team was established, but in the absence of a Gender Advisor, little activity happened.
	• Conduct ToT for Gender Facilitator Team.	• Will be done after the recruitment of a new Gender Advisor.
	• Develop gender capacity development plan 2012 for MAF-SoL program	• The different program components incorporated gender-related activities, as described in the component sections above.
	• Conduct Gender Awareness and Capacity Development for Senior Management, Adviser and Staff at the national and sub-national levels.	• All SoL advisors and staff participated in gender awareness and capacity development events.
	• Develop gender mainstreaming manual/handbook for MAF-SoL program.	• Will be done after the recruitment of a new Gender Advisor, if this is indeed the preferred strategy.
	• Develop Gender advocacy tools and materials.	• Will be done after the recruitment of a new Gender Advisor, if this is indeed the preferred strategy.

Component	Recommendation / Proposed	Achievements and Remarks
	• Organize and participate in the celebration of international and national women's day as part of MAF-gender awareness and advocacy program to gain a greater national and international support and visibility for the promotion of MAF-SoL III-gender program.	• MAF-SoL was the driving force behind the International Women's Day celebrations of 2012, and invested a lot of time and resources into this. The program is not convinced that a repeat of such effort contributes much to advancing the gender agenda in agriculture.
	• Develop and integrate gender sensitive indicators in M&E	• M&E already includes gender sensitive indicators. One of the planned case studies focuses specifically on gender.
	• Develop policy direction for the integration of gender considerations in MAF-SoL program.	• Gender considerations are already part of the MAF-SoL program. This will be assessed by the new Gender Advisor.
	• Incorporation of gender issues and the use of sex-disaggregated data and gender analysis in MAF-SoL progress and annual report.	• Gender issues and sex-disaggregated data is already incorporated in the progress and annual reports.

Appendix 7. Annual workplan for Seeds of Life 2013-2014

Annual Workplan Seeds of Life 2013

1 February 2013 - 31 January 2014

Preparation • • • • Intermittent Continuous

No.	Component / Output / Activity	2013 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014 Jan
1	**Component 1: Evaluation of improved crop varieties**												
1.1	Establishment of Agricultural Research Centres and Stations completed												
	a) House protection at Urulefa												
	b) Construction of shed at rice site in Maliana												
1.2	Genetic material of potential improved varieties identified and sourced												
	a) New genetic material sourced from Indonesian research centres												
1.3	Potential new varieties evaluated on-station												
	a) Testing new varieties at each station												
1.4	Potential new varieties evaluated on-farm												
	a) Potentail new varieties tested on farm												
1.5	Selected new varieties officially released												
	a) One or two crop varieties released												
1.6	Sufficient foundation seed produced for national seed system												
	a) Production of foundation seed												
1.7	Capacity of MAF research staff to manage the identification and release of new varieties strengthened												
	a) Implementation of capacity strengthening activities												
2	**Component 2: Formal seed production and distribution**												
2.1	Formal seed produced through farmer contracts												
	a) Seed crop growing by contract farmers in the 2012/2013 season												
	b) Seed processing by farmers												
	c) Seed delivering to Seed Processing Units (SPUs)												
	d) Contracting of seed growers for the 2013/2014 season												
	e) Seed crop growing during the 2013/2014 season												
2.2	Quality assurance systems established												
	a) Field inspection during the 2012/2013 planting season												
	b) Seed processing at SPUs												
	c) Conduct seed quality testing in the laboratory												
	d) Seed bagging and labelling												
	e) Submission of applications to become contract seed grower 2013/2014												
	f) Pre planting field inspections (2013/2014 seasons)												
	g) Brief introduction on seed production to contract growers												
	h) Field inspection during the 2013/2014 planting seasons												
	i) Distrbution of tarpaulin and sacks to contracted seed growers												
	j) Training, and spot inspection of Farmer assocations producing commercial seed by MAF Seed quality control officer												
	k) Retesting of expired certified seed (seed label older than six months)												
2.3	Technical extention support provided to contracted seed producers												
	a) SDO and SEO visits to contract growers												
	b) Basic training on production of Certified seed (seed growing, processing, storage)												
2.4	Seed grading, packing and storage facilities established												
	a) Establishment and operationalization of seed lab and seed training center												
	b) Construction of Aileu seed warehouse fence												
	c) Distributing seed packaging materials : plastic bag, nylon bag to seed warehouse												
	d) Ordering, delivering and installation of seed testing and processing equipments)												
2.5	Formal seed distributed through preferred distribution channels												
	a) Seed distribution planning for 2013/2014 planting season												
	b) Seed Request submission from interesting parties												
	c) Seed Request approval by MAF and SoL TL												
	d) Seed distribution for SoL's program (Research; OFDT; Informal seed production; Formal seed production), MAF and NGOs												
2.6	Capacity of MAF seed production and extention staff to manage the production and distribution of formal seed strengthened												
	a) Individual mentoring during field visits												
	b) Individual mentoring in Dili office												
	c) Regular 2-monthly meeting												
	d) District cross-visits field inspection by Seed Officers												
	e) Attending International seed workshop and conference												
	f) In depth training on seed processing (invite expert to Dili)												
	g) Seed testing in depth training in Dili												
	h) Seed health training Bogor												

Annual Workplan Seeds of Life 2013

1 February 2013 - 31 January 2014

Preparation • • • • Intermittent Continuous

No.	Component / Output / Activity	2013 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014 Jan
3	**Component 3: Informal seed production and distribution**												
3.1	Community Seed Production Groups established												
	a) Distribute agricultural and postharvest tools to new CSPGs in 10 districts												
	b) Coordinate with MAF to select **new districts** for informal seed production												
	c) Organize District Socialization Workshops in Oecusse and Covalima Districts												
	d) Develop CSPG expansion plan for existing and new districts												
	e) Organise Review and Planning Workshops in 11 districts												
	f) Coordinate with MAF to select additional groups in **existing** 10 districts												
	g) Identify additional groups for informal seed production in **existing** 10 districts												
	h) Organise Suco Socialisation Workshops in new Sucos of **existing 10** districts												
	i) Implement informal seed production of FIVE major crops												
	j) Coordinate with MAF to identify counterpart DIFSPCs for **new districts**												
	k) Coordinate with MAF Districts to select/form CSPGs in **new** districts												
	l) Organise Suco Socialisation Workshops in two new districts												
	m) CSPGs (old+new) implement informal seed production of FIVE major crops												
	n) Organize postharvest management training for DIFSPCs and SEOs												
	o) Provide technical guidance to (I)NGOs interested in informal seed production												
3.2	Farmer Seed Marketing Groups established												
	a) Identify CSPG interested in joining Farmer Association (FA)												
	b) Identify two FAs from each district (total 22 FAs to be established in 11 districts)												
	c) Organize a learning visit to Kefamenanu and Oecusse for FA representatives												
	d) Initiate Savings and Loan activity in all FAs												
	e) Organize Savings and Loan trainings for FAs												
	f) Provide support to strengthen savings and loan within FAs												
	g) Support FAs to prepare Statutes												
	h) Register the FAs in District MAF Office												
	i) Support and strengthen 22 FAs (@ two per district)												
	j) Provide ignition support for institutional development to FAs												
	k) Organize learning visit to Atauro about community org. business plan												
	l) Organize business development training for FAs												
	m) Support FAs to develop a business plan												
	n) Provide seed marketing training to FAs												
	o) Organize learning visits among FAs												
3.3	Focal seed merchants in local markets established												
	a) Identify at least three potential merchants in three strategic locations												
	b) Provide training to seed merchants on marketing of informal seeds												
	c) Mentor seed merchants on sale of SoL crop varieties												
	d) Provide seed agric-inputs support to seed merchants												
3.4	Access to seed for vulnerable groups improved												
	a) Develop a guide to support vulnerable households to access to quality seeds												
	b) Orient MAF Extension Staff about implementing the guidelines												
	c) Assess SoL seeds to the groups through farmer to farmer seed exchange												
	d) Implement farmer to farmer seed exchange on sweet potato												
	e) Implement farmer to farmer seed exchange on maize												
	f) Implement farmer to farmer seed exchange on paddy												
3.5	Systems linking informal seed producers with potential buyers developed												
	a) Develop database of seed production for all groups												
	b) Identify potential buyers of seeds												
	c) Consult with new producers, SEOs and MAF District Directors												
	d) Consult with potential buyers												
	e) Develop strategy for linking buyers and seed producers												
	f) Organize seed producers and seed traders workshop at national level												
	g) Assist FAs to participate at Seed Fair during World Food Day at National level												
	h) Assist FAs to participate at Seed Fair during World Food Day at District Level												
3.6	Capacity of MAF extension staff to establish CSPGs strengthened												
	On the job training (visit to international industries)												
	a) Organize a learning visit sustainable agriculture systems in Bali for DIFSPCs												
	b) Organize a learning visit sustainable agriculture systems in Bali for Ext. Chiefs												
	In-country short courses												
	a) Cooperative trainings for DIFSPCs												
	b) Regular monthly progress review and planning meeting with DIFSPCs												
	c) Regular progress review meeting with District Chief of Extension Dept.												
	d) Mathematic training for SEOs and DIFSPCs												
	e) Statistics training for SEOs and DIFSPCs												
	f) English training for SEOs and DIFSPCs												
	Group/seed/agronomy/gender training for SEOs												
	a) Provide seed production training to new MAF staff in old and new districts												
	b) Post-harvest seed management training Part II for MAF staff in 3 regions												
	c) Facilitate to provide Integrated pest management training for SEOs												
	Group/seed/agronomy/gender training for District and Subdistrict staff												
	a) Gender and nutrition training on seed production for district and subdistrict staff												
	Operational support to SEOs,Subdistrict Ext. Coord., and Chief of Ext. Dept												
	a) Distribute raincoats to SEOs, Subdistrict Ext. Coord., and Chief of Ext. Dept												
	b) Distribute cameras to Subdistrict Extension Coordinators												
	c) Provide moisture test meter for DISPCs in remaining 5 districts												
	Establishing Community Learning Centres (CLCs)												
	a) Reach agreement with USC Canada to provide TA to establish CLCs												
	b) Establish one Community Learning Centre in each of 12 districts												

Annual Workplan Seeds of Life 2013

1 February 2013 - 31 January 2014

Preparation • • • • Intermittent Continuous

No.	Component / Output / Activity	2013 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2014 Jan
4	**Component 4: Seed system management**												
4.1	Seed planning and management systems established												
	a) National consultation on the National Seed System for Released Varieties												
	b) Establishment of a National Seed Program Working Group (NSP WG)												
	c) NSP WG develops and implements a workplan to create awareness of, and build acceptance for the NSP												
	d) Institutionalizing National Seed System into MAF (i.e. Seed research; Seed production and quality assurance; Seed production through CSPGs; Marketing through Seed Producing Farmers' Associations).												
4.2	M&E/SOSEK processes strengthened												
	Capacity building of M&E/Sosek unit staff												
	a) Study visit on M&E/Sosek (Indonesia)												
	b) On-the-job training on M&E/Sosek												
	Case studies												
	c) Review and disseminate the economics case studies												
	d) Typology of CSPGs												
	e) CSPGs in Ermera, Manatuto and Lautem												
	f) Comparison of variety adoption in two sucos in Bobonaro												
	g) Participation of women farmers in different types of groups												
	Mid-term survey												
	h) Selection of mid-term survey implementer												
	i) Mid-term survey preparation and data collection												
	j) Data analysis and reporting												
	Competency assessments												
	k) Analysis and write-up of 2012 competency assessments												
	l) Competency assessments for SoL staff - 2013												
4.3	GoTL seed policy being imformed by SoL experience												
	a) Preparation of revised draft National Seed Policy												
	b) Submission of revised draft National Seed Policy to the Minister for Agriculture and Fisheries												
	c) Ongoing support and publicity for the adoption of the National Seed Policy												
4.4	Seed system gender strategy implemented												
	a) Review and update SoL Gender Action Plan												
	b) Implement SoL Gender Action Plan												
4.5	Improved-variety technical & promotional materials developed												
	a) Prepare and publish/present scientific papers and posters based on SoL experience												
	b) Preparation and dissemination of communication outputs (print, electronic, audio, visual) to increase farmer knowledge of good agricultural practices												
	c) Strengthen capacity of MAF communication staff to manage communication processes in support of the establishment of a national seed system												
4.6	Awareness of improved varieties increased through use of mass media												
	a) Maintenance and updating of website												
	b) Communication meetings/briefings												
	c) Press releases for radio, newspapers and TV												
4.7	Environmental and climate change impacts addressed												
	a) Assess future climate impacts on crop production												
	b) Conduct climate research to analyze crop yields across agro-ecological zones (AEZs) to assess vulnerability to food insecurity												
	c) Refine and characterise crop adaptation strategies and climate change impacts by AEZ												
	d) Develop sub-district level climate change and adaptation information products												
	e) Strengthen capacity of MAF staff to manage the weather stations, and to analyze and use weather and crop related data												
4.8	Capacity of MAF staff to manage the national seed system enhanced												
	a) Individual mentoring of MAF staff												
	b) Orientation on seed policy and quality assurance for MAF staff												
5	**Program management**												
5.1	Program governance arragements established and operating effectively												
	a) Regular (daily) meetings between ATL and MAF Director-General (DG)												
	b) Quarterly meetings of Program Management Team (PMT), [SoL ATL + Advisors and MAF DG + National/District Directors]												
	c) Dili-based Advisors collaborating with National Directors; Regional Advisosrs collaborating with District Directors												
5.2	Program management arrangements established and operating effectively												
	Program implementation												
	a) Implementation and updating/revision of program frameworks (training; communications; gender; M&E; reporting)												
	b) Preparation of SoL 3 Annual Program 2013-2014												
	c) Preparation of SoL 3 Annual Program 2014-2015												
	Reporting												
	d) Preparation and circulation of summary Monthly Report												
	e) Six-monthly progess report												
	f) Annual progress report												
5.3	Program effectively coordinated with other relevant donor programs												
	a) Support for MAF Development Partners coordination												
	b) Ongoing facilitation of MAF Governance Project												
	c) Sharing of information with MAF Development Partners and NGOs												
5.4	Lessons learned systematically reviewed and shared with government and other donors												
	a) Information sharing in print form (reports, brochures)												
	b) Information sharing in electronic form (website, direct mail)												
	c) Information Sharing Days (national and district levels)												
	d) Annual research report 2012												
	e) Annual research report 2013												

Appendix 8. Training schedule for 2013

Component 1

Training course title	*Target participants*	*Preferred Dates*	*Location*	*Proposed person*
General				
Mathematics	Researchers	All year	In-Country	Edmundus Fahik
Presentation Skills	Researchers	TBA	TBA	TBA
Technical Report writing	Researchers	TBA	TBA	IRRI
English	Researchers	All year	In-Country&Overseas	Chona Binuya, SOLS & CELT
Communication	Researchers	TBA	In-Country	Rick Jacobsen
Leadership Training/Training for coordinators	Coordinators	TBA	TBA	Paul Young
Technical				
Rice variety selection	Researchers	TBA	In-Country	Rob
Research layout design	Researchers	TBA	In-Country	Rob
QGIS	Researchers	TBA	In-Country	Sam
APSIM	Researchers	TBA	In-Country	Sam
Measure Soil pH	Researchers	February	In-Country	Thomson
Identification of major insect pests and diseases of rice and maize	Researchers	January, Feb	In-Country	Rony
Import data from GPS to Excel & map in Google Earth	Researchers	Feb, March	In-Country	Sam, Rob
Genstat	Researchers	TBA	In-Country	Sam
Statistics/Data analysis	Researchers	TBA	In-Country	Ibu Detha
Study Tours/Visit				
Study visit on cassava and sweet potato	TBA	TBA	TBA	TBA
Agronomy Training	Researchers	March	Hermitage, Australia	Hermitage
On the Job Training				
Machinery Training	Station managers	March	In-country	
Postgraduate Studies				
MS Degree in Australia	Armandina and Isabel	April	Overseas	UWA

Component 2

Training Course Title	Target participants	Preferred dates	Location	Proposed resource person
General				
Computer	FSPs	TBA	In-Country	SOL IT staff
English	FSPs	All year	In-Country	Chona Binuya
Microsoft Excel	FSPs	TBA	In-Country	SOL IT staff
Technical				
Genstat	FSPs	July	In-country	TBA
Rice seed production	FSPs	April	Baucau	Bogor ag staff & Asep
Nucleus and breeder seed pd	FSPs	June	Dili	Bogor ag staff & Asep
Quality control of seeds	FSPs	TBA	TBA	TBA
Training to farmers on seed selection	FSPs	TBA	TBA	TBA
Study Tours/Visit				
	FSPs, Directors	July	Indonesia	Asep
On the Job Training				
	Seed multiplication and proc.	All year	In-country	Asep

Component 3

Training Course Title	Target Participants	Preferred dates	Location	Proposed person
General				
Teamwork	IFSP coordinators	TBA	TBA	TBA
Writing letters	IFSP coordinators	TBA	TBA	TBA
Computer	IFSP coordinators	TBA	In-Country	SOL IT staff
Technical Report writing	IFSP coordinators	TBA	TBA	TBA
English	IFSP coordinators	All year	In-Country	Chona Binuya
Monitoring & Evaluation	IFSP coordinators	Feb	In-Country	Luc Spyckerelle
Organizational and Managment skills course	Farmer groups' associations	March	In-Country	Wayan
Technical				
Integrated Pest Management of 5 SOL crops	National and District ISPs coordinators	TBA	TBA	TBA
Seed quality control	National and District ISPs coordinators	TBA	TBA	TBA
Study Tours/Visit				
National seed system	5 new DDs, 2 NDs, 3 Reg.Adv, ATL, Buddhi and Wayan	March	Nepal	Buddhi
On the Job Training				
	Extension techniques	All year	In-country	Buddhi
Cross-district visits				
Farmer groups visit other farmer groups' site	Farmers groups	April	Maliana to Liquica	Buddhi
Farmer groups visit other farmer groups' site	Farmers groups	TBA	TBA	Buddhi

Component 4

Training Course Title	Target Participants	Preferred Dates	Location	Proposed Resource person
General				
Mathematics	Admin, SOSEK, Training	All year	In-country	Edmundus Fahik
Presentation Skills	MOSEK	TBA	TBA	TBA
Computer	Admin, SOSEK, Training	TBA	In-country	
Technical Report writing	MOSEK	TBA	TBA	TBA
English	Admin, logistics, Training team	All year	In-country	Chona Binuya
Communication	SOSEK		In-Country	Rick Jacobsen
Leadership Training/Training for coordinators	Coordinators	TBA	TBA	Paul Young
Microsoft Excel	Admin, SOSEK, Training	All year	In-Country	Edmundus Fahik
Microsoft Access	Admin, logistics, Training team	TBA	In-country	Jonas, Pipot
Database	Admin, logistics,	TBA	In-country	Jonas, Pipot

Training Course Title	Target Participants	Preferred Dates	Location	Proposed Resource person
	Training team			
Proposal writing	MOSEK	TBA	In-country	Luc Spyckerelle
Questionnaire development	MOSEK	TBA	In-country	Luc Spyckerelle
Training assessment and management	Training team	TBA	TBA	TBA
Gender workshops at district level (new districts)	MAF-SOL staff, extension officers, farmer groups association	Feb/March	In-country	Maria Fernandes (Anita)
Router training	IT	TBA	TBA	Overseas
Statistics/Data analysis	MOSEK	TBA	TBA	TBA
Admin and Finance	Admin	TBA	TBA	TBA
Supervisory Skills	Coordinators	TBA	TBA	TBA
QuickBooks	Admin		In-country	Carla da Silva
Writing letters	Admin	TBA	In-country	TBA
Logistics and Procurement	Logistics	TBA	TBA	TBA
Car mechanica skills	Drivers	TBA	TBA	TBA
Car driving course	Drivers	TBA	TBA	TBA
Server management	IT	Nov 12-30, 2012	Jogja	INIXINDO
Study Tours/Visit				
M&E/SOSEK	M&E/SOSEK	Feb, March	Indonesia	c/o Luc
On the Job Training				
	Program management	All year	In-country	John Dalton
Postgraduate Studies				
MSc	Modesto Lopes	1 Year	UWA	Harry Nesbitt

Appendix 9. Budget for Australian Funding, Year 3 (2013-2014)

Seeds of Life Phase III: Australian budget for 2013-2014 (A$'000)								
				Year 3 ($'000)				
Ref	Activities / Item	Unit	Cost ($)	1	2	3	4	Tot
C1	Evaluation of improved foodcrop varieties							
O1.1	Establishment of National Research Centres and Stations completed							
O1.1.1	Irrigation system for Loes Research Centre	System	$50,000	$0.00	$0.00	$0.00	$0.00	$0.00
O1.1.2	Additional Research Stations	Centre	$100,000	$100.00	$0.00	$0.00	$0.00	$100.00
O1.2	Genetic material of potential improved varieties identified and sourced							
O1.2.1	ST visits by CGIAR specialists (3/year) (tech and training)	Visit	$10,000	$10.00	$10.00	$10.00	$0.00	$30.00
O1.3	Potential new varieties evaluated on-station							
O1.3.1	Operations at Betano and Loes	Year	$120,000	$33.00	$33.00	$33.00	$33.00	$132.00
O1.3.2	Operations at new upland Research Stations (2) ($2,000/mth)	Year	$50,000	$15.00	$15.00	$15.00	$15.00	$60.00
O1.3.3	Operations at new irrigated Research Station ($2,000/mth)	Year	$25,000	$7.50	$7.50	$7.50	$7.50	$30.00
O1.3.4	Agronomic research	Year	$10,000	$2.50	$2.50	$2.50	$2.50	$10.00
O1.4	Potential new varieties evaluated on-farm							
O1.4.1	Cost of OFDTs (excluding staff time) (pds, equip, etc.)	OFDT	$150	$18.00	$18.00	$18.00	$18.00	$72.00
O1.4.2	Support for SEOs to assist with OFDTs	Year	$10,000	$2.50	$2.50	$2.50	$2.50	$10.00
O1.5	Selected new varieties officially released							
O1.5.1	Variety launch events and promotional events	Year	$10,000	$1.50	$1.50	$1.50	$1.50	$6.00
O1.6	Sufficient basic and foundation seed being produced							
O1.6.1	Building for potato storage	0	$10,000	$0.00	$0.00	$0.00	$0.00	$0.00
O1.7	Capacity of MAF staff to manage the identification and release of new varieties strengthened							
O1.7.1	Masters Degree study (international) (1, 3 yrs, LS $240,000)	Year	$25,000	$6.00	$6.00	$6.00	$7.00	$25.00
O1.7.2	On-the-job training (visits to int'l res. centres) - 2 mnths	0	$10,000	$15.00	$27.00	$0.00	$0.00	$42.00
O1.7.3	Short courses run by CGIAR pers. In TL (no inc. cost)	0	$0	$0.00	$0.00	$0.00	$0.00	$0.00
O1.7.4	In-country short courses (15-25 pp, 1 week) (1 course/qtr)		$8,500	$10.00	$10.00	$10.00	$10.00	$40.00
	Total operating costs			$221.00	$133.00	$106.00	$97.00	$557.00
C2	Formal seed production and distribution							
O2.1	Formal seed being produced through farmer contracts							
O2.1.1	Purchased rice seed ($0.50/kg)	Mt	$500	$12.50	$0.00	$0.00	$0.00	$12.50
O2.1.2	Purchased maize ($0.50/kg)	Mt	$500	$12.50	$0.00	$0.00	$0.00	$12.50
O2.1.3	Purchased peanut seed ($1.00/kg)	Mt	$1,000	$10.00	$0.00	$0.00	$0.00	$10.00
O2.1.4	Operating sweet potato cutting sites (48 x 0.05 ha sites)	Site	$500	$6.00	$6.00	$6.00	$6.00	$24.00
O2.1.5	Operating cassava cane sites (1 ha/district) (replace 3 sites/yr)	Site	$5,000	$15.00	$0.00	$0.00	$0.00	$15.00
O2.1.6	All other crops (legumes winter cereals etc)	Lump sum	$50,000	$0.00	$0.00	$0.00	$0.00	$0.00
O2.2	Quality assurance systems established	0	0					
O2.2.1	Seed laboratory equipment	Lump Sum	$25,000.0	$25.00	$0.00	$0.00	$0.00	$25.00
O2.3	Technical extension support provided to contracted seed producers							
	Timor Leste Staff			$0.74	$0.74	$0.74	$0.74	$2.97
O2.4	Seed grading, packaging and storage facilities established							
O2.4.1	Additional Seed Processing Centres	Centre	$80,000	$0.00	$80.00	$0.00	$0.00	$80.00
O2.4.2	Annual operating & R&M Seed Centres (15% of cost)	Lump Sum/Yr	$12,000	$48.00	$0.00	$0.00	$0.00	$48.00
O2.4.3	Annual labour, seed packaging costs, etc.	Mt	$1,000	$15.00	$15.00	$15.00	$15.00	$60.00
02.4.4	Quality evaluation of aflatoxins	Lump sum	$50,000	$15.00	$10.00	$15.00	$10.00	$50.00
O2.5	Formal seed distributed through preferred distribution channels							
O2.5.1	Seed distribution (some contracted, plus cooperation with MAF districts) Mt		$600	$45.00	$0.00	$0.00	$0.00	$45.00
O2.5.2	Cassava cane distribution (by local staff)	Mt	$200	$0.00	$20.00	$0.00	$0.00	$20.00
O2.5.3	Sweet potato cutting distribution (some by local staff)	Mt	$300	$0.00	$40.00	$0.00	$0.00	$40.00
O2.6	Capacity of MAF staff to manage the production and distribution of formal seed strengthened							
O2.6.1	Short term training	Year	$5,000	$0.00	$0.00	$0.00	$0.00	$0.00
O2.6.2	On-the-job training (visits to int'l seed centres) - 2 mnths	Visit	$15,000	$0.00	$15.00	$0.00	$15.00	$30.00
O2.6.3	In-country short courses (15-25 pp, 1 week) (1 course/qtr)	Course	$8,500		$8.50		$8.50	$17.00
O2.6.4	Seed/agronomy/gender training for SEOs	LS/pp/yr	$100	$8.00		$8.00		$16.00
O2.6.5	Operational costs for SEOs	LS/pp/yr	$100	$8.00	$8.00	$8.00	$8.00	$32.00
O2.6.6	Seed/agronomy/gender training for Dist & SD staff (80 pp)	LS/pp/yr	$100	$5.00	$5.00	$5.00	$5.00	$20.00
O2.6.7	Operational costs for Dist & SD staff (80 pp)	LS/pp/yr	$100	$15.00	$15.00	$15.00	$15.00	$60.00
	Total operating costs			$240.74	$223.24	$72.74	$83.24	$619.97
C3	Informal seed production and distribution							
O3.1	Community Seed Production Groups (CSPGs) established							
	Timor Leste Staff			$7.52	$7.52	$7.52	$7.52	$30.06
O3.1.1	Cost of establishing CSPGs	Av cost/group	$355	$130.00	$0.00	$0.00	$0.00	$130.00
O3.2	Farmer Seed Marketing Groups established							
	Timor Leste Staff			$0.00	$0.00	$0.00	$0.00	$0.00
O3.2.1	Farmer Seed Marketing Groups established	Av cost/gp/yr	$3,000	$23.00	$23.00	$23.00	$23.00	$92.00
O3.3	Focal seed merchants in local markets established							
	Timor Leste Staff			$0.00	$0.00	$0.00	$0.00	$0.00
O3.3.1	Assistance to sell branded seed in local markets	Av cost/merch	$1,000	$0.00	$3.00	$0.00	$0.00	$3.00
O3.4	Access to seed for vulnerable groups improved through vouchers and seed fairs							
	Timor Leste Staff			$0.00	$0.00	$0.00	$0.00	$0.00
O3.4.1	Lump sum cost of holding an annual seed fair	An L/sum	$10,000	$0.00	$0.00	$0.00	$0.00	$0.00
O3.5	Systems linking informal seed producers with potential buyers developed							
	Timor Leste Staff			$0.00	$0.00	$0.00	$0.00	$0.00
O3.5.1	Computer-based record-keeping system	LS/district	$4,000	$0.00	$6.00	$0.00	$0.00	$6.00
O3.6	Capacity of key actors involved in the production and distribution of informal seed strengthened							
	Timor Leste Staff							
O3.6.1	On-the-job training (visits to int'l seed industries) - 2 mnths	Visit	$15,000	$0.00	$22.00	$0.00	$0.00	$22.00
O3.6.2	In-country short courses (15-25 pp, 1 week) (1 course/mth)	Course	$8,500	$10.00	$10.00	$10.00	$10.00	$40.00
O3.6.3	Group/seed/agronomy/gender training for SEOs	LS/pp/yr	$100	$4.00	$4.00	$4.00	$4.00	$16.00
O3.6.4	Operational costs for SEOs	LS/pp/yr	$100	$8.00	$8.00	$8.00	$8.00	$32.00
O3.6.5	Group/seed/agronomy/gender training for Dist & SD staff	LS/pp/yr	$100	$2.00	$2.00	$2.00	$2.00	$8.00
O3.6.6	Operational costs for Dist & SD staff	LS/pp/yr	$100	$11.00	$11.00	$11.00	$11.00	$44.00
3.6.7	Establishing community learning centres	Centre	$10	$22.00	$22.00	$22.00	$22.00	$88.00
	Total operational costs			$217.52	$118.52	$87.52	$87.52	$511.06

		Year 3 ($'000)						
Ref	Activities / Item	Unit	Cost ($)	1	2	3	4	Tot
C4	Seed system management							
O4.1	Seed planning and management systems established							
O4.1.1	Hard and software	Lump Sum	$25,000	$0.00	$0.00	$0.00	$0.00	$0.00
O4.1.2	Training for NDFC&H staff (in-country short courses, 1/yr)	LS/year	$8,500	$0.00	$8.50	$0.00	$0.00	$8.50
O4.2	M&E systems established providing a basis for progressive learning							
O4.2.1	Training provided on-the-job by Advisors	0	$0					
O4.2.2	SOSEK operations and surveys	LS/year (5 pp)	$48,000	$0.00	$48.00	$0.00	$0.00	$48.00
O4.2.3	Adoption, impact, seed system, seed distribution, etc. surveys	LS/year	$80,000	$0.00	$80.00	$0.00	$0.00	$80.00
O4.3	GoTL seed policy being informed by SoL experience							
O4.3.1	Experience related to MAF by Advisors and SoL staff							
			Sub-Total					
O4.4	Seed system gender strategy implemented							
O4.4.1	Gender awareness training and support programs	LS/year	$20,000	$0.00	$20.00	$0.00	$0.00	$20.00
O4.5	Improved variety technical and promotional materials developed							
O4.5.1	Lump sum per year	Year	$70,000	$70.00	$0.00	$0.00	$0.00	$70.00
O4.6	Awareness of improved varieties increased							
O4.6.1	Lump sum/yr	LS/year	$15,000	$15.00	$0.00	$0.00	$0.00	$15.00
O4.7	Environmental and climate change impacts addressed							
O4.7.1	Climate change operational costs	Year	$32,000	$8.00	$8.00	$8.00	$8.00	$32.00
O4.8	Capacity of MAF staff to manage the national seed system enhanced							
	Timor Leste Staff							
O4.8.1	Intl study tours for exposure to sustainable mature seed systems	Tour	$15,000	$0.00	$15.00	$0.00	$0.00	$15.00
	Total operational costs			$93.00	$179.50	$8.00	$8.00	$288.50
C5	Program management and coordination							
	Timor Leste Office and Admin Staff			$44.70	$44.70	$44.70	$44.70	$178.80
O5.1	Management and coordination							
	Establish Regional Offices (3)							
O5.1.1	Upgrade office, sundry equipment	Office, etc	$10,000	$0.00	$0.00	$0.00	$0.00	$0.00
O5.1.2	Generator (5 kva) (3)	Generator	$6,000	$18.00	$0.00	$0.00	$0.00	$18.00
O5.1.3	District Satellite Dishes (3)	Dish	$6,000	$0.00	$0.00	$0.00	$0.00	$0.00
O5.1.4	Regional office operations (3)	Month	$2,000	$18.00	$18.00	$18.00	$18.00	$72.00
0	*Trucks, Vehicles & Motor Bikes - Capital and Ops*							
O5.1.5	Trucks	Vehicle	Rented					
O5.1.6	4 cabs	Vehicle	$45,000	$0.00	$0.00	$0.00	$225.00	$225.00
O5.1.7	2 cabs	Vehicle	$35,000	$0.00	$0.00	$0.00	$105.00	$105.00
O5.1.8	Motor Bikes	Bike	$2,750	$0.00	$0.00	$0.00	$181.50	$181.50
O5.1.9	Transport operational & maintenance (20% of capital)	Qtr	$71,825	$71.83	$71.83	$71.83	$71.83	$287.30
O5.1.10	Extension to Dili Office Building	Building	$100,000	$0.00	$0.00	$0.00	$0.00	$0.00
O5.1.11	Communications	Qtr	$12,500	$18.00	$18.00	$18.00	$18.00	$72.00
O5.1.12	Program Reports	Qtr	$6,000	$6.00	$6.00	$6.00	$6.00	$24.00
O5.1.13	Dili and Perth office ops & DG's Fund ($50,000/yr for DG's fund)	Month	$16,666	$50.00	$50.00	$50.00	$50.00	$200.00
	Program Workshops							
O5.1.14	Program inception workshops (50 pp)	Event	$5,000	$0.00	$0.00	$0.00	$0.00	$0.00
O5.1.15	National annual planning workshops (50 pp)	Event	$10,000	$0.00	$10.00	$0.00	$0.00	$10.00
O5.1.16	District annual planning workshops (50 pp)	Event	$1,500	$0.00	$18.00	$0.00	$0.00	$18.00
O5.1.17	Quarterly district coordination meetings (50 pp)	Event	$1,500	$18.00	$0.00	$18.00	$18.00	$54.00
	Replacement/New Office Equipment							
O5.1.18	Dili Office Desk Tops (40)	Unit	$1,000	$10.00	$10.00	$0.00	$0.00	$20.00
O5.1.19	District and Dili Lap Tops (100)	Unit	$1,500	$37.50	$37.50	$0.00	$0.00	$75.00
O5.1.20	Dili Office Printers (4)	Unit	$2,000	$4.00	$0.00	$0.00	$0.00	$4.00
O5.1.21	Dili Office Generator (15kva) (1)	Unit	$6,000	$6.00	$0.00	$0.00	$0.00	$6.00
O5.1.22	Dili Office Server & Software (1)	Unit	$4,000	$6.00	$0.00	$0.00	$0.00	$6.00
O5.1.23	Dili Office Furniture (12)	Sets	$500	$5.00	$0.00	$0.00	$0.00	$5.00
O5.1.24	Dili Office Photocopier (1)	Unit	$2,500	$2.50	$0.00	$0.00	$0.00	$2.50
O5.1.25	Dili Office Network Equipment (1)	Unit	$4,000	$4.00	$0.00	$0.00	$0.00	$4.00
O5.2	Program publicity							
O5.2.1	Web-site management	Qtr	$500	$0.50	$0.50	$0.50	$0.50	$2.00
O5.2.2	Program publicity brochures, calendars, etc.	Qtr	$2,500	$7.00	$7.00	$7.00	$7.00	$28.00
O5.2.3	Program signage	Qtr	$500	$0.50	$0.50	$0.50	$0.50	$2.00
O5.2.4	Promotional events	Event	$500	$0.00	$0.50	$0.00	$0.50	$1.00
O5.2.5	Media liaison (International)	Event	$1,000	$0.00	$1.00	$0.00	$1.00	$2.00
O5.2.6	Conference participation	Event	$5,000	$20.00	$0.00	$20.00	$0.00	$40.00
O5.2.7	Promotional merchandise (non-technical)	Qtr	$1,250	$1.25	$1.25	$1.25	$1.25	$5.00
	Total operational costs			$304.08	$250.08	$211.08	$704.08	$1,469.30
	Grand total operational costs			$1,076.33	$904.33	$485.33	$979.83	$3,445.83