

East Timor Seeds of Life Program (2010 to 2015)

*A Concept Document for future Australian Assistance to Food Security in
East Timor*

September 2009

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1 Introduction

1. An Australian Concept Mission¹ visited East Timor from 3rd to 15th August 2009 to consider the potential for further Australian support for the Ministry of Agriculture's Seeds of Life program.
2. MAF-SOL initially began as an ACIAR² supported program in 2001. In 2005 AusAID³ and ACIAR agreed to jointly sponsor a five year second phase of the program. During this second phase MAF-SOL has achieved remarkable progress for which MAF and its Australian partners are justifiably proud (see Section 2.3.2). As such there is considerable energy to build on the current success. Furthermore, opportunities now exist for an ongoing program to impact on food security at a more extensive, nation-wide level. Given that the second phase of MAF-SOL will finish in August 2010, this Concept Note outlines the potential for further Australian support.
3. The Concept Mission spent considerable time with MAF and other stakeholders to develop the vision for ongoing assistance and this Concept Paper outlines the agreed rationale.

2 Contextual Analysis

2.1 Rural development and food security

4. East Timor faces the full range of rural development constraints commonly found in developing post-conflict economies. These are fully analysed in a forthcoming World Bank report⁴, but are summarised in Box 1.
5. Within this context it is not surprising that basic food security should be a paramount concern for Government⁵. Thirty eight percent of farmers report insufficient stores of food to meet their domestic requirements⁶. In addition 56% of farmers report that their maize stores are fully consumed by August⁷. This food insecurity during the "lean" months arises from seasonal production cycles, low yields of staple crops, unfavourable seasons, natural disasters, lack of cash income to purchase food, and storage losses.

2.1.1 Food security as a driver of peace and stability

6. East Timor has been aiming to achieve food self-sufficiency since independence. However, while total annual food production increased from 209,000 tonnes to 243,000 tonnes between 2000 and 2006, in

Box 1: Rural development constraints

1. A poor natural resource base.
 2. A deteriorating rural environment.
 3. Poor rural infrastructure
 4. Lack of crop and livestock production inputs, including seed of improved varieties.
 5. Lack of rural credit.
 6. Limited areas which are suitable for (economic) irrigation.
 7. A rapidly increasing population.
 8. The negative impact of years of civil unrest.
 9. Weak rural development capacity.
 10. High post-harvest crop losses.
 11. Insecure land titles.
 12. Limited on- and off-farm employment opportunities.
 13. Limited farmer production skills
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¹ The Concept Team included David Swete Kelly (Team Leader), Bryan Gorddard (ACIAR SOL TAG representative), and Philip Young (Agriculture Specialist). The Team was joined by Paul Fox (ACIAR Program Manager) and Ian Kershaw (AusAID Rural Development Adviser).

² Australian Centre for International Agricultural Research

³ Australian Agency for International Development

⁴ Phil Young (Pers Comm). Mr Young has been engaged by the World Bank to review Rural Development Policy in East Timor and has completed investigations over the last six months. His initial report has not as yet been released by the World Bank.

⁵ GoTL (2009). *National Priorities*. Ministry of Finance, Dili.

⁶ Seeds of Life recently reported findings from *Buka Data Los* surveys undertaken during 2008.

⁷ August is about three to four months after maize harvest, and five months before the first green maize is ready to eat.

2007 it then declined to 199,000 tonnes⁸ because of civil unrest and population displacement⁹. The unrest was ostensibly caused by rice shortages, this prompting the Government to import 110,000 tonnes of rice in 2009 in order to accumulate a visual surplus of food in the main towns. Food security and a community awareness of the food supply situation are critical for stability in East Timor. Moreover, the links between peace, stability and food security work in both directions. A peaceful and stable rural environment results in increased food production, while inadequate food results in civil unrest and reduced economic activity. For this reason, the current IVth Constitutional Government (elected in 2007) has placed considerable emphasis on peace and stability throughout the country, and there is strong evidence that this policy has resulted in improved economic growth, particularly in 2009.

2.1.2 Food Security and farming systems

7. However to effectively target food security and reduce rural poverty, the inter-relationships between food security and the types of crops grown by East Timor's farmers need to be properly understood. Analysis has supplied the following conclusions¹⁰:
- Both the majority (72%) and the poorest of East Timorese households are located in the rain-fed uplands. These upland households mostly depend on maize, cassava, and sweet potato for their food security. As such, productivity of these crops is the basis of food security for the majority of the rural poor;
 - On the other hand, rice is mainly produced in four districts (out of thirteen), three of which have consistently lower poverty levels than all non-rice growing districts. Hence, generally speaking, rice growers are less poor. However, the potential to expand rice into other districts is restricted, due to the unsuitability of other areas for irrigation;
 - Rice is an aspirational commodity for many East Timorese, so much so in fact that rice availability in the home is seen as an indicator of prosperity. Rice therefore has a political and social appeal that does not easily align with the reality of its limited production opportunities;
 - Yet many rice growers are also maize and cassava growers, meaning that maize and cassava are important foods across all districts;
 - Coffee-based farming systems are the basis of livelihoods for 65% of households. These households, consistently amongst the poorest in East Timor, rely on maize and tubers as their main food sources; and
 - Agricultural productivity per unit area, per person and per household remains low for all major staple crops, and is well below that of comparable farming systems in other countries.
8. As such, food security and poverty reduction strategies must be tailored to the farming systems and agro-climatic capability of the country. Rice-based farming systems are an option only for some, the majority of East Timorese (including many farmers in rice growing areas) depend on rain-fed farming systems based on maize, roots and tubers for their food security and primary incomes. Hence it is the improved productivity of these staple crops that is the foundation necessary to ensure that families produce the surpluses that generate sufficient income to leverage them out of poverty.

⁸ World Bank (unpublished data) - Pers Com Philip Young

⁹ Official figures for 2008 are not yet available, but it is generally agreed that food production increased following the period of civil unrest in 2007.

¹⁰ World Bank (unpublished data) - Pers Com Philip Young

9. Pleasingly, the linked challenges of food security and agricultural productivity are a Government priority for 2010¹¹. However, as will be seen in the next section, the Government's response to this priority has largely been rice-focused, with only a limited commitment to rain-fed innovations.

2.2 East Timor Government Priorities and Policies

10. The 2002 National Development Plan laid down the vision for East Timor's agriculture, forestry and fisheries sub-sectors: *"to have by 2020 sustainable, competitive and prosperous rural industries that support improved living standards for the nation's people"*. Key development indicators included: (i) increased food production; and (ii) expanded irrigated land and increased productivity.

11. MAF's 2004 Policy and Strategic Framework was, and still is, the general guiding policy document for the development of East Timor's rural sector. The later (9th September, 2007) 4th Constitutional Government Program outlined the broad development objectives for the agriculture, livestock, forestry and fisheries sub-sectors, and - importantly - recognizes that agriculture is the main economic activity in East Timor (see Box 2).

Box 2: MAF's Policy Framework

- (i) Improved level of food security.
 - (ii) Increased value-adding.
 - (iii) Sustainable production and management of natural resources.
 - (iv) Greater contribution to the balance of trade.
 - (v) Increased incomes and employment in rural areas.
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2.2.1 MAF's Current Focus

12. MAF's current program is skewed towards irrigated rice production in response to the Government's food security and self sufficiency priority. Yet this priority is itself a response to the profile that rice has both politically and socially. The 2009 National Priority No 1 Matrix lists MAF's first priority area as *"(to) increase food production from 37,000 tonnes of rice in 2008, to 48,000 tonnes in 2009; with the area of paddy increasing from 31,000 ha to 45,000 ha"*. In consequence, three of MAF's current major initiatives focus on rice:

- 27% of the Ministry's 2009 budget¹² has been allocated to rice irrigation schemes (green-fields and rehabilitation)¹³;
- China is assisting MAF with a hybrid rice program¹⁴; and
- MAF purchased and handed out US\$16 million worth of agricultural machinery to increase the area planted to irrigated rice in 2009.

In total MAF has allocated US\$21 million for investment in these programs in 2009 with additional support from China and Japan.

13. The level of resources allocated by MAF to specifically supporting upland (rain-fed) crop production in 2009 is not clear. However, based on MAF's 2009 budget figure of US\$33 million it seems reasonable to conclude that the remaining budget (US\$12 million) covers all non-rice activities¹⁵. Furthermore, these

¹¹ Priority 2 of the 2010 *National Priorities*.

¹² US\$9.0 million, excluding Development Partner's support programs.

¹³ This includes US\$4.8 million for the large Uatolari irrigation scheme as well as additional JICA assistance with two irrigation projects: (a) Irrigation and Rice Cultivation Project in Manatuto – budget of \$2.7; and (b) Irrigation Rehabilitation of the Maliana I Scheme – budget of \$7.1 million.

¹⁴ US\$6.0 million in total.

¹⁵ For example, the Livestock Directorate has a budget of only US\$0.57 million in 2009, and therefore is not able to implement its recently completed strategic plan.

funds are spread across twelve National Directorates, thirteen District Directorates, and 1,825 staff¹⁶. Hence the budget available for tangible work in the uplands has to be limited.

14. In summary: while there is a current emphasis on rice, in the longer term there is need for a more balanced approach. Any future programs addressing food security issues must give priority to subsistence crops, acknowledging that irrigation is important in only some districts. This is a significant issue for future Australian investment in food security.

2.3 Australian Government Priorities and Programs

2.3.1 Country Program

15. The draft Australia/East Timor Country Strategy for 2009 to 2014¹⁷ states that: *“Australia will re-focus its efforts on a smaller number of programs and results”*. In consequence the Strategy is based on key Government of Timor-Leste priorities, including *“to improve food security by increasing agricultural production through increased distribution of higher yielding seeds and improved storage of harvest”*. Furthermore, this objective is both mirrored in the National Priorities (see above), and strongly endorsed by the analysis undertaken as part of the Concept Mission.

2.3.2 Seeds of Life II

16. The current second phase of the MAF-SOL program has been consistently commended for its achievements. During the last five years the program has:
 - Released nine varieties¹⁸ of five staple food crops, all of which are highly adapted to East Timor’s current farming systems. As a result, productivity has the potential to increase by between 23% and 80% once these varieties are widely available;
 - Piloted systems for the rapid multiplication and distribution of seeds and planting materials. In 2007/08 while 2,500 families accessed new varieties, since then 12,000 families received seed in the 08-09 season alone;
 - Confirmed the potential to significantly improve staple food productivity in the country through germplasm distribution partnerships. For example MAF-SOL’s partnership with CARE resulted in the on-farm production and storage of over ten tons of maize seed; and
 - Institutionalised participatory varietal selection within MAF to the point that the agency is now capable of undertaking many of the fundamental activities itself.
17. There is also growing evidence that the MAF-SOL Program has achieved solid results in addressing three of the constraints to rural development outlined earlier (Box 1), namely: the constraints related to crop inputs (#4), farmer production skills (#13), and the reduction of post-harvest losses of food crops(#10)¹⁹.
18. The MAF-SOL program has been the major Government food production initiative outside of rice. MAF has shown strong ownership and leadership for the program, and currently 28 of the 39 professional MAF-SOL staff are fully funded by the Government. Furthermore, the ongoing selection and expanded use of MAF-SOL varieties is agreed by all stakeholders to be an essential component in achieving the

¹⁶ 992 staff are based in the National Directorates in Dili. MAF’s staff numbers increased by 125% between 2008 and 2009, mainly because of the engagement of 376 *suco* extension officers.

¹⁷ Released in July 2009.

¹⁸ Rice (1); Corn (2); Sweet Potato (2); Peanut (1) and Cassava (2 – scheduled for Aug ’09 release).

¹⁹ Ministry of Agriculture Seeds of Life (2009). *Achievement of Seeds of Life- East Timor*. MAF-SOL, Dili, July 2009

long term food security objectives of the country²⁰, as these are the only varieties specifically selected to perform well under low input Timorese farming systems. Already Government, NGO and donors have partnered with MAF-SOL to commence distribution of these elite lines. Yet in order to multiply sufficient material to supply these distribution partnerships, the capacity of MAF-SOL must be increased. Only in this way will the majority of farmers have access to the new material.

19. The success of MAF-SOL has generated a number of important lessons. The primary message is that sustainable capacity improvement not only takes time, but is founded on the mutual respect and effective partnerships formed between the International team, the MAF team and local partners. Such relationships must be sustained if any new phase is to seamlessly build on current achievements. Other lessons include the need to:
- Embed bilateral support in institutions where there is consistent leadership and ownership (in the case of SOL, MAF's Research and Agriculture and Horticulture Directorates);
 - Maintain a tight focus on the core issues (increased production of staple food crops);
 - Identify and release only those varieties that have been carefully selected and farmer-evaluated against a range of production and consumption criteria;
 - Institute patient leadership and mentoring in order to develop, support and maintain a coherent team of technical staff within MAF;
 - Adopt a long term vision for capacity building based on improving both the basic skills (especially English and numeracy) and the technical capacity of MAF-SOL and associated staff; and
 - Not operate independently, but build networks and "win-win" partnerships with a range of development partners sharing common interests.

2.3.3 Australian Government Rural Development and Food Security Strategy

20. The Australian Government has revised and sharpened the strategic approaches of its global aid program, giving increased priority to rural development and food security. The approach approved in the 2009 Australian budget incorporates three interlinked objectives:
- to lift agricultural productivity, largely through investments in agricultural research;
 - to improve rural livelihoods, primarily through improving the functioning of markets in ways that increase incomes and reduce risks for the rural poor; and
 - to improve the resilience of vulnerable communities through social protection mechanisms.
21. The initiative described in this concept note responds to each of these objectives. In addition, AusAID is also planning a Multi-country Market Development Facility based on a "markets for the poor approach". This A\$20 million facility aims to address the value chain constraints that prevent the flow of goods and services between rural producers and the suppliers of private sector services. One of the three countries proposed for the facility is East Timor. The facility has the potential to complement the food security initiatives proposed in this concept, possibly through private investment in East Timor's emerging seed industry (which is currently supported by MAF-SOL2), and also through links with ACIAR's planned support for cattle production.

²⁰ There is common agreement from MAF, FAO, EC, PADRTL, JICA, USAID, CARE, WV, Concern, and Oxfam among others.

2.4 Related Donor-supported Programs

22. The Government's food security agenda is assisted by a range of donor and NGO-supported²¹ programs which either: (i) focus specifically on irrigated rice production (see Section 2.2); or (ii) target all sectors of the agricultural economy. Donor-supported programs which are relevant to the broader food security work are listed in Box 3. The current MAF-SOL Program integrates well with many of these initiatives - other donor and NGO programs are actively promoting improved varieties, seed storage and associated technologies as part of their programs.

2.5 Cross-cutting policy issues and further interventions in food security

2.5.1 Peace, stability and food security

23. As already discussed, food security is currently a politically charged issue, as it is crucial to ongoing civil stability. Lessons which MAF-SOL and other programs have learnt through working in this environment are the need for: tangible on-the-ground activities, careful participatory decision making with communities, and patience during the significant timeframes required to establish foundations of trust, ownership and enthusiasm within often sceptical, sometimes traumatized, communities.

2.5.2 Women and food security

24. The lives of most Timorese are strongly influenced by customary systems, such traditional systems having evolved to ensure social security, safety and sustainability in subsistence communities. With regard to gender issues, customary systems integrate many practices that go some way toward protecting women's rights, albeit through their social relationships with men. In all rural households women play significant roles in most farm tasks, including food storage, processing and preparation, as well as seed selection, planting, weeding and harvesting of all crops. In addition, approximately 20% of subsistence farms in East Timor are solely managed by female farmers. Paddy rice is the exception to this - only 4% of these farms are managed by women²².
25. Economic development poses challenges for customary practices, a particular risk being that the often fragile profile and influence of women is eroded as the country progresses in other ways. Women play a critical role in agriculture and hence food security in the East Timor, and thus any proposed interventions must pay explicit attention to the different needs and incentives of women and men. Hence in recent times, the MAF-SOL program has been increasingly active in ensuring equal targeting of

Box 3: Food Crop and Production Assistance

Food Crop Assistance includes:

i) GTZ's training in integrated crop management for irrigated rice;
(iii) FAO's and NZAID's grain storage silo construction and distribution program, and FAO's seed purchase and distribution programs;
(iii) CARE's innovative seed distribution and production programs through farmer groups;
(iv) the EC's district development programs in Bobonaro and Covalima (\$12.7 m) and Manufahi (\$15.0 m) Delivered through the Rural Development Programs.

Non food crop assistance to MAF includes:

(i) Cooperativa Café Timor (CCT)¹ and Programa de Apoio ao Desenvolvimento Rural (PADRTL) (Portuguese Technical Cooperation in Agriculture) coffee plantation rehabilitation;
(ii) CCT's pilot household-based cattle raising and fattening; and
(iii) GTZ's and Desenvolvimento Sector Privadu's (DSP's) (USAID-funded) support for the copra and coconut oil industries.

²¹ Five international NGOs are currently assisting MAF with some form of rural development, with all programs focussing on food and cash crop production.

²² MAF-SOL (2009). *Achievements of Seeds of Life. Seeds of Life, Dili.*

women and men, specifically focusing on women for issues related to seed preparation, post harvest storage and crop processing.

26. Clear lessons arising from past work in the East Timor include:

- The need to include women in key decision making processes at all levels, and to ensure that interventions actively engage women, do not compromise their roles, or further burden them.
- the need to advocate for, as well as train all participants (including women) to appreciate that gender inclusive programs enhance both performance and quality;
- the need to work with both men and women to ensure that women can achieve a higher profile, and gain the confidence necessary to engage in key decision-making roles; and
- the importance of modelling gender balance and equity in their own management and on-the-ground implementation.

27. As such, future design and implementation must incorporate a carefully evaluated gender implementation strategy.

2.5.3 Environment and food security

28. Like many post-conflict and developing countries, East Timor's rural environment has suffered from inappropriate crop and livestock production practices, as well as unsustainable forest harvesting for fuel and timber. Large areas are now degraded (through soil erosion and over-logging), a fact that has considerable impact on the country's ability to produce sufficient food for its rapidly growing population. MAF and supporting donors recognise this dilemma, and are implementing conservation and sustainable development programs²³ in response.

29. Ongoing work on food security must contribute to the twin objectives of environmental protection and adaptation to climate variability (and longer term climate change). Regional climate change scenario planning has concluded that local temperatures will increase, and that summer rainfall will decrease. In order to cope with seasonal and longer term changes a focus on improving the resilience of both the natural resource and the associated human systems is needed. In this regard MAF-SOL is ideally positioned to make a meaningful contribution. Current and potential areas of input include:

- Increasing the available range of improved varieties for each crop, including: a) the need to target those crops that currently depend on a relatively narrow genetic base, and b) the need to select varieties that demonstrate an ability to adapt to variable climatic conditions, especially those that display drought tolerance;
- Increasing the diversity of crops available for subsistence farmers to plant and in particular enhancing the role of food legumes in the system in maintaining protein levels for both human and livestock diets;
- Increasing the country's capacity to grow and store significant quantities of seed or planting material reserves to respond to disasters/emergencies;
- Improving subsistence farming adaptive processes including weed control, crop rotations, and soil health (including soil organic matter enhancement), erosion mitigation and carbon sequestration; and
- Improving the available data on varying climate patterns and seasonal changes.

²³ For example, UNDP's sloping agricultural land technology (SALT) programs.

3 Activity description

30. In response to this context and after considerable input from key stakeholders the Concept Mission proposes that the following form the strategic and implementation framework for further design of Australian assistance to the MAF-SOL program.

3.1 Goal: Improve food security by increasing agricultural productivity

31. The Goal mirrors the priority of Australia/East Timor Country Strategy for 2009 to 2014. It recognises that the primary constraint to food security in East Timor is the poor productivity of staple crops. It also acknowledges that improved productivity generates surplus, this being a prerequisite to leverage rural families out of poverty.

3.2 Objective: The majority of Timorese rural households use improved varieties and associated innovations for core food crops

32. The objective of further assistance (that builds off MAF –SOL success) focuses on ensuring that farmers are not only able to access new varieties, but are in a position to use them regularly. This requires that systems and partnerships are in place to ensure the on-farm production and storage of seed, the ongoing sustainable supply of new varieties, and the multiplication of sufficient material to replenish losses and maintain genetic purity of lines.

3.3 Key activity areas

33. To meet the objective the Concept Mission recommends four activity areas.

3.3.1 Access to improved varieties of key food crops

34. To ensure that farmers can access and confidently use improved varieties, three key steps are required:

- **Planning:** MAF-SOL must have the capacity to monitor the use of, access to, and requirements for seed, as well as the ability to determine the annual quantities of seed and planting material required for each district.
- **Seed Multiplication:** MAF-SOL must have the capacity to multiply sufficient high quality seed and planting materials to meet expected demand. This may be through contracts to local grower groups, the private sector or through one-off international contracts²⁴.
- **Distribution of seed and associated technologies:** MAF-SOL must develop partnerships to distribute varieties and associated technologies. These could include:
 - MAF's new Suco-based Extension Officers and its current partnership with FAO;
 - Expanded partnerships with international and local NGOs (e.g. CARE);
 - Engagement with the emerging private sector, perhaps with the support of the proposed AusAID-funded Market Driven Development Facility; and
 - Partnerships with other bilateral programs targeting rural poverty reduction, e.g. GTZ, the EC and PADRTL²⁵.

Finally seed distribution must be complemented with appropriate crop management and agronomic information. This will require support for information preparation, communication and training capacities within MAF, along with an increased capacity for MAF to work with both women and men farmers.

²⁴ In the short term all options need to be considered in order to quickly build stocks of improved seed and planting material. In the medium term East Timor must establish a sustainable local capacity to undertake this essential task..

²⁵ Portugal's rural aid program.

35. The key indicators that this activity has been successful will be that more than 80% of men and women farmers have access to new varieties and that more than 50% of the nations smallholders are regularly using one or more of the new varieties consistently on their farms. MAF and the current implementation team are confident that these figures are achievable over five years.

3.3.2 Access to food and seed storage technologies and maintenance of planting material

36. Improved storage of seed and food offers significant potential to reduce major on-farm loss²⁶ and improve food security. Many donors and NGOs are currently supporting projects that target improved on-farm storage, but these efforts require greater integration and expansion if there is to be a significant impact at the national level. It would be opportune for MAF-SOL to undertake pilot studies of current partner capacities and approaches, as well as the feasibility of possible technologies. Already several technologies (particularly air tight 200L drums and sealed plastic bags) show considerable promise. MAF-SOL is also ideally placed to assist Government, civil society, private sector and other donors to coordinate the participatory development of a national multi-dimensional strategy to support food and seed storage. However such a strategy would require considerable resources, and would also need to pay particular attention to the sustainability of any introduced technologies, processes and partnerships. As such, the scope and scale of implementation is considered to be beyond the present focus and mandate of MAF-SOL. Nevertheless, once an integrated strategy has been developed, MAF-SOL could present it to donors for coordinated funding. As it stands, AusAID, FAO and NZAID, along with international and local NGOs, as well as MAF-SOL itself, have already expressed interest in implementing parts of this proposed strategy. MAF-SOL could further assist with ongoing outcome and impact monitoring and evaluation.
37. Success for this activity will be demonstrated by the joint donor funding of a multi-dimensional strategy to support food and seed storage.

3.3.3 Building MAF institutional capacity for sustainability of SOL activities

38. MAF needs ongoing support to build both staff and institutional capacity. However, this is a huge task, and MAF-SOL can only support those parts of the organisation that directly impact on the sustainability of MAF-SOL activities, specifically MAF-SOL's own staff and its associated work teams and managers. Great care will be needed to prioritise needs, but assistance could include:
- Staff Training;
 - Post graduate and international training;
 - Core skills in English and numeracy;
 - Short courses and workshops;
 - On-the-job training and mentoring;
 - Strengthening those MAF institutional processes and organisational structures that embed MAF-SOL activities;
 - Provision of a Food Security Studies Fund under the Director General that can undertake specific policy research, studies and training. The design would need to establish clear criteria and approval mechanisms, but all decision making should be embedded within MAF; and
 - Assistance to MAF to help coordinate donor activities related to food security.

²⁶ Seed losses due to poor storage are frequently greater than 50%, while storage losses of maize for consumption are estimated to be in the order of 30%.

39. As a result of this strategy it would be expected that MAF staff would be able to take over the management and implementation of foundational activities related to varietal introductions, testing and on-farm development, as well as seed distribution and planning.

3.3.4 Seed introduction, screening, OFDTs and selection

40. This has not only been the engine room of MAF-SOL, but will continue to be so throughout Phase 3. Nevertheless, it would be beneficial to expand the current focus to include a broader range of legumes²⁷ and high altitude food crops²⁸, in order to complement the ongoing work on rice, maize, sweet potato, cassava and peanut. Phase 3 will also allocate more resources to the integration of improved varieties into farming systems, including practices to improve adaptive crop production, and identification of those varieties best suited to the changing crop production conditions resulting from climate change/variation. Socio economic studies (SOSEK) will continue, but need to be ultimately absorbed by MAF to ensure its ongoing capacity in the longer-term. Nevertheless, SOSEK support may require greater attention in future years to ensure the proper appreciation of constraints to national adoption and improved mechanisms to work and engage with women farmers. Finally, all current research station operations²⁹ must be maintained³⁰, along with options for a high-altitude research site³¹ and possibly a modest rice integrated farming system research facility³². However, scoping this expansion must be based on MAF's likely capacity to assume responsibility for all recurrent costs by the end of Phase 3.
41. Through this activity it is expected that MAF will maintain the annual release of two or more varieties adapted to specific farming systems and agro-climatic zones in the country along with associated technologies.

4 Delivery and implementation options

4.1 Potential Partnerships for Program Implementation

42. As noted, close relationships and mutual respect are core elements of the success of MAF-SOL, and the transition to a new phase of support should not compromise this in any way. Consideration was given to implementation mechanisms that sustained and enhanced this working modality. One option would be to engage an implementing contractor however this could lead to significant contracting delays, the potential for a gap in assistance, the need to re-establish relationships and reputation, and the associated loss of momentum. While the principles of the program could be clearly spelt out this mode could still compromise the long standing relationships of trust currently in place. An alternative option considered was to engage more directly with MAF using their financial management systems to deliver the program. However MAF is worried about this approach, especially given looming budget shortfalls and Government pressure on the Ministry to justify why additional external funds should not be seen as budget substitution. This option also undermines the capacity of MAF to gradually budget its own funds for program sustainability.

²⁷ This would fill a significant gap in the current portfolio and improve human nutrition and crop rotations. Crops could include mungbean, soybean and a range of multi-purpose legumes.

²⁸ This would meet the needs of a neglected agro-climatic zone in which many families live. Crops could potentially include potatoes, wheat, barley and beans.

²⁹ Betano, Loes, Darasula, Fatumaka and Aileu.

³⁰ Assuming that the Darasula Station is refurbished during Phase 2. If not, it will be necessary to include this activity in Phase 3.

³¹ Along the lines of Aileu in terms of size and resources.

³² While the Government's current focus on rice is unbalanced, ongoing work is still justified.

43. As such, it is recommended that AusAID and ACIAR retain the current SOL 2 management and supervision arrangements for the implementation of SOL 3. This compromise offers the opportunity for MAF to exert control over budget expenditure while at the same time ensuring that funds are not seen as direct substitution. It also ensures that current working relationships are maintained. It is recommended that ACIAR have the lead responsibility for implementing the program with MAF, potentially by maintaining its collaborative partnership with the University of Western Australia. AusAID would provide financial support, participate in joint monitoring and review activities, and provide other support as required to the in-country team through its office in Dili. It is also proposed that the design process for SOL 3 be managed by ACIAR, in close collaboration with MAF and AusAID and that AusAID and ACIAR combine their formal processes for design, peer review, completion reporting, appraisal, and approval, to streamline the transition from SOL 2 to SOL 3³³. Importantly the design document should be based on a program approach (instead of the current design's prescriptive logframe) as this will allow for the annual development of activities (approved via the Annual Plan) that meet the program's defined outcomes and impacts. This will enable MAF-SOL to flexibly respond to emergent opportunities.
44. SOL 3 is proposed as a five year activity that both continues and augments the ownership of the program by MAF, and its joint management by MAF and its funding partners. It will do this through:
- embedding additional SOL roles within MAF (e.g. information, training and SOSEK activities);
 - building those staff and institutional processes that will sustain SOL3 activities into the future;
 - allocating to MAF the decision making responsibility for the Food Security Studies Fund; and
 - assuming the major responsibility for recurrent costs over time, while at the same time ensuring that MAF assumes full financial and operational responsibility for key facilities.
45. It is also proposed that the design budget be pegged at approximately A20m for the five years. While this would significantly increase the size of the current assistance, it reflects the growing budget over recent years, and the significant need to focus on varietal distribution partnerships.

4.1.1 Harmonisation with other donor and AusAID activities

46. In this light it is very encouraging to note the enthusiasm of other donor partners and NGOs to work collaboratively with MAF-SOL. During the Concept Mission commitments to partner were reaffirmed with the FAO for seed storage, multiplication and distribution; with PADRTL for seed distribution; and with NGOs (notably CARE) for seed multiplication and distribution. This will build on the current partnerships with NGOs and Donor partners established under SOL 2. It also raises the opportunity for MAF-SOL to take a strategic role in assisting the Government of East Timor to coordinate donor activity related to food security. MAF-SOL is widely respected by donors and other players for its logical and unbiased approach to partnerships – as such, the design has the opportunity to further MAF-SOL's role in assisting MAF and other Government Ministries to coordinate responses to food security nationally.
47. Finally, there is a clearly perceivable emerging logic in the relationship of SOL 3 with other planned AusAID activities in East Timor. Importantly, the imminent Multi-country Market Development Facility will have opportunities to promote private sector engagement in activities associated with seed storage, multiplication and distribution, along with opportunities for marketing farm surpluses. In

³³ AusAID is currently developing an *Engagement Strategy* that describes the joint development, monitoring and oversight processes to be followed.

addition, a proposed ACIAR livestock project could seek opportunities to capitalise on improved staple crop productivity.

4.2 Design issues and timelines

48. The size of the design team should be kept to a minimum - preferably two external consultants, plus representation from MAF³⁴, as well as the AusAID Post. The skills covered by the core international design team should preferably include expertise in food security/subsistence production, seed production and storage, SOSEK expertise (social anthropology and gender) and design skills. Supplementary short term inputs may be needed on environmental considerations, and M&E.
49. Opportunity exists to undertake some specific preliminary studies in parallel with the development of the new program. In particular, a preliminary review of the current dissipated activities on seed storage could be undertaken to understand the capacity, coverage and intentions of partners from all sectors. If the design team considers this relevant, they should develop TOR for these studies. Importantly, as the design will be subsequent to the release of the Prime Minister's National Strategy, it should ensure its alignment with the Strategy's priorities.
50. Pending agreement on this draft Concept Note, the design process could track the following timeline:
 - Design Mission and consultations – Nov 2009/Feb 2010
 - Design Document finalised – March 2010
 - External Appraisal – April 2010
 - Peer Review – May 2010
 - Preparation of implementation arrangements – June/Aug 2010
 - Formal Approval by the bilateral partners
 - Implementation - Sep 2010

This schedule will ensure continuity of current SOL activities due for completion on 31 August 2010.

4.3 Key risks and implications for the design

51. Many of the implementation and design risks have been considered as part of the concept preparation and have influenced the structure and partnerships proposed. However three key development risks must be clearly addressed as part of the design mission and openly discussed with Government partners. These are:
 - **Political demands for the program to focus on rice:** The Concept is clear that a balanced approach to food security requires a primary focus on staple crops for the rain-fed uplands supplemented by an important but secondary focus on rice. Political pressure may however stress a reversal of these priorities. MAF and the design team need to be united in their response to this issue and clearly and openly present the compelling evidence supporting this decision. A well-argued and logical approach should satisfy the majority of concerns. In addition the design team and MAF may need to meet with political leaders to pre-empt the issue. That said, rice remains an important crop for many Timorese and will likely grow in importance as people's basic food security needs are met. As such MAF-SOL should support rice within East Timor but always in balance with a focus on the more significant dryland and upland subsistence crops.

³⁴ This should preferably include one of the key directors along with regular meetings with the Director General and his key management staff.

- **Loss of leadership vision and continuity within MAF:** Seeds of Life has benefitted from leadership continuity and ownership by the current Director General and the Directors of Research and Food Crops. This has been essential to both the partnership and to the compliance with commitments to absorb SOL activities within the recurrent budgets of the Ministry. The design mission must stress the importance of these relationships and work collaboratively to ensure that MAF leadership is fully engaged to help formulate, understand and own the program in its entirety.
- **Budget restrictions reduce MAF's commitment to absorb the program:** MAF has enjoyed increasing budgets over recent years which has, in part, helped it meet (and in fact exceed) its commitment to absorb operational aspects of the program. However future budgets are not likely to be as large as in 2009. As such the design must ensure that the structures and processes proposed are clearly within the mandate and capacity of MAF to absorb. This must be clearly discussed and agreed with management.
- **Changes to Implementation Team personnel or mode of operation:** The proposed implementation arrangements are designed to sustain the partnership between AusAID and ACIAR and also to ensure the current working relationships between the implementation team and MAF are maintained. There is a risk that changes to the implementation team could compromise this strategy. Currently the University of Western Australia has written to confirm their willingness to continue as a partner, and in fact have identified significant co-contributions in cash and kind. In addition, key team members have confirmed a long term commitment and local staff are now all directly employed by MAF. Nevertheless, AusAID and ACIAR will need to ensure that the principles that underpin the successful working relationship are clearly articulated in the design and any changes that occur are in keeping with these principles.

5 Recommendation

52. The Concept Mission can confirm unanimous support at all levels for the continuance of Australia's support for MAF-SOL. Furthermore, it is likely that ongoing support will deliver substantial development impacts that directly contribute to core East Timorese and Australian priorities. Finally, there is compelling logic for the continuation of current relationships and implementation partnerships. As such, the Concept Mission recommends that the Governments of East Timor and Australia proceed with the design of a further phase of MAF-SOL (SOL3) based on the strategy and key activity areas outlined.

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