



# Seeds of Life

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## GENDER ASSESSMENT OF SEEDS OF LIFE (SoL) PROGRAM IN TIMOR-LESTE



November 2015





National University of Singapore

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## EXECUTIVE SUMMARY

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Seeds of Life (SoL) is a large-scale agricultural intervention program funded jointly by the Department of Foreign Affairs and Trade (DFAT) of Australia and the Australian Centre for International Agricultural Research (ACIAR). The aim of the current and third phase of the program (SoL3) (2011–2015) is to establish the foundations of a national seed system through community based seed groups. SoL3 placed a considerable attention to gender issues and has been committed to attracting women farmers as the core program beneficiaries. Efforts were made in particular to strengthen women’s participation throughout the seed system including women’s engagement in commercial and community centric seed multiplication initiatives, seed distribution and capacity building activities.

SoL3 has been successful in achieving its targets of engaging, on average, one third women participation across all components. During 2014–2015 cropping season, 33% of the On Farm Demonstration Trial (OFDT) households were headed by women. Women comprised 34% of the contract seed growers, 31% of the members of the community seed production groups (CSPGs), 36% of the members of the commercial seed producers (CSPs) and 40% of the seed processing workforce. Further, SoL3 reached 32% women headed households through ‘Improved Seed Access Mechanism for Vulnerable Households’ program in 2015. SoL3 also engaged women in agro-retailing to sell seed of improved foodcrop varieties released by MAF. In capacity building, women scientists, farmers and staff were trained through different programs. During 2011–2015, 40% of the certified seed group training participants were women. In 2014, 28% of the institutional training recipients were women. During 2011–2015, 20 gender sensitization workshops and training were organized for SoL3 staff, suco extension officer (SEO) and senior MAF officials. Three quarters (75%) of the workshops and training participants were men.

Despite considerable success in ensuring women’s participation in a range of program activities, there were some areas where efforts were missing. In particular, the program failed to identify the socio-economic, cultural and political-institutional barriers that deterred men’s and women’s equal participation and their ability to access and control the benefits derived from its activities. The sex-disaggregated data collection effort was inadequate which makes it difficult to assess SoL3’s impact on men and women farmers. The baseline, midterm and adoption survey and other survey instruments capture information by household head which hinders the possibility to perform a gender analysis and/or impact assessment across men and women. The program team lacked sufficient technical capacity to systematically integrate and address gender issues. The gender coordinator’s self-rated assessment of her knowledge and skills to tackle gender issues was ‘very low’. No significant or sustained effort was made to overcome the deficiency in staff capacity. Consultants were hired time to time to fill the gap in gender competency. However, such initiatives were scattered lacking coherent efforts to move the program’s gender mainstreaming agenda forward.

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## ACRONYMS AND ABBREVIATION

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ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
CSP	Commercial seed producer
CSPG	Community seed producer group
DFAT	Department of Foreign Affairs and Trade
FGD	Focus group discussion
IFPRI	International Food Policy Research Institute
MAF	Ministry of Agriculture and Fisheries
M&E	Monitoring and evaluation
NSSGS	National Seed System Gender Strategy
OFDT	On-farm Demonstration Trial
OPHI	Oxford Poverty and Human Development Initiative
PDD	Project Development Document
SEO	Suco Extension Officer
SoL3	Seeds of Life Phase III
USAID	United States Agency for International Development
WEAI	Women's Empowerment in Agriculture Index

## INTRODUCTION

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Seeds of Life (SoL) is a large-scale agricultural intervention program funded jointly by the Department of Foreign Affairs and Trade (DFAT) of Australia and the Australian Centre for International Agricultural Research (ACIAR). The program is run by the Timor-Leste Ministry of Agriculture and Fisheries (MAF). The aim of the program is to achieve food security through increased agricultural productivity of maize, sweet potato, cassava, rice and peanuts. The core focus of the program is on increasing yields of these major crops by selecting and distributing improved varieties of superior genetic quality. The program has been implemented in three phases. The first phase (SoL1) (2000–2004) focused on the introduction and testing of new genetic varieties on research stations. The second phase (SoL2) (2005–2011) focused on the identification of improved varieties through participatory testing with local farmers. The current and third phase (SoL3) (2011–2015) aims to establish the foundations of a national seed system through community based seed groups. SoL3 aims to provide at least 50% of the Timor-Leste's farm households high level access to seeds of improved staple varieties by the end of June 2016.

Women play an important role in Timor-Leste's agriculture as cultivators, laborers and family workers. However, women face significant barriers and inequalities in terms of access to and control over resources such as land, capital and credit as well as access to agricultural inputs and technology such as improved crop varieties, training, information and marketing services (Ministry of Agriculture and Fisheries & Seeds of Life, 2013). Women and girls in Timor-Leste are particularly vulnerable to food insecurity and consequently they suffer from malnutrition which leads to high rate of maternal, infant and child mortality (Seeds of Life III, 2010). Women's ability to attain food security through higher agricultural productivity is disproportionately affected by their low social empowerment, weak community influence and lack of control over and access to income, resource and information (Seeds of Life III, 2010). Eliminating gender gaps in agriculture by ensuring women's adequate and equal access to seeds, training and other benefits generated by SoL3, is thus paramount to achieving the program's main objective of improved food security through increased productivity of major food crops.

During 2011–2015, SoL3 placed a considerable attention to gender issues and has been committed to attracting women farmers as the core program beneficiaries. Efforts were made in particular to strengthen women's participation throughout the seed system including women's engagement in commercial and community centric seed multiplication initiatives, seed distribution and capacity building activities. The National Seed System Gender Strategy (NSSGS) was developed in 2010. The objective of the NSSGS was "to promote a full and equal participation, access and benefit of women and men from all activities, processes and outcomes of the SoL3 program, by integrating gender equality issues into design, planning, implementation, monitoring and evaluation of the program, thereby contributing to food security in Timor-Leste." (Ministry of Agriculture and Fisheries & Seeds of Life, 2013). The NSSGS provides direction and strategic framework for the inclusion of the consideration of gender equality and women's empowerment in all components of the program. The NSSGS was revised in 2013 to include gender specific performance indicators for the relevant activities of each component. Gender

action plans were subsequently prepared and implemented during 2013–2014 and 2014–2015 by each component to achieve their gender specific targets.

## OBJECTIVE

This report lays out the findings of a gender assessment of SoL3. The aim of the assessment is to determine whether and how gender considerations were integrated in the program's components and to what extent the program has been successful in meeting its gender related goals. More specifically, the assessment analyses the success of SoL3 in:

1. Ensuring men's and women's equal participation in its activities under each component.
2. Identifying the socio-economic, cultural and institutional barriers that deterred men's and women's equal participation and their ability to equally benefit from its activities.
3. Identifying the differences in men's and women's ability to access and control the benefits derived from its activities.
4. Evaluating the impacts of the program on women's empowerment and well-being through the collection of high quality sex-disaggregated data.

## ASSESSMENT FRAMEWORK

Several frameworks have been proposed and are routinely applied by international donor and aid agencies for assessing gender equity in agricultural intervention projects. The Asian Development Bank (ADB) uses *Gender Analysis Framework for Agriculture* (ADB, 2006). This framework guides users through all stages of the project/program cycle in identifying the main gender issues in agriculture and in designing appropriate gender sensitive strategies, components and indicators to respond to gender issues. Bill and Melinda Gates Foundation uses a framework called *Gender Impact Strategy for Agricultural Development*<sup>1</sup> to assess whether gender issues have been integrated in a thoughtful and meaningful way in agricultural development projects (Bill & Melinda Gates Foundation, 2008). The *Women's Empowerment in Agriculture Index* (WEAI)<sup>2</sup> adopted by the United States Agency for International Development (USAID) evaluates gender equity using five domains, namely (i) production; (ii) income; (iii) resources; (iv) leadership; and (v) time (Alkire et al., 2013). The WEAI measures intra-household gender inequality by comparing empowerment gap between the primary male and female within each household. The Gender and Agriculture Research Network of the Consultative Group of International Agricultural Research (CGIAR) recommended a framework for tracking and evaluating gender equality in CGIAR funded projects (CGIAR Gender and Agriculture Research Network, 2014a). This framework includes two indicators for gender assessment. The first is women's control over productive resources such as land, livestock, water, forests, common property, seeds, fertilizers, machinery, financial assets, and the income from sales of crop,

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<sup>1</sup> This framework was developed in collaboration with the International Centre for Research on Women and the International Food Policy Research Institute (IFPRI).

<sup>2</sup> The WEAI has been jointly developed by the USAID, the International Food Policy Research Institute (IFPRI) and the Oxford Poverty and Human Development Initiative (OPHI).

livestock or forest products. The second is women's participation in making decisions over own labor, own income and the decisions made in groups or collective organization.

The gender assessment presented in this report uses the principles and guidelines recommended by the above mentioned frameworks.

## METHODOLOGY

The assessment took place between July and October 2015. For the assessment, key project documents such as the Project Design Document (PDD), the NSSGS (original and updated version), annual reports, scientific journal articles, baseline, midterm and adoption survey reports and data were examined. Interviews with the members of the SoL3 team, MAF personnel, representatives of NGOs and bi-lateral aid agencies were held. Two focus group discussions (FGDs) were conducted with members of the commercial seed producer groups (CSPs). Outstanding questions and queries were resolved through email correspondence and skype interviews with the component leaders and the program manager.

## ACHIEVEMENTS

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This section highlights SoL3's achievements in accomplishing its gender related targets. In general, SoL3 has been successful in achieving its targets of engaging, on average, one third women participation across all components. During 2014–2015 cropping season, 33% of the On Farm Demonstration Trial (OFDT) households were headed by women. Women comprised 34% of the contract seed growers, 31% of the members of the community seed production groups (CSPGs), 36% of the members of the CSPs and 40% of the workforce in the seed processing warehouses. In addition, SoL3 reached 32% women headed households through its 'Improved Seed Access Mechanism for Vulnerable Households' program in 2014–2015.

Women's participation and outreach in many areas of SoL3 activities increased over the past two years (i.e. 2013-2014 and 2014–2015). Women's participation in CSPs increased from 31% in to 36%. Although women's participation in CSPGs slightly decreased (from 32% to 31%), women's role in top-three leadership positions in CSPs and CSPGs (i.e. Chief, Secretary and Treasurer) rose considerably. The percentage of women headed households reached under the vulnerable group seed distribution program increased from 29% in 2013–2014 to 31% in 2014–2015.

In some areas of SoL3 activities, women's participation declined between 2013–2014 and 2014–2015. Women's participation in contract seed production decreased from 38% (67) to 34% (35). The proportion of mixed group CSPGs declined from 85% to 78% and the proportion of men only groups increased from 12% to 19%<sup>3</sup>.

As of May 2015, SoL3 provided assistance to establish 27 agro-retailers in the country who sell seed of improved foodcrop varieties released by MAF. Of these agro-retailers, 22% were women.

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<sup>3</sup> The proportion of women only groups remained the same. The overall percentage of women's participation in CSPGs did not decline much.



SoL3 regularly organized training programs for its farmers. Members of the certified seed production groups attended several capacity building trainings every year on seed production, harvesting, processing and certification. During 2011–2015, over one third (40%) of the certified seed group training participants were women.

SoL3 targeted women scientists and staff for capacity building. In 2014, 28% of the institutional training recipients were women (excluding Master’s degree). Over half (60%) of the Master’s degree scholars during 2014 were women.

SoL3 regularly conducted gender sensitization workshops and training for its own staff, suco extension officer (SEO) and senior MAF officials. The target group for these workshops and training was primarily men. During 2011–2015, 20 such events were organized. These training and workshops were attended by 614 participants. Three quarters of the participants were men and the rest were women.

SoL3’s achievements in engaging women under its four key components are summarized below:

### COMPONENT 1: CROP IDENTIFICATION AND DEVELOPMENT

This component conducts agronomical research to identify suitable, high yielding varieties for Timor-Leste. Once a variety is agronomically tested on research stations and considered superior to the local variety in terms of its yield potential it is further tested and evaluated by local farmers through OFDT and taste test. During the taste test, the selected varieties are cooked and eaten by the farmers. Such taste test allows farmers to assess the varieties first hand. SoL3 has been proactive in engaging women in OFDT and taste tests. Preferences for varietal traits are recorded and analyzed for men and women separately. In general, no significant difference was observed between men and women’s preferences across the traits of the evaluated varieties.

This component includes four gender related performance indicators under two of its six output categories.

#### *Output 1.4 (Potential new varieties evaluated on-farm)*

Gender related performance indicators	
# OFDT coordinators and OFDT officers deployed, by position and gender	During 2014-2015, 14 OFDT officers and coordinators (50% are women) were assigned to monitor the OFDTs <sup>4</sup> . This is a significant improvement compared to the previous year (2013-2014) when 12 research staff (11 men, one woman) and two coordinators (gender unknown) were responsible for monitoring the OFDT plots.
# OFDT farmers selected, by gender – target 25% women	In 2014–2015 and 2013–2014, 33% and 31% of the OFDT households were headed by women respectively. This is a significant improvement compared to 2012–2013 when 24% of the OFDT households were headed by women.

<sup>4</sup> Seeds of Life III (2015a) page 5.

# farmers in taste tests, by gender	In 2014–2015, on average, 41.5% of the taste test participants were women. This is a significant improvement compared to 2013–2014 when 22% of taste test participants were women.
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*Output 1.6 (Capacity of MAF research staff to manage the identification and release of new varieties strengthened)*

Gender related performance indicators	
# of people trained, by position, subject, type of training provided and gender	In 2014, 28% of the training recipients were women (excluding Master’s degree). Over half (60%) of the Master’s degree scholar during 2014 were women. In total SoL currently has 7 staff in Australia and Indonesia on study scholarships of which 4 (57%) are women.

*Other achievements*

- All OFDT and research station researchers attended district gender awareness workshops targeted for all district level MAF staff in 2013.
- All OFDT and research station researchers attended a “refresher” gender awareness workshop in September, 2014.
- A women farmer representative was included in the variety release committee for the release of AiLuka 1 (a high yielding cassava variety).
- All current and future variety release documents include a gender component.

**COMPONENT 2: SOURCE SEED AND QUALITY CONTROL**

The objective of this component is to ensure sufficient quantity of quality seed of the released varieties available for distribution to the community and commercial seed growers who are responsible for bulk multiplication. Certified seed of maize, rice and peanut are produced through contract growers. A written contract is signed between MAF and the selected farming groups, in some cases with individual farmers. The production process undergoes strict supervision and scrutiny to ensure quality. Selected members of the groups receive capacity building training each year on production, certification, harvesting and processing. The designated seed officer of a specific district identifies the groups (or individual farmers) based on the suitability of the land, progressiveness of the farmer and past performance (during 2008–2011). Almost all certified seed growers are also commercial seed producers.

This component includes five gender related performance indicators under four of its seven output categories.

*Output 2.2 (Certified seed produced by contract growers)*

Gender related performance indicators	
# of contract growers, by variety, location and gender – target 25% women	In 2014–2015 season, 34% (35) of the contract growers were women. This is a considerable decline compared to 2013–2014 season when women comprised 39% (67) of the contract grower workforce.

*Output 2.4 (Technical extension support provided to contract growers)*

Gender related performance indicators	
# Seed Department staff deployed, by position and gender	In 2014–2015 seed growing season, 35% of the seed department staff who provided technical extension support to contract growers were women.
# of contract growers trained, by subject, type of training provided, by gender	40% of the certified seed group training participants during 2011–2015 were women.

*Output 2.5 (Seed grading, packing and storage facilities established)*

Gender related performance indicators	
# staff deployed, by position and gender – target 30% women	54% of the temporary labor force and 9% of the permanent labour force in the seed processing warehouse in 2014–2015 were women.

*Output 2.7 (Capacity of MAF Seed Department staff to manage the production and distribution of certified seed strengthened)*

Gender related performance indicators	
# of Seed Department staff trained, by position, subject, type of training provided and gender	30% of the seed department staff who received training during 2013–2014 were women.

### COMPONENT 3: COMMUNITY AND COMMERCIAL SEED DEVELOPMENT

The objective of this component is to establish a community based seed production system in Timor-Leste through organized farmer groups. Two types of farmer groups are established and supported under this component: (1) community seed producer groups (CSPGs) and (2) commercial seed producers (CSPs). The CSPGs are generally a small group of farmers (10 to 15) who operate on a subsistence basis. In contrast, the CSPs are large group of farmers (25 to 60) who operate on a commercial basis. Both CSPGs and CSPs receive training on seed production, storage and marketing from MAF extension staff. The certified seed grown by the contract farmer is made available to both CSPs and CSPGs. The commercial seed grown by the CSPs is tested for quality by MAF. No such quality testing is performed for community seed. However, the CSPGs receive regular advice from the SEOs on seed health management.

This component includes the largest number of gender related performance indicators among all components. In total, 12 performance indicators are listed under six output categories.

*Output 3.1 (Community Seed Production Groups established)*

Gender related performance indicators	
Total membership, by gender – target 30% women	In 2014–2015, 31% of the total 14,821 CSPG members were women. This is slightly lower than the proportion of women CSPG members in 2013–2014 (32%).
# women-only groups established	In 2014–2015, 3% of the CSPGs were women only groups while 19% of the CSPGs were men only and the rest 78% were mixed groups. In 2013–2014, percentage of women only groups were the same but the percentage of men only groups were substantially lower (12%) and the percentage of mixed groups were much higher (85%).
# of women holding top-three positions in CSPGs (Leader, Treasurer, Secretary) – target 30% women	In 2014–2015, 10% of these groups had a woman as Chief, 23% had a woman Secretary, and 39% had a woman Treasurer. These statistics reveal significant improvement in terms of women’s leadership in CSPGs compared to the previous year. In 2013–2014, 9% of the CSPGs had a woman Chief, 20% had a woman Secretary and 27% had a woman Treasurer.
# SEOs directly involved in supporting establishment of CSPGs, by gender	In 2014–2015, a total of 370 SEOs were directly involved in supporting CSPGs. 12% of these SEOs were women.
# of farmers joining suco level training for CSPG, by gender	From April to June 2014, 255 participants (55% women) received training on nutrition and cooking <sup>5</sup> .

*Output 3.2 (Commercial Seed Producers supported)*

Gender related performance indicators	
Total # of CSP members by gender – target 30% women.	In 2014–2015, 36% of the 1,495 CSP members were women. This is a significant improvement compared to the previous cropping season (2013–2014) when 31% of the CSP members were women.
# of women holding top-three positions in CSPs (Leader, Treasurer, Secretary) – target 30% women	In both 2013–2014 and 2014–2015, 16% of the CSPs were led by women. In 2014–2015, 21% of the CSPs

<sup>5</sup> The training database is compiled in a way which does not allow easy and quick access to information. The annual and half yearly project reports also do not present explicit training statistics under each component. Efforts should be made to improve accessibility to the training database to ensure greater transparency.

	had a women Secretary and 81% of the CSPs had a women Treasurer.
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*Output 3.3 (Focal seed merchants in local markets established)*

Gender related performance indicators	
# focal seed merchants supported, by gender	As of May 2015, 22% of the 27 agro-retailers supported by SoL3 were women.

*Output 3.4 (Improved access to seed for vulnerable groups)*

Gender related performance indicators	
# of vulnerable households, by type (male and female headed) and location – target 20% female headed households.	In 2014–2015, 32% of the vulnerable households who received improved varieties were headed by a woman. This is an improvement compared to the previous year (2013–14) when 29% of the seed recipient vulnerable households were headed by a woman.

*Output 3.6 (Capacity of MAF extension staff to establish CSPGs strengthened)*

Gender related performance indicators	
# of people trained, by position, subject, type of training provided and gender	see footnote 5
Gender awareness activity of extension staff and district community seed coordinators done through refresher training on gender	During 2011-2015, 20 training program and workshops were organized to raise awareness on gender issues. These training and workshops were attended by 513 MAF staff including extension staff, district community seed coordinators and senior MAF officials. 77% of the training participants were men and the rest were women.

**COMPONENT 4: SEED SYSTEM MANAGEMENT**

The issues covered under this component include areas that are important for the establishment and sustainability of an effective and well-functioning national seed system. No specific gender related performance indicator was listed under this component. One of the outputs of this component is the implementation of the seed system gender strategy. This component is responsible for the development and implementation of gender action plans for components 1, 2 and 3. Monitoring the progress of the gender-related performance indicators of each component also appears to fall under the jurisdiction of Component 4. In addition, the component is responsible for measuring the gendered impact of SoL3 by collecting sex-disaggregated data and by promoting and facilitating research on gender issues. Finally, this component takes care of gender sensitization training and other miscellaneous activities related to gender such as raising awareness and advocacy, strengthening strategic networks and partnerships, strengthening institutional and technical capacity for gender mainstreaming. Important achievements of this component during 2011-2015 are:

- The NSSGS was revised in 2013 to include gender disaggregate performance indicators.
- A local gender trainer was contracted in 2014 to conduct Training-of-Trainers for the gender team and district gender focal points, as well as to assist the gender team in running their own gender courses for the MAF staff.
- Twenty training and sensitization workshops on “gender issues” were organized between 2011 and 2015. These training and workshops were attended by 614 participants. All component staff took part in gender workshops. Primary target group for these training and workshop was men. Evidently, three quarters (75%) of the gender training and workshops were attended by men.
- Although MAF has 11% of women extension staff, significant proportion of women (23%) have participated in different types of training organised by MAF-SoL.
- Nutrition and cooking training for farmers was launched in April 2014. This training consisted of in-depth explanations and discussions on health and nutrition issues and demonstration on food preparation practices that prevent loss of food nutrient. From April to June 2014, 255 participants (55% women) received nutrition and cooking training.
- SoL3 distributed labour saving devices, such as maize shellers, grinders and screens to its CSPs and CSPGs.
- In 2015, the SoL3 SOSEK team conducted a gender study titled ‘Gender Impact of Labour Saving Devices’ Use in Maize Seed Groups’ (Seeds of Life, 2015). The purpose of the study was to evaluate whether and how, the introduction of labour saving devices, such as maize shellers, grinders and screens, has impacted the gender division of labour. Fifty men and 24 women members of 10 CSPGs and CSPs were interviewed for this study. The results of the study reveal that the labour saving devices successfully reduced women’s work burden.
- SoL3 introduced an integrated savings and loan program to enhance men and women farmers’ access to financial services. This scheme allows the CSP members to save and borrow money earned from seed production. The data shows that 41% of the beneficiaries of this scheme are women which is higher than women’s participation in CSPs (36%).
- SoL3 has piloted an integrated health program in two districts of Timor-Leste. The objective of the health program is to enhance women’s access to health service through men’s increased awareness of important health issues including reproductive health.
- SoL3 produced a 20 minute film entitled ‘*Women Farmers Sowing Seeds for Success*’ which is available for viewing on the SoL website.
- SoL3 gender team facilitated the organization of the International Women’s Day and International Rural Women’s Day celebrations for MAF in 2014 and 2015.

## SHORTCOMINGS AND LIMITATIONS

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This section discusses SoL3’s shortcomings in mainstreaming gender and the limitations it faced in adequately addressing gender issues. In general, the program lacked a systematic direction in its approach of integrating gender. The attention to and integration of gender issues appear to stem from intrinsic value of gender from fairness and social justice perspectives and not

accounting for the instrumental value of women's role in achieving impactful development outcomes. Although the revised NSSGS identified a number of gender related performance indicators and determined targets for some of them, they were not adequately embedded in the theory of change. Hence, it remained unclear how these indicators map to the strategic (or results) framework leading to a gender inclusive pathway for achieving the program's ultimate goal and objective. A near complete absence of gender research and insufficient sex-disaggregated data make it difficult to capture and analyze SoL's impact on men and women population of Timor-Leste. The baseline, midterm and adoption survey and other survey instruments reviewed for this assessment capture information by household head which hinders the possibility to perform a comprehensive gender analysis and/or impact assessment across men and women. In sum, despite considerable success in engaging women in its components' activities, the explicit connection of these activities to the results framework were missing and the sex-disaggregated data collection effort was not rigorous enough to adequately capture the gender specific barriers as well as the quantity and quality of SoL's impact on men and women. Detailed discussions of the above points are presented in the following paragraphs.

## LACK OF A SYSTEMATIC APPROACH TO ADDRESS GENDER

SoL3 lacked a systematic and theoretical approach to address gender in its project design, implementation and monitoring activities. Two core components of SoL3's PDD, the strategic (results) framework and the theory of change, do not specify gender equitable objective and goal and gender sensitive pathways to achieve the objective and goal. Despite repeated claims in the PDD and NSSGS about women being disadvantaged and women's and girls' special vulnerability to food insecurity, no gender specific performance indicator was identified to track SoL3's contribution towards mitigating such disadvantage and vulnerability (Box 1). Understanding the role of women in the theory of change is crucial for effective realization of development outcomes. In addition to the intrinsic value of women's empowerment from fairness and social justice perspectives, there is a strong instrumental rationale for ensuring a gender inclusive process of growth and development. Women invest as much as 10 times more of their earnings than men do in their family's well-being such as child health, education and nutrition (Duflo, 2012). Empowering women thus have a direct impact on society's well-being (Gates, 2014). Strengthening investments to empower women and reduce the inequality between sexes are thus prerequisites of effective and meaningful gender integration that leads to concrete, tangible and sustainable outcomes. The PDD and NSSGS fail to encompass this instrumental role of women empowerment in the theory of change. As a result, the gender related activities remained largely disconnected from the overall goal and objective of the project.

## Box 1: Absence of sex-disaggregated indicator in SoL3's goal and purpose

*Goal: Improved food security through increased productivity of major foodcrops*

Performance indicators

1. Percentage of crop producing households experiencing periods of food shortage decreased by 33% in Timor-Leste.
2. 35,000t increase in production of major staple food crops in Timor-Leste.

*Purpose: 50% (est 65,000) of crop producing households have access to and are routinely using improved food crop varieties*

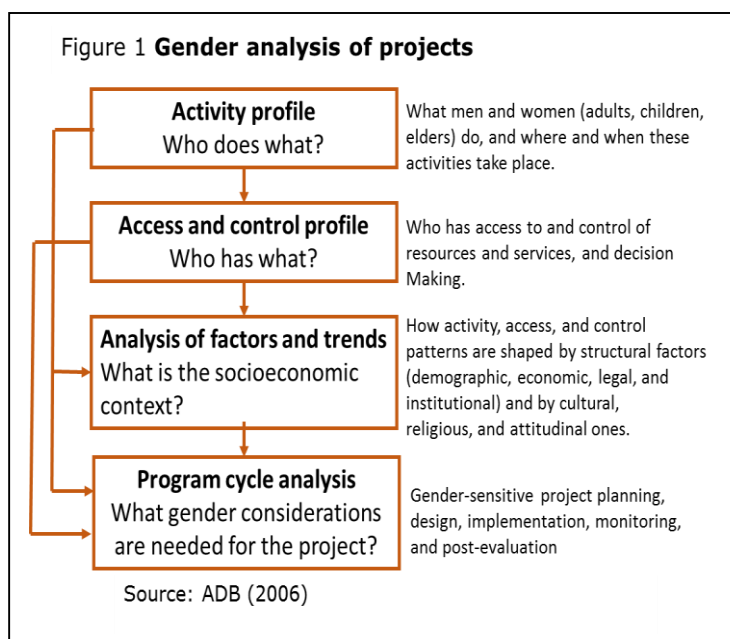
Performance indicators

1. 50% of crop producing households are growing one or more MAF released varieties.
2. 90% of crop producing households adopting MAF-SoL released varieties reporting increased yields.

Source: Seeds of Life III (2015b)

## LACK OF UNDERSTANDING OF THE LOCAL GENDER CONTEXT

There is a significant lack of understanding and information around women's role in Timor-Leste's agriculture and the constraints women face accessing agricultural inputs and other resources such as land, extension services and farming equipment. The claims made in the PDD and revised NSSGS regarding the common patterns of gender division of labour in agriculture, women's control over resource and income and gender-differentiated constraints facing men and women are mostly conjectures and anecdotes. SoL3's baseline survey was an ideal opportunity to document gender division of labour in agriculture, women's decision making power and access and control over resources as well as gender specific



food security status in rural areas. This information could have been used to design an informed intervention strategy to address gender gaps and overcoming gender specific constraints (see Figure 1). Additionally, this information could have been used to set benchmarks to monitor progress over time.

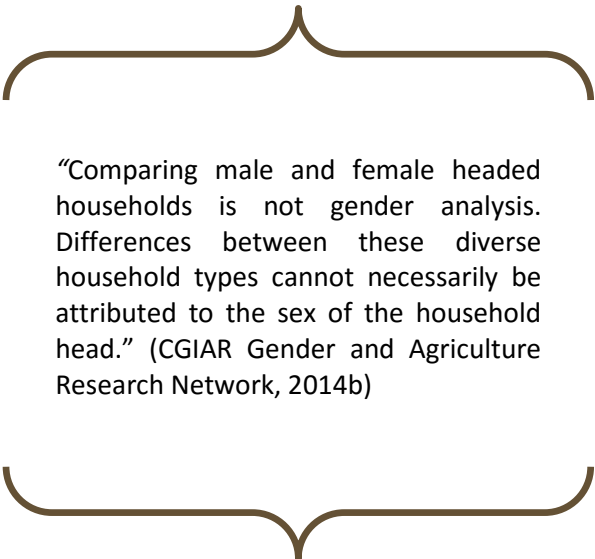
Understanding the local context is particularly important for setting appropriate targets. SoL3 project adopted 20 to 30 percent targets for women's participation (Ministry of Agriculture and Fisheries & Seeds of Life, 2013). The adequacy of these targets are debatable given the extent of women's participation in agriculture and in other income generation activities in Timor-Leste.



Available statistics suggests that Timorese women are more active in agriculture than men. Approximately 88% of women in Timor-Leste contribute to agriculture compared to 82% of men (Hedditch and Manuel, 2010). Statistics also suggests that Timorese women are particularly active in trading, selling agricultural products to the market and managing kiosks. The study report on 'Gender Impact of Labour Saving Devices' Use in Maize Seed Groups' concludes that 49% of the total agricultural work is performed by women (Seeds of Life, 2015). Another unpublished report by SoL on the profile of eight community seed production groups revealed that both men and women spend about the same amount of time in agriculture. The latter two studies involved small-scale household survey including 60 to 80 non-representative sample. Nevertheless, these numbers suggest that women contribute almost 50% of the agricultural labour in Timor-Leste. The low participation rate in seed groups and other project activities is likely to have caused by the presence of gender specific barriers and constraints which needs to be identified and addressed.

## INADEQUATE SEX-DISAGGREGATED DATA

The sex-disaggregated data collection effort has been inadequate which makes it difficult to assess SoL3's impact on men and women farmers. The baseline, midterm and adoption survey and other survey instruments capture information by household head. These instruments have not been designed to capture differences between men and women. Male- and female- headed households are not comparable as they tend to have different characteristics and operate under different set of challenges. The approach of comparing male- versus female-headed households in gender impact analysis turns the vast majority of the world's women living in male-headed households practically invisible (CGIAR Gender and Agriculture Research Network, 2014b). This approach also contradicts the principles of gender equity and equality. Hence, the most appropriate strategy for undertaking gender impact analysis is to compare the difference between the principal man and woman from the same household or randomly selected men and women across different households<sup>6</sup>.



“Comparing male and female headed households is not gender analysis. Differences between these diverse household types cannot necessarily be attributed to the sex of the household head.” (CGIAR Gender and Agriculture Research Network, 2014b)

In some cases of SoL3 surveys, a woman from a male-headed household was interviewed when the principal male member was absent. However, in those cases, women only represented men. The survey instrument did not allow to specify the role of the female respondent in agricultural decisions. Hence, the responses largely represented decisions and choices made by the men. The

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<sup>6</sup> Depends on the context and the study objective.

midterm and adoption survey did not capture the number of men, women and children living in a household. This prohibits the option to know how many women and children have been benefitted from the introduction of the improved varieties. The survey instruments included very little sex-disaggregated information. The food security impact of the program could not be measured across gender. None of the large-scale household survey asked question about men's and women's role in agricultural decision, access to resources and control over the benefit obtained from the increased agricultural productivity<sup>7</sup>. Such sex-disaggregated information could shed light on patterns of adoption decisions as well the gender dynamics of varietal adoption roadmaps.

## ABSENCE OF GENDER RESEARCH

There has been a significant absence of gender research in SoL3. SoL3 invested very little time, resource and effort to proactively and systematically identify the gender-differentiated constraints in Timor-Leste's agriculture. During 2011-2015, the M&E/SOSEK unit conducted only one gender study titled the Gender Impact of Labour Saving Devices' Use in Maize Seed Groups. The study involved less than 100 sample. No research was conducted to understand the participation dynamics in the CSPs and CSPGs and how women's formal engagement in such groups impacts women's economic, social and political empowerment. Evidence outside the SoL project suggests that women's economic empowerment is leading to increased domestic violence. If such trends are widespread then SoL needs to be cautious in its approach. Gender sensitization workshops for the male members of the CSPs and CSPGs can be a useful way forward to gradually prepare men for a transformation towards a gender equitable society.

The profit sharing arrangement within the group members and women's control over the income derived from the seed production activities have not been documented. One can argue that, despite women's active participation in seed groups, men are controlling the income which is constraining women's ability to enjoy the full benefit of their hard work and limiting their households' potential to improve well-being (CGIAR Gender and Agriculture Research Network, 2014a). Scientific studies need to be conducted to understand the intra-household income and resource sharing arrangements. The barriers facing women to take up leadership positions within the seed groups warrant a careful investigation. The study report on 'Gender Impact of Labour Saving Devices' Use in Maize Seed Groups' points out that women's lack of leadership in seed groups impedes women's access to labour saving equipments (Seeds of Life, 2015).

The Loan and Savings program has the potential to increase opportunities for women. The loan and savings profile of the existing clients should be monitored and carefully studied to

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<sup>7</sup> The baseline survey asked two decision making questions to maize growers: (a) In this household do you decide which maize variety to grow? (b) In this household do you also select seed for planting in the next season.

understand the program's gender specific impacts. The CSPs should be encouraged to design a gender friendly (or women-favoured) lending and borrowing scheme.

## LACK OF STAFF CAPACITY TO HANDLE GENDER ISSUES

The review of SoL3's monitoring and evaluation instruments, gender related analysis and findings and interviews with the gender team and M&E/SOSEK unit demonstrated a low level of technical capacity of the team to address gender issues. The strategic/results framework and the theory of change also reflect the project team's lack of familiarity with the process of gender integration in project plans and activities. The gender team does not play any active role in gender research or in implementing or coordinating gender activities within the program. The gender team's main responsibilities are to help the M&E/SOSEK team with its various data collection efforts and to provide logistic support in training implementation. The gender coordinator's self-rated knowledge and skills to handle gender issues was 'very low' (Seeds of Life III, 2015b). No significant or sustained effort was made to overcome the deficiency in staff capacity. Consultants were hired time to time to fill the gap in gender competency. However, such efforts has been scattered and ad-hoc. The lack of capacity of the gender team raises concern regarding MAF's capacity to address gender gaps in the seed system after the cessation of SoL. SoL3's engagement and partnership with CGIAR centers would be beneficial in this respect. Learning from the best practices and the experience of other large-scale agricultural projects within and outside Timor-Leste would also help build capacity to tackle gender issues.

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