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PROJECT PAPER

FOR

SMALL RETF GRANT

IN THE AMOUNT OF US\$2.85 MILLION

TO THE

CATHOLIC RELIEF SERVICES

IN THE REPUBLIC OF TIMOR LESTE

FOR A

COMMUNITY DRIVEN NUTRITION IMPROVEMENT PROJECT

May 9, 2014

Human Development Sector Unit
East Asia Pacific Region

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CURRENCY EQUIVALENTS
 (Exchange Rate Effective December 2013)
 Currency Unit = US Dollars
 1 SDR = US\$1.56

FISCAL YEAR
 January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AC	Agricultural Coordinators	M&E	Monitoring and Evaluation
BCC	Behavior Change and Communication	MOH	Ministry of Health
CHC	Community Health Centers	NDFFA	National Directorate of Fisheries and Aquaculture
CNC	Community Nutrition Coordinators	NGO	Non-Governmental Organization
CNE	Community Nutrition Educators	NNS	National Nutrition Strategy
CRS	Catholic Relief Services	NPV	Net Present Value
CSO	Civil Society Organizations	NWG	Nutrition Working Group
CQS	Consultants Qualifications	OP	Operational Policy
DHS	Demographic and Health Survey	ORS	Oral Rehydration Salts
ECOP	Environmental Code of Practice	OVH	Overhead
FAO	Food and Agricultural Organization	PDO	Project Development Objective
FBO	Faith-Based Organization	PDSS	Village Development Plan for Health (Planu Dezenvolvimento Saude Suco)
FGL	Farmer Group Leader	POM	Project Operational Manual
FM	Financial Management	PRA	Participatory Rural Appraisal
GOTL	Government of Timor Leste	PSF	Community Health Promoters (Promotor Saude Comunitaria)
IA	Implementing Agency	QBS	Quality Based Selection
ICB	International Competitive Bidding	QCBS	Quality and Cost Based Selection
IFA	Iron and Folic Acid	SEO	Suco Extension Officers
IFR	Interim Financial Reports	SISCa	Integrated Community Health Services (Servisu Integrado Saude Comunitaire)
IP	Indigenous Peoples	SoL	Seeds for Life
IRR	Internal Rate of Return	SSR	Support Service Rate
IYCF	Infant Young-Child Feeding	SSS	Single-Source Selection
JICA	Japanese International Cooperation Agency	TLSLS	Timor-Leste Survey of Living Standards
JSDF	Japanese Social Development Fund	ToT	Training of Trainers
LCS	Least-Cost Selection	UNICEF	United Nations Children Fund
MAF	Ministry of Agriculture and Fisheries	WB	World Bank
MDGs	Millennium Development Goals	WHO	World Health Organization

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Task Team Leader:	Eileen Brainne Sullivan

**DEMOCRATIC REPUBLIC OF TIMOR-LESTE
COMMUNITY DRIVEN NUTRITION IMPROVEMENT PROJECT**

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DATA SHEET

Democratic Republic of Timor-Leste

Community Driven Nutrition Improvement Project

Small RETF Grant Project Paper

East Asia and Pacific Region

Basic Information		
Date: May 9, 2014	Sectors: Health	
Country Director: Franz Drees-Gross	Themes: Nutrition & Food Security, Child Health	
Sector Manager/Director: Toomas Palu/Xiaoqing Yu	EA Category: B	
Project ID: P145491		
Instrument: IPF		
Team Leader(s): Eileen Brainne Sullivan		
Recipient: Catholic Relief Services-United States Conference of Catholic Bishops		
Executing Agency: Catholic Relief Services - Timor-Leste		
Contact: Ian de la Rosa	Title :Country Representative	
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Project Implementation Period:	Start Date: August 31, 2014	End Date: March 31, 2017
Expected Effectiveness Date: May 15, 2014		
Expected Closing Date: August 31, 2017		
Project Financing Data(US\$M)		
<input type="checkbox"/> Loan	<input checked="" type="checkbox"/> Grant	<input type="checkbox"/> Other
<input type="checkbox"/> Credit	<input type="checkbox"/> Guarantee	
For Loans/Credits/Others (US\$M)		
Total Project Cost : 2.85	Total Bank Financing 0.0	
Total Cofinancing : 2.85	Financing Gap : 0.0	
Financing Source	Amount(US\$M)	
BORROWER/RECIPIENT	0.0	
IBRD	0.0	
IDA: New	0.0	
IDA: Recommitted	0.0	
Others: JSDF TF	2.85	
Financing Gap	0.0	
Total	2.85	

Expected Disbursements (in USD Million)								
Fiscal Year	FY14	FY15	FY16	FY17	FY18			
Annual	0.50	0.60	0.67	0.76	0.32			
Cumulative	0.50	1.10	1.77	2.53	2.85			
Project Development Objective(s)								
The objective of the JSDF grant is to improve nutrition practices targeted to children under the age of two and pregnant and lactating women in targeted least developed communities.								
Components								
Component Name								
1. Community Mobilization, Awareness Raising and Participatory Planning						\$602,000		
2. Community Led Delivery of Nutrition Specific Interventions						\$786,000		
3. Community Led Delivery of Nutrition-Sensitive Interventions						\$1,018,000		
4. A: Monitoring and Evaluation, and B: Project Management						\$444,000		
Compliance								
Policy								
Does the project depart from the CAS in content or in other significant respects?						Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Does the project require any exceptions from Bank policies?						Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Have these been approved by Bank management?						Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Is approval for any policy exception sought from the Board?						Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Does the project meet the Regional criteria for readiness for implementation?						Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Safeguard Policies Triggered by the Project						Yes	No	
Environmental Assessment OP/BP 4.01						X		
Natural Habitats OP/BP 4.04							X	
Forests OP/BP 4.36							X	
Pest Management OP 4.09							X	
Physical Cultural Resources OP/BP 4.11							X	
Indigenous Peoples OP/BP 4.10						X		
Involuntary Resettlement OP/BP 4.12							X	
Safety of Dams OP/BP 4.37							X	
Projects on International Waters OP/BP 7.50							X	
Projects in Disputed Areas OP/BP 7.60							X	
Legal Covenants								
Name			Recurrent			Due Date		Frequency

Description of Covenant					
Team Composition					
Bank Staff					
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Patricia Hoyes	Senior Finance Officer		CTRLD	140449	
David Whitehead/Robert J. Gilfoyle	Financial Management Specialist		EASFM	320696	
Manuela Da Cruz	Procurement Specialist		EASRI	407497	
Non-Bank Staff					
Name	Title	Office Phone		City	
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments
Timor-Leste		Baucau and Viqueque			

I. STRATEGIC CONTEXT

A. Country Context

1. Timor-Leste is a country in transition. After emerging from a long struggle for independence and internal conflict between 1999 and 2006, the country has undergone rapid economic growth and fiscal expansion in order to meet its development needs. However, Timor-Leste remains fragile with the challenge of stagnant human development outcomes. Timor-Leste ranks 147th out of 187 countries on the United Nations Development Program Human Development Index for 2011, and performance on key socioeconomic indicators lags behind that of neighboring countries. A recent assessment of Timor-Leste's progress towards meeting the Millennium Development Goals (MDGs) by 2015 shows that the country is unlikely to meet expected targets for several goals, including eliminating poverty/hunger, unless dramatic improvements are made to address needed changes in health and related sectors.

B. Sectoral and Institutional Context

2. Over the past decade, the country has made steady progress in re-establishing health infrastructure and services, but health outcomes lag far behind other neighboring countries, especially in the areas of maternal health and nutrition. The country has rebuilt most of the health centers badly damaged during the struggle for independence and has been delivering basic health services such as immunization, which has resulted in improved child health. However, progress toward the health MDGs continues to be off-track on maternal and child nutritional outcomes. The maternal mortality ratio declined only marginally from 660 per 100,000 live births in 2003 to 557 per 100,000 in 2009. Childhood nutritional status has worsened. The prevalence of underweight among children under 5 has increased from 41.5 percent to 45.3 percent, and stunting has gone from 54.8 percent to 57.7 percent from 2003 to 2009/2010, which are the third highest stunting rates in the world. With such high rates of malnutrition, Timor-Leste is paying the price for the direct burden of morbidity/mortality related expenditures, loss in productivity due to poor physical status, and the indirect losses in productivity and income from poor cognitive development and schooling.

3. The causes of child malnutrition are manifold: with immediate causes related to inadequate dietary intake and disease, as well as underlying causes related to food insecurity, improper feeding and caring behaviors, insufficient health care services and unhealthy household environments. A recent assessment carried out using Timor-Leste Survey of Living Standards (TLSLS) 2007/08 confirmed that short-term food insecurity as measured by the quality and quantity of food consumed is significantly correlated with measures of child malnutrition. Even though agriculture dominates the economy and employs 70 percent of the population, most producers are subsistence farmers with an average landholding of 0.08 hectare¹ and yields are among the lowest in Asia, resulting in a national shortfall of 39,000 tons of maize and 50,000 tons of rice. The deficit is made up through imports of rice, approximately 78,000 tons per annum, and substitution with cassava and other root crops.² In addition, there are seasonal shortages of food during the period December to March, when households cope by reducing meal size, reducing the number of meals per day (often to one), and substituting less nutritious foods.³ On average, rural households experience 3.8 months without enough rice or maize to eat.⁴ However, increase in the availability of food preferred by Timorese, such as rice alone, may not be sufficient to make major reductions to malnutrition. Inadequate quality of consumed foods (e.g., low iron

¹ FAO-MAF, Strategic Program for Promoting Agricultural Growth and Sustainable Food Security in Timor Leste, Bangkok, Thailand. March 2010

² *Ibid*

³ *Ibid*

⁴ *Ibid*

consumption, exposure of grain to aflatoxins, not initiating proper complementary feeding with protein and micronutrients, etc.) and high food expenditures at the household level (including on nutritionally poor foods like instant noodles) are also significant factors leading to child stunting.⁵

4. Micronutrient deficiencies are a result of inadequate intake of micronutrient-rich foods and the lack of absorption of micronutrient because of infections and parasitic infestations and have serious consequences for childhood morbidity and mortality. According to the World Health Organization (WHO) standards, anemia remains a medium-level public health problem in Timor-Leste. Iron deficiency (anemia) is one of the most common nutritional problems in Timor-Leste, with 21 percent of women of reproductive age being anemic⁶. Pregnant women are more likely to be anemic than women who are neither pregnant nor breastfeeding (28 percent and 19 percent respectively). According to the Demographic and Health Survey (DHS), 37 percent of women did not take any iron supplements during their most recent pregnancy. In 2011, 38 percent of Timorese children aged 6-59 months were also anemic; this remains the same as figures for 2003. Vitamin A is another area of concern, with only 55 percent of women receiving vitamin A postpartum and only 59 percent of children receiving vitamin A supplements.

5. Meat, fish, poultry, and eggs have body building substances essential for good health, and are important for balanced physical and mental development. These and essential oils and fats should be introduced into children's diets at six months age. However, in Timor Leste of the children 6-8 months of age, only 29 percent consume meat, fish or eggs, and 21 percent consume foods with oil and fat⁷.

6. Evidence demonstrates that cultivation of diversified crops in home gardens, along with nutrition education, can lead to diversified diets and better nutrition.⁸ This might be due to reduced risk of micro-/macro-nutrient deficiencies, which can make children less susceptible to childhood illnesses. Child feeding and caring practices also have a profound effect on overall child health and nutrition. Evidence from the Lancet Series on Maternal and Child Malnutrition reinforces the importance of promoting complementary feeding of appropriate foods through strategies such as nutrition counseling as a way of reducing stunting incidence and the related burden of disease.⁹

7. In Timor Leste, child illnesses, gender disparities (including imbalances in decision making power about food choices), poor access to basic services, inadequate feeding and caring behaviors (well known to be one of the most important factors affecting nutritional status of children throughout the world) are also significantly correlated with increased risk of malnutrition. For example, living far from a clinic (over 2 hours) is associated with an increase in the risk of stunting and being underweight. However, even though demand (access and utilization) for health services varies considerably across the country, the overall demand remains weak. Demand is especially low among families living in rural areas that are unaware of available services and their benefits or often have to walk great distances to access critical preventive and curative health care. Although direct delivery of health and nutrition services, especially through the country's network of integrated community health service delivery system known as *Servisu Integrado Saude Communitaire/Integrated Community Health Services (SISCa)*¹⁰ at each Suco,

⁵ *Ibid*

⁶ Timor Leste Demographic Health Survey 2009-10

⁷ *Ibid*

⁸ Tung, Alexandra et.al. (2013) Nutrition Sensitive Agriculture for Timor-Leste: A Compendium of Resource

⁹ Bhutta et al . What works? Interventions for maternal and child under nutrition and survival. *Lancet*. 2008.371:417-40

¹⁰ Through a "six-table assistance system" SISCa provides: (i) population registration assistance; (ii) nutrition education; (iii) maternal and child health services; (iv) personal hygiene and sanitation counseling; (v) curative health care services; and (vi) broad-based health education.

has improved utilization of key services, the current system of a monthly visit is inadequate to provide the intense support needed during the critical period of pregnancy to up to two years of a child's life.

8. According to the March 2012 WHO/UNICEF Joint Monitoring Program on the use of improved sanitation facilities, less than half of the population of Timor-Leste (47 percent) has access to any kind of improved sanitation facility. Improvements in rural sanitation are even scarcer, with just over 37 percent of the population accessing any kind of improved latrine. In fact, 43 percent of rural populations still actively practice open defecation. Preventable, fecal-borne illnesses such as diarrheal diseases and typhoid are a key contributor to mortality in children under five years of age and are directly linked to inadequate water supply, sanitation and hygiene issues. Diarrheal diseases are also one of the most significant causes of malnutrition and nutrient malabsorption, which can lead to impaired physical growth (stunting), reduced resistance to infection, and long-term gastrointestinal disorders.¹¹ The 2008 Lancet series recommends using zinc supplementation to manage diarrhea.¹²

9. In order to address such a high prevalence of malnutrition, the Government of Timor Leste (GOTL), with development partners support, has recently drafted a National Nutrition Strategy (NNS), which calls for multi-sectoral interventions, focusing on behavior change communications, among many others, to achieve strategic results. However, institutional and implementation arrangements to support the NNS are yet to be functional due partly to: (a) inadequate human resources and capacity; (b) sub-optimal coordination between sectors including unclear roles and responsibilities of line ministries; and (c) inadequate financial resources for activities and personnel.

C. Higher Level Objectives to which the Project Contributes

10. The project will contribute to assessing whether the nutrition-sensitive interventions can be scaled up to reduce malnutrition in Timor Leste.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

11. The Project Development Objective (PDO) is **to improve nutrition practices targeted to children under the age of two and pregnant and lactating women in targeted least developed communities.**¹³ In order to achieve this, the project will address the key underlying causes through: (a) community mobilization, participatory planning, and awareness raising about malnutrition causes and risks; (b) community led delivery of nutrition-specific interventions through use of Community Nutrition Educators (CNE) (focusing on messages that encourage positive behavior changes to improve nutrition)¹⁴; and (c) community selected nutrition-sensitive interventions.¹⁵

¹¹ Murray, Lopez (1997); Guerrant et al (1999); Baqui et al (1993); Schneider et al (1978); Humphrey (2009).

¹² Raew, Kathryn et. al. (2012). *A Life Free From Hunger: Tackling Child Malnutrition*. STC. London.

¹³ Timor-Leste has 13 districts, 66 sub-districts, 442 Suco (villages) and 2336 Aldeias (hamlets). Community refers to Aldeias, and the project will focus on all communities in 287 Aldeias (50 Suco that fall in the lowest living standard groups in the 2 eastern districts of Baucau and Viqueque).

¹⁴ Raew, Kathryn et al. (2012). *A Life Free From Hunger: Tackling Child Malnutrition*. STC. London. Page 20.

¹⁵ As defined within the Scaling Up Nutrition (SUN) framework, nutrition-specific interventions are programs and plans that are designed to address the direct causes of malnutrition and to have a specific impact on nutrition outcomes. These include: support for exclusive breastfeeding; appropriate complementary feeding; micronutrient fortification and supplementation; and treatment of acute malnutrition. Nutrition-sensitive approaches are strategies and plans that address the underlying and basic causes of malnutrition and take into consideration the cross-sector impact of nutrition including those related poverty reduction, education, agriculture and improved sanitation.

12. The project will address a wide range of behaviors and practices which can lead to sustainable improvements in the nutritional status of target populations by linking nutrition specific and sensitive interventions through an integrated approach. The integrated approach incorporates community mobilization, beneficiary participatory planning, community mapping, educational nutritional specific messages that highlight behavior change and linkages to nutrition-sensitive possible actions, action planning and implementation of nutrition-sensitive promoted activities. Additionally this innovative approach will overcome barriers to behavior change by employing the efficient use of locally available resources to increase communities' control over their health and nutrition outcomes. The project is divided into four interrelated and overlapping components.

13. Component 1 focuses on community sensitization and mobilization, including development of Participatory Rural Appraisal (PRA) and selection of CNEs. Component 2 will work with targeted households to increase knowledge and behavior related to nutrition specific messaging with nutrition-sensitive solutions. Component 3 will train for and implement nutrition-sensitive initiatives at both demonstration plots and household plots. Component 4 will comprise two sub-components: A for monitoring and evaluation (M&E) and B for project management.

Box 1: Theory of Change

- Through increased understanding of what constitutes positive nutrition, consistent reinforcement of clear messages on nutrition specific topics, explicit linkages to nutrition-sensitive initiatives and inputs to implement these initiatives will change household behaviors and practices including the food they choose to produce and consume thus having a positive impact on nutritional status. The innovation in this approach is the continuous linkages and reinforcement of messaging around nutrition specific messages and nutrition-sensitive initiatives.
- Project beneficiaries involved in PRA, Monitoring, Decision Making and Action Planning, will have increased ownership of the project, leading to increased participation, learning, behavior change and eventually project sustainability.
- Working with the entire household will increase beneficiary participation, joint decision making at the household level and ultimately success of the project. Additionally having the entire household targeted during the household counseling sessions will ensure that the decision makers around selection of crops grown will be informed about the nutritional impact on the family.

B. Project Beneficiaries

14. The project will target all communities (i.e. 287 AldeiaAldeias) in 50 Suco that fall in the lowest living standard groups¹⁶ in the 2 eastern districts of Baucau and Viqueque¹⁷. These two districts have a significantly higher proportion of Suco with the lowest living standard.¹⁸ The project will directly benefit

¹⁶ Asian Development Bank (2012). Timor-Leste's Least Developed Suco.

¹⁷ While Oecussi has the highest proportion of Suco in lowest living standards, the proposed Project will target Viqueque and Baucau given the fact that it is a pilot project requiring a lot of technical assistance by the implementing agency and travel time between Viqueque and Oecussi is substantial.

¹⁸ Within the Suco that meet the criteria for falling into lowest quintile, the total population within the target area is 72,305 spread out amongst 50 Suco and 287 Aldeia. Based on the 2010 DHS data and the Asian Development

an estimated 4,470 children under the age of 2 and 5,503¹⁹ pregnant and lactating women by increasing demand and utilization of nutrition specific and sensitive interventions. The project will aim to achieve universal targeting of children under the age of two and pregnant and lactating women in targeted Aldeias. Approximately 1,000 service providers²⁰ will directly benefit from the community driven interventions indirectly improving nutritional status and training, respectively.

15. Additionally, it is estimated that around 70,000 indirect beneficiaries²¹ will benefit through increasing the knowledge and behavior changes of the direct beneficiaries within their community. Project information will reach them through informal day-to-day interactions with direct beneficiaries. These indirect beneficiaries will also receive information through posters and other printed messages displayed in public places. They will also benefit from the project through seeing demonstration plots within their community.

C. PDO Level Results Indicators

16. Progress towards the achievement of the PDO will be measured through the following outcome indicators among target communities:

- (a) Proportion of children under six months of age who are exclusively breastfed is 60% at end of project.
- (b) Proportion of children 6-23 months provided with all 3 minimum infant and young child feeding practices is 40% at end of project.²²
- (c) Proportion of children under two years with diarrhea who were provided continued feeding along with Oral Rehydration Salts (ORS) and/or increased fluids is 68% at end of project.
- (d) Proportion of pregnant mothers who consumed at least 90 iron and folic acid (IFA) tablets or syrup during pregnancy of last birth is 25% at end of project.

17. The implementation progress will be monitored using the following process indicators:

- (a) Proportion of targeted households utilizing the nutrition specific and sensitive interventions organized by or with the target community members.
- (b) Number of targeted communities who plan, organize, and lead delivery of nutrition-sensitive interventions as part of Component 3.

Bank analysis of least developed Suco, there are 4,470 children under the age of 2 living in the least developed Suco (lowest quintiles) in Baucau and Viqueque. There is a larger number given by the 2010 Census, so during implementation this target number may increase to upwards of 7,000 children under 2.

¹⁹ An average rate of women age 15-49 currently pregnant in the lowest 2 wealth quintiles is 7.35% (DHS 2010). Based on the population within those 2 quintiles in the target area, an additional 1,033 pregnant and lactating women will be targeted in addition to the 4,470 households with children under age 2. Adolescent girls aged 15-19 within the targeted communities will also be encouraged to attend any nutrition education/counseling sessions.

²⁰ Service providers include community health promoters (PSFs), agricultural extension workers (SEOs), community nutrition coordinators from implementing partner staff and community nutrition volunteers.

²¹ Estimated total population in project area.

²² Continued breastfeeding, feeding at least the minimum number of times per day according to age, and feeding from the minimum number of food groups per day per DHS (2009/10)

III. PROJECT DESCRIPTION

A. Project Components

18. Component 1: Community Mobilization, Awareness Raising and Participatory Planning (US\$0.602 million). The objective of this component is to increase community's understanding and participation in identifying and addressing malnutrition. The objective will be achieved through the following strategies: (a) district and sub-district level orientation of project objective and identification of target communities; (b) orientation of project objective at Suco level in consultation with Suco councils; (c) participatory mapping of key issues in child malnutrition at community level (e.g. types, causes and impact as well as options to address malnutrition based on gender analysis to understand the roles of women and men in decision making); and (d) community-led participatory planning including nutrition-specific and sensitive interventions and selection of community volunteers to be CNEs. Expected outputs under this component will include: (a) finalized detailed implementation plans; (b) completed list of district government-endorsed target Suco, Aldeias, and identified target households; (c) completed participatory appraisal/assessment events by all target communities; (d) a list of CNEs and existing community health promoters (e.g., Promotor Saude Comunitaria (PSF)) from each community; (e) nutrition specific training topics and modules influenced by PRA 2; and (f) action plans for community led interventions to be carried out under Components 2 and 3.

19. Under this component, the implementing agency (IA), Catholic Relief Services (CRS) and its local partners (e.g., Civil Society Organizations (CSOs)²³, etc.) will be responsible for facilitating project orientation, coordination and participatory planning processes at the national, district, Suco, and Aldeia levels. This component will take into account the roles and responsibilities of all actors and institutions at the different levels and leverage strengths of various actors to sustain the delivery mechanisms. The project will work in close consultation with the different entities including the newly formed Council for Food and Nutrition Security and Sovereignty to compliment other initiatives addressing malnutrition, the Nutrition Working Group (NWG) at national level, and district-level health and agriculture departments.

20. Component 2: Community Led Delivery of Nutrition Specific Interventions (US\$0.786 million). The objective of this component is to improve accessibility of community driven nutrition specific interventions by the target households. While the SISCa and clinic-based initiatives to address malnutrition in Timor-Leste have made some progress, they have not been able to reach the outlying households. Most of these households do not have frequent contact with providers of health services.²⁴ This project will incorporate aspects of the Care Group model that is able to multiply efforts through the use of CNEs that have shown promising results to improve the level of global under-nutrition scale at a low cost in Africa.²⁵ CRS has experience in Timor Leste in reaching large number of communities with high level of engagement from community facilitators/volunteers. This will be a mixed approach that will blend a volunteer-based strategy with the provision of incentives for CNE. The Component's objective will be achieved by: (a) providing Community Nutrition Coordinators (CNCs) with training of trainers (ToT) on nutrition and hygiene counseling and facilitating community led learning sessions; (b) CNC's will train CNEs on nutrition and hygiene counseling and conducting home visits and small group discussions; and (c) CNEs will build relationships with households and provide ongoing, individualized, dynamic counseling.

²³ CSOs include local NGOs, faith-based organizations (FBOs), etc currently operating in the target areas. Local partners will be selected per the simplified World Bank Procurement/Consultant Guidelines for Fragile and Small States.

²⁴ TLSLS 2007

²⁵ Davis, Thomas P. et al. Reducing child global undernutrition at scale in Sofala Province, Mozambique, using Care Group Volunteers to communicate health messages to mothers. *Global Health: Science and Practice* 2013.

21. Nationally, CRS will engage with the Technical Working Group for Nutrition within the Ministry of Health (MOH) so that training materials and behavior change and communication (BCC) materials used in the field are aligned with the NNS and existing initiatives. Based upon this consultation, CRS will create/adapt training materials for the ToT provided to CNC's and training for CNE's. CNE's will be part of groups that meet monthly at the Suco level for the nutritional learning sessions. They will also conduct home visits and small group sessions to provide promotion/counseling sessions, building awareness and inducing behavior changes around optimal infant and young child care and feeding, appropriate hygiene especially hand-washing, proper food preparation, disease prevention and treatment. A local Non-Governmental Organization (NGO) will be contracted to lead training of CNE's, with technical support provided from the CRS, the IA, in close collaboration with the MOH. The CNEs will also be responsible for encouraging households to attend monthly SISCa events and work to support and collaborate with existing PSFs. Expected outputs include: (a) training plan and finalized curriculum/manual for ToTs; (b) approximately 500 CNE trained on nutrition and hygiene promotion and facilitating counseling sessions²⁶; (c) Community Nutrition Learning Sessions conducted in 50 Suco; and (d) 70 percent of targeted households receive counseling either via home visits or small group sessions.

22. Component 3: Community Led Delivery of Nutrition-Sensitive Interventions (USD 1,018 million). The objective of this component is to improve accessibility of selected nutrition-sensitive activities that address the underlying causes of malnutrition and create an enabling environment for households and communities to engage in the behavior change for improved nutritional outcomes. Under this component, communities will implement their community action plans. The communities select one of three options that best address their needs, interests and natural resources. These three nutrition-sensitive interventions have been identified as having the most promising effects on reducing maternal and child malnutrition²⁷. CRS Timor-Leste experience with community based projects has shown increased participation and better outcomes when the community is provided with limited number of interventions to select from that address the community prioritized problems. A recent review of nutrition-sensitive agriculture interventions of Timor-Leste²⁸ identified the following as having positive impacts on nutritional outcomes at the household level: (a) increasing the availability and production of bio-fortified foods such as orange flesh sweet potato; (b) increasing vegetable production and homestead gardening combined with nutrition education; and (c) increasing aquaculture production, post-harvest handling and storage. This information was used to create the three nutrition-sensitive intervention options for this component. The three options are increased availability of (a) nutritious staple and minor crops; (b) vitamins and diversified food through homestead gardens; and (c) protein and Omega 3 through creation of household level fish ponds.

23. Each of these interventions will contribute to dietary diversity (measured as number of food groups from which individuals consume) and increased meal frequency. They will increase the availability of carbohydrates, micronutrients, proteins, and essential fats. Additionally, these options contribute to two of the five objectives of the Strategic Development Plan of the Ministry of Agriculture and Fisheries (MAF), namely: Objective 1 - *sustainable increase in the production and productivity of selected crops, livestock species, fisheries and forestry*; and Objective 5 - *enhance sustainable resource conservation, management and utilization*.

²⁶ Following appraisal, the number of direct beneficiaries dropped from an estimated total of 8,730 pregnant and lactating women and girls aged 15-19 combined to 5,000. This is due to the inability to provide adequate results for girls aged 15 – 19. The assumption is a ratio of 1 volunteer to 10 households, thereby reducing the number of volunteers to 500.

²⁷ Tung, Curran and Fanzo (2013) "Nutrition Sensitive Agriculture for Timor-Leste: A Compendium of Resources"

²⁸ Ibid.

24. Community led delivery of nutrition-sensitive interventions chosen by the target communities will only be initiated after verifying that (a) targeted beneficiaries in the communities have been mapped; (b) communities have selected CNE and participating households under Component 2; (c) selected CNE have been trained; and (d) communities have organized at least three CNEs sessions and at least 70 percent of participating households engaged in either home visits or small group sessions (for which multiple members of households are expected to attend). All relevant activities in Component 2 will nonetheless continue even upon triggering Component 3. Verification of successful completion of the conditional criteria set forth in Component 2 will be the responsibility of CRS. The conditionality of this component is based on the premise that the proven interventions in Component 2 for improving nutrition are necessary and urgent during the first 1000 days of life. Since existing structures, incentives and health schemes have not been sufficient to adequately increase their adoption at the household and community level, this project will pilot the effects of conditionality on community development initiatives that have shown to have a higher demand.

25. Execution of the component will be by community members encompassing all members of the households targeted, assisted by Agricultural Coordinators (AC), CNEs, in consultation with Suco councils²⁹ and facilitated by the local NGO with support from the MAF, MOH (including District Health Teams) and others as needed. Expected outputs include: (a) technical specifications and guidelines for each option of interventions; (b) 200 communities provided with necessary inputs, training and demonstrations; and (c) 200 communities completed the intervention(s) per plan.

26. Component 4: Sub-Component A: Monitoring and Evaluation (US\$0.148); and Sub-Component B: Project Management (US\$0.296 million) for a total of US\$0.444 million). The objectives of this component are twofold: under **Sub-Component A**, the project would (a) provide technical advisory services and other material support to facilitate implementation of nutrition specific and sensitive interventions by target communities; (b) improve coordination among various actors through creation of communication flow map (e.g., ministerial counterparts, district teams, Suco, Aldeias, etc.); and (c) strengthen M&E activities associated with the verification and measurement of project results at the community level. Expected outputs include: (a) a simple results framework which will also facilitate beneficiary accountability on use of monitoring data (through feedback mechanisms). The M&E system will incorporate the community monitoring component to ensure beneficiary accountability and community ownership of information is gathered and analyzed. The output indicators will be verified and finalized under Component 1 of this project, allowing communities to decide what information they want to record and monitor in the components. CRS will be responsible for contracting goods and consultant services for carrying out baseline and end-line surveys to measure the effects of the intervention on the targeted communities and households. Secondary data from existing sources such as the DHS as well as the National Nutrition Survey for Timor-Leste conducted by UNICEF will also be used in the analysis of project level data so as to assess the strategies to be scaled up after the completion of the pilot period. **Sub-Component B** will (a) finance supportive supervision of project implementation and monitoring system to facilitate systematic data collection, project implementation, and coordination of multiple local implementing agencies; (b) preparation of semester progress reports including unaudited financial reports; and (c) implementation completion and results report incorporating results of the final evaluation.

²⁹ Suco Councils are made up of the Suco Chief, the Aldeia Chiefs, two women representatives, two youth representatives (one male and one female) and one representative of the Lia Nain, who are traditional authorities in each Suco.

B. Project Financing

27. The project will be fully financed through a grant funding of US\$2.86 million from Japanese Social Development Fund (JSDF). The component wise distribution of the total grant is indicated below.

Components	Consultants	Training/ Workshops	Goods	Operatin g Costs	Total
1. Community Mobilization, Awareness Raising and Participatory Planning	311,400	190,000	100,600		602,000
2. Community Led Delivery of Nutrition Specific Interventions	53,958	614,053	117,989		786,000
3. Community Led Delivery of Nutrition-Sensitive Interventions	48,958	559,462	409,580		1,018,000
4. Monitoring & Evaluation, Project Management	144,408	3,592		296,000	444,000
Total Recipient-Executed Amount	558,724	1,367,107	628,169	296,000	2,850,000
Bank Incremental Costs					150,000
Total Grant Amount:					3,000,000

Project Cost and Financing

Project Components	Project cost (US\$)	Grant Financing (US\$)	% Financing
1. Community Mobilization, Awareness Raising and Participatory Planning	602,000	602,000	100%
2. Community Led Delivery of Nutrition Specific Interventions	786,000	786,000	100%
3. Community Led Delivery of Nutrition-Sensitive Interventions	1,018,000	1,018,000	100%
4A. Monitoring & Evaluation	148,000	148,000	100%
4B. Project Management	296,000	296,000	100%
Total Baseline Costs	2,850,000	2,850,000	100%
Bank's incremental costs	150,000	150,000	
Total Project Costs	3,000,000	3,000,000	
Total Financing Required	3,000,000	3,000,000	

IV. IMPLEMENTATION

a. Institutional and Implementation Arrangements

28. CRS will be the IA and responsible for all aspects of the project including coordination, planning, monitoring, reporting, procurement and financial management (FM). CRS will contract local NGOs to lead the implementation of the project within specific geographically determined areas. The local NGOs will work within communities on all components of the project and CRS will oversee their activities by following participatory supervision and monitoring approach with direct support and guidance. CRS will organize quarterly review and planning meetings with local NGOs to ensure project objectives are met. CRS will be responsible for providing capacity building support to the local NGOs in collaboration with NWG, the Department of Nutrition at the MOH, and MAF. At the start of implementation, the community led PRA approach will be followed which will allow communities to identify needs, preferences and priorities. During the PRA process, communities will choose the appropriate interventions that will help them to reduce the burden of malnutrition in their community. Local NGOs will implement the activities at community level in coordination with the Suco Council. Local NGOs will coordinate and collaborate with locally elected members at the Suco and Aldeia to ensure their involvement in project activities.

29. Under Component 1, communities will select a CNE for Component 2 activities to work with them. This person is expected to work as a frontline community representative who will work directly with the target beneficiaries to conduct group sessions, house visits, and counseling. Staff from the local NGOs will supervise and monitor them on a monthly basis. Additionally the community will select a Farm Group Leader (FGL) for Component 3. This role is not as important as that of the CNE, since the FGL will only help organize community demonstration site meetings for nutritional sensitive initiatives.

30. The project will collaborate and coordinate with MOH and MAF at national, district, sub-district and Suco level to maximize benefits and minimize risks and eventually allow for scale-up. All project components will be implemented on the basis of an agreed upon work plan, budget, and specific results to be achieved. The project supervision will be carried out by the World Bank (WB) at least twice yearly, but more frequently during the first year to provide the necessary guidance as this will be the first WB-financed project CRS will be implementing. An Implementation Status and Results Report will be issued after each mission and at least twice a year. The findings of the missions will be shared with the Government of Japan and the Japanese International Cooperation Agency (JICA). At the end of the project, an Implementation Completion Report will be prepared by the WB, and by CRS. This will result in a combined final project evaluation report and shared with the government, the Ministry of Finance, MOH and MAF, as well as with the Government of Japan and JICA.

B. Results Monitoring and Evaluation

31. CRS will be responsible for the project M&E and will monitor the project through the Results Framework and monitoring arrangements outlined in Annex 2. CRS will work with local NGOs to ensure all necessary data is collected and analyzed. To ensure non-biased results, CRS will hire consultants to conduct three studies: baseline, mid-term review and final evaluation. The costs for these consultancies and any additional costs associated with M&E have been included in the project budget. CRS will submit semi-annual and annual reports to the WB reflecting progress on project implementation and against the results framework using identified tools and reports. CRS has a system for ensuring simple measurement of indicators for learning and evidence based reporting (SMILER) that it will use to develop a comprehensive M&E system, which will include data and communication flow maps, complete series of data collection tools (qualitative and quantitative) and reporting templates to be used by all stakeholders.

32. CRS will be responsible for ensuring that baseline and end-line surveys are carried out to measure the effects of the intervention on the targeted communities and households. The baseline will focus on measuring the outcome level indicators and outlined in the results framework. Baseline information will be disaggregated for gender under child care practices to document if there are differences based on gender, address those finding in nutrition counseling messages, and measure progress by gender if differences are identified.

33. Local Capacity. CRS will provide training on all data collection tools and reporting templates to local NGO staff. This will be continuous throughout the project to both collect accurate monitoring information but also to build local capacity to document and analyze data.

Key M&E Steps

34. Baseline: the baseline survey will be conducted during project start-up to verify and confirm the current values for the agreed upon indicators in the Results Framework for both current situation and targets. Once finalized, CRS will submit an updated version to be used for M&E for the duration of the project.

35. M&E System: CRS will develop a comprehensive project specific M&E system. The process is participatory with key CRS staff (Project Manager, M&E Specialist, M&E Officers) and local NGO staff working closely together to develop the complete system. Further details will be provided in the Project Operational Manual (POM). This will include an in-house simple database to monitor household progress with annual data collection on indicators.

C. Sustainability

36. The project will test the innovative approach of improving nutrition through a multi-sectoral approach to encourage community mobilization and planning, use of CNEs, and the combined effects of nutrition specific interventions with nutrition-sensitive activities to address the underlying and basic causes of malnutrition and behavior change. The lessons emerging from this grant will feed into the cross-sectoral strategy that is being developed on National Food Security that is being overseen by a cross-sectoral group chaired by the Minister of Health. In addition, lessons will be used to revise the National Nutrition Strategy in the coming three years (the strategy was recently approved by the Ministry of Health in February 2014). The Community Nutrition Guidelines, to be developed in 2015, will be strengthened with lessons learned under this grant and in the context of suco development. In addition, with the MAF being a key partner under the grant, the MAF will use the lessons learned to improve planning, food security strategy revisions, outreach services, and overall service delivery over the long-term in providing communities with knowledge, research, and inputs to improve nutrition.

V. KEY RISKS AND MITIGATION MEASURES

A. Risk Ratings Summary Table

Stakeholder Risk	Risk Rating	Mitigation measures
Implementing Agency Risk		
1. Capacity	Moderate	CRS Timor Leste will be supported by CRS Regional and headquarter teams. WB Task Team will also provide implementation (technical and operational) support
2. Governance	Moderate	WB fiduciary team has carried an assessment during

Stakeholder Risk	Risk Rating	Mitigation measures
3. Fraud and Corruption	Moderate	appraisal and provided mitigation measures to strengthen the governance and fiduciary arrangements in managing the project. Before effectiveness of the project, WB task team will also arrange a mini operational clinic covering WB Operations and Fiduciary Guidelines.
Project Risk		
4. Design	Moderate	Only a limited number of interventions with evidence to improve nutrition status have been included in the pre-set menu for communities. Also, the IA will prepare simple implementing guidelines for each option including inputs needed.
5. Social and Environmental	Moderate	<p>The project will have a high community involvement during implementation. No significant environmental impacts are anticipated during implementation. The project has been categorized as B (partial assessment), which means no significant impacts are anticipated and any risks are manageable, and social and environmental outcomes are expected to be positive. The potential environmental impacts of the investments will be minimal, localized, and will be managed by adopting the best environmental practices. The implementing partner has prepared the ECOP (environmental code of practice) as the environmental instrument for each activity, and the ECOP describes clearly what the steps of potential environmental impact mitigation measures are for each option. Mitigation measures will include employing the locally available materials (with little impact) that is considered most cost effective. The project triggers the WB's Operational Policy (OP) 4.10 on Indigenous Peoples. Since essentially everyone in Timor Leste is considered indigenous, a separate Indigenous Peoples Plan/Indigenous Peoples Policy Framework will not be prepared; however, findings of the community consultation have been incorporated into the design of the project.</p> <p>Implementation of safeguards policies will be addressed in the POM.</p>
6. Program and Donor	Moderate	The IA will regularly exchange information with all stakeholders including donors, in order to avoid potential duplication of services and get their buy-in for scaling up and mainstreaming the pilot project under the national program such as Suco Development Program.
7. Delivery Monitoring and Sustainability	Moderate	
Stakeholder risk	Substantial	The GOTL is currently trying to consolidate multiple stakeholder groups (e.g., NWG, food security task force, etc.) into one under the Vice Prime Minister's Office. This will facilitate multi-sectoral discussions and coordination. Strong facilitation and participatory planning at the community level will ensure all community members have input and access to

Stakeholder Risk	Risk Rating	Mitigation measures
		project benefits.
Overall Implementation Risk	Moderate	

B. Overall Risk Rating Explanation

37. The overall risk rating for the proposed project is moderate. This stems from the fact that while CRS Timor Leste has experience implementing similar programs in target areas, (a) CRS Timor Leste has not implemented any WB financed projects; and (b) the project requires multi-sectoral interventions in a relatively weak coordination environment.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analyses

38. A strong evidence base has established that interventions that effectively target childhood and adult malnutrition produce high rates of return. The economic analysis confirms the nutrition literature and shows that the benefits of the project exceed the costs, providing an economic rationale for pursuing the project. At a 5 percent discount rate, the net present value (NPV) of the project investments is estimated to be about US\$3.7 million with an internal rate of return (IRR) of about 10.8 percent and benefit to cost ratio of 1.5 over a 30 year time horizon. This represents a conservative estimate and with slightly more aggressive assumptions, the NPV and IRR could potentially be as high as US\$7.3 million and 17.1 percent, respectively.

39. In Timor-Leste, there is chronic private underinvestment in good nutrition that arises from the market failures associated with the production inputs for nutrition and the positive externalities of malnutrition-related infectious diseases. Individuals and families could eventually capture the private gains from the increase in adult incomes resulting from tackling child malnutrition. However, these returns require a long time horizon of at least 10 to 20 years before they can be fully realized. Also, the families may not be able or willing to make the upfront investment in nutrition due to poverty or imperfect information. Families may simply be unable to allocate time and money to proper nutritional behavior; or they may be unaware of the potential gains to investments or familiar with the proper child feeding practices. Also, the health care and education inputs that produce good nutrition, themselves also arguably suffer from market failures. Finally, there are positive externalities associated with reducing the risks of infectious diseases by targeting malnutrition. Preventing infectious diseases produces non-excludable benefit (the benefits are not fully captured by the individuals making prevention investments). Thus, investments to reduce malnutrition-linked infectious diseases and market failures would generate public returns and warrant public sector approaches.

40. Nutrition-specific interventions tend to be good buys. Global investments to tackle child under nutrition are well established to achieve high returns on investments, resulting in economic returns of 5 to 200 times investment. The project also produces economic returns to nutrition interventions that provide a case for investment. However, the project is small scale and there is large uncertainty associated with the returns of nutrition-sensitive interventions. Thus, the estimated returns are not as high as the returns of established nutrition-specific interventions. One of the values of the project is the contribution to the literature on the implementation and potential impact of nutrition-sensitive interventions.

41. The economic returns will primarily accrue to the children under two, pregnant and lactating women, as well as the family members benefiting from the nutrition-sensitive projects in the targeted least

developed communities in Baucau and Viqueque. The project expects to directly impact exclusive breastfeeding rates among children under 6 months, infant and young child feeding practices among children 6-23 months, treatment for diarrhea among children under 2, and anemia and vitamin B deficiency among pregnant women. The project's model of community-inclusive participation in the implementation of nutrition-specific and nutrition-sensitive interventions is based on previous work in Mozambique which has been able to achieve impressive reductions in stunting of up to 42 percent over 2.5 years following an 18 month investment. The nutrition-specific interventions rely on the 4 behavioral interventions recommended in the 2008 Lancet series. One model of the implementation and scale up of 10 core nutrition-specific interventions could result in a global decrease in under-5 mortality of 15 percent and stunting by 20.3 percent.

42. A decrease in stunting and under-five mortality will lead to an increase in future economic productivity for beneficiary children, quantified in terms of an increase in lifetime earnings. Poor malnutrition directly impacts the amount of children's time spent in school, impairs their cognitive capacity as students and future workers, and consequently reduces their lifetime earnings. A multi-country study found that stunting at age 2 was associated with a reduction in schooling of 0.9 years. A global review of returns to education found that each year of schooling is associated with an increase in wages of 9.7 percent. A study of schooling investments in Indonesia found that each additional year of school was associated with a 7-11 percent increase in wages. Malnutrition's combined effect of lower schooling and lower income resulting from less schooling can potentially lead to a greater than 20 percent decrease in adult income.

43. The menu of options under the nutrition-sensitive component includes agricultural investments such as (a) increasing availability of nutritious staple and minor crops; (b) homestead gardens; and (c) homestead fish production. Menu options (a) and (b) are aimed at increasing production of foods rich with nutrients such as vitamin A, calories, and protein. Menu option (c) is designed to reduce protein-deficiency. Multiple pathways exist in which agriculture could impact nutrition outcomes such as (a) increasing macroeconomic growth; (b) increasing access to food by higher production and decreased food prices; (c) increasing household income through the sale of agricultural products; (d) increasing nutrient dense food production for household consumption; and (e) empowering women through targeted agricultural interventions.

44. Theoretical pathways of the effect of agricultural investment on intermediate nutrition outcomes are clear. The options are designed to contribute to reducing micronutrient deficiencies, anemia, and protein deficiency which in turn have been shown to be linked to future labor productivity and income. However, evidence on the direct effect of nutrition-sensitive agricultural interventions on child malnutrition indicators is limited, in part due to the methodological design of these studies. Therefore, a conservative estimate of this model will not account for any returns in the form of improved wages and health and focus on agricultural returns.

B. Technical

45. The project supports both nutrition specific and nutrition-sensitive activities that are to modify behavior change through the change of theory process, and provide increased knowledge of how to increase micronutrient intake through improved nutritional practices. This falls in line with the government's goal of accelerating economic growth to reduce poverty. In addition, the project will closely coordinate activities with both the health and agricultural sectors of Timor Leste. The linkages to the health sector are important as children identified as needing health services will be referred to the health posts and/or community health centers. The project will also benefit from the community outreach program implemented by the MOH, called SISCa, whereby an integrated approach to healthcare is delivered by health personnel on a monthly basis to remote communities. The project will liaise closely

with the health sector to ensure that nutrition messages are aligned with MOH policy. The Decision Meeting raised the question on whether the MOH would be responsive to increased demand for micronutrients. A positive development is that the MOH has authorized the use of Sprinkles³⁰. Though the project will primarily focus on improved behavior and agricultural homestead production, the availability of Sprinkles is an added bonus for the general population. In addition, the basic healthcare model is currently being revisited to increase access by deploying family doctors to village levels, accompanied by midwives and nurses, which will potentially replace the SISCa program altogether. Though growth monitoring is not presently being undertaken in compliance with the new WHO standards, the evolution of the nutrition programs, and the revision to the basic healthcare model, is likely to bring about uniformity of measures to improve nutrition at a national level. The pilot project will benefit from the changes as they are implemented over the coming years.

46. The project contributes to the development of human capital by improving the nutritional status of the population. The project will implement an integrated approach to improve health practices targeted to children under the age of two (the “window of opportunity”) and pregnant and lactating women in the targeted least developed communities. The importance of the “window of opportunity” is that interventions to improve the nutritional status of the mother and child during in this period will have much greater impact due to adequate nutritional intake to foster healthy brain development. In addition, increasing small-scale production of nutrient-dense foods has been found to increase dietary consumption and potential for consumer demand. According to the Food and Agricultural Organization (FAO), food systems at the most basic level can provide the nutritional content for the foods consumed, as well as ensuring good planning for year-round availability of high-nutrient content food.

47. The integrated approach will provide guidance on increasing community participation and control over health and nutrition outcomes, and knowledge about how a multi-sectoral approach could be enlarged to also include other key sectors such as education, water and sanitation, environment, rural development, among others.

C. Financial Management

48. An assessment of the project FM arrangements was conducted in accordance with the WB policy OP/BP 10.00 (*Investment Project Financing*). The assessment determined that the FM arrangements proposed for this project are acceptable to the WB. The project FM arrangements will utilize the existing resources and systems of the CRS. The assessment found that CRS is well experienced in the implementation of development projects and has the existing FM systems and capacity which can adapt to adequately accommodate the project FM requirements. The main FM risk is that funds may not be used for eligible purposes, particularly given the majority of activities will be implemented at a community level, in addition to the accounting of funds through a pooled designated account of the USA Headquarter office. To mitigate the risk and to ensure consistency across the project, clear FM instructions (as part of the POM) will be established, together with a program of effective supervision and oversight, led by the IA with support of the WB task team.

D. Procurement

49. A procurement capacity and risk assessment of CRS, was conducted and risk mitigation measures were agreed upon. The CRS, through its office in Dili, will be responsible for the implementation of the project including procurement. The CRS has been implementing several public and private donor-funded

³⁰ Sprinkles—a blend of micronutrients in powder form—have been developed to help prevent and treat iron deficiency among young children and other vulnerable groups when mixed with food (<http://www.unicef.org/ceecis/sprinklesfs.pdf>).

projects over the past five years. The CRS has its own Procurement Manual, and CRS has a full time procurement assistant in its Dili Office, but CRS Timor Leste has no experience in WB-financed procurement, and is not familiar with WB procurement procedures and processes. A brief summary of the procurement capacity assessment and procurement arrangements are provided in Annex 3.

E. Social (including Safeguards)

Land acquisition and/or resettlement (OP 4.12)

50. The project will focus on the household level in the form of small-scale homestead gardening or fish pond by utilizing the beneficiary's own land/home garden to increase existing production of vegetable/livestock and aquaculture. There is no land acquisition and resettlement envisioned and thus it does not trigger OP 4.12. If community demonstration plot is included in the final list of the interventions to be supported under the project, the project will use small pieces of government/community land. Or if government/community land is not available, the project will temporarily rent land belonging to individuals which is voluntarily offered and the demonstration plot can be a benefit for the renter. The process of determining land for community demonstration plots will be conducted through a participatory process to ensure that all stakeholders are involved. The project will document step-by step the consultation process in the POM to ensure any processes are indeed voluntary. All consultation processes will be documented.

Indigenous People (OP 4.10)

51. The project triggers the WB's OP 4.10 on Indigenous Peoples (IP). Timor Leste's population is indigenous because it has: (a) collective attachment to geographically distinct territories; (b) descent from groups present in specific areas prior to the establishment of modern states and relative borders, due largely in respect of Timor Leste being established as a sovereign nation in 2000; and (c) indigenous languages -- the ethnicity in Timor Leste is bound by language. Social assessments undertaken by the Asian Development Bank Road Network Development Project indicated that no significant differences of cultural and social identity exist among the people who speak different languages, except for a small number of Muslims in an overwhelmingly Roman Catholic society. Since essentially everyone in Timor Leste is considered indigenous, a separate Indigenous Peoples Plan/Indigenous Peoples Policy Framework will not be prepared. However, the following aspects of an IP plan will be integrated in the design and implementation of the project.

- *Measures to ensure free, prior and informed consultation will be carried out during project implementation.* Detailed and continuous consultations will take place with communities in targeted Suco in Baucau and Viqueque Districts. Approximately, 11 sub-districts with 287 Aldeias in 50 Suco will be supported under the project. The project will primarily benefit an estimated number of 4,470 children under the age of 2 and 5,503 pregnant and lactating women by increasing demand for and utilization of nutrition specific and sensitive interventions. In addition the project will benefit an estimated 70,000 people within those target communities as well as 1,000 service providers (such as community health workers, agricultural extension workers, community facilitators and CNEs). The project community will engage in every project stage to be able to participate, plan and implement nutrition specific interventions and nutrition sensitive interventions. The project should ensure that vulnerable people have the same chances of inclusion during the implementation cycle and benefit as much as those who are better off. Inclusion of vulnerable groups during project implementation will be operationalized and detailed in the project manuals. Specific measures

in the project design include involvement of an experienced NGO (CRS) and community facilitators who will be trained by the NGO to ensure that people's participation is carried out through free, prior and informed consultations. The project design recognizes that a meaningful participation by IP's communities requires clear measures within the project procedures that facilitate IP's participation and inclusion. A manual/guideline (POM) for conducting community mobilization, participatory planning, and community led delivery of nutrition interventions will be prepared and will provide procedures to ensure that IP's communities get an opportunity to provide feedback to the project. The consultation and community-based activities under this proposed project will include both men and women.

- *Measures to ensure culturally-appropriate benefits are being included in the project.* The project is culturally-appropriate as it ensures that the interventions are sensitive to socio-economic conditions, cultural beliefs and traditional practices of communities. The project will promote local/indigenous knowledge and practices in improving farming/livestock/aquaculture productivity rather than introducing new ones so that it will not adversely affect the social and economic condition of the community. Thorough consultations are undertaken with stakeholders to identify culturally-appropriate benefits and to ensure that they are not disadvantaged by the project.
- *Measures to ensure that adverse impacts are mitigated, including an appropriate grievance system/complaint handling mechanism, will be in place.* The grievance system will be provided in the POM. This grievance system will be set based on existing traditional community structures in Timor Leste. The project will actively require socialization of complaint handling mechanisms at all consultations.
- *Measures for disclosing key project documents are in place.* The project document will be translated into Tetum, shown to be a language widely spoken in the communities as noted in the social assessment. Given low literacy levels in the country, the project will need to ensure that communication is presented orally and visually as well as in written form, to ensure stakeholders can understand the project and its potential impacts and benefits.

52. The project was designed to ensure the participation and inclusion of various groups (women, the poor, indigenous) in local level decision making process. In accordance with OP 4.10 the WB task team conducted community consultations with a variety of stakeholders (December 5, 2012) throughout Timor Leste in order to assess overall community support for the project and fully explore the underlying causes of and varied responses to the challenge of maternal and child malnutrition. The recommendations from those findings are as follows:

- (a) A real need and demand for a consistent production of consumables across the entire span of the year. Supporting the development of household kitchen gardens responds to this need (such as the 'keyhole garden').
- (b) Storage of perishables is problematic. The great majority of households does not have access to refrigeration and rely on traditional drying and smoking of a limited number of staples such as corn. Provision of education in short-medium term storage options for perishables is a priority.
- (c) Access to and storage of seeds is also problematic. Facilitation of access to a diversity of seeds and provision of simple seed storage technologies is prioritized, and will be closely coordinated with household kitchen garden activities.
- (d) Surplus and storage values and habits are not usually oriented over the long-term. Food surpluses are generally consumed quickly, and the use of stored food (such as dried corn) when no fresh food is available results in a poor diet. Further, local perceptions of sufficiency mean that people will acknowledge insufficiency only in relatively extreme circumstances. Education on both these facets of nutrition is prioritized.

53. Inputs from these consultations were used in the design of the project. In-depth interviews were also conducted with a range of participants selected purposively from three districts, namely Aileu, Baucau and Ermera. Concurrent with the community consultations, a rapid mapping of relevant CSOs working in the field of nutrition and/or agriculture was also conducted. The consultation process will continue to be held during project implementation through participatory planning process at Aldeia/village level. Specific measures in the project design has translated into the use of an experienced NGO (CRS) and community facilitators who will be trained by CRS to ensure that people's participation in and benefit from the project is through free, prior and informed consultations. As a community-driven development project, the community will engage in every project stage to be able to participate, plan and implement nutrition specific interventions and nutrition specific interventions. The project will ensure that vulnerable people have the same chances of inclusion in all project cycles and in project benefits as others who are better off. Inclusion of the vulnerable groups in project implementation will be operationalized and detailed in the POM.

54. The project will promote local/indigenous knowledge and practices in improving farming/livestock/aquaculture productivity rather than introduce the new ones so that it will not adversely affect the social and economic conditions of the beneficiaries.

55. The project area for the project will be in two eastern districts of Baucau and Viqueque that will target all communities (i.e., 287 Aldeias/hamlets) in 50 Suco/village that fall in the lowest living standard groups³¹. Baucau and Viqueque have significantly higher proportions of Suco in the lowest living standard group³². The project will aim to achieve universal targeting of all children under the age of two and all pregnant and lactating women in the targeted Aldeias. The project focusses on community-based nutrition specific interventions, namely those which create community demand for, and supply of, promotion of exclusive breast feeding, complementary feeding practices, micronutrient and quality food consumption, as well as health hygiene and sanitation practices that will target Suco in the Districts of Baucau and Viqueque. According to the TLSLS of 2007 about half the population (49.9 percent) in Timor Leste lives below the poverty line. About one-third of the Timorese population (33.2 percent) is afflicted by extreme poverty.³³ Most of the poor are concentrated in rural areas and about three-quarters of the poor live in rural areas. Most of the poor are engaged in low-productivity farming. The proportion of poor engaged in the agriculture sector is very high at 78 percent and almost 90 percent of the rural poor depend on the agriculture sector. Thus increasing availability and diversity of farming inputs as well as improving access to markets have credible contributions to make toward poverty reduction.

56. **Baucau District** is located in the east of Timor Leste with an area of 1,506 km². The district is divided into 6 sub-districts (Baguia, Baucau, Laga, Quelicai, Vemase, and Venilale), and has a 2004 census population of 100,748. The average population density of the district is 67 people per km² and is highest in Baucau sub-district (101 people per km²). An average household consists of 4.4 people. The district consists of 59 Suco, among them 26 Suco fall in the lowest living standard group. Baguia, Laga and Quelicai are sub-districts that have almost 60-70 percent of their Suco with the lowest living

³¹ Oecussi has the highest proportion of Suco in lowest living standards and locates in western part. Viqueque and Baucau are targeted for the project given the fact that it is a pilot project requiring a lot of technical assistance by IA and travel time between Viqueque and Oecussi is substantial.

³² The estimated number of children under the age of two living in the target areas based on Timor Leste DHS 2009/2010 and Asian Development Bank's analysis is 4,470, while census 2010 shows a higher number of children under the age of two.

³³ TLSLS establishes the official poverty lines, based on average national prices, derived from lower and upper poverty lines both of which include food and essential non-food items (minimum basic needs). The food portion of the poverty line is anchored to a daily intake of 2,100 calories per person or equivalent to \$0.88/person/day. The lower poverty line measures extreme poverty (\$0.71/person/day).

standards. Only in Baucau sub-district do Suco fall in the middle and highest living standards. Venilale sub-district has 12.5 percent Suco with the lowest living standards and Vemase sub-district has 28.6 percent Suco with lowest living standards.

57. **Viqueque District** is located in the eastern region and is the largest district in Timor Leste, and accounts for 14 percent of the total area of the country, at 1,879 km². The district is divided into 5 sub-districts (Lacluta, Ossu, Uatucarbau, Watulari and Viqueque), and has a 2004 census population of 65,449. The average population density of the district is low at 35 people per km² and is highest in Watulari sub-district (58 people per km²). Average household size is 4.3 persons. The district consists of 37 Suco, among them 17 Suco fall in the lowest living standard group. All Suco in Lacluta sub-district are Suco with the lowest living standard, while in other sub-districts (Ossu, Uatucarbau, Watulari and Viqueque) more than half of the Suco are those with the lowest standard of living.

F. Environmental (including Safeguards)

58. The project will have high community involvement during implementation. No significant environmental impacts are anticipated during implementation. The project has been categorized as B (partial assessment), which means no significant impacts are anticipated and any risks are manageable, and social and environmental outcomes are expected to be positive.

59. The physical investment of the project will focus on small scale or household type of agricultural activities to improve the nutritional status of communities. The likely types of investment that will be supported under Component 3 are promotion of organic and environmentally friendly garden farming, such as self-generating compost and organic pest control (integrated pest management); small garden size fish ponds and/or tank/used drums aquaculture on community lands. No pesticides or herbicide will be supported under the project; this and other activities that are not allowed by the project are listed in the project's negative list. The potential environmental impacts of the investments will be minimal, localized, and will be managed by adopting the best environmental practices. The implementing partner will prepare the ECOP as the environmental instrument for each activity that will be promoted to the communities as a menu of options, upon which they will decide which one is more appropriate to their respective environmental conditions, as well as local livelihood practices. The ECOP is disclosed in both English and Tetum Language and included in the POM.

60. There will be a menu of options for the communities to choose from and physical activities that will be undertaken in their Suco; the ECOPs will describe clearly what the steps of potential environmental impact mitigation measures are for each option. Mitigation measures will include employing the locally available materials (with little impact) that is considered most cost effective.

Annex 1: Results Framework and Monitoring

Democratic Republic of Timor-Leste: Community Driven Nutrition Improvement Project

Project Development Objective (PDO):

Improve nutrition practices targeted to children under the age of two and pregnant and lactating women in targeted least developed communities of Timor-Leste

PDO Level Results Indicators*	Core	Unit of Measure	Baseline	Cumulative Target Values**					Frequency	Data Source/ Methodology	Responsibility for Data Collection	Description (indicator definition etc.)
				YR 1	YR 2	YR3						
Indicator One: Proportion of children under 6 months of age who are exclusively breastfed	<input type="checkbox"/>	Percentage	52% (DHS 2009/10)	52%	55%	60%			Annual	Baseline; Household Monitoring Checklist; End line survey	M&E Officer; CNC	An infant of age <7 months is considered to be exclusively breastfed if s/he receives only breast milk and no water, or solids. Drops or syrups of vitamins, mineral supplements, or medicines are allowed. Calculation: no. of infants 0 to <6 months of age given only breast milk by total no. of children 0 to <6 months.
Indicator Two: Proportion of children 6-23 months provided with all 3 minimum infant and young child feeding practices	<input type="checkbox"/>	Percentage	30% (DHS 2009/10)	32%	35%	40%			Annual	Baseline; Household IYCF Scorecards; End line survey	M&E officer; CNC Caregivers	This is a composite indicator of infant and young child feeding (IYCF) practices. The indicator gives an overall measure of the degree to which women have complied with the recommendation that infant age 6-23 months receive appropriate and adequate complementary foods in addition to breast milk. IYCF feeding practices will be disaggregated by age group to estimate age specific feeding practices. Calculation: no. of children 6-23 months who received solid, semi-solid or soft foods in addition to breast milk during the previous day divided by total no. of children 6-23 months of

												age. To calculate this indicator WHO 2008 IYCF guideline will be followed.
Indicator Three: Proportion of children under two years with diarrhea who are provided continued feeding along with ORS and/or increased fluids.	<input type="checkbox"/>	Percentage	63% (DHS 2009/10)	63%	65%	68%			Annual	Baseline; Household Monitoring Checklist; End line survey	M&E officer; CNC	Diarrhea is defined as 3 or more loose stool among children 0-23 months in 24 hours during last two weeks preceding of survey. The prevalence is calculated by counting no. of cases with 3+ loose stool divided by the total number of children 0-23 months in the sample. We will also collect data regarding frequency of ORS intake by the children and history of continued feeding.
Indicator Four: Proportion of pregnant mothers who consumed at least 90 iron and folic acid (IFA) tablets during pregnancy at last birth		Percentage	16% (DHS 2009/10)	18%	20%	25%			Annual	Baseline; Household Monitoring Checklist; End line survey	M&E Officer; CNC	The pregnant mothers who swallowed iron folate tablets during last 7 days are considered as taking iron and folic acid supplements.
INTERMEDIATE RESULTS												
Intermediate Result (Component One): Community Mobilization, Awareness Raising and Participatory Planning												
<i>Intermediate Result indicator 1:</i> PRA conducted in targeted community		Number	0	200	--	--			Semi-annual until complete	Community Monitoring Checklist	M&E Officer; CNC	One Participatory Rural Appraisal will be conducted in each Aldeia led by the CNEs with support from coordinators.
<i>Intermediate Result indicator 2:</i> Action plans for community led interventions to be carried out under Component 2 and 3		Number	0	40	--	--			Semi-annual until complete	Community Monitoring Checklist	M&E Officer; CNC, AC	One action plans will be created for each Suco with the community nutrition coordinator, CNEs, Suco councils and PDSS.
<i>Intermediate Result indicator 3:</i> Proportion of targeted households utilizing the nutrition specific and sensitive interventions.		Proportion	0	0	100	200			Semi-annual until complete	Community Monitoring Checklist	M&E Officer; CNC, AC	One action plans will be created for each Suco with the community nutrition coordinator, CNEs, Suco councils and PDSS.
<i>Intermediate Result indicator 4:</i> Percent of targeted households receive counseling either via home visits or small group		Percent	0	0	30	70			Semi-annual until complete	Community Monitoring Checklist	M&E Officer; CNC, AC	One action plans will be created for each Suco with the community nutrition coordinator, CNEs, Suco councils and PDSS.

sessions.												
<i>Intermediate Result indicator 5 : # of communities that complete the conditions for graduating to component 3</i>	<input type="checkbox"/>	Number	0	0	100	100						
Intermediate Result (Component Two): Community Led Delivery of Nutrition Specific Interventions												
<i>Intermediate Result indicator 1: Finalized curriculum/manual for training of trainers (ToTs) with training plan</i>		Number	0	1	--	--			once	Completed Manual	Program Manager	Manual for training community nutrition coordinators on nutrition and hygiene promotion and facilitating counseling sessions.
<i>Intermediate Result indicator 2: Number of Community Nutrition Coordinators trained as ToTs (Training of Trainers)</i>		Number	0	20	20	20						Number of CNCs trained in year 1 is 20, and in year 2 and 3 refresher training for the 20 CNCs.
<i>Intermediate Result indicator 3: Number of Community Nutrition Educators trained by Community Nutrition Coordinators</i>		Number (cumulative)	0	150	500	500			annually	Training participants list	Program Manager	Trainings provided CNEs on nutrition and hygiene promotion and facilitating counseling sessions.
<i>Intermediate Result indicator 4: Community Nutrition Learning Sessions conducted</i>	<input type="checkbox"/>	Number	0	240	600	960			Monthly	Participant Lists	M&E Officer, CNC	Number of nutrition learning sessions conducted at the Suco level (cumulative).
Intermediate Result (Component Three): Community Led Delivery of Nutrition-sensitive Interventions												
<i>Intermediate Result indicator 1: Guidelines including technical specifications for each option of interventions</i>		Number	0	3	--	--			Once	Guidelines completed		1) Guidelines on increased availability of nutritious staple and minor crops; 2) Guidelines on Homestead Gardens 3) Guidelines on pilot homestead fish production in limited communities.
<i>Intermediate Result indicator One: Communities implementing nutrition-sensitive activities</i>		Number	0	25	100	200			Quarterly	Community Monitoring Checklist	M&E Officer; CNC	Number of targeted communities who plan, organize and lead delivery of nutrition-sensitive interventions.

*Please indicate whether the indicator is a Core Sector Indicator (see further <http://coreindicators>)

**Target values should be entered for the years data will be available, not necessarily annually

Annex 2: Detailed Project Description
DEMOCRATIC REPUBLIC OF TIMOR-LESTE
COMMUNITY DRIVEN NUTRITION IMPROVEMENT PROJECT

Component 1: Community Mobilization, Awareness Raising and Participatory Planning (US\$0.602 million).

61. Under this component, CRS and its local partners (e.g., CSOs³⁴ etc.) will be responsible for facilitating project orientation, coordination and participatory planning processes at the national, district, Suco, and Aldeia levels. This component will take into account the roles and responsibilities of all actors and institutions at the different levels and leverage strengths of various actors to sustain delivery mechanisms. The project will work in close consultation with the different entities including the newly formed Council for Food and Nutrition Security and Sovereignty to complement other initiatives addressing malnutrition; the NWG at the national level and district-level health and agriculture departments.

62. The objective of this component is to increase the community's understanding and participation in identifying and addressing malnutrition. The Component objective will be achieved through the following strategies:

District level orientation of project objective and identification of target communities: For this activity, the project will coordinate with District Administrator, District Director-Health, District Director-Agriculture, and will engage other relevant stakeholders in the District orientation meeting. CRS will facilitate the meetings with the support from local implementing agencies.

Succo Orientation: Suco level orientation of the project objective will be organized by local NGOs. This will include meeting with the Suco Council to engage Suco and Aldeia level stakeholders, including health workers, the community health promoters (PSF), agriculture extension workers, Chefe Suco and Chefe Aldeia.

Community led selection of CNEs: In each Aldeia, selection of the CNEs will be done with the participation from Chefe Aldeia and key project beneficiaries. Meeting participants will nominate their peers that meet certain criteria. Once nominations are complete, the community will need to reach a consensus and finalize their selection. The criteria are:

- (a) Must be a woman of reproductive age (15-49 years).
- (b) The woman should be a permanent resident of the community and planning to remain in the community for the duration of the project.
- (c) Minimum primary level education (class 6 and above).
- (d) Eager to work for the project with the established incentive structure.
- (e) Volunteer or previous training in nutrition/health/facilitator is beneficial.
- (f) Must not be employed in a full time job.

63. Mapping of target households: This activity will be completed by the CNE with Chefe Aldeia and support from local implementing staff, CNC to identify all households with pregnant and lactating women and children under the age of two. CNEs will receive three days' training on how to conduct

³⁴ CSOs include local NGOs, FBOs, etc. currently operating in the target areas. Local partners will be selected per the simplified World Bank Procurement/Consultant Guidelines for Fragile and Small States.

community household mapping to identify direct target beneficiaries. They will use tools provided to collect household data. Target households will be provided with a unique ID number to be used during the life of the project. The CNE will be expected to routinely update this map to include newly pregnant women and/or pregnant and lactating women who move to the community. When new households are identified the CNE will encourage them to join the project.

64. Participatory Rural Appraisals (PRAs): CNC and CNE will also receive training on conducting PRAs. Under supervision of the CNC, each CNE will conduct a PRA in each Aldeia. The PRA will help identify barriers to engaging in healthy living, the immediate and underlying causes of malnutrition, and locally available resources for overcoming those barriers. The PRA will ensure that the project incorporates input from the community. This participatory process increases ownership and sustainability of project activities. The findings from the PRA will be used to develop nutrition-sensitive messages, help to understand and ensure messages are culturally sensitive and identify the most appropriate delivery methods. As a result the messages will address the gaps in knowledge, areas of need and be more clearly understood by the community to encourage sustainable behavior change. The PRA process will include:

- (a) *Problem Tree Analysis* to identify underlying problems related to malnutrition and child stunting, potential solutions, available community resources, and gaps in knowledge and inputs. Inclusive in this process will be documenting current positive and negative beliefs and practices to incorporate into both nutrition specific and sensitive messaging.
- (b) Development of a *Community Agriculture Calendar* to identify food consumption in relation to yearly agriculture cycle. This will highlight times of stress on household nutrition related to production patterns and how communities can address those gaps through nutrition specific options.

65. Suco Council and Beneficiary Meetings: After conducting the PRA, CNC and CNE will discuss findings with the Suco Councils to coordinate the nutrition-specific interventions. Data from the PRA will also be presented to beneficiaries through community meetings to inform participants and validate findings. This process ensures communities have identified their own problems, gaps in knowledge and training, and participated in the identification of solutions.

66. Community Action Plan: Each community will develop a community action plan based on their prioritized intervention options under Component 3 to be implemented once conditions for graduating to Component 3 have been met (see below). Although this is part of Component 1, it will occur after Component 2 activities have begun and conditionality for graduating to Component 3 has been met. This planning will begin after the initial essential nutrition specific messages have been shared with the communities in order for them to be able to make informed decision on which options to select. This plan will include roles, responsibilities, identifying community resources to be used, identifying additional stakeholder and establishing an exit strategy/sustainability plan for their community. Inclusive in this planning will be the selection of a FGL to assist in organizing with local NGOs.

Criteria for Community Graduation to Component 3:

- Target beneficiaries in the communities have been mapped.
- Community selects CNE and CNEs trained.
- Communities complete PRA. At least three verified nutrition learning sessions are attended by CNE.
- At least 70 percent of participating households are reached with nutrition counseling either via home visits or small group sessions.
- Multiple members of household present at household nutritional counseling session.
- Aldeia level knowledge check completed with project beneficiaries to ensure key nutritional messages have been learned through focus group discussion.

Expected outputs under this component will include:

- Completed list of district government-endorsed target Suco, Aldeias, and identified target households.
- Completed PRA by all target communities.
- Completed list of CNE from each Suco including PSF.
- Finalize nutrition specific training topics and modules influenced by PRA 2.
- Community Action Plans for nutrition-sensitive activities, Component 2 and 3.

Component 2: Community Led Delivery of Nutrition Specific Interventions (US\$0.786 million)

67. The objective of this component is to improve accessibility of community led nutrition specific interventions by targeted households.

68. While SISCa and clinic based initiatives to address malnutrition in Timor-Leste have made some progress they have not been able to reach outlying households. Most of these households do not have frequent contact with health providers.³⁵ The project will incorporate aspects of the Care Group model that is able to multiply efforts through the use of CNEs that have shown promising results to improve the level of global under-nutrition scale at a low cost in Africa.³⁶ CRS has experience in Timor Leste to reach a large number of communities with high level of engagement from community facilitators/volunteers. This will be a mixed approach that will blend a volunteer based strategy with the provision of incentives for the CNE.

69. The delivery modality of the activities within Component 2 will consist of:

- (a) Providing CNC's with ToTs on nutrition and hygiene counseling and facilitating community led learning sessions.
- (b) CNC's train CNE's on nutrition and hygiene counseling and conducting home visits and small group discussions.
- (c) CNE's will build relationships with households and provide ongoing, individualized, dynamic counseling.

70. Nationally, CRS will engage with the NWG within the MOH so that training materials and BCC materials used in the field are aligned with the NNS and existing initiatives. Based upon this consultation, CRS will create/adapt training materials for the ToTs provided to CNC's and training for CNE's.

71. CNE's will be part of groups that meet monthly at the Suco level for the nutritional learning sessions. They will also conduct home visits and small group sessions to provide promotion/counseling sessions, building awareness and inducing behavior changes around optimal infant and young child care and feeding, appropriate hygiene especially hand-washing, proper food preparation, disease prevention and treatment. Detailed descriptions of these sessions are provided below.

72. In order to meet the target of 5,000 households of pregnant and lactating women and children under the age of 2, the project will need a total of 500 CNE's. The 500 CNE's will be divided into 50 groups (one per Suco) equaling approximately 10 CNE's per Suco. Hence, each CNE will on average be responsible for 10 households. In order to meet the training and development needs of 500 CNEs, local

³⁵ TLSLS 2007

³⁶ Davis, Thomas P. et al. Reducing child global under nutrition at scale in Sofala Province, Mozambique, using Care Group Volunteers to communicate health messages to mothers. Global Health: Science and Practice 2013.

implementing agencies will employ about 17 CNC who will work 100 percent on this project. CRS will train the CNC's.

Suco- CNE Nutrition Learning Sessions	Aldeia- Nutrition Counseling Sessions
Each paid CNC is responsible for training and supporting 3 groups of 10 CNE's totaling 30 CNE's. They will meet at the Suco level monthly to learn new nutrition promotional messages/skills and share successes and challenges.	Each CNE is responsible for counseling 10 households. 5,000 households receive counseling via home visits and small group sessions from CNE's at the Aldeia level ensuring each household is reached 2 times a month.

73. A local partner agency will be contracted to lead training of CNE's, with technical support provided from CRS in close collaboration with the MOH. The volunteers will also be responsible for encouraging households to attend monthly SISCa events and work to support and collaborate with existing PSF's.

74. Community nutrition volunteers will be provided with non-financial incentives such as hats, bags, t-shirts and identification cards in order to instill a level of professionalism to their work and confidence in their ability to conduct group and household counseling sessions. In addition, performance based cash incentives will be included for activities conducted including home visits, group sessions and follow-up activities. Based on the standard payment of cash for work in Timor-Leste of \$3 a day, the incentives will total \$15 a month. This is based on one day for CNE Suco nutritional learning sessions, one day for small group counseling session and three days' of home visits per month. They will also receive transportation allowance to attend nutrition learning sessions, and \$5 phone card each month for communication with the mothers and health care workers. In total each CNE will receive a performance based stipend of \$25 per month. The performance will be based on how beneficiaries incorporate the learning sessions into improved behaviors, keeping in mind that other factors have an impact. Every three months an evaluation process will take place to assess progress and undertake remedial actions. This will be detailed in the POM.

CNE Counseling Sessions

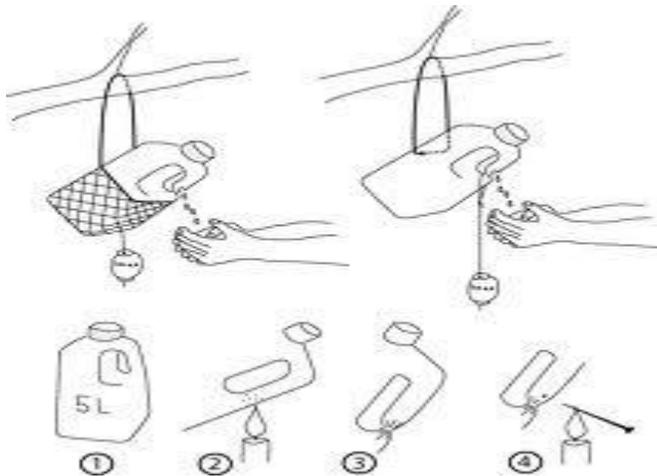
75. CNEs will conduct group counseling sessions, household visits, support to attend SISCato disseminate the nutrition and health messages by using flip charts and simple adult learning methods. The messages will cover IYCF including balanced diet, exclusive breast feeding, prevention and management of diarrhea, hygiene and sanitation, identification and management of acute malnutrition, IFA consumption by the pregnant women and prenatal health checkup for women. A range of BCC materials will be adapted and/or developed for nutrition and health counseling sessions.

76. In addition, CNEs will conduct cooking demonstration sessions that will be held during the group sessions to show the ways of preparing nutritious foods. As part of the group discussion, a film on breastfeeding will be projected during the group sessions to let all mothers know the benefits of breastfeeding and disadvantages of formula milk. CNEs can also assist PSFs with identification of children who are growth faltering/malnourished, or otherwise need referral to health services.

77. During household visits, CNEs will provide individualized support to entire family units, engaging all members of the household including men in discussions on optimal nutrition to children, provision of nutrient rich foods, creating and maintaining healthy and hygienic environment and the promotion of accessing local health services.

Hygiene and Water Safety

78. The project will introduce options for optimal hand washing as well as treatment and safe storage of household drinking water as part of Component 2. This will include providing inputs and training for putting together tippy-tap hand washing stations at all participating households. Jerry cans and soap will be provided by the project, while the participating households will contribute other needed inputs including wood and rope.



79. The project will also explore several water treatment technologies to identify which options are feasible and sustainable in the communities. Water treatment technologies will be based upon best practices promoted by WHO including filtration with ceramic filters, chlorination with storage in an improved vessel, and solar disinfection in clear bottles by the combined action of UV radiation and heat³⁷.

80. Expected outputs include:

- (a) Training plan and finalized curriculum/manual for ToTs.
- (b) Approximately 500 CNE trained on nutrition and hygiene promotion and facilitating counseling sessions.
- (c) Community Nutrition Learning Sessions conducted in 50 Suco.
- (d) 70 percent of targeted households receive counseling either via home visits or small group sessions.

Component 3: Community Led Delivery of Nutrition-Sensitive Interventions (US\$1.018 million).

81. The objective of this component is to improve accessibility of selected nutrition-sensitive activities that address the underlying causes of malnutrition and create an enabling environment for households and communities to engage in the behavior change for improved nutritional outcomes. Under this component, communities will implement their community action plans. The communities select one of three options that best address their needs, interests and natural resources. These three nutrition-sensitive interventions have been identified as having the most promising effects on reducing maternal

³⁷ WHO (2013). Household water treatment and safe storage.
http://www.who.int/household_water/research/technologies_intro/en/index.html

and child malnutrition³⁸.

82. CRS Timor-Leste experience with community based projects has shown increased participation and better outcomes when the community is provided with limited number of interventions to select from that address the community prioritized problems. A recent review of nutrition-sensitive agriculture interventions of Timor-Leste³⁹ identified the following as having positive impacts on nutritional outcomes at the household level: increasing the availability and production of bio-fortified foods such as orange flesh sweet potato; increasing vegetable production and homestead gardening combined with nutrition education; and increasing aquaculture production, post-harvest handling and storage. This information was used to create the three nutrition-sensitive intervention options for this component. The three options are (a) increased availability of nutritious staple and minor crops; (b) increased availability of vitamins and diversified food through homestead gardens; and (c) increased availability of protein and Omega 3 through creation of household level fish ponds.

Principle of Conditionality:

Related to the project theory of change, the conditionality of this component is based on the premise that the proven interventions in Component 2 for improving nutrition are necessary and urgent during the first 1000 days of life. Since existing structures, incentives and health schemes have not been sufficient to adequately increase their adoption at the household and community level, this project will pilot the effects of conditionality on community development initiatives that have shown to have a higher demand, such as food production and storage. Focus group discussions will be held with project beneficiaries to analyze the effects of conditionality on beneficiary participation and effectiveness as motivator.

83. Each of these interventions will contribute to dietary diversity (measured as number of food groups from which individuals consume) and increased meal frequency. They will increase the availability of carbohydrates, micronutrients, proteins, and essential fats. Additionally, these options contribute to two of the five objectives of the Strategic Development Plan of MAF: Objective 1) Sustainable increase in the production and productivity of selected crops, livestock species, fisheries and forestry, and Objective 5) Enhance sustainable resource conservation, management and utilization.

Community Action Plan

84. Once communities meet criteria to enter into Component 3 they will hold a community action plan meeting. At this point they have all received key nutrition specific messages and understand how they link to nutrition-sensitive activities. The community action planning meeting will include both CNE and AC from local NGOs to ensure community has the support needed to make informed decision and detailed plans/timeline.

85. Review of PRA materials will be conducted to ensure informed decision making. Communities will review their agriculture calendar to identify which planting materials are most relevant to their identified nutrition gaps and select one of the options described below based on that analysis and complete information on what can be accomplished through each of the options. In-depth explanation of the potential growing season versus the current growing seasons will be highlighted to encourage longer periods of access. Inclusive in this analysis will be discussion around amounts necessary to plant so that households have access to sufficient quality products as well as the process of staggered planting so that there is an increased time period of access.

³⁸ Tung, Curran and Fanzo (2013) “Nutrition Sensitive Agriculture for Timor-Leste: A Compendium of Resources”

³⁹ Tung, Curran and Fanzo (2013) “Nutrition Sensitive Agriculture for Timor-Leste: A Compendium of Resources”

86. As part of this process, the groups will identify roles and responsibilities for their specific chosen initiative. At this community action planning meeting the community will also elect a FGL to be the point of contact for the AC to help organize demonstration plot trainings.

87. **Model:** In this component the local NGOs will work with MAF at district level and with the SEO at the succo/Aldeia level. The local NGOs will have ACs who will work closely with both the SEO and CNCs. Each local sub-IA will have 5-10 coordinators to provide technical training at demonstration sites and follow-up at household plots as needed.

AC Responsibilities
Coordination with CNC
Community Action Planning Meeting
Training of Trainers
Coordination with CNE
Coordination with FGL
Training at Demonstration Plot
Follow-up support at Household Plots
Monitoring
Linking communities to service/input providers
Coordination Meetings with key stakeholders

88. **Training:** ToTs will be provided by the SEO and other technical experts contracted by the local NGOs as needed depending on skills and knowledge of ACs. The ACs will then work with community groups at demonstration plots depending on Aldeia locations and option selection - some community groups may share one demonstration plot. Follow-up at household level will be provided by SEO and AC as requested by households to address replication difficulties.

89. **Demonstration Plots:** The demonstration plot will be land typical of the land available to the beneficiaries. The groups will meet at the demonstration plot as often as needed depending on the option selected to receive training on how to implement the initiative. Technical training will be complemented with nutrition specific messages to reinforce learning from nutritional counseling sessions in Component 2.

90. **Inputs:** The project will provide inputs that need to be procured and purchased for both demonstration plots and individual households to replicate on individual plots. The project beneficiaries will be expected to contribute locally available materials such as organic fertilizer, compost materials, rocks, bamboo, fence making materials for demonstration plots and household plots.

91. **Linkages to Input and Service Providers:** The project will make a conscious effort to link farmer groups to suppliers (even though the project is purchasing materials) to both establish relationships and transparency as to the real cost of inputs to beneficiaries, and awareness of where to obtain supplies in the future. Locally available inputs will be prioritized. Additionally, whenever possible the project will work with MAF to procure and promote nationally promoted varieties from proper channels, including formal and informal seed production groups being promoted by MAF.

92. **Coordination between Component 2 and 3:** The nutrition specific component continues through the end of project thus reinforcing the importance of the nutrition-sensitive option selected for this component. Inversely, participation in nutrition-sensitive activities will also motivate households to continue to participate in nutrition specific counseling sessions. Working together will increase both knowledge and behavior change.

93. Component 2 will work with Community Health Centers (CHCs), Chiefs of the Aldeia and CNEs, and Beneficiaries, and Component 3 will work with ACs, Chiefs of the Aldeia and FGL, and Beneficiaries.

Option 1: Increased availability of nutritious staple and minor crops

94. This option will focus on improving existing cropping systems to increase overall food production via a more diverse and nutritious range of crops. Specifically, communities will have the option to increase production of orange flesh sweet potato (*Ipomoea batatas* (L.) Lamb.) and/or different varieties of protein dense pulses, including winged bean (*Psophocarpus tetragonolobus* (L.) DC), mung bean (*Vigna radiate*) (L.), red beans (*Phaseolus vulgaris* L.) and peanuts (*Arachis hypogaea* L.).⁴⁰

95. The MAF has released three varieties of sweet potato to date in Timor-Leste, with the *Hohrae 3* variety having both improved production potential and beta-carotene levels that can address caloric and vitamin A deficiency in mothers and children⁴¹. *Hohrae 3* has been tested by Seeds for Life (SoL) for adaptability in Timor Leste environment and for local taste. SoL3 Baseline conducted in 2012 found that 56 percent of respondents selected this variety due to “more productive”. Additionally 50 percent respondents indicated the reason for selecting this variety was “better taste”. This in combination with the educational messages provided to households under Component 2 will increase the interest and demand for the variety.

96. The only officially released legume to date is a high yielding peanut variety named Utamua (PT 05). SoLs have conducted replicated trials with several varieties of winged bean, mung bean and common climbing red beans; however none have been officially released. It is likely that winged bean will be released by the 2014 planting season. CRS hosted a Seed System Security Assessment in October 2013 to investigate the available sources of seed and planting materials for both staple and minor crops, and will use the results of that assessment to identify possible procurement options.

97. In addition to increasing production, this option will also include post-harvest storage technologies for the promoted crops to reduce losses and decrease contamination. The project will promote intercropping of multiple crops; hence appropriate technologies will be different for each one. In the case of maize and beans, airtight storage containers that are impermeable to rodents are an effective and available technology that CRS has been promoting in Timor-Leste. Proper drying techniques will be promoted to ensure that moisture levels are adequately low to ensure safe and viable grain and seed, especially given the concern over aflatoxin contamination in the food supply and its effect on nutrition. When possible this will be through linking households with existing government projects, and in the case where not available the project will provide.

98. **Specific Training:** Training at demonstration plots will include hands on learning of best practices related to planting, spacing, intercropping, harvesting, post-harvest handling, organic fertilizer, composting, etc. Technical training will also include maintaining sufficient seed/planting materials during the dry season in order to continue to plant improved varieties in subsequent planting seasons.

⁴⁰ No Genetically Modified Organism will be used.

⁴¹ Williams, R., Soares, F., Pereira, L., Belo, B., Soares, A., Setiawan, A., Browne, M., Nesbitt, H., and Erskine, W. (2013). Sweet potato can contribute to both nutritional and food security in Timor-Leste. *Field Crops Research* 146, 38-43

Option 2: Homestead Gardens

99. This option will focus on increasing production of vitamin rich vegetables and produce, with a specific focus on nutrient dense, existing crops⁴² such as moringa (*Moringa oleifera*), amaranth (*Amaranthus tricolor*), water spinach (*Ipomoea aquatica*), sweet fern (*Diplazium esculenta*), Indian spinach (*Basella rubra*), and Sunset hibiscus (*Abelmoschus manihot*). These species all have higher micronutrient contents than many of the imported types such as cabbage, tomato, onion and lettuce, especially in terms of iron and vitamin A. Continued adoption and production of these varieties is more likely to be sustained as seed is easily saved and in many cases currently available.

100. Cultural taboos and barriers to consumption of specific foods will be explored and addressed to increase demand. Current good practices will be highlighted as actions to increase – for example people already consume the foregoing identified crops so the project will work with communities to increase the planting/harvest seasons and increase consumption. Discussion on importance of each produce will be discussed as well as the quantity required daily to meet household need with the group to make informed decisions on what and how much to grow to be nutritionally significant.

101. **Specific Training:** Homestead gardens will be designed dependent upon the conditions most suitable to the local agronomic conditions and the availability of productive inputs such as land, water, and labor. In all cases, the design will take into consideration the labor burden associated with the activity and make choices that do not overburden caregivers. This option will include Keyhole Gardens as a simple technology for year round production of vegetables. The basic keyhole garden is a circular, raised bed garden made up of layers of soil, ash, manure and other rich, organic material. The layers of the garden act to retain moisture and nourish the soil, making it more productive than a conventional garden, even during dry or cold months. Hallmarks of the Keyhole Garden:

- (a) It is cost-effective and adaptable to nearly any context because it makes use of locally available materials.
- (b) Water is used efficiently through a composting basket built into its center that infuses the soil with a continuous source of nutrients. It is through this basket that the garden is watered, using water collected from household washing, called grey water. The basket filters impurities and slows the water's flow to ensure moisture reaches all parts of the garden.
- (c) Its design saves labor. People can garden while standing, making it a particularly effective technology for those who have physical limitations, those who live with chronic illness, and the elderly, all of whom make up a disproportionate share of the food insecure.

Option 3: Pilot Homestead Fish Production in Limited Communities

102. This option will promote small scale aquaculture at the household level in order to increase the availability and consumption of fish. The nutritional importance of fish for increasing household consumption of protein and omega 3 will have been highlighted in Component 2 and will continue to be promoted during nutrition counseling sessions.

103. Small scale aquaculture was promoted during the Indonesian regime 1975-1999. When traveling through some rural communities in Viqueque, it is not uncommon to see remnants of fish ponds that are in a current state of disrepair. These ponds are understood to be in this state as a result of the conflict⁴³

⁴² French, Bruce. (2011) *Food Plants for Healthy Diets in Timor-Leste: Practical ways of growing local food plants, and doing it well*. Food Plants International.

⁴³ Ministry of Agriculture and Fisheries Timor Leste- National Directorate of Fisheries and Aquaculture, “Analyses of the Current Situation and Potential for Aquaculture Development in Timor Leste”, 2012.

and communities are in need of training/input assistance to revitalize and/or reconstruct. MAF has been working to revive the aquaculture sector since 2012.

104. Increasing fish consumption has been prioritized by the national aquaculture development strategy of the National Directorate of Fisheries and Aquaculture (NDFA) as it improves brain development and cognition, growth and overall health due to its essential fats and micronutrient density. This project will work with communities to identify the potential for fish production, and populate homestead fish ponds in cooperation with NDFA and in line with their strategy. The existing species of fingerlings available for stocking fish ponds in Timor-Leste include Nile tilapia (*Oreochromis niloticus*) and common carp (*Cyprinus carpio*). Communities will have the option to choose which species they wish to produce, however it will be contingent upon the availability of fingerlings. Early coordination with MAF at district level and with fingerlings producers will enhance the projects prospects of obtaining the fingerlings.

105. **Specific Training:** This option will require additional level of training to ensure sustainability. Communities selecting this option will have additional support in identifying their sustainability plan during their community action plan phase as it will be more complicated than with the other options. Technical training will be more frequent and additional household level support will be provided by AC and contracted technical experts. Communities will be trained in on-farm production of feeds using locally existing resources, water quality management in ponds, and how to integrate fish ponds into their existing agriculture activities.

106. **Beneficiary Selection:** This option will not be available to all targeted communities but rather be piloted and promoted in Suco/Aldeia where aquaculture existed in the past and community proximity to available fingerlings. The project will work with the MAF and the District Administrator Office to identify which communities are best suited for this option and it will only be presented to those communities. There currently exists one government run hatchery in the sub-district of Ossu in Viqueque, so this option will likely be piloted communities within this area. The likelihood for interest and suitability in these areas will be higher than in other communities who have not been exposed to fish production in the past. Community led delivery of nutrition-sensitive interventions chosen by the target communities will only be initiated after conditionality is met (criteria listed in component 1). Execution of the component will be done by community members encompassing all members of the households targeted, assisted by AC, CNE, in consultation with Suco councils⁴⁴ and facilitated by the local sub-IA with support from the MAF, MOH (including district health teams) and others as needed.

107. Including both male and female household members in Components 1 and 2 will increase feasibility of Component 3 where the decision makers will need to be heavily involved as to determine how, when and where to invest human capital as well as local resources. Households having received training and facilitation on joint decision making will be better equipped to use analysis from PRA -- such as community calendar and knowledge from nutritional session -- to make the best decision for the health of the family. Additionally having the entire household participate will minimize the additional labor burden on any one individual.

108. Expected outputs include:

- (a) Technical specifications and guidelines for each option of interventions.
- (b) 200 communities with necessary inputs, training and demonstrations provided.

⁴⁴ Suco Councils are made up of the Suco Chief, the Aldeia Chiefs, two women representatives, two youth representatives (one male and one female) and one representative of the Lia Nain, who are traditional authorities in each Suco.

- (c) 200 communities completed the intervention(s) per plan.

Component 4: Sub-Component A: Monitoring, Evaluation (US\$0.148); and Sub-Component B: Project Management (US\$0.296 million)

109. The objectives of these sub-components are to:

(a) Sub-Component A:

- i. Strengthen M&E activities associated with the verification and measurement of project results at the community level.
- ii. Improve coordination among various actors through creation of communication flow map (e.g., ministerial counterparts, district teams, Suco, Aldeia, etc).

(a) Sub-Component B:

- i. Provide technical advisory services and other material support to facilitate implementation of nutrition specific and sensitive interventions by target communities.
- ii. Monitoring implementation plans, supervision, and verification of deliverables lies with the implementation agency.

110. Expected outputs include:

(a) Sub-Component A:

- i. A simple results framework. An M&E system to facilitate systematic data collection, and ensure beneficiary accountability through feedback mechanisms for community use of monitoring data.
- ii. Endline survey to include:
 - Progress against object and outcomes.
 - Final documentation of lessons learned including beneficiary learning, process, and theory of change reflection.
 - Analysis of conditionality of Component 3 through qualitative methods beneficiary response (motivation/interest), process obstacles, and project implementation).

(b) Sub-Component B:

- i. A simple results framework to direct supportive supervision of project implementation. Coordination of multiple local implementing agencies. Provision of regular supervision and progress reports.
- ii. Implementation completion and results report.

Annex 3: Implementation Arrangements
DEMOCRATIC REPUBLIC OF TIMOR-LESTE
COMMUNITY DRIVEN NUTRITION IMPROVEMENT PROJECT

Project Institutional and Implementation Arrangements

111. CRS will be the overall IA and responsible for all aspects of the project including coordination, planning, monitoring, reporting, procurement and FM. CRS will contract local NGOs to lead the implementation of the project within specific geographically determined areas. The local NGOs will work within communities on all components of the project and CRS will oversee their activities by following participatory supervision and monitoring approach with direct support and guidance. CRS will organize quarterly reviews and planning meetings with local NGOs to ensure project objectives are met. CRS will be responsible for providing capacity building support to the local implementing NGOs in collaboration with NWG, the Department of Nutrition at MOH and MAF.

112. In the implementation of the proposed project, the community led PRA approach will be followed which will allow communities to identify needs, preferences and priorities. During the PRA process, communities will choose the appropriate interventions that will help them to reduce the burden of malnutrition in their community. Local NGOs will implement the activities at community level in coordination with the Suco Council. Local NGOs will coordinate and collaborate with locally elected members at the Suco and Aldeia to ensure their involvement in the project activities.

113. Under Component 1, communities will select a CNE for Component 2 activities to work with the community. This person is expected to work as the frontline community representative who will work directly with the target beneficiaries to conduct group sessions, house visits, and counseling. Staff from the local NGOs will supervise and monitor them monthly. Additionally the community will select a FGL for Component 3. This role is more minimal than the CNE as they will only help organize community demonstration site meetings for nutritional sensitive initiatives. The project will collaborate and coordinate with MOH and MAF at national, district, sub-district and Suco (village) level to maximize the benefits and minimize the risks and allow for scale-up. All project components will be implemented on the basis of an agreed work plan, budget, and specific results to be achieved.

Financial Management, Disbursements and Procurement

Introduction

114. The FM assessment was carried out in accordance with WB's policy OP/BP 10.00 and the guidance contained in the *"Principles Based Financial Management Practice Manual"* issued by the FM Sector Board on March 1, 2010. Under OP/BP 10.00 CRS is required to maintain FM arrangements – including planning, budgeting, accounting, internal control, funds flow, financial reporting, and auditing – which provide reasonable assurance that the proceeds of the grant are used for the purposes for which they are granted.

115. Overall, the assessment concluded that the proposed FM arrangements satisfy the requirements stipulated in OP/BP 10.00, subject to implementation of agreed actions and mitigating measures. The project FM arrangements will largely utilize the existing staff resources and systems of CRS. The assessment found that CRS is very engaged with the proposed project and well-experienced in project implementation. It is considered that the CRS existing FM systems and capacity are readily adaptable to accommodate the project FM requirements.

116. The overall FM risk of the project is assessed to be Substantial and is expected to be reduced to moderate after implementation of mitigation measures. Once mitigation measures are applied, the moderate rating will be based on CRS having sound experience and capacity; the proposed efficient design using partners (consultants) to implement at community level activities; and the small size of the grant. Although CRS has not previously implemented WB projects, they have demonstrated proactivity and competence to quickly develop the required knowledge, and in particular, have extensive experience in managing multiple partners to deliver project development outcomes. The main FM risk is that funds may be used for ineligible expenditures, particularly given the majority of activities will be implemented at the community level. To mitigate the risk and to ensure consistency across the project, clear FM instructions (as part of the POM) will be established, together with a program of effective supervision and oversight, led by CRS with support of the WB task team.

Project Summary

117. The PDO is **to improve nutrition practices targeted to children under the age of two and pregnant and lactating women in targeted least developed communities.**

118. There are four components:

- (a) **Component 1:** Community Mobilization, Awareness Raising and Participatory Planning.
- (b) **Component 2:** Community Led Delivery of Nutrition Specific Interventions.
- (c) **Component 3:** Community Led Delivery of Nutrition-Sensitive Interventions.
- (d) **Component 4:** Sub-Component A: Monitoring, Evaluation, and Sub-Component B: Project Management.

FM Action Plan

119. The following actions need to be taken prior to project implementation:

FM Action	Date
Set up the project codes, accounting and reporting in CRS systems	Prior to project launch
Develop a clear set of FM instructions as part of the POM	By end July 2014
Prepare and maintain regular cash flow forecasts for the project, and ensure these is incorporated into funding requests to Baltimore on a timely basis	Prior to first disbursement
A budget covering the project life has been prepared and submitted to the WB	Completed
An accountant will be engaged by CRS in their Baucau sub-office	By launch of implementation in Baucau

Implementing Entity and FM staffing

120. The project will be implemented by the CRS registered in Timor-Leste as a branch of CRS which is a global NGO with headquarters in Baltimore USA. The CRS local office is in Dili with a sub-office in Baucau. During the assessment, the CRS management demonstrated capability and experience in management of donor-funded development operations. They have effective FM systems and procedures, which have the ability to manage projects with multiple partners and volunteer services - similar to the project. Although CRS in Timor-Leste does not have prior experience implementing WB projects, the WB team were satisfied that CRS management and systems displayed adequate potential and flexibility to readily accommodate the project into current operations.

121. CRS has a Finance Manager reporting to the Country Representative. In the Dili office there are two other FM staff, an accountant and finance officer. The Baucau sub-office currently has a finance officer and CRS plans to hire an accountant. It is considered that the FM staffing has adequate capacity and competencies to implement FM aspects of the project.

Budgeting Arrangements

122. CRS has an integrated budget tool ('Adaptive Planning') which can record and monitor actuals against budget by project. A proposed budget (classified by expenditure and by component) covering the entire project, together with a cashflow forecast for the first year has been completed by CRS as input for determining the designated account ceiling in the Disbursement Letter.

Accounting Arrangement

123. The project transactions and balances, budget, and commitments, will be separately identifiable as part of the CRS accounting systems (SUN system). Accounting classifications will align with CRS existing chart of accounts where feasible; however CRS has advised that it is adaptable to provide the minimum interim and annual financial reporting stipulated below.

Internal Controls

124. Internal controls will be detailed in the FM section of the POM and will ensure adequate segregation of duties, aligned to the extent possible, with the existing internal control policies and manuals of CRS, and in compliance with relevant government regulations. Close supervision and monitoring of consultant contract performance will be required to ensure that deliverables are achieved and that payments for fees and any reimbursable are made in accordance with the contract and for eligible purposes, particularly in relation to performance payments for CNEs. CRS has an effective filing system in place to maintain financial records under the control of its accounting staff.

Flow of Funds

125. The grant funds will be deposited to a pooled designated account of CRS in US Dollars. The account will be held in a commercial bank (in the United States) acceptable to the WB (Bank of America, Baltimore). CRS will transfer funds from this account in US Dollars to the CRS operating account held in a commercial bank (acceptable to the WB) in Timor-Leste (ANZ Bank). Regular cashflow management and forecasting will be important to facilitate timely requests for funding when communicated to the Baltimore Office.

Interim Financial Reporting

126. Interim financial reports (IFRs) will be submitted each semester, attached as part of the semi-annual progress report to the WB. The IFR format will be agreed with the WB and will include total project receipts and payments for the period (together with year-to-date and cumulative figures), status of advances, together with evidence that the cashbook balance reconciles to the relevant general ledger account in the CRS accounting system and to the WB's client connection system. CRS advise that their systems can produce project-specific reports by expenditure category and by component.

Annual financial statements & External Audit

127. Separate project annual financial statements will be required in a format acceptable to the WB, audited by a private auditing firm acceptable to the WB (including a Management Letter of issues identified during the audit), and submitted to the WB no later than six months after the end of the audit period. The audited financial statements will be required to be published by CRS in accordance with the WB's Access to Information Policy.

Disbursement Procedures

128. The project will use four Disbursement Methods: Advance, Reimbursement, Direct Payment and Special Commitment.

129. Direct payments to suppliers and consultants will be utilized where feasible for eligible expenditures incurred under the project. The minimum value of applications level for direct payment and reimbursement is set out in the Disbursement Letter. The CRS will prepare and authorize all Withdrawal Applications for submission to the WB. The documentation required for the replenishment of the fund to the advance designated account will be by Statement of Expenditure and while documentation will not be required to be sent, except for those contracts subject to prior review records for contracts that exceed the thresholds established in the Disbursement Letter. The project will be expected to retain all documentation for up to two years after the closing date for independent audit and for review by WB staff. To satisfy replenishment requirements, evidence will need to be provided that the advanced funds have been expended.

130. Eligible expenditures will be funded 100 percent from project finances (inclusive of taxes) and must be productive and reasonable to achieve the project development outcomes. The eligible expenditures envisaged under the project include (but are not limited to) costs of consultants (fees and reimbursable, including audit fees) under output or time-based contracts; limited goods (in accordance with the procurement plan); limited non-consulting services; training and workshops (including meetings, training materials, travel and per diem (for domestic training and workshops); and operating costs (including domestic travel/transportation, communication/awareness campaign costs, stationery/printing, translation, performance and 'in-kind costs for CNEs, and an allocation of the costs of time spent for management of the project by CRS locally contracted staff. Civil servant salaries, salary supplements, or allowances are not allowable. The table below indicates the amounts of the expenditure types and the percentages to be financed.

Category	Amount of the Grant Allocated (expressed in Dollars)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, Non-consulting services, Consultants' services, Training and Workshops for Part 1 of the Project	602,000	100%
(2) Goods, Non-consulting services, Consultants' services, Training and Workshops for Part 2 of the Project	786,000	100%
(3) Goods, Non-consulting services, Consultants' services, Training and Workshops for Part 3 of the Project	1,018,000	100%
(4) (a) Consultants' services and Training for Part 4(a) of the Project.	148,000	100%
(b) Consultants's services and Operating Costs for Part (4b) of the Project.	296,000	100%
TOTAL AMOUNT	2,850,000	

131. There will be no sub-grants under the project.

JSDF Policy Restrictions

132. Under the JSDF annual policy document - eligible expenditures include goods, services (including necessary provision for NGO overheads), training, workshops and operating costs, with all expenditures eligible for 100 percent financing under JSDF. Requests may also include the cost of the grant audits. The following cannot be financed under JSDF: government or other staff salaries, and central government activities; foreign training or study tours, and purchases of motor vehicles.

133. The ceiling for administrative costs, including project management and overhead is 10 percent of the recipient grant. In addition, it is expected that at least 70 percent of the funds would be utilized for

expenditures providing direct inputs for the beneficiaries, e.g., subprojects, employment, micro-business, and training for beneficiary participants.

Retroactive Financing

134. In accordance with JSDF policy, retroactive financing can be requested and subsequently incurred, from the date of approval of the grant funding proposal by the Government of Japan to the date of activation of the grant, up to 10 percent of the recipient grant amount.

FM Supervision

135. In addition to FM desk support, FM implementation support reviews will generally be conducted by on-site visits in Timor-Leste, at least twice in the first year and annually after that or as the needs arise, based on the risk assessment of the project. Review of transactions and FM arrangements at Baltimore level will be ‘at-desk’ and it is envisaged that on-site visits will not be necessary. The implementation support review objective is to ensure that strong FM systems are maintained throughout the life of the project. The supervision will include a review of overall operation of the FM system, transactions and other areas deemed necessary during supervision.

Procurement

136. Procurement for the proposed project will be carried out in accordance with the WB’s “Guidelines: Procurement under IBRD Loans and IDA Credits,” dated January 2011 (Procurement Guidelines); and “Guidelines: Selection and Employment of Consultants by WB Borrowers,” dated January 2011 (Consultant Guidelines); and the provisions stipulated in the Grant Agreement. For each contract to be financed under the Grant, the different procurement methods or consultant selection methods, estimated costs, prior review requirements, and timeframe have been agreed upon between the Recipient and the WB in the Procurement Plan, and to be updated annually.

137. ***Procurement of Works.*** No works are anticipated under the proposed project.

138. ***Procurement of Goods and Non-consultant Services.*** Goods required under the project would include goods and non-consultant services such as homestead garden supplies, office supplies, community awareness supplies, consumables, seedlings, community center rentals, etc. International Competitive Bidding (ICB) procedures will be used for procurement of goods estimated to cost US\$500,000 or more per contract. Shopping may be used to procure goods and non-consulting services estimated to cost less than US\$500,000 per contract. Direct contracting may be used in the circumstances set out in paragraph 3.7 of the Procurement Guidelines, subject to the WB’s prior review. However, small value items, costing less than US\$1,000 per purchase from local suppliers will be permitted, when obtaining and comparing three quotations is not practical due to quality and market constraint.

139. ***Selection of Consultants.*** Consulting firm contracts expected to cost more than US\$300,000 equivalent per contract would use the Quality and Cost Based Selection (QCBS) or Quality Based Selection (QBS) in conformity with the Consultants Guidelines. Consulting services estimated under US\$300,000 equivalent per contract would follow the Selection Based on Consultants Qualifications (CQS). The Least-Cost Selection (LCS) would be used for assignment of auditor services. Under the circumstances described in paragraph 3.9 of the Consultants Guidelines, consultants may be selected and awarded on a Single-Source Selection (SSS), subject to the WB’s prior approval.

140. Individual consultants would be selected and contracts awarded in accordance with the provisions

of paragraphs 5.1 through 5.5 of the Consultants Guidelines. Under the circumstances described in paragraph 5.6 of the Consultants Guidelines, individual consultants may be selected and awarded on a SSS basis, subject to the WB’s prior approval.

141. **Procurement Risks and Mitigation Measures.** The CRS will be responsible for project procurement activities. An assessment of CRS’ capacity to carry out project procurement in accordance with the WB Procurement Guidelines identified the following risks:

- (a) Weak procurement capacity;
- (b) Delay in procurement due to unfamiliarity with the WB procurement procedures; and
- (c) Local market access constraint and limited local capacity.

142. The following mitigating measures will be taken:

- (a) A full time procurement officer will be hired under the proposed project to supplement the current capacity of the CRS.
- (b) Simplified procurement procedures allowed for fragile and small states will be adopted, along with simplified procurement templates provided in the Procurement Guidance Note *Making Procurement Work for Fragile and Small States in the Pacific*, issued on January 2013.
- (c) Standard procurement filing check lists will be used for procurement recordkeeping.
- (d) The WB team will provide intensive implementation support to the CRS during project implementation.

143. The overall procurement-related risk is moderate.

144. **Procurement Thresholds and Prior Review Thresholds.** Procurement thresholds and prior review for the proposed project are shown below.

Table 2: Procurement thresholds and prior review thresholds

I. Procurement Methods	Procurement Thresholds	Prior Review Thresholds
Goods and Non-consulting Services		
International Competitive Bidding	≥US\$500,000	All contracts subject to prior review
Shopping	<US\$500,000	First two contracts
Direct Contracting	Meet the criteria set out in paragraph 3.7 of the Procurement Guidelines	All contracts subject to prior review
II. Selection of Consultants:		
Selection Methods	Procurement Thresholds	Prior Review Thresholds
Firms (QCBS, QBS, LCS, CQS and SSS)	In accordance with the WB’s Consultants Guidelines	≥US\$100,000, and all SSS contracts
Individual Consultants		≥US\$50,000 (exception made to SSS contracts, legal and procurement related assignments, where all contracts are subject to prior review)

145. **Procurement Plan.** The CRS will prepare a Procurement Plan for the proposed project and submit it to the WB for review. Once the Procurement Plan is approved, it would be available in the Project’s database and on the WB’s external website. The Procurement Plan will be updated in agreement with the WB annually or as required to reflect project implementation needs and improvements in

institutional capacity. A summary table of the Procurement Plan is presented in Attachment 1 to this Annex.

Environmental and Social (including safeguards)

146. The project will have high community involvement during implementation. No significant environmental impacts are anticipated during implementation. The project has been categorized as B (partial assessment), which means no significant impacts are anticipated and any risks are manageable, and social and environmental outcomes are expected to be positive. The project will focus on the household level in the form of small-scale homestead gardening or fish pond by utilizing the beneficiary's own land/home garden to increase existing production of vegetable/livestock and aquaculture. No land acquisition and resettlement is envisioned and OP 4.12 is not triggered. If community demonstration plot is included in the final list of the interventions to be supported under the project, the project will use small pieces of government/community land; or if government/community land is not available, the project will temporarily rent voluntarily provided individual land and the demonstration plot can be a benefit for the renter. The process of determining land for community demonstration plots will be conducted through a participatory process to ensure that all stakeholders are involved. The project will document the step-by-step the consultation process in the POM to ensure any processes are indeed voluntary. All consultation processes will be documented. There will be a menu of options for the communities to choose from and physical activities that will be undertaken in their Suco; the ECOPs will describe clearly what the steps of potential environmental impact mitigation measures are for each option. Mitigation measures will include employing locally made available materials (with little impact) that are considered most cost effective.

147. The project triggers the WB's OP 4.10 on IPs. Timor Leste's population is indigenous and since essentially everyone in Timor Leste is considered indigenous, a separate IP Plan/IP Policy Framework will not be prepared. However, the following aspects of an IP plan will be integrated in the design and implementation of the project. *Measures to ensure free, prior and informed consultation will be carried out during project implementation.* Detailed and continuous consultations will take place with communities in targeted Suco in Baucau and Viqueque Districts. *Measures to ensure culturally-appropriate benefits are being included in the project.* The project is culturally-appropriate as it ensures that the interventions are sensitive to socio-economic conditions, cultural beliefs and traditional practices of communities. The project will promote local/indigenous knowledge and practices in improving farming/livestock/ aquaculture productivity rather than introducing new ones so that it will not adversely affect the social and economic condition of the community. Thorough consultations are undertaken with stakeholders to identify culturally-appropriate benefits and to ensure that they are not disadvantaged by the project. *Measures to ensure that adverse impacts are mitigated, including an appropriate grievance system/complaint handling mechanism, will be in place.* The grievance system will be provided in the POM. This grievance system will be set based on existing traditional community structures in Timor Leste. The project will actively require socialization of complaint handling mechanisms at all consultations. *Measures for disclosing key project documents are in place.* The project document will be translated into Tetum, shown to be a language widely spoken in the communities as noted in the social assessment. Given low literacy levels in the country, the project will need to ensure that communication is presented orally and visually as well as in written form, to ensure stakeholders can understand the project and its potential impacts and benefits.

Monitoring & Evaluation

148. CRS has a system for ensuring simple measurement of indicators for learning and evidence based reporting (SMILER) that it will use to develop a comprehensive monitoring and evaluation system. The M&E system will include data and communication flow maps, complete series of data collection tools

(qualitative and quantitative) and reporting templates to be used by all stakeholders consistently. CRS will be responsible for contracting services for carrying out baseline and end-line surveys to measure the effects of the intervention on the targeted communities and households. The baseline will focus on measuring the outcome level indicators that this project seeks to improve and are listed in the results framework. Baseline information will be disaggregated to (a) document if there are differences in child care practices based on gender; (b) address those findings in nutrition counseling messages; and (c) measure progress by gender if differences are identified.

149. **Beneficiary Participation in M&E:** The final output indicators will be verified and finalized in collaboration with representative sample of beneficiaries during Component 1 of this project, allowing communities to contribute to the decision of what will need to be monitored and how throughout the project. This will inform the household monitoring tool, beneficiary feedback mechanisms developed, and frequency of report back to the community. The household self-monitoring and community monitoring checklist help ensure beneficiary accountability and ownership of data gathered and analyzed.

150. Household monitoring tools will be used by households to monitor participation, learning, and behavior changes. Representative qualitative monitoring focus group discussion will be held to both monitor project progress, collect beneficiary feedback and present information/data back to the community.

151. **Monitoring:** Continuous monitoring is conducted through local sub-IA monthly reports, quarterly reflection and planning meetings, regular focus group discussions, Suco council meetings and MOH and MAF quarterly reporting and harmonization meetings. Additionally, each time any project staff (local partner or sub-IA) visits communities, they will complete a field report that will include collection of beneficiary feedback.

152. **Mid-term Review:** A midterm review will be conducted to identify project strengths and areas of concern. This will be conducted by CRS focused around beneficiary accountability and learning using qualitative data collection methods on beneficiary experience. Analysis from this will be used to modify project detailed implementation plan and/or service delivery methods if possible and needed.

153. **Endline Survey:** An end line survey will be conducted by external consultant to measure progress on all indicators, process, beneficiary learning, theory of change, conditionality, project sustainability, and scalability. This will include *Most Significant Change* study to identify higher outcome level changes beyond project reporting requirements for additional learning.

154. **Roles for M&E (CNE/CNC/AC and M&E Officer):** An M&E Officer will work closely with CHC, AC, and CNE to ensure coordinated monitoring so that communities are not overburdened with monitoring. For example, the household monitoring tool will incorporate monitoring for both nutrition-sensitive and nutrition specific components so it will be necessary for all of the above to be involved in the development of the tool. The SMILER process will ensure that this happens as well as explicitly identifying roles and responsibilities for each position.

155. CRS will be responsible for all M&E for the project and based on the agreed Results Framework and monitoring arrangements set forth in Annex 2. CRS will work with local implementing agencies to ensure all necessary data is collected and analyzed. To ensure non-biased results, CRS will hire consultants to conduct three studies: baseline, mid-term review and final evaluation. The costs for these consultancies and any additional costs associated with M&E have been included in project budget. CRS will submit semi-annual and annual reports to the WB reflecting progress on project implementation and the results framework using the following tools and reports.

156. Local Capacity: CRS will provide training on all data collection tools and reporting templates to local implementing partner staff. This will be continuous throughout the project to both collect accurate monitoring information but also to build local capacity to document and analyze data.

Key M&E Steps

157. Baseline: The baseline survey will be conducted during project start-up to verify and confirm the current values for the agreed upon indicators in the Results Framework for both current situation and targets. Once finalized, CRS will submit an updated version to be used for M&E for the duration of project.

158. M&E System: CRS will develop complete project specific M&E system. The process is participatory with CRS Project Manager, CRS M&E Specialist, CRS M&E Officers and local implementing partner key staff working together for five days to develop the complete system. Below is an outline of what this comprehensive system will develop, and more complete details of M&E will be provided in the POM. This will include an in-house simple database to monitor household progress with annual data collection on indicators.

159. Regular monitoring against indicators in results framework will be primarily conducted through four tools:

- (a) Community Monitoring Tool (local implementing partners): Document progress for Intermediate Results at community group level to ensure all activities are being conducted.
- (b) Household Monitoring Tool (households and local implementing partner): Monitor Households progress against PDO level Results Indicators by monitoring behavior.
- (c) Training monitoring tool (local implementing partner): Documentation on ToTs used to measure Intermediate Results related to ToTs.
- (d) CNE monthly monitoring checklist (CNE): Documentation of activities of CNE.

160. Regular Reporting will be conducted through three reports that are included in the semi-annual and annual progress reports to the WB:

- (a) Local Implementing Agency Monthly Reporting:
 - Collapsed data on data collection tool
 - Beneficiary Feedback
 - Qualitative data on process, obstacles, successes
- (b) MAF Quarterly Harmonization Report
 - CRS will complete MAF provided template for quarterly report on progress on nutrition-sensitive activities
 - CRS will complete NWG quantitative report on quarterly progress of nutrition specific activities
- (c) Semi-Annual CRS report to WB
 - The data collected from the above listed tools and reports will be consolidated and submitted to the WB through semi-annual and annual reports by CRS.

161. Mid-Term Review: This will be conducted with an external consultant to collect qualitative and quantitative data on the project. The effectiveness of the project will be reviewed through assessing project model and process, progress of implementation, and achievement of intermediate outcomes and progress toward PDO indicators. Additionally, this review will incorporate documenting beneficiary learning, reviewing BCC materials for beneficiary acceptability and adaptation. The Mid-Term Review will be used to make decisions on any necessary changes to project design and delivery based on lessons learned from project implementation and realities in the communities at that time.

162. Final Evaluation: The final evaluation will be conducted by an independent consultant. It will be both a qualitative and a quantitative evaluation of the program by component. The evaluation will measure change by indicator as presented in the results framework. The evaluation will also provide detailed compilation of beneficiary feedback, process findings on project implementation, BCC messages and BCC message delivery, project model and potential for scale-up, and lessons learned.

163. Beneficiary Accountability: Within the M&E system there will be mechanisms for beneficiary feedback to be collected regularly to monitor beneficiary satisfaction and rapidly make appropriate modification to the project. Additionally, semi-annual focus group discussions will be conducted concentrating on: beneficiaries' satisfaction with project intervention, relevance of behavior change messages, quality of nutritional counseling, and nutrition-sensitive trainings. Additionally, project progress will be presented regularly to beneficiaries.

Role of Partners

164. Partners include the MOH and the MAF.

- (a) **MOH:** This project will work with MOH at Suco, district and national level throughout the life of the project. The NWG will review the training materials created for ToT of CNCs as well as the BCC materials routinely used by the CNEs in their routine work. At the Suco and sub-district level it will be the role of MOH staff to provide the necessary staffing and inputs for the SISCa days held at the Aldeia, including the provision of provision of direct nutrition services such as Vitamin A, IFA tablets for pregnant women, zinc for the purpose of treating diarrheal diseases, etc.
- (b) **MAF:** The project will work with MAF at Suco, district and national level on the nutrition-sensitive Component 3. The nutrition-sensitive initiatives have all been selected for their direct linkages to the national level strategic plan. At project start-up CRS will enter into an agreement with MAF outlining implementation roles and responsibilities. This will include how CRS and local implementation agencies can expect to receive support from MAF and how MAF will receive support from CRS. CRS will ensure that any ToT that is conducted with external consultants will also include participation of the SEO in the project area to support the capacity building of MAF staff. The SEO will work with local AC and FGL at demonstration sites to provide technical support when appropriate. The National Directorate for Fishery Administration will be engaged for the purpose of sourcing inputs as well as aligning with promoted best practices for pond management.

165. CRS will participate in quarterly national and district MAF harmonization meetings. Additionally, CRS will attend national level agriculture technical learning groups to ensure this project remains relevant and appropriate with other activities in Timor Leste. Although Timor Leste is a small country, there are significant numbers of active stakeholders so it is essential to be involved in coordination meetings to minimize duplication of efforts.

PROCUREMENT PLAN

REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE																				
(Name of implementing agency)																				
(Project name and project code)																				
1ST DRAFT Procurement Plan (PP) 14-MAR-2014																				
Period: 12 months--March 2014 - February 2015																				
1 GOODS																				
#	Reference No./Package No.	Contract (Description)	Component	Total Estimated Cost (US\$)	Procurement Method	Clearance by World Bank (Yes/No)	Stage	Prepare & submit for Bank's N/O if required) Draft ED with IFB	Publish IFB in Nat'l newspapers and UNDB/inv/te quotations	Deadline for submission of bids/quotations	Bids/Quotes submission and Opening	Bid Evaluation Report (BER) Submission for Bank's N/O	NoL to BER (if required)	Contract Start Date	Contract Closing Date	Contract Duration	Actual contract amount	Contractor's/Supplier's Name and Address	Remarks	
1		Printing of Project Development Materials	C1	50,000	Shopping	Yes	Planned Actual	15-May-14	22-May-14	05-Jun-14	19-Jun-14	3-Jul-14	14-Jul-14	28-Jul-14						
2		Motorcycles (30)	C1	81,000	Shopping	Yes	Planned Actual	15-May-14	22-May-14	05-Jun-14	19-Jun-14	3-Jul-14	14-Jul-14	28-Jul-14						
3		Field supplies for community mobilization	C1	4,995	Shopping	No	Planned Actual	15-May-14												Flipcharts, markers, stands, ...
4		Cameras (60)	C4	9,600	Shopping	No	Planned Actual	15-May-14												Reporting/recording
5		Laptops (4)	C4	4,800	Shopping	No	Planned Actual	15-May-14												CRS has to use HQ-IT specifications
6		GPS Devices (20)	C1	3,000	Shopping	No	Planned Actual	15-May-14												Purchase on-line + fedex
7		GIS Software (1 w/ + licence)	C1	2,000	SS	Yes	Planned Actual	15-May-14	N/A	N/A	N/A									CRS has a standing contract
8		Photographic Documentation for M&E of Home Visits	C1	1,200	Shopping	No	Planned Actual	15-May-14												
9		BCC materials	C1	12,500	Shopping	No	Planned Actual	15-May-14												Behavior Change Communication (i.e. banners, posters, billboards, Reporting/recording
10		Voice Recorder (20)	C4	1,600	Shopping	No	Planned Actual	15-May-14												
11		Megaphone (17)	C1	1,190	Shopping	No	Planned Actual	15-May-14												
12		Total Amount		171,885.00																

TRAINING

Procurement Reference No.		Project Component	Start Date	Total Estimated Cost (US\$)	Selection Method	Bank's Prior Review (Yes/No)	Completion Date	Remarks
	Training NGOs on start up/consultation workshop	C1, C2, C3, C4	30-May-14	10,750			17-Apr-14	
	M&E Workshops	C4	15-Jun-14	4,000			2-May-14	
	Training of ToTs	C1	30-Jun-14	15,000			16-May-14	
				29,750.00				

REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE

(Name of implementing agency)

(Project name and project code)

1ST DRAFT Procurement Plan (PP) 14-MAR-2014

VII. Cost and Progress summary of Procurement Activities

Category	Estimated Cost from until/yyyy	Commitment until	Progress				
Goods	171,885.00						
Consultancy- Firms	650,000						
Consultancy- Individual	259,000						
Capacity Building (scholarships and trainings)	29,750						
Innovations (support to districts)							
Operating Cost (30 June 2008 to 30 June 2012)	*---						
Unallocated fund to adjust the currency fluctuations (Aus\$-USD) and to adjust any other variations in the proposed activities to address urgent needs within the scope of the grant			0				
SUB-TOTAL	1,110,635						

Annex 4: Economic Analysis

DEMOCRATIC REPUBLIC OF TIMOR-LESTE COMMUNITY DRIVEN NUTRITION IMPROVEMENT PROJECT

166. A strong evidence base has established that interventions that effectively target childhood and adult malnutrition produce high rates of return.⁴⁵ This analysis confirms the nutrition literature and shows that the benefits of this project exceed the costs, providing an economic rationale for pursuing this project. At a 5 percent discount rate, the NPV of the project investments is estimated to be about US\$3.7 million with an IRR of about 10.8 percent and benefit to cost ratio of 1.5 over a 30 year time horizon. This represents a conservative estimate and with slightly more aggressive assumptions, the NPV and IRR could potentially be as high as US\$7.3 million and 17.1 percent, respectively. The strength of any economic analysis depends on the quality of the data that inform the assumptions for future costs and benefits. Thus, this annex discusses the established evidence base that informs the assumptions underlying the project's economic costs and benefits, and describes the methodology and its drawback.

167. **Rationale for public involvement.** In Timor-Leste, there is chronic private underinvestment in good nutrition that arises from the market failures associated with the production inputs for nutrition and the positive externalities of malnutrition-related infectious diseases. Individuals and families could eventually capture the private gains from the increase in adult incomes resulting from tackling child malnutrition. However, these returns require a long time horizon of at least 10 to 20 years before they can be fully realized. Also, the families may not be able or willing to make the upfront investment in nutrition due to poverty or imperfect information. Families may simply be unable to allocate time and money to proper nutritional behavior; or they may be unaware of the potential gains to investments or familiar with the proper child feeding practices. Also, the health care and education inputs that produce good nutrition, themselves also arguably suffer from market failures. Finally, there are positive externalities associated with reducing the risks of infectious diseases by targeting malnutrition. Preventing infectious diseases produces non-excludable benefit. That is, these benefits are not fully captured by the individuals making prevention investments. Thus, investments to reduce malnutrition-linked infectious diseases and market failures would generate public returns and warrant public sector approaches.

168. **Nutrition-specific interventions tend to be good buys.** Global investments to tackle child under nutrition are well established to achieve high returns on investments, resulting in economic returns of 5 to 200 times investment.⁴⁶ This project also produces economic returns to nutrition interventions that provide a case for investment. However, this project is a small scale project and there is large uncertainty associated with the returns of nutrition-sensitive interventions. Thus, the estimated returns are not as high as the returns of established nutrition-specific interventions. One of the values of this project that is not captured in this analysis is the contribution to the literature on the implementation and potential impact of nutrition-sensitive interventions.

⁴⁵ Bhutta, Z. et al. (2013). Evidence-based interventions for improvement of maternal and child nutrition: What can be done and at what cost? *The Lancet*.

⁴⁶ Bhutta et al. 2008

Methods: Evidence Base for the Impact of Nutrition Interventions

169. **This economic analysis uses a cost benefit approach.** It evaluates the discounted net revenue stream from the project to produce an economic rate of return on the project investment. It incorporates assumptions of the potential long term benefits of reduced malnutrition- and diarrhea- related medical costs, improved labor productivity associated with the reduced stunting and under-five mortality rate, and improvements in agricultural productivity. In addition to the direct project costs, there are other indirect costs such as increased schooling costs, health care costs associated with prolonged life, and operating costs resulting from agricultural investments. The study accounts for the costs and benefits of this project relative to projections on the baseline malnutrition levels over a 30 year time horizon. The magnitude and timing of these net benefits are based on a growing research literature of the downstream effects of childhood malnutrition.

170. **Beneficiary population and impact on malnutrition.** The economic returns will primarily accrue to the children under two, pregnant and lactating women, as well as the family members benefiting from the nutrition-sensitive projects in the targeted least developed communities in Baucau and Viqueque. The project expects to directly impact exclusive breastfeeding rates among children under 6 months, infant and young child feeding practices among children 6-23 months, treatment for diarrhea among children under 2, and anemia and vitamin B deficiency among pregnant women. The project's model of community-inclusive participation in the implementation of nutrition-specific and nutrition-sensitive interventions is based on previous work in Mozambique which has been able to achieve impressive reductions in stunting of up to 42 percent over 2.5 years following an 18 month investment.⁴⁷ The nutrition-specific interventions rely on the 4 behavioral interventions recommended in the 2008 Lancet series. One model of the implementation and scale up of 10 core nutrition-specific interventions could result in a global decrease in under-5 mortality of 15 percent and stunting by 20.3 percent.⁴⁸

171. **Improved labor productivity from decreased stunting and under-five mortality.** A decrease in stunting and under-five mortality will lead to an increase in future economic productivity for beneficiary children, quantified in terms of an increase in lifetime earnings. Poor malnutrition directly impacts the amount of children's time spent in school, impairs their cognitive capacity as students and future workers, and consequently reduces their lifetime earnings. A multi-country study found that stunting at age 2 was associated with a reduction in schooling of 0.9 years.⁴⁹ A global review of returns to education found that each year of schooling is associated with an increase in wages of 9.7 percent.⁵⁰ A study of schooling investments in Indonesia found that each additional year of school was associated with a 7-11 percent increase in wages.⁵¹ Malnutrition's combined effect of lower schooling and lower income resulting from less schooling can potentially lead to a greater than 20 percent decrease in adult income.⁵² There are also long term effects of schooling on the nutrition levels of future generations. Parental education is associated with decreases in stunting levels.⁵³ But because of the short time frame, this

⁴⁷ The study found an 8.1 and 11.5 percentage point decrease over 5 and 2.5 years which translates into a 31% and 42% decrease. Davis, T. et al. (2010). Reducing child global under nutrition at scale in Sofala Province, Mozambique, using Care Group Volunteers to communicate health messages to mothers. *Global Health: Science and Practice*. 1:1.

⁴⁸ Bhutta et al. 2008.

⁴⁹ R Martorell et al (2010) 'Weight gain in the first two years of life is an important predictor of schooling outcomes', *Journal of Nutrition*, 140(2) pp348-54

⁵⁰ Psacharopoulos G, Patrinos H. Returns to investment in education: a further update. *Educ Econ*. 2004;12:111-134

⁵¹ Duflo et al.

⁵² S Grantham-McGregor et al (2007) 'Development potential in the first 5 years for children in developing countries', *The Lancet*, 369:60-70

⁵³ Ruel et al. (2013) Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition?, *The Lancet*

benefit is not captured in this analysis.

172. **Changes in health care and education costs.** The years of prolonged life will boost economic productivity but will also incur economic costs from an increase in schooling and health care costs.⁵⁴ The reduction in stunting and the option to promote good hygiene and water safety activities could potentially decrease health care costs. A reduction in under nutrition will have protective effects against future adult obesity and non-communicable diseases.⁵⁵ However, the evidence base of the decrease in relative risk of these adult onset diseases is limited and cannot be incorporated into this analysis. The hygiene and water safety activities should reduce diarrhea, which affected about 15.6 percent of children under five.⁵⁶ A large share or 72.2 percent of children with diarrhea are taken to see a health care provider for treatment.⁵⁷ This study takes into account the effect of diarrhea reduction through the reduction in health care treatment costs. A community led total sanitation-style intervention conducted at scale across rural East Java was found to result in 30 percent fewer diarrhea episodes.⁵⁸

Costs and benefits of the agricultural options

173. The menu of options under the nutrition-sensitive component includes agricultural investments such as (a) increasing availability of nutritious staple and minor crops, (b) homestead gardens, and (c) homestead fish production. Menu options (a) and (b) are aimed at increasing production of foods rich with nutrients such as vitamin A, calories, and protein. Menu option (c) is designed to reduce protein-deficiency. Multiple pathways exist in which agriculture could impact nutrition outcomes such as (a) increasing macroeconomic growth, (b) increasing access to food by higher production and decreased food prices, (c) increasing household income through the sale of agricultural products, (d) increasing nutrient dense food production for household consumption, and (e) empowering women through targeted agricultural interventions.⁵⁹

174. Theoretical pathways of the effect of agricultural investment on intermediate nutrition outcomes are clear. The options are designed to contribute to reducing micronutrient deficiencies, anemia, and protein deficiency which in turn have been shown to be linked to future labor productivity and income. However, evidence on the direct effect of nutrition-sensitive agricultural interventions on child malnutrition indicators is limited, in part due to the methodological design of these studies⁶⁰. Therefore, a conservative estimate of this model will not account for any returns in the form of improved wages and health and focus on agricultural returns.

175. While the menu options are primarily designed to boost household consumption of nutrient-rich foods, the increase in production of these foods can be valued by their potential market returns even if these products are not sold on the market. A study of the potential returns of investing in certain types of agricultural commodities found high returns ranging from \$488/hectare for lowland mung bean improvements to \$1,331/0.3 hectare for traditional roots and tubers investments⁶¹. Aquaculture in Timor-Leste is not widespread and suffers from low productivity and financial returns. A review of the state of

⁵⁴ Schooling and health care costs were valued based on data from UNESCO and the WHO to establish per pupil and per capita unit costs.

⁵⁵ Victora CG, Adair L, Fall C, et al, for the Maternal and Child Under nutrition Group. Maternal and child under nutrition: consequences for adult health and human capital. *Lancet* 2008, **371**: 340–57.

⁵⁶ 2009/10 DHS

⁵⁷ For the poorest and 2nd poorest quintiles, it is 66.0 and 70.3%. 2009/10 DHS.

⁵⁸ Cameron, L et al. (2013) Impact evaluation of a large-scale rural sanitation project in Indonesia. The World Bank.

⁵⁹ World Bank 2007; World Bank 2013

⁶⁰ A life free from hunger.

⁶¹ Global Food Response Program: Technical Assistance to Timor-Leste. “With” and “Without” Project Production and Financial Models. 2013.

aquaculture in Timor-Leste however has found that aquaculture could potentially have long-term income generation potential for small-scale farmers. Small-scale farmers in other Asian countries typically sell 40–60 percent of the total fish produced from their farms. This study uses a conservatively low rate of return for the aquaculture investments but it is possible that with a more robust aquaculture system, there are potential long term higher returns⁶².

176. The evidence of the effects of nutrition and agriculture interventions provides a range of potential outcomes. The study analyzed two scenarios which represent a lower and upper bound of the evidence-based effects of this project’s interventions on stunting and under-five mortality rates, changes in productivity and education outcomes resulting from stunting, and agricultural returns. Table 1 describes the assumptions under the base case scenario, which represents a lower bound and the best case sensitivity analysis, which represents an upper bound of assumptions.

Table 1: Assumptions

	Base Case	Best Case
Decrease in Stunting	20%	31%
Decrease in under-five mortality rate	15%	
Decrease in adult earnings due to child malnutrition	10%	20%
Lost years of education due to child malnutrition	0.9 years	0.6
Agricultural returns (Benefit: Cost Ratio)	1.77	2.64

Results

177. The results of the base case and best case sensitivity scenarios provide a lower and upper bound of the potential rate of return to this project. The lower bound of the project has an IRR of 10.8 percent and an NPV of US\$3.7 million. Based on more aggressive assumptions, the upper bound of the project has an IRR of 17.1 percent and an NPV of US\$7.3 million or a benefit: cost ratio of 2.0. Even with conservative assumptions, the lower bound returns suggest that this project is a good economic investment. This is not surprising given the existing economic literature which has concluded that investing in nutrition-specific interventions produces large economic returns primarily from increased health-related productivity gains and reduced health care costs. Given that nutrition-specific interventions alone can only reduce a fraction of child malnutrition rates, it is vital that additional nutrition-sensitive interventions such as those found in this project are piloted. However, the evidence base for the clinical effectiveness of the proposed nutrition-sensitive interventions is less clear. Thus, this analysis could only account for the agricultural benefits of the nutrition-sensitive interventions and could not incorporate positive assumptions about their health and education related benefits, because of the absence of evidence. This project has another value that is not incorporated in this analysis; it will contribute to the evidence base on returns to nutrition-sensitive interventions. The nutrition-specific interventions produce net benefits primarily from the impact on labor productivity and health costs, which account for 78 percent of the net revenue stream. The net benefits of the nutrition-sensitive interventions arise from the agricultural returns, which accounted for 22 percent of the net revenue stream.

⁶² MAF. (2012b). *Analyses of the Current Situation and Potential for Aquaculture Development in Timor-Leste* (p. 80). Dili: Ministry of Agriculture and Fisheries. Government of Timor Leste.

Table 2: Cost-Benefit Analysis

Scenario	Analysis Type	Return
Base Case	NPV (US\$)	3.7 million
	Percent due to health	78%
	Percent due to agricultural	22%
	IRR (%)	10.8%
	Benefit: Cost	1.5
Best Case (High returns to agriculture, labor and child outcomes)	NPV (US\$)	7.3 million
	IRR (%)	17.1%
	Benefit: Cost	2.0

178. The economic returns to Components 1 and 4 were not separately analyzed. Component 1 lays the framework for effectively administering the activities. The success rate of this type of model provides the basis for the Best Case Scenario assumptions about stunting reduction. The economic value of program assessment activities under Component 4 could potentially derive from the value of information literature. But that was the beyond the scope of this analysis.

120. Instead of a cost-benefit analysis, a cost-effectiveness analysis could have been performed. A cost-effectiveness analysis produces a \$ per life year or \$ per disability adjusted life year (DALY) number which would allow for a comparison to alternative health care interventions. There are few constraints to producing a meaningful cost-effectiveness analysis for this study: (a) most of the health benefits for this project are expected to be accrued through morbidity reduction, which would be difficult to accurately collect for the scope of this projection-based analysis; and (b) translating the results of a cost-effectiveness analysis into a decision about undertaking a project may be difficult without established benchmarks for comparison within Timor-Leste's context. Also, given the high priority of nutrition in Timor-Leste's health sector, a comparison of alternative health care interventions did not seem relevant.